F. A. Hayek’s Critique of Legislation

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Abstract


The dissertation concerns F. A. Hayek's (1899–1992) critique of legislation. The purpose of the investigation is to clarify and assess that critique.

I argue that there is in Hayek’s work a critique of legislation that is distinct from his well-known critique of social planning. Further that the main claim of this critique is what I refer to as Hayek’s legislation tenet, namely that legislation that aims to achieve specific aggregate results in complex orders of society will decrease the welfare level.

The legislation tenet gains support; (i) from the welfare claim – according to which there is a positive correlation between the utilization of knowledge and the welfare level in society; (ii) from the dispersal of knowledge thesis – according to which the total knowledge of society is dispersed and not available to any one agency; and (iii) from the cultural evolution thesis – according to which evolutionary rules are more favorable to the utilization of knowledge in social cooperation than are legislative rules. More specifically, I argue that these form two lines of argument in support of the legislation tenet. One line of argument is based on the conjunction of the welfare claim and the dispersal of knowledge thesis. I argue that this line of argument is true. The other line of argument is based on the conjunction of the welfare claim and the cultural evolution thesis. I argue that this line of argument is false, mainly because the empirical work of political scientist Elinor Ostrom refutes it. Because the two lines of argument support the legislation tenet independently of each other, I argue that Hayek’s critique of legislation is true.

In this dissertation, I further develop a legislative policy tool as based on the welfare claim and Hayek’s conception of coercion. I also consider Hayek’s idea that rules and law are instrumental in forging rational individual action and rational social orders, and turn to review this idea in light of the work of experimental economist Vernon Smith and economic historian Avner Greif. I find that Smith and Greif support this idea of Hayek’s, and I conjecture that it contributes to our understanding of Adam Smith’s notion of the invisible hand: It is rules – not an invisible hand – that prompt subjects to align individual and aggregate rationality in social interaction.

Finally, I argue that Hayek’s critique is essentially utilitarian, as it is concerned with the negative welfare consequences of certain forms of legislation. And although it may appear that the dispersal of knowledge thesis will undermine the possibility of carrying out the utilitarian calculus, due to the lack of knowledge of the consequences of one’s actions – and therefore undermine the legislation tenet itself – I argue that the distinction between utilitarianism conceived as a method of deliberation and utilitarianism conceived as a criterion of correctness may be used to save Hayek’s critique from this objection.

Keywords: Hayek, legislation, rules, law, rationality, rational action, rational social order, equilibrium, utilitarianism, method of deliberation, criterion of correctness, Elinor Ostrom, Avner Greif, Vernon Smith, Joshua Epstein, complexity, knowledge, social cooperation, information, know-how, the Hayek problem, the invisible hand, Adam Smith, Mises, Keynes, Marx, welfare state, Gilbert Ryle, Michael Polanyi, theory of legislation, legisprudence, jurisprudence, Neo-Kantianism, historicism, cognitive closure, theory of prices, competition, syntax grammar, game theory, generative social science, agent-based computational modeling, institutional policy analysis, normative, primacy of economics, primacy of politics, Sheri Berman, constructivist rationalism, socialism, social democracy, Nozick, Rawls, distribution, justice, freedom, Kant, polycentric government, process of experimentation, speculative philosophy, analytical philosophy, freedom under the law, liberty, philosophy of mind, consequentialist

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For Katharina, Harry, Josephine, and Erik
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Chapter 1
Introduction

1. Hayek, the Welfare State, and Legislation

We have found the whole extent of our laws which has come down from the foundation of the city of Rome [...] to be so confused that it extends to an inordinate length and is beyond the comprehension of any human nature.¹

Justinian

The aftermath of the latest crisis is a fitting time to once again discuss the proposition of rational legislation. And while this is perhaps a time inclined to action rather than reflection, a proper examination of argument is the road all academic work must travel. In this investigation, the work of F. A. Hayek (1899–1992), and in particular his critique of legislation, will serve as the starting-point for such an examination of argument.

That people by ‘accident’ sometimes contribute to benign states of affairs is often illustrated with the famous quote by the Scottish philosopher Adam Ferguson: “Nations stumble upon establishments, which are indeed the result of human action, but not the execution of any human design”.²

As is clear, however, recent events suggest that there are also less benign,

¹ Excerpt from Emperor Justinian’s decree authorizing the compilation of the Digest, a part of the Corpus Juris Civilis, the code that is the historical starting point for the administration of official power through legislation. See, Paul du Plessis, Burkowski’s Textbook on Roman Law, 4th ed. (Oxford: Oxford University Press, 2010), p. 54.
unintended consequences of social cooperation. This seems especially true of finance, the climate and legislation.

As the financial crisis unraveled, it gave rise to a number of questions about how societies are best structured. One of these questions is how regulation may prevent future crises. Another question is to what extent regulation, or the lack of it, contributed to the crisis. Legislative issues, then, have been, and will surely continue to be, hotly debated. Some will argue that regulation is the way forward. Others will argue that society to a large degree is a self-regulating mechanism. Others yet again will argue that it is not the quantity, but the quality of regulation, that needs to be improved. All this raises questions about the efficacy and efficiency of the legislative tool.

Hayek’s well-known critique of the modern welfare state (and his critique of legislation) is part of a long tradition of socialist critique put forward by The Austrian School of Economics, of which Hayek was a member. It was initiated in the 1870’s by the school’s founder, Carl Menger.\(^3\) At that time, the differences between Marxism and The Austrian School of Economics concerned theoretical economics, mainly the theory of value. This line of critique continued until the advent of socialism as a political power after World War I, after which time the critique focused on the practical political realization of a socialist society in which the government owns the factors of production.\(^4\) With the Great Depression, many socialist movements abandoned the idea of government ownership of the means of production in favor of the idea of the welfare state; that is, roughly, the idea that instead of owning the means of production, the government should steer and tap into the proceeds of capitalist production with the aim of improving the lot of the working class. As we see, the belief that the powers of human reason can determine the means for

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the realization of desired societal ends – to the extent that institutions, and even society as a whole, are, and should be, the result of human design – is an idea that inspired the abandonment of the passive role of man in scientific socialism.\(^5\) As we shall see, this is an idea that Hayek is fiercely critical of, not least because he holds that steering society reduces the material proceeds available for its subjects.

Today, though, there is in the Western world a broad consensus on the basic goals of the welfare state. These goals correspond to a feeling most men share – that the harshness of life should not fall too heavily on some, and that it is the duty of the community to care for those less fortunate. As such, this duty is uncontroversial. The form this duty took in socialism, though, was much more inspiring and controversial. As one of socialism’s main adversaries, Ludwig von Mises, said in 1920:

The idea of socialism is at once grandiose and simple [...] we may say, in fact, that it is one of the most ambitious creations of the human spirit [...] so magnificent, so daring, that it has rightly aroused the greatest admiration. If we wish to save the world from barbarism we have to refute socialism, but we cannot thrust it carelessly aside.\(^6\)

On the other hand, as one of the most prominent chroniclers of socialism, Leszek Kołakowksi, maintains, socialist doctrine is not one-sidedly adverse:

Whatever has been done in Western Europe to bring about more justice, more security, more educational opportunities, more welfare and more state responsibility for the poor and helpless, could never have been achieved without the pressure of socialist ideologies and socialist movements, for all their naiveties and delusions [...] past experience speaks in part for the socialist idea and in part against it.\(^7\)

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In any case, as the claims of socialism changed – first from the historical inevitability of socialism to the political goal of public ownership of the means of production, and later to the re-distributive means of the welfare state – it has become a more or less accepted platform of parties across the political spectrum in the Western world. However, over the last decades, and increasingly under the pressure of the recent crisis, it has become more difficult to finance the undertakings of the welfare state. All in all, the welfare state enterprise has been, and is still, being questioned, not least in terms of the primary governmental tool for implementing the welfare state, namely, legislation.

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Hayek, as we shall see, is no friend of laissez-faire.\textsuperscript{10} He clearly embraces the basic duty of a community to provide for those less fortunate,\textsuperscript{11} and he supports insurance based social security.\textsuperscript{12} But, he also rejects the idea that institutions, and society, are – or should be – the result of human design, and he most emphatically denies man’s reason the ability to determine the means by which a desired societal goal can be reached.\textsuperscript{13} Furthermore, he rejects the idea that legislation is an effective and efficient tool to implement a government’s agenda. The purpose of this investigation is to clarify and assess Hayek’s critique of legislation. As we shall see, this endeavor involves multiple disciplines that all contribute to Hayek’s critique. However, it also involves the work of contemporary social scientists Elinor Ostrom, Vernon L. Smith, Avner Greif, and Joshua Epstein.

This introductory chapter, then, is organized as follows. In the next section, I delimit the critique of legislation in relation to Hayek’s general critique of the possibilities of social planning (Section 2). I then discuss one of the purposes of this investigation, namely the clarification of Hayek’s critique of legislation (Section 3). I continue with a discussion of the other purpose of this investigation – the assessment of Hayek’s critique (Section 4). In Section 5, I discuss methodological considerations and remark on the scholarly apparatus used for this investigation. In Section 6, I discuss the positioning of this investigation within the field of jurisprudence, and more specifically within the theory of legislation. Finally, I lay out the plan of the book (Section 7).


\textsuperscript{12} Ibid., p. 249.

2. Plotting the Critique

As pointed out, Hayek’s critique of the idea that man may rationally control complex social orders – or more generally, the possibilities of government planning – is well known. There is a large literature on this critique, particularly in economics and political science. Hayek’s career path is closely related to this critique and is a good story in itself. In brief, it is as follows. At the University of Vienna Hayek studies law. He is also a socialist of the Fabian persuasion. He experiences first-hand the hyperinflation in Austria when he works for the Abrechnungsamt in Vienna in the 1920’s. In the aftermath of the Great Depression, Hayek is a world famous economist. He and Keynes engage in a famous debate on the reasons behind the depression. With his General Theory, Keynes wins that debate. In 1944 Hayek publishes The Road to Serfdom. The book opens with the well-known tongue in cheek twist on Marx – to the socialists in all parties. In the book, Hayek equates the totalitarian tendencies of fascism and socialism. His views are generally considered extreme and he is isolated in the scientific community at a time when socialism is endorsed by most in academia. Hayek, though, does not yield in his criticism. He remains isolated for decades. However, in 1974 he is awarded the Nobel Prize in economics14 together with Swedish economist Gunnar Myrdal. This marks a comeback for Hayek. During the Thatcher-Reagan era his ideas return to the mainstream and he is a major inspiration for the liberalization of markets that takes place in the western democracies. Hayek, who fought on the Italian front in the First World War, passes away in 1992. Thus, he witnessed the end of the cold war and the collapse of the Society Union, which he had predicted decades earlier. In this way, Hayek is a hero to some, and, in any case, he is certainly emblematic of libertarianism. However, Hayek’s fate resembles that of Marx’s in that while they both front political ideas their positions are often referenced as a means to further polemic. Nonetheless, Marx, and to no less extent

14 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel
Hayek, argue that their political ideas are based on science. Just like Marx maintains that his socialism is scientific, Hayek maintains that his critique of the possibilities of social planning is based on science. As pointed out, this critique is well known. However, much less attention has been given to his work on law, although Hayek’s later work – which forms his major contribution to social theory at the intersection of law, economics, and political science – centers on rules and law. My main point here is that even though Hayek is one of the major social scientists of the 20th century, his work in the legal field has not received attention to match this fact.

The reworking of Hayek’s social theory, as based on rules and law, was primarily done in the books *The Constitution of Liberty* [1960] and *Law, Legislation, and Liberty* [vol. 1, 1973; vol. 2, 1976; vol. 3, 1979]. Among other things, he put forward a theory of the law in these books. This theory has been summarized by a number of scholars.15 An important part of his legal theory consists of a theory of evolutionary rules. This theory has been more widely discussed than other parts of his legal work (although mostly by non-legal scholars).16 Importantly, it is also clear that Hayek’s reworking of his social theory involves a critique of

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legislation. This critique has been discussed to some degree, mostly in conjunction with Hayek’s theory of evolutionary rules.¹⁷

The relations between (i) the critique of legislation, (ii) the theory of evolutionary rules, (iii) the legal theory, and (iv) the critique of social planning – as I have described them above – may be illustrated in the following way.

As we see, then, the critique of legislation is linked to, but distinct from, his general critique of the possibilities of social planning. We also see that the theory of evolutionary rules is a part of the critique of legislation, while his theory of law is not (although it is connected to the theory of evolutionary rules). This investigation, then, is not about Hayek’s theory of law. Nor is it primarily about his theory of evolutionary rules, even though this theory is presented to the extent that it forms part of the critique of legislation. What this investigation is about, as pointed out, is Hayek’s critique of legislation.

As we have seen, questions about the efficacy and efficiency of the legislative tool has been raised because the welfare state enterprise has been questioned, not least with regard to the primary governmental tool

for implementing the welfare state, *viz.*, legislation. As we have seen, Hayek’s work on rules and law – and in particular his critique of legislation – has not received the attention one might expect. However, Hayek is of course an important thinker who never ceased to insist on the importance of rules and law for a proper understanding of society. It goes without saying that social scientists in general – and jurisprudents in particular – ought to take an interest in what he has to say about something as central to legal science as legislation.

### 3. Purpose – Clarification

As pointed out, the purpose of this investigation is (i) to *clarify* Hayek’s critique of legislation, and (ii) to *assess* this critique. In this Section, I shall discuss what it means to clarify Hayek’s critique.

To clarify the critique means to determine the precise assertion of the critique, as well as to determine its scope, or area of application (see, Part II, Chapter 5). It further means to map the argumentative structure of the critique, *i.e.* to determine what arguments support the assertion of the critique and how these arguments relate to each other (see, Part II, Chapter 5). Of course, it also means to present these arguments (see, Part III, chapters 6–9, and Part IV, Chapter 12).

The main assertion of Hayek’s critique is found in *the legislation tenet*, as I shall call it. The argumentative structure in support of the legislation tenet consists of (i) the welfare claim, (ii) the dispersal of knowledge thesis, and (iii) the cultural evolution thesis. These form two lines of argument that support the legislation tenet independently of each other. One line of argument consists of the conjunction of the welfare claim and the dispersal of knowledge thesis. The other line of argument consists of the conjunction of the welfare claim and the cultural evolution thesis. This basic structure may be illustrated as below:
Chapter 1. Introduction

The assertion of Hayek’s critique, the legislation tenet, has it that legislation aiming at specific aggregate results in complex social orders will decrease the welfare level. More precisely, this means that the critique is not concerned with the regulation of non-complex social entities, such as for example a government agency, or residential co-ops. Nor is it concerned with the regulation of general properties of complex social orders, such as the keeping of promises, or the compensation of damages. Instead, it is concerned with what I call specific aggregate results. Albeit a loose term, I shall use it to mean a more specific property of a complex social order, such as a specific institution, or a specific distribution of utilities among groups in a society. In Chapter 5, we shall return to the area of application of Hayek’s critique in order to understand the notion of specific aggregate results more precisely. Let us finally note that when I speak of welfare, I do not use this term in an inclusive sense, but shall instead employ ‘welfare’ in a strictly material sense.

According to the welfare claim, then, the welfare level in any society is correlated with the utilization of knowledge, so that an increase in the utilization of knowledge will result in an increase in the welfare level, and that a decrease in the utilization of knowledge will result in a decrease in the welfare level. As we shall see, the welfare claim is Hayek’s extension of Adam Smith’s dictum that the wealth of nations is determined by the division of labor.

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18 On this, see Chapter 5.
On the dispersal of knowledge thesis, the total knowledge that determines the aggregate properties of a complex social order is necessarily dispersed and not available in full to any agency, such as a legislature. The line of argument that is based on the dispersal of knowledge thesis and the welfare claim has it that a legislature cannot have the requisite knowledge in order to determine which legislative act (of the permissible ones) is the most efficient means to the desired end. Legislation that entails a less than optimal use of resources implies – on an instrumental conception of rationality\textsuperscript{19} – that this legislation is not rational. This line of argument also means that such legislation will decrease the material level of welfare, as not being rational – on an instrumental conception of rationality – means to not use means as efficiently as possible. Thus, as we see, Hayek’s line of argument amounts to the claim that a legislature cannot have the knowledge required to rationally design legislation that aims at specific aggregate results in complex social orders.

The cultural evolution thesis, then, has it that rules develop in a process of cultural evolution are more conducive to the utilization of knowledge in social cooperation, than are rules enacted by a legislature. In conjunction with the welfare claim, the cultural evolution thesis form a line of argument, according to which evolutionary rules will result in higher levels of welfare than legislative rules.

Because Hayek was a prolific writer whose work spans seven decades and several disciplines, the task of clarifying his critique of legislation means taking on a large material and getting acquainted with widely disparate fields. Turning to the second purpose of this investigation, namely the assessment of Hayek’s critique, the volume and inter-disciplinary nature of Hayek’s work becomes an important issue.

\textsuperscript{19} On this, see Chapter 5.
4. Purpose – Assessment

As pointed out, the purpose of this investigation is also to assess Hayek’s critique of legislation.

In short, I shall argue that Hayek’s critique is true. More specifically, I shall argue that the line of argument that is based on the welfare claim and the dispersal of knowledge thesis is true, while the line of argument that is based on the welfare claim and the cultural evolution thesis is false (as we shall see, these lines of argument support the legislation tenet independently).

However, assessments of Hayek’s work is fraught with difficulties, as they raise problems on a number of counts, perhaps the most significant of which is the fact that Hayek’s work is explicitly inter-disciplinary. As we shall see, the arguments supporting his critique of legislation are culled from philosophy of mind, economics, law, and complexity theory, to name some examples. This means that I will present arguments in scientific fields in which I have no expert knowledge, and which I therefore have difficulty assessing. This aspect of Hayek’s critique is intriguing, but, as pointed out, it also raises problems. As Hayek’s biographer and editor of *The Collected Works of F. A. Hayek*, Bruce Caldwell, puts it:

… part of Hayek’s fascination is that he contributed, at times significantly, to so many fields. … But, in this age of specialist training, it is also difficult not to feel inadequate when reading him, and his sheer reach makes any attempt at assessment of his ideas dicey, to say the least.”

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20 As we shall see, the dispersal of knowledge thesis is independently supported by Hayek’s work on a philosophy of mind, his work related to the idea of complexity, his distinction of a category of knowledge referred to as know-how, and his critique of general equilibrium theory. I shall argue that it is only Hayek’s philosophy of mind that does not successfully support the dispersal of knowledge thesis.

21 As we shall see, I argue that Elinor Ostrom’s empirical studies undermine the conjunction of the welfare claim and the cultural evolution thesis, as she has observed instances in which a combination of evolutionary rules and deliberately designed rules outperform solely evolutionary rules.

In the following, I will discuss challenges involved in assessing Hayek’s work. As we shall see, this also involves the issue of the actual interpretation of his work.

Hayek started his career with doctorates in law and political science, but it was from economics that he selected the issues that would drive his mature social theory. As pointed out, he covered a wide array of disciplines. However, in doing this he made it difficult for social scientists to grasp the full meaning of his enterprise. This grasp has been especially elusive in regard to the disciplines of law and economics. In his later work, Hayek was occupied with a description of the instrumental function of law in relation to robust social orders, and the welfare-creating economic forces of such social orders. From the legal scholar’s point of view, this means an analysis of what kind, or kinds, of rule make the welfare-creating forces of social order possible. From the economist’s point of view, it means an analysis of how the economic forces of social order are conditioned on a set of rules that is conducive to its maintenance. Hayek writes:

Nowhere is the baneful effect of the division into specialisms more evident than in the two oldest of these disciplines, economics and law. Those eighteenth-century thinkers to whom we owe the basic conceptions of liberal constitutionalism, David Hume and Adam Smith, no less then Montesquieu, were still concerned with what some of them called the ‘science of legislation’, or with principles of policy in the widest sense of this term. One of the main themes of this book [Law, Legislation, and Liberty] will be that the rules of just conduct which the lawyer studies serve a kind of order of the character of which the lawyer is largely ignorant; and that this order is studied chiefly by the economist who in turn is similarly ignorant of the character of the rules of conduct on which the order that he studies rests.\(^\text{23}\)

Hayek, though, is not only concerned with the disciplines of law and economics, as he further argues that a strict academic specialization fails

to address issues crucial to the social sciences. He describes his view on
the necessity of inter-disciplinarity in the following way:

The most serious effects of the splitting up among several specialisms of
what was once a common field of inquiry, however, is that it has left a no-
man’s-land, a vague subject sometimes called ‘social philosophy’. Some
of the chief disputes within those special disciplines turn, in fact, on dif-
fences about questions which are not peculiar to, and are therefore also
not systematically examined by, any one of them, and which are for this
reason regarded as ‘philosophical’. This serves often as an excuse for tak-
ing tacitly a position which is supposed either not to require or not to be
capable of rational justification. Yet these crucial issues on which not only
factual interpretations but also political positions wholly depend, are ques-
tions which can and must be answered on the basis of fact and logic. They
are ‘philosophical’ only in the sense that certain widely but erroneously
held beliefs are due to the influence of a philosophical tradition [contruc-
tivist rationalism] which postulates a false answer to questions capable of
definite scientific treatment.  

Although, as is obvious, Hayek covered many disciplines in his work, I
believe that most Hayek scholars sense an essential unity in his thought.
However, as we have seen Hayek’s biographer Bruce Caldwell maintain,
this unity, out of such diverse theoretical interests, is hard to reconstruct.
Hayek scholar Walter Weimar comments on this issue as follows:

I had failed to realize that Hayek’s arguments against scientism and con-
structivist rationalism in all the “moral sciences” were an extension of his
analysis of the nature of knowledge and its acquisition in phenomena of
organized complexity, as well as the full extent to which these arguments
ramify back into psychology.  

This view of Hayek’s efforts also underscores the scope and ambition of
his work. Experimental economist and Nobel Laureate Vernon Smith
illustrates this aspect of Hayek’s work when he says:

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Introduction to the Theoretical Psychology of The Sensory Order,” in ed. Walter B.
Weimer and David S. Palermo, Cognition and the Symbolic Processes, vol. 2 (Hillsdale,
It is true that I had read Hayek (1945) long ago and its theme even led me to write Smith (1982b), but his other works I had either not read or their significance had escaped me because my mind was not ready to comprehend the enormity of their full meaning.26

As we see, then, it is not only the assessment, but also the interpretation of Hayek’s work that is affected by its inter-disciplinarity reach. In any case, the fact that Hayek ranged over such a wide area of interests is an integral part of his research agenda, and it seems clear that the full impact of Hayek’s work lies not only in economics, political philosophy, or law, but in an integrated view of the disciplines he covered – such as his philosophy of mind, his work on complex phenomena, and his work on rules. In the course of the investigation of Hayek’s critique of legislation, I have been led to employ a wide range of Hayek’s theories, and the purpose of this investigation – to clarify and assess Hayek’s critique of legislation – is an enterprise that necessarily involves bridging disciplines (in Chapter 3, I give a background to the multi-disciplinarity of Hayek’s work, arguing that some specifically ‘German’ themes may help explain this aspect of his work).

Let me just add the obvious, viz. that the inter-disciplinary nature of Hayek’s work means that Hayek was not an expert in all the fields he covered. Similarly, I myself cannot claim expert competence in all the areas that this dissertation covers. Nevertheless, my task is to clarify and assess Hayek’s critique of legislation, including the arguments and various theories that support this critique – a task that we have seen is necessarily inter-disciplinary in nature.

Of course, assessing Hayek’s critique means seeking guidance in the secondary literature. However, as we have seen, Hayek is a controversial social scientist whose views have been considered extreme at times, and this secondary literature should be approached with some care. Because of his role as fronting a political ideal, Hayek’s work is often used as a

steppingstone for further polemic, and not necessarily as an end in itself. While Hayek research in general is already huge and is quickly expanding in economics and political science, the development in legal science, as pointed out, has been slower. As we have seen, research on Hayek and law is in many cases concentrated to summaries of Hayek’s legal theory. In overviews of Hayek’s work, there is – in relation to his other fields of contribution – often little said about his work on rules and the law. In view of this state of the research on Hayek, it is perhaps not surprising that it is work in social sciences – other than law – that provide the major clues to the task of assessing Hayek’s critique of legislation. As we shall see, I specifically turn to the work of political scientist Elinor Ostrom, experimental economist Vernon Smith, economic historian Avner Greif, and mathematician/social scientist Joshua Epstein in this endeavor.

As is clear, Hayek’s work no doubt proves a challenge for any interpretation and assessment. But whatever the challenges of assessing Hayek’s critique of legislation, all big thinkers are from time to time subject


to re-readings. One way of viewing this investigation is as one such re-reading of Hayek, focusing on a less well-known part of his work – his critique of legislation. As pointed out, Hayek’s general critique of social planning is well known, while less attention has been given to his work on law. As I have said, then, this book is an attempt to clarify and assess the basic arguments in Hayek’s critique of a cornerstone of the law, namely legislation. In this way, the investigation is also an attempt to properly introduce an important social thinker into jurisprudence.

5. Method and Scholarly Apparatus

In this book, I investigate the logic of Hayek’s arguments and – where an argument is not clear – I make further distinctions so as to clarify the ways in which we can understand it. Logicians make a distinction between validity and soundness when assessing an argument (or an inference). When we assess the validity of an inference, we are concerned with the question whether the premises imply (necessitate) the conclusion. Validity, then, concerns the whole inference – which consists of premises and a conclusion – not an individual premise. When we speak of soundness, on the other hand, we are concerned with the question whether a premise, or a conclusion, is true, or at least defensible. What this means is that an inference may be valid although one or more premises, or the conclusion, are actually false. However, it is difficult to have well-founded views on whether some of Hayek’s theories that support his critique are true. His theory of mind, his work related to knowledge in social cooperation, and his work on complex phenomena, are all such cases. Even his work on rules is far removed from standard jurisprudence, and relies heavily on his overall social theory. While I will distinguish between, (i) the question of the truth of Hayek’s theories and (ii) the question of whether they form part of a coherent argumentation in support

29 On this see, e.g. Paul Tomassi, Logic (London: Routledge, 1999), pp. 2–7.
of his critique, I will not say anything more about the concepts of soundness and validity. Of course, the above underscores that the clarification of Hayek’s critique is an easier task than its assessment.

But, whatever the issues involved in assessing Hayek’s critique of legislation, my particular assessment of Hayek’s critique will provide a clear target for those involved in interpreting Hayek’s work. This is accentuated as part of an analytical approach is to structure the material with precision. Of course, this makes such approaches very much open to criticism; if nothing else because the target is plotted with care. Not least is this true with regard to a thinker like Hayek, of whom one may have such differing assessments. However, structuring a material with precision, even if this means being a target open to criticism, is a virtue in all academic work.

Apart from the analytical philosophical method, there are traces of hermeneutical and critical theoretical approaches. In hermeneutics, a body of work is interpreted and a deeper understanding is sought, which is one way of describing my approach to Hayek’s work in this investigation. Critical theory seeks to uncover hidden power structures and challenge established pre-conceptions. In the sense that governments’ power to use the legislative tool is taken for granted, we may say that there is an element of critical theory in purpose of this investigation. However, not too much should be made of the hermeneutical and critical theoretical approaches, as the analytical philosophical method is by far the predominant in this work.

Finally: a note on the scholarly apparatus. I follow The Chicago Manual of Style (15th edition) and I employ the system with notes and bibliography. When I deviate from the recommendations of the manual, it is mostly because I prefer more – rather than less – information; for instance, I state a reference in full the first time it is used in each chapter.

As I see it, jurisprudence investigates, from a philosophical point of view, theories, principles, and concepts that are common to all, or almost all, areas of law, such as criminal law, private law, constitutional law, administrative law, etc. However, as Neil McCormick points out, theories of law, or legal reasoning, ultimately rest on theories external to law, such as moral and political theories.30 This is why jurisprudents at times engage in sciences external to law to the degree that they affect theories, principles, concepts, etc. that they are concerned with.

Issues such as the problem of the nature of law, the analysis and definition of fundamental legal concepts, and the methods and techniques of legal reasoning, are all central to jurisprudence.31 Traditionally jurisprudents have focused on the judge as the legal actor par preference – how he interprets statutes, how his decisions are reasoned, etc. – while legislation has been considered to belong to the political sphere, and as such not a proper object of study for jurisprudents.32 Taking the product of legislation, that is, the statute, as a datum, the jurisprudent has focused on the interpretation of these statutes, the legal concepts used, and judges’ justifications of their decisions. But over the last thirty years or so, efforts have been made to study legislation from a jurisprudential (legal-philosophical) perspective.33 Clearly, my investigation of Hayek’s cri-

tique of legislation is in keeping with the increasing emphasis on questions concerning legislation. From this point of view, this investigation belongs in the field called the theory (or science) of legislation (*Gezetsgebungslehre*), or *legisprudence*, which engages in questions such as how to make better, more justified, or more efficient and effective regulations, what constitutional constraints legislation should be made subject to, as well as investigations of new regulatory landscapes. But this investigation also falls within the province of jurisprudence (or *allgemeine Rechtslehre*), because it is a philosophical investigation of an enterprise that concerns all, or almost all, fields of law, namely legislation.

7. Plan of the Book

Apart from this introductory chapter, this book falls into five distinct parts.

**Part I** “Background”

**Part II** “Hayek’s Critique – Setting the Stage”

**Part III** “The Dispersal of Knowledge Thesis”

**Part IV** “The Cultural Evolution Thesis”

**Part V** “Taking Stock”


Chapter 1. Introduction

Part I of this book, “Background”, includes Chapters 2–4. In Chapter 2, I give a historical background to schools, scholars and debates that influenced Hayek. With the aim of introducing the reader to the scientific milieu that Hayek was fostered in, I present the Austrian School of Economics as well as the rivaling German Historical School of Economics. I also discuss the influence on Hayek of the most famous member of the German School, Max Weber. Another decisive Viennese influence on Hayek was the unwavering critic of socialism, Ludwig von Mises, whose critique of the possibility of a rational economic order under socialism remained an important source for Hayek’s thought. Further, I cover the time of Hayek’s first fame as an economist, namely when he was engaged as the principal opponent of John Maynard Keynes in a widely publicized debate on the Great Depression.

In Chapter 3, I embark on a description of the background to Hayek’s work from another angle than the one provided in Chapter 2. No doubt, Hayek is considered by many to be a champion of an Anglo-Saxon consensus of the how to structure social life and politics. However, at the same time, Hayek does not fit the mold of 19th century economics, as his far-ranging inter-disciplinary work sets him apart. In particular, his inter-disciplinarity gives rise to a tension between diversity and unity in Hayek’s work. In this Chapter, I shall attempt to cast some light on this tension in his work, as I suggest that we think of Hayek as a speculative philosopher of a philosophical system seeking a foundation for the social sciences. These concepts are used to explain why Hayek ranged over such a wide area of interests, why this is an integral part of his research agenda, and how to understand the unity and diversity in Hayek’s thought. My general thesis is that Hayek being fostered in the cultural milieu of Germany left its mark on him, and that he took from this rich fountain some specifically German themes that he transplanted into the social theory that became a cornerstone of the above-mentioned Anglo-Saxon worldview.

In Chapter 4, I identify and present the connections between Hayek’s notion of constructivist rationalism – in short, the idea that institutions,
and even society as a whole, are, and should be, the result of human design – and political movements. I do so with the help of the concept of an ideal type and political scientist Sheri Berman’s distinction between the primacy of politics, on the one hand, and the primacy of economics, on the other. The aim of this chapter is to give the reader an idea of the relation between Hayek’s thinking and the world of politics.

Part II of this book, “Hayek’s Critique – Setting the Stage”, includes Chapter 5. In this chapter, I first introduce the starting points for Hayek’s critique: his historical interpretation of the role of law in the development of civilization, and his idea that there are two kinds of social orders – complex and non-complex – and that there are two distinctly different kinds of rule that may function in respective social order.

I then move on to determine the scope of the critique, that is, I consider its area of application. As we have seen, the legislation tenet has it that legislation that aims at specific aggregate results in complex social orders will decrease the welfare level. I shall pay extra attention to how we are to determine the scope of the critique in relation to the notion of specific aggregate results. More specifically, I investigate this notion in terms of specific distributions among groups, and how such distributions relate to ideas of equality. The reason for this focus is that it is important to understand whether Hayek’s critique applies to all forms of redistribution, or whether some form of morally inspired attempts at social cohesion is allowed under Hayek’s critique.

I continue with a presentation of the welfare claim, that is, Hayek’s idea that the welfare level in any society is correlated with the utilization of knowledge, so that an increase in the utilization of knowledge means an increase in the welfare level, and that a decrease in the utilization of knowledge means a decrease in the welfare level. As we remember, this extension of Adam Smith’s formula on the division of labor is an important part of the critique because the dispersal of knowledge thesis and the cultural evolution thesis combine with the welfare claim to support the legislation tenet.
I end this chapter with a look at the argumentative structure of the critique. I discuss what parts of Hayek’s work support the respective theses, and how these arguments relate to each other; that is, I discuss to what degree these arguments are independent in their support of the theses, or if that support may be conditioned on the cumulative force of several of the arguments. I also briefly present the parts of Hayek’s work that support the respective theses. On another level, I discuss the relation between the two lines of argument in support of the legislation tenet; are they dependent on each other in their support of the legislation tenet, or do they support this tenet independently?

On another level, I discuss the relation between the theses themselves, i.e., is the line of argument in support of the legislation tenet – that is based on (i) the dispersal of knowledge thesis and the welfare claim, and (ii) the cultural evolution thesis and the welfare claim – dependent on each other in their support of the legislation tenet, or do they support this tenet independently?

Part III of this book: “The Dispersal of Knowledge Thesis”, includes Chapters 6–11. In Chapters 6–9, I present the parts of Hayek’s work that support the dispersal of knowledge thesis: Chapter 6 is concerned with Hayek’s philosophy of mind, Chapter 7 is focused on his work related to the idea of complexity, Chapter 8 on Hayek’s distinction of a category of knowledge referred to as know-how, and, Chapter 9 deals with his critique of general equilibrium theory, a theory central to economics. I shall argue that while Hayek’s philosophy of mind is intriguing, it does not offer convincing support for the dispersal of knowledge thesis. However, I do find that Hayek’s work related to the idea of complexity, his critique of general equilibrium, as well as his identification of the idea of know-how offer convincing support for this thesis. In view of the fact that the various parts of the support of the dispersal of knowledge thesis, presented in chapters 6–9, are independent of each other (see, Chapter 5), I shall argue that the dispersal of knowledge thesis is true. I shall also argue that
the line of argument that is based on the conjunction of the dispersal of knowledge thesis and the welfare claim supports the legislation tenet.

Although true, I challenge the dispersal of knowledge thesis in Chapter 10, presenting tools that aim to improve deliberate rule design. The question in this chapter is whether these tools may successfully design rational legislation that aims at specific aggregate results in complex social orders, that is, countermand the legislation tenet. A further question is whether these tools aim to do this circumventing the dispersal of knowledge thesis. Do these tools aim to design rational legislation as these tools somehow make possible access to the requisite knowledge, or do they aim to legislate rationally in spite of not accessing the knowledge tacitly assumed to be needed on the legislation tenet? Both the generative social science of Joshua Epstein, and Elinor Ostrom’s syntax grammar of rules and her application of this grammar to game theory are, it seems, feasible approaches to the improvement of deliberate rule design. On the basis of these approaches, I develop some examples of how these tools may be used. However, I shall argue that while Ostrom’s and Epstein’s work are stimulating contributions, they do not seriously challenge the dispersal of knowledge thesis.

In Chapter 11, I attempt to extract some practical relevance from Hayek’s critique as I develop a policy tool for legislation as based on Hayek’s view on coercion and the welfare claim. As we shall see, the line of argument based on the conjunction of the welfare claim and the dispersal of knowledge thesis is not based on the coercive means of a government apparatus. In this argument, the decrease in welfare level is a result of the inability of a legislature to design rational rules in light of its lack of knowledge, and it is tacitly assumed that subjects voluntarily obey the law. In real life, though, subjects are generally considered to be coerced to comply with legal rules. I shall view this as the realistic flipside of this line of argument, as I develop the legislative policy tool.

specifically the cultural evolution thesis. Although this chapter covers many facets of Hayek’s work on rules, the focus of the chapter is Hayek’s arguments for the position that rules of an evolutionary development are more favorable to the utilization of knowledge than are legislative rules; that is, his arguments for the cultural evolution thesis. Although seemingly well founded and in line with the critique in general, I find that these arguments – and the line of argument in support of the legislation tenet that is based on the conjunction of the cultural evolution thesis and the welfare claim – are refuted by the work of political scientist Elinor Ostrom, in particular her empirical investigations. In Chapter 13, I turn to these empirical investigations, the result of which is that a combination of evolutionary and legislative rules outperforms merely evolutionary rules in terms of welfare. Although this line of argument is refuted, the cultural evolution thesis contains interesting and challenging ideas.

As we shall see, Hayek’s arguments in favor of the cultural evolution thesis seem to imply that knowledge can be somehow laid down in rules – that rules can bear knowledge. The traditional view of knowledge, of course, is that knowledge is something that is possessed by an individual mind, and not by some entity external to a human mind. As we shall further see, the idea of knowledge laid down in rules is linked to a wider idea of Hayek’s, namely that rules are instrumental in fostering both rational individual action and rational social order. Because this is such an important idea of Hayek’s critique, and because it is seemingly at odds with the prevailing view on what constitutes knowledge, I take time to show how this idea is supported by two major thinkers in contemporary social science: experimental economist Vernon Smith and economic historian Avner Greif. In Chapter 14, then, I present this idea of Hayek’s and explain how the work of Greif and Smith supports it. However, I shall also extrapolate from Hayek’s work on rules, as well as from the experimental work of Vernon Smith, and argue that Adam Smith’s idea of an invisible hand guiding individual action towards the good of society
should not be thought of as an invisible hand at all, but as rules that lead subjects to act rationally, both individually and in terms of society.

Part V of this book, “Taking Stock”, includes Chapters 15–17. In Chapter 15, I summarize the results of the investigation. In Chapter 16 I ponder the issue of how to view Hayek’s insistence that this critique is a question of “fact and logic”. Should we accept the Max Weber-inspired claim that the critique is not a question of value – but of fact and logic – or should we regard the critique as utilitarian? I shall argue that Hayek’s critique is essentially utilitarian as it is concerned with the issue of the general level of welfare as affected by legislation. However, Hayek is very critical of utilitarianism, and we may wonder if this critique undermines the utilitarian foundations of his critique. I shall argue that the distinction between utilitarianism conceived as a method of deliberation and utilitarianism conceived as criterion of correctness may save Hayek from this objection. I shall further argue that Hayek is part of a utilitarian tradition in economics and that this determines the general approach of Hayek’s critique of legislation. In Chapter 17, I discuss some particularly interesting features of Hayek’s critique, suggest further areas of research, reflect further on the relation between Hayek’s critique of legislation and the work of the inter-disciplinary social scientists focusing on rules brought up in this investigation, and offer some general afterthoughts on this project.

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The various parts of this book will hold different interest to different readers. So, for instance, I suspect that the versed Hayek scholar will find the presentation of Hayek’s arguments to be a travelogue of the well-known. As most Hayek scholars are not jurisprudents, though, it holds a special interest for these scholars to realize that there is a specific critique of legislation in Hayek’s writings; a critique that is a child of his critique of the possibilities of social planning, yet is quite distinct. The scope and argumentative structure of Hayek’s critique of legislation should be of
interest to Hayek scholars as well as to jurisprudents. For the jurisprudent it should also be of interest to be introduced to the legal thought of a major social scientist, and to have the arguments that Hayek’s critique of legislation rests upon spelled out, even as they involve multifarious specialisms. It is further my hope that the political scientist, or the economist, should find the assessment of the critique – perhaps especially to the degree that it involves the work of Elinor Ostrom, Vernon Smith, Avner Greif, and Joshua Epstein – of interest.
Part I:
Background
Introduction Part One

As pointed out, the aftermath of the recent financial crisis is a fitting time to once again discuss the proposition of rational legislation. In this particular work, of course, it is Hayek and his critique of legislation that we shall focus upon. However, before we move on to a proper examination of the arguments involved in clarifying and assessing Hayek’ critique, I want to provide a background to Hayek and his critique.

As we have seen, Hayek’s career path is closely related to his general critique of social planning, and it is a good story in itself as it closely follows the events that shaped his research agenda. In Chapter 2, I give the background on Hayek as an economist, following this story. I present the Austrian School of Economics and its quarrel with socialism, Hayek’s debate with John Maynard Keynes, and the influence on Hayek of his teacher Ludwig von Mises.

However, in Chapter 3, I give a slightly different background to Hayek. It is clear that Hayek is a champion of an Anglo-Saxon consensus of how to structure social life and politics. However, his far-ranging interdisciplinary work sets him apart. In this chapter, I attempt to give a flavor of why Hayek chose this path, and why it took on the properties that it did, as well as highlight the tension between diversity and unity in Hayek’s thought. In doing so, I shall invoke some specifically German themes, arguing that it would be surprising if these had not shaped his thought to some degree.

Just like Marx before him, Hayek is politically divisive. As we have seen, Hayek equates the totalitarian tendencies of fascism and socialism.
His views were considered extreme and he remained scientifically isolated for decades. However, the Nobel Prize marks a comeback for Hayek, and during the Thatcher-Reagan era his ideas returns to the mainstream, as he is a major inspiration for the liberalization of markets that has taken place in the western democracies. In Chapter 4, I turn to situating Hayek’s ideas – in particular his idea of constructivist rationalism, and his critique of this idea – in terms of political movements, and in doing this I shall make use of the idea of an ideal type and of Sheri Berman’s distinction between the *primacy of politics* and the *primacy of economics*.
Chapter 2
Hayek in Context

8. Introduction

In this chapter, I give a historical background to schools, scholars and debates that influenced Hayek. I cover (i) the Austrian School of Economics and some of its influential members, (ii) Ludwig von Mises and the socialist calculation debate, and (iii) the famous debate between Hayek and John Maynard Keynes.

The chapter is organized as follows. I begin by highlighting some recurring themes in the thought of the Austrian School of Economics, which are important in order to understand Hayek’s work (Section 9). These themes are, (i) the subjective theory of value, (ii) the formation of institutions, (iii) the Younger Historical School of Economics in Germany, (iv) the so-called Methodenstreit, and (v) Max Weber’s relation to the Austrian School of Economics. Next, I present Ludwig von Mises’s argument against rational calculation under socialism and the ensuing socialist calculation debate (Section 10). I continue with a description of Hayek’s debate with John Maynard Keynes in the 1930’s (Section 11). Finally, I summarize the chapter offer (Section 12).
9. The Austrian School of Economics

9.1. Introduction

In 1867, Karl Marx published *Capital*. In it he predicted socialism. According to Marx, one of the self-destructive forces of capitalism is the exploitation by capitalists of the surplus value of goods. In *Capital*, the objective value of a good depends on how much of a standard-productivity time-unit it takes to produce the good. This *objective labor theory of value* had been adopted by Marx from Adam Smith and the tradition of classical economics. In Marx’s theory, the possibility of exploitation of surplus value arises because the market value of goods often exceeds its objective value. What exceeds the objective value is surplus value, which can then be exploited by capitalists. Marx also maintained that the labor inherent in any good is the basis of ownership, and that therefore the exploitation of the surplus value amounts to an illegitimate acquisition of ownership of the produced good.

In 1871, the Austrian economist Carl Menger published *The Principles of Economics*, in which he advanced a *subjective theory of value*. The book was the starting point of the *Austrian School of Economics*, of which Hayek was a member, and which was among the predominant schools of economic thought at the turn of the last century. It was also the starting point of the Austrian school’s long-standing fascination with, and opposition to, Marxian and subsequent socialist thought. The Austrian

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37 Ibid., p. 129.
school’s opposition to socialist social science is present from Carl Menger’s subjective theory of value, through his pupil Eugen von Böhm-Bawerk’s critique of Marx’ theory of value, Böhm-Bawerk’s pupil Ludwig von Mises’s argument against rational economic calculation under socialism, and later, Hayek’s criticism of constructivist rationalism and the welfare state. As socialism changed face, so did the Austrian critique of it. From the beginning, the critique had been primarily aimed at theoretical Marxism; for Carl Menger and Eugen von Böhm-Bawerk, the focus was on the theory of value. For von Mises, the focus was on the positive political program of socialism in which the state should own all the factors of production – a program which emerged only after the social upheavals following World War I. Hayek broadened the critique, so that it applied to the idea of the welfare state, or, more generally, to the idea that society can be intelligibly shaped by man beyond a limited level of complexity, that is, to the idea of constructivist rationalism.

9.2. Carl Menger and the Subjective Theory of Value

As pointed out, Carl Menger’s *Principles of Economics* is the book that founded the Austrian School of Economics. In it Menger expounded two themes that came to be central tenets of the Austrian School of Economics and Hayek, (i) the theory of subjective value – or marginal utility – and (ii) the formation of institutions through the economizing activity of members of a society.

Classical economists, like Adam Smith and David Ricardo, had maintained that the value of a good is determined by the cost, especially the cost of labor, of producing the good\(^{41}\) – a theory that Marx, as pointed out, had made use of.\(^{42}\) Menger argued that there is no such objective value of a good. On Menger’s analysis, the value of a good is determined

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by the individual agent’s subjective valuation of it, in view of his need for it – or the utility he expects to derive from it.\textsuperscript{43} The theory was called marginal utility theory because the subjective value – pinned by the individual agent – is equal to the value to the agent of the last available unit of a certain good. So, for example, if one has ten cups of coffee, the value one attributes to a cup of coffee, is equal to one’s subjective valuation of the cup of coffee at the margin, in this case, the tenth cup of coffee. Most likely, the utility of the tenth cup of coffee is relatively diminutive, and holds very little subjective value to the agent. Now, if we have a situation in which one has two cups of coffee, one’s subjective value of the cup at the margin, the second cup, is for most people higher. In effect, then, according to the subjective theory of marginal utility, the scarcity of a product, in relation to its utility, determines its value to the individual agent.\textsuperscript{44} In short, where supply meets demand, there is a price.\textsuperscript{45}

Later, marginal utility theory was put in mathematical form,\textsuperscript{46} which would point the way for the Neo-Classical School of Economics. Menger’s version of the marginal utility theory, though, contained the seeds of why the Austrian School of Economics, and Hayek, were opposed to the use of mathematics in economics. The notion of a subjective theory of value indicates that any agent’s utility of a good depends on the individual perception – and misperception – of that agent. In order to ascribe fixed numerical values to the utilities of an agent – which is needed in equilibrium equations – neo-classical economics largely had to assume away these real-world imperfections of agents, as well as the differences between agents. In his famous essay, “Economics and

\textsuperscript{43} Menger, Principles of Economics, p. 120; and Joseph Schumpeter, History of Economic Analysis (New York: Oxford University Press, 1986 [1954]), p. 827.
\textsuperscript{44} Cf. Lionel Robbins famous definition of economics as the study of human behavior as a relationship between given ends and scarce means.
Hayek works out the consequences for economic theory of the view that value is relative to the individual agent. Perhaps the chief conclusion of Hayek’s is that the data used in formal representations cannot claim objectivity because of the subjective nature of individual perception. As we shall see, this stance points towards Hayek’s later work on a philosophy of mind, his work related to knowledge in social cooperation, complex phenomena, and rules – but, importantly also towards his critique of legislation and the idea that a legislator cannot hold the knowledge it would need to legislate rationally.

9.3. Carl Menger and the Formation of Institutions

On the basis of the marginal utility theory, Menger argued for another theme that would later influence Hayek, namely the development of social institutions – such as law – as the unintended aggregate outcomes of the economizing behavior of individual agents.

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Using the example of the ascent of money, Menger explains that bartering of goods makes trading – i.e. the satisfactions of factual needs – difficult if a party does not have what the other party needs. Suppose, for example, that $A$ has pigs, which $B$ needs, and that in exchange for the pigs, $B$ has chickens, which $A$ already has in abundance. If this is so, $A$ will not value chickens highly enough for an exchange to take place on terms acceptable to $B$. Menger suggests that in such situations “marketable” goods, such as for instance yards of cloth, were used as a common currency in order to avoid the trappings of barter. These “marketable” goods allow for a basic condition of any exchange to be met – mutual gain – since both parties can then acquire the goods they need or want, even if indirectly. With time, metal, and finally money, became the most marketable of all goods. So, instead of barter, the institution of money had come about through the economizing activities of agents.\(^49\)

Menger’s re-occurring theme of undesigned social institutions would have a significant impact on Hayek. Menger framed the basic query in the following way: “How can it be that institutions which serve the common welfare and are extremely significant for its development come into being without a common will directed towards establishing them?”\(^50\) This particular take on the formation of institutions would be a starting point for Hayek’s critique of constructivist rationalism, his writings on complex phenomena, as well as for his work on rules. Hayek would later echo statements of Menger’s, such as this:

> Law, language, the state, money, markets, all these social structures in their various empirical forms and in their constant change are to no small extent the unintended result of social development. The prices of goods, interest rates, ground rents, wages and a thousand other phenomena of social life in general and of economy in particular exhibit exactly the same


\(^50\) Menger, *Investigations into the Method of the Social Sciences*, p. 146.
peculiarity. Also, understanding of them cannot be ‘pragmatic’ in the case considered here. It must be analogous to the understanding of unintentionally created social institutions.\footnote{Menger, *Investigations into the Method of the Social Sciences*, p. 147.}

Menger’s view of the formation of institutions as the unintended result of human action would particularly influence Hayek’s work on rules and law. Hayek argues that law is of central importance to individual rational action and rational social order, although, as we have seen, he argues that legal rules ought to not necessarily be the product of our reason.\footnote{David Hume influenced Hayek in this regard as much as Menger.} On the contrary, he argues that rules ought in many cases be a product of a sifting process in which consecutively more knowledge of successful social cooperation is stored. According to Hayek, this process – as it extends over time – is complex beyond the capacities of human reason. Knowledge of successful social cooperation is stored in the rules that are the product of this process, and is communicated to the individual as he acts in accordance with a rule. The view of rules for social interaction as the product of an evolutionary process that is beyond the scope of human reason – as distinguished from deliberately created legal rules – is a key element in Hayek’s critique of legislation.

\section*{9.4. The German Historical School of Economics}

Menger’s *Principles of Economics* was reviewed by the German economist Gustav Schmoller. He criticized Menger for being an advocate of the abstract theorizing of the Classical School of Economics, which Schmoller did not approve of.\footnote{Bruce Caldwell, *Hayek’s Challenge: An Intellectual Biography of F. A. Hayek* (Chicago: University of Chicago Press, 2004), p. 37.}

Schmoller was the dominant force in the Younger Historical School of Economics in Germany.\footnote{Ibid., p. 49.} The older generation of the school had been started in an attempt to apply the method of the German Historical School
of Jurisprudence of Savigny, to economics. As one of the older schools founders, Wilhelm Roscher, says. “One sees that this method aims to accomplish for public economy what the Savigny-Eichhorn method did for jurisprudence.” Roscher proposed that the economic conditions of a country must be understood in relation to its unique character. According to Roscher, the proper understanding of a nation’s should be reached through the use of historical science. With Savigny and Leopold von Ranke of the Historical School, the older and younger Historical School of Economics in Germany held that the speculative philosophy of history of German philosophical idealism had been thoroughly discredited. Instead, they believed in a science of history – based on reference to empirical source material – as the ideal foundation upon which true knowledge in the social sciences can be attained. From this viewpoint, Gustav Schmoller initiated massive empirical research describing historical economic developments in Germany. These historical forays were on a scientific level meant to constitute – at some point in the future, when enough empirical material was gathered – the groundwork for a theoretical explanation of economics.

Schmoller was one of the founders of the Verein für Sozialpolitik, whose ambition to address the so-called social question and its relation to a threatening socialist movement, went hand in hand with German chancellor Otto von Bismarck’s fear of socialism and liberalism. Through the support of Bismarck, the Verein für Sozialpolitik had considerable influence on economic policy in Germany, and dominated German academic economics. In effect The Younger Historical School of Economics and

55 Caldwell, *Hayek’s Challenge*, p. 45. The other founders include Bruno Hildebrand and Karl Knies.
58 Ibid., p. 92.
59 Ibid., p. 51.
60 Ibid., p. 84.
61 Ibid., pp. 62–63.
the Verein für Sozialpolitik supported the rise of Prussia and Imperial Germany. They also tacitly endorsed what Hayek refers to as constructivist rationalism – that institutions as well as society are, and ought to be, the results of deliberate human design. Schmoller writes:

The State is at the center and heart in which all institutions empty and unite... Above all it exercises as legislator and administrator the greatest indirect influence on law and custom, on all social institutions; and this is the decisive point. The right man in the right place, the great statesman and reformer, the far-seeing party chief and legislator can here accomplish extraordinary things, not directly, not immediately, but through a wise and just transformation of the economic institutions... [A]dverse opinions forget that the state is and must be the leading intelligence, the responsible center of public sentiment, the acme of existing moral and intellectual powers, and therefore can attain great results in this direction.  

9.5. The Methodenstreit

The review by Schmoller of Menger’s Principles of Economics triggered a debate – the Methodenstreit – that was a formative event for the Austrian School of Economics. The main issue of the debate was whether history or theory is the foundation of scientific knowledge in economics. The Germans emphasized the gathering of historical data and the Austrians emphasized theory. The Methodenstreit led Carl Menger to publish the book An Investigation into the Methods of the Social Sciences. The book was a defense of his vision of theory as the centerpiece of social science methodology and a thorough critique of the focus of the German Historical School of Economics on economics as the fountain of explanation in the social sciences. Says Menger:

There is scarcely any need to remark that the nature and significance of the exact orientation of research is completely misunderstood in the mod-

\[^{62}\text{Gustav Schmoller, as quoted in Caldwell, Hayek’s Challenge, p. 53.}\]
\[^{63}\text{Carl Menger, Investigations into the Method of the Social Sciences (Grove City, PA: Libertarian Press, 1996), originally published as Carl Menger, Untersuchungen über die Methode der Sozialwissenschaften, und der Politischen Oekonomie insbesondere (Leipzig: Duncker & Humblot, 1883).}\]
ern literature on national economy. In German economics, at least in the historical school, the art of abstract thinking, no matter how greatly distinguished by depth and originality and no matter how broadly supported empirically – in brief, everything that in other theoretical sciences establishes the greatest fame of scholars is still considered, along with the products of compulsory diligence, as something secondary, almost as a stigma.\(^{64}\)

Menger’s view of institutions as unintentionally formed in the process of social interaction also sharply differed from The Younger Historical School of Economics’ and Schmoller’s. Further to this, Menger claimed that the true heirs of Savigny’s Historical School of Jurisprudence, was not the Younger Historical School of Economics, but rather what would become the Austrian School of Economics. The Younger Historical School of Economics used science as a basis for active policy recommendations for reform of social institutions, in opposition to Savigny, who, Menger argued, sought the unintended results of higher wisdom, which would be revealed through the study of history.\(^{65}\)

The *Methodenstreit* was no doubt won by Schmoller and the German camp.\(^{66}\) The upshot for the Austrians was that a distinct Austrian School of Economics was identified. Menger’s pupils, Friedrich Wieser and Eugen von Böhm-Bawerk, spread the teachings of the school and went on to world fame in their time.\(^{67}\) In spite of its victory in the *Methodenstreit*, the Younger Historical School of Economics would lose influence as it proved unable to provide successful policies for the war economy of World War I, and for the ensuing hyperinflation in Germany.\(^{68}\)

\(^{64}\) Menger, *Investigations into the Method of the Social Sciences*, p. 65.
\(^{65}\) Ibid., pp. 64–65.
\(^{67}\) Ibid., p. 80.
\(^{68}\) Ibid., p. 95.
9.6. Max Weber and the Austrian School of Economics

A critique from a member of the Younger Historical School of Economics, Max Weber, contributed to the school’s diminished standing.\(^69\) Weber reasoned that if, as Schmoller held, theoretical conclusions based on empirical source material were premature because of the complexity of social life, then the policy conclusions of that school seemed to rest on an insecure foundation. Nevertheless, policy recommendations were very much a part of the Younger Historical School of Economics, and, perhaps more disturbing to its critics, these recommendations seemed always to coincide with a support for Imperial Germany. Weber took issue with these policy recommendations and went on to present his famous notion of a *wertfrei* social science in his essay, “‘Objectivity’ in Social Science and Social Policy”,\(^70\) arguing as he did that value and fact must be clearly separated in the social sciences. Weber writes:

> Whatever the interpretation of the basis and the nature of the validity of the ethical imperatives, it is certain that from them, as from the norms for the concretely conditioned conduct of the individual, cultural values cannot be unambiguously derived as being normatively desirable; it can do so the less, the more inclusive are the values concerned. Only positive religions – or more precisely expressed: dogmatically bound sects – are able to confer on the content of cultural values the status of unconditionally valid ethical imperatives.\(^71\)

This stance would have considerable influence on the Austrian School of Economics and on Hayek.\(^72\)

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\(^71\) Ibid., p. 57.

\(^72\) For a further discussion of Weber’s influence on Hayek and the Austrian School of Economics see, Peter Boettke and Virgil Storr, “Post-Classical Political Economy: Polity, Society and Economy in Weber, Mises, Hayek,” *American Journal of Economics and So-
The Younger Historical School of Economics had argued that objectivity in economics – like in the science of history – is achieved by recording empirical historical facts. Weber, though, attacked this claim to objectivity by arguing for another famous notion of his, namely that observation is dependent on a theory of why a particular set of facts should be empirically observed – the facts are “theory laden”. Weber writes: “We cannot discover [. . .] what is meaningful to us by means of a ‘presuppositionless’ investigation of empirical data. Rather perception of its meaningfulness to us is the presupposition of its becoming an object of investigation.” This essentially remained Hayek’s position, especially as expounded in his philosophy of mind.

Menger had suggested two modes of theoretical conceptualization – “real types” and “exact types” – where the real types aim at a conceptualization that is literally true to reality, while the exact types choose some specific aspect of reality. Crucially, both concepts involved theoretical conceptualization prior to choosing the object of investigation, a stance Weber obviously shared. Weber now proposed the “ideal type” as the tool with which to choose a specific portion of reality as the object of study. The “ideal type” would then reflect the part of reality the observer is interested in and serve as a kind of utopia with which to compare reality. According to Weber, the ultimate measure of success or failure of the “ideal type” is its usefulness. The difference from Menger’s “exact

73 Caldwell, Hayek’s Challenge, p. 89.
75 Menger, Investigations into the Method of the Social Sciences, pp. 36–44.
Chapter 2. Hayek in Context

type” is that the “ideal type” is explicitly a researcher’s tool – a choice of what properties to investigate and as such a methodological instrument for social science.\textsuperscript{78} This is also the way Weber perceived theoretical economics. He writes: “It [economics] offers us an ideal picture of events on the commodity market under conditions of a society organized on the principles of an exchange economy, free competition and rigorously rational behavior.”\textsuperscript{79}

When Hayek claims that the errors of socialism is a question of fact, not of value, and as such capable of scientific resolution, he echoes the distinct influence of Weber on the Austrian School of Economics.\textsuperscript{80} Similarly, Weber’s insistence that facts are theory-laden is revealed as a tenet of Hayek’s primarily in his theory of mind, where it concerns what the limited cognitive faculties of the human mind implies for objective empirical investigations.

10. Ludwig von Mises and the Socialist Calculation Debate

Together with Menger, Ludwig von Mises had the largest impact on Hayek’s thinking. After having completed his law degree at the University of Vienna in 1921, Hayek was introduced by his teacher, Friedrich von Wieser to von Mises who, “[…] was looking for young lawyers with some understanding of economics and knowledge of foreign languages,”\textsuperscript{81} to work in the Abrechnungsamt, settling international debts at a time of hyper-inflation in Austria. As pointed out, Hayek was a socialist of the

\textsuperscript{78} Caldwell, Hayek’s Challenge, p. 91.
\textsuperscript{80} Apart from Menger’s influence on Weber, Mises was a good friend of Weber and was much influenced by him. See, Caldwell, Hayek’s Challenge, p. 119.
Fabian persuasion, and was skeptical about working for the notorious anti-socialist von Mises. However, he was hired for the job.

Ludwig von Mises’s stab at socialism in 1920 – delivered in his article “Economic Calculation in the Socialist Commonwealth” – was part of the long line of critique of socialism by the Austrian School of Economics. As pointed out, this critique had begun with Menger’s subjective theory of value and continued in the works of his pupils Eugen von Böhm-Bawerk and Friedrich Wieser, who, in turn, were the teachers of von Mises. Through von Mises’s pupil, Hayek, this tradition would be continued to the point of the theme of this investigation.

There had long been recognition of an incentive problem in socialist theory: How would people perform productive work if they were not remunerated for it? The answer of socialism to this question was to provide the “new man” of socialism – a man who disregarded crude economic incentives since he had been emancipated from the alienation of capitalism and the contingency of existence through the advent of socialism. However, von Mises disregarded this issue of human nature in relation to incentives. Instead he took another tack against socialism and turned to the more prosaic forms under which man can use economic calculation as

82 Hayek, Knowledge, Evolution and Society, p. 17.
84 Carl Menger, Eugen Böhm-Bawerk, Friedrich Wieser, and later Hayek.
the basis of rational decisions on issues of economizing means to ends.\textsuperscript{87} How do we answer questions like: What products are we going to make? How shall we produce these products? and in what numbers?\textsuperscript{88} Now, von Mises argued that if we are to make rational calculation the basis of rational answers to these types of questions, we need prices as the common denominator from which to calculate how to economize means to ends; that is, reach as many ends as possible with as few means as possible (cf. the concept of instrumental rationality).\textsuperscript{89} Crucially, von Mises then went on to claim that in a socialist economy – in which government owns all the factors of production – no prices of these factors could be established.\textsuperscript{90} On von Mises’s analysis, the reason why the price of a factor of production cannot be established under socialism is that prices of these factors arise as a consequence of an exchange of information on the scarcity of them. This exchange of information takes place as agents interact in a market process. But, if government owns all the factors of production, there will be no market for exchange of these factors. Hence the information exchange on the relative scarcity of the factors of production will cease to exist – that is – there will be no prices. This, in short, was von Mises’s argument.

The idea that one man alone could accomplish what the price system would do for him was rejected by von Mises in a way that points in the direction of Hayek’s work on knowledge in social cooperation, his philosophy of mind, and the themes of limited human cognition and a division of knowledge. von Mises put it as follows:

Moreover, the mind of one man alone – be it ever so cunning, is too weak to grasp the importance of any single one among the countless many

\textsuperscript{88} Mises, \textit{Economic Calculation in the Socialist Commonwealth}, p. 4.
\textsuperscript{89} Ibid., p. 11.
\textsuperscript{90} Ibid., p. 6.
goods of a higher order. No single man can ever master all the possibilities of production, innumerable as they are, as to be in a position to make straightway evident judgment of value without the help of some system of computation. The distribution among a number of individuals of administrative control over economic goods in a community of men who take part in the labor of producing them, and who are economically interested in them, entails a kind of intellectual division of labor, which would not be possible without some system of calculating production and without economy.\(^9^1\)

von Mises’ argument was received as a serious challenge to socialism and was fiercely debated at a time when socialism seemed to be the only way forward that was not discredited after World War I.\(^9^2\) A majority of leading economists argued that if the circumstances of a market were recreated in the socialist economy, the information exchanged in such a system would be sufficient to supply the equilibrium equations of neoclassical economics with the necessary input to yield sufficient answers on which to base rational economic decisions.\(^9^3\) So, somewhat surprisingly, the establishment in economics held the view that socialism is a viable economic system.

Hayek took an active part in “the socialist calculation debate.” In 1935 he edited the volume *Collectivist Economic Planning*,\(^9^4\) in which articles from both camps were represented, as well as three pieces of his own – “Socialist Calculation I-III,”\(^9^5\) in which he provided an overview of the debate.

The socialist calculation debate supplied some themes that would particularly influence Hayek’s future work. As pointed out, a key stone in von Mises’s argument against rational calculation under socialism is that the formation of prices depends on the information exchange between agents occupied in exchange on a market. von Mises argued that individual rational action in these matters depends on a collective use of dispersed information which the individual can tap into by using its results – prices. On the aggregate level, von Mises argued that a free exchange of information is instrumental for rational social order: By individually following prices an aggregate coordination seems to arise. von Mises analysis seemed to affirm that this information exchange could not be recreated by a government body.

Apart from the fact that Hayek was himself engaged in the socialist calculation debate, some of the themes supplied by von Mises’s argument became important pillars in Hayek’s own work, as we have seen. In his work related to knowledge in social cooperation, Hayek took the theme of a free exchange of information and claimed that it is an inherent feature of any advanced civilization that the knowledge on which a society functions is dispersed among the members of that society. For Hayek, there is a link between the free utilization of knowledge and society rising to a high degree of complexity. One of the chief properties of a complex system, such as modern society, is to store distributed knowledge. The degree of complexity of society, then, is commensurate with the amount of knowledge it can utilize, communicate and store. In this sense, a free exchange of knowledge is an instrument for allowing society to take on as complex forms as possible, which, in turn, increases the utilization of knowledge – and, consequently, as we have seen, welfare – on Hayek’s analysis. As I have said, Hayek further argues that law, as well as prices, is based on a free exchange of knowledge in that the rules regulating behavior in social interaction develop in an evolutionary process that depends on this free exchange of knowledge. The rules that emanate from this process store and communicate knowledge on how to engage in so-
cial cooperation in a way that is beneficial to individual ends and is conducive to society. On Hayek’s view, law, in this sense, is an instrument by which individual rational action and rational social order is induced.

It is no exaggeration to claim that the socialist calculation debate is the starting point of Hayek’s later works. He gradually became less involved in technical economics and increasingly became interested in the issues raised by von Mises in that debate.\(^{96}\) Hayek would later incorporate the idea of prices as communicators of information in his celebrated theory of prices, although his focus would gradually shift to law as the primary communicator of knowledge. The basic idea of a free exchange of knowledge as a condition for rational action and rational social order would remain fundamental in Hayek’s analysis of society.

11. The Debate between Hayek and Keynes

Many would argue that Hayek is one of the most influential thinkers of the 20\(^{th}\) century,\(^{97}\) and for a few years in the beginning of the 1930’s he was the principal theoretical economist in opposition to John Maynard Keynes. The debate between Hayek and Keynes was much anticipated in the economics community. As one Keynesian, Nobel laureate John Hicks, later summed up the debates of the 1930’s: “When the definite story of economic analysis during the nineteen thirties comes to be written, a leading character in the drama (it was quite a drama) will be professor Hayek […] there was a time when the new theories of Hayek were the principal rival of Keynes. Who was right, Keynes or Hayek?”\(^{98}\)

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In 1931, Hayek had been invited to a professorship at the London School of Economics. The School had been founded by the Fabian Society on a proposition by Sidney Webb. Under the leadership of Anthony Beveridge, the school was in a debate with economists at the University of Cambridge over theory and facts in economics. Lionel Robbins of the London School of Economics had been invited by John Maynard Keynes to sit on a commission on economic policy. Robbins reported a minority remark which led to an academic turf war with Keynes. Robbins came across some writings of Hayek, in which Hayek attacked positions similar to those of Keynes’s on a basis of the theoretical approach of the Austrian School of Economics. Robbins invited Hayek to join the faculty at the LSE, whose staff in the 1930’s included some of the most famous economists of the 20th century, such as Lionel Robbins, John Hicks, Ronald Coase, Anthony Beveridge, Abba Lerner and Hayek himself. Ronald Coase says of Hayek and the London School of Economics:

At the LSE in the 1930s, economists were very receptive to new ideas. For this, a good deal of credit must go to Hayek. Today we think of him as the author of such works as The Road to Serfdom and The Constitution of Liberty. But at the time these books had not appeared and the important part he played at the LSE in the early 1930s was in encouraging rigour in our thinking and in enlarging our vision. Unassertive, Hayek, nonetheless exerted considerable influence through his profound knowledge of economic theory, the example of his own high standards of scholarship, and the power of his ideas.

Both Hayek and Keynes claimed to have predicted the great depression, although they differed sharply on why it occurred. Whereas Hayek maintained that cheap money had led to credit creation and over investment in

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100 Caldwell, Hayek’s Challenge, p. 166.
101 Ibid., p. 170.
102 Ibid., p. 172.
securities and real estate, Keynes claimed that expensive money had led to lack of investment and too much savings, and in turn to a general lack of demand leading to the depression. The debate focused on Hayek’s review of Keynes’ book, *A Treatise on Money*. Both Hayek’s and Keynes’ models were based on Knut Wicksell’s theory of the natural rate of interest. Hayek accused Keynes of having misunderstood Wicksell’s theory. Says he: “Keynes ignores completely the general theoretical basis of Wicksell’s theory.” Keynes retorted that Hayek was right in principle, but he also used his reply to attack Hayek’s new book *Prices and Production*, and went on to say that:

The book, as it stands, seems to me to be one of the most frightful muddles I have ever read, with scarcely a sound proposition in it beginning on page 45, and yet it remains a book of some interest, which is likely to leave its mark on the mind of the reader. It is an extraordinary example of how, starting with a mistake, a remorseless logician can end up in Bedlam.

However, Hayek and Keynes subsequently developed a friendship. Hayek though, had known about Keynes long before he got to know him personally. Says Hayek of Keynes: “[…] he was a hero long before he achieved real fame as an economic theorist. Was he not the man who had the cour-
age to protest against the economic clauses of the piece treatise of 1919?"\textsuperscript{112} It was Keynes’ economics that Hayek disagreed with: “I fear it must be admitted that before he started to develop his own theories, Keynes was not a highly trained or a very sophisticated economic theorist. He started from a rather elementary Marshallian economics and what had been achieved by Walras, the Austrians, and the Swedes, was very much a closed book to him.”\textsuperscript{113} Although Hayek found Keynes’ economics unconvincing, he very much admired the man Keynes:

I am fully aware that, in effect, I am claiming that perhaps the most impressive intellectual figure I have ever encountered and whose general intellectual superiority I have readily acknowledged was wholly wrong in the scientific work for which he is chiefly known. But I must add that I am convinced that he owed his extraordinary influence in this field, to which he gave only a small part of his energy, to an almost unique combination of other gifts. Irrespective of whether he was right or wrong, those gifts made him one of the outstanding figures of his age.\textsuperscript{114}

With World War II, it was evident that Hayek and Keynes shared many views. When Keynes said of Germany that the goal is to, “[…] bring her back within the historic fold of Western civilization of which the institutional foundations are […] the Christian Ethic, the Scientific Spirit and the Rule of Law. It is only on these foundations that personal life can be saved.”\textsuperscript{115} – it could equally well have been Hayek who spoke. And when Keynes said that, “Civilization is a tradition from the past, a miraculous


construction made by our fathers [...] hard to come by and easily lost.”

– it comes across as vintage Hayek. In the book that sent Hayek out of the politically correct mainstream of economics and social science, *The Road to Serfdom*, Hayek, as pointed out, equated the totalitarian tendencies of socialism and National Socialism. In a letter to Hayek, Keynes commented on the book saying that: “It’s a grand book [...] we all have the greatest reason to be grateful to you for saying so well what needs so much to be said [...] Morally and philosophically I find myself in agreement with virtually the whole of it; and not only in agreement, but in deeply moved agreement.” Unfortunately, the exchange between Hayek and Keynes was cut short as Keynes passed away in 1946.

12. Summary

The purpose of this chapter has been to place Hayek in the history of social thought and point to some of his major influences. All of the aspects brought up in this chapter would later form important building blocks or starting points in Hayek’s own theories. (i) Menger’s subjective theory of value was the impetus for Hayek’s mature work related to knowledge in social cooperation, commonly regarded as his chief contribution to social science. (ii) Menger’s view of institutions as the result of human action, but not of human design, became a cornerstone in Hayek’s critique of constructivist rationalism. (iii) Weber’s critique of the Younger Historical School of Economics in Germany, together with the distinction between value and fact in social science was adopted by the Austrian School of Economics. When Hayek attacks socialism, claiming that it is factually, not necessarily evaluatively, incorrect, this reflects Weber’s influence. Weber’s further critique of the German school’s crude empiri-

116 John Maynard Keynes, article in *New Republic* (July 29, 1940).
cism, and Weber’s view that facts are theory-laden, are evident also as part of Hayek’s philosophy of mind and its conclusions for social science methodology. (iv) von Mises’s argument against rational calculation under socialism was the starting point of Hayek’s critique of the welfare state and informed Hayek’s work on knowledge in social cooperation, complex phenomena, prices and rules. (v) The Hayek-Keynes debate, finally, is interesting from a more general perspective. Perhaps the debate left no indelible mark on Hayek’s future work, but it does put Hayek in perspective in 20th century social science, and it shows that Hayek and Keynes, perhaps contrary to the common perception, shared some basic ideas.
Chapter 3
Hayek as a Philosopher

13. Introduction

In the previous chapter, I provided the standard overview of Hayek’s background, following, as it does, the intertwining of Hayek’s life and work. In this Chapter, as I have said, I will embark on a description of the background to Hayek’s work from another angle. As we have seen, Hayek is considered by many to be a champion of what we may refer to as an Anglo-Saxon consensus of how to structure social life and politics. As pointed out, though, his far-ranging inter-disciplinary works sets him apart in 19th century economics. In attempting to present some conjectures of why Hayek’s research agenda took the form it did, I shall invoke some specifically German themes and argue that they had a formative influence on Hayek’s work.

As we have seen (Chapter 1), assessments of Hayek’s work raise problems on a number of counts, most significantly in terms of its explicit inter-disciplinary character. As we remember, Hayek’s biographer puts it as follows: “… part of Hayek’s fascination is that he contributed, at times significantly, to so many fields. … But, in this age of specialist training, it is also difficult not to feel inadequate when reading him, and his sheer reach makes any attempt at assessment of his ideas dicey, to say the least.”118 However, as pointed out, most Hayek scholars sense an essential

unity in his thought, and this gives rise to the question: How is this unity to be reconstructed out of such diversity? As we further remember, Walter Weimar emphasizes this issue when he says: “I had failed to realize that Hayek’s arguments against scientism and constructivist rationalism in all the “moral sciences” were an extension of his analysis of the nature of knowledge and its acquisition in phenomena of organized complexity, as well as the full extent to which these arguments ramify back into psychology.”

In this investigation, as pointed out, I have aimed at treating Hayek’s peripheral endeavors not as peripheral, but as an intrinsic part of his research agenda, arguing that the full impact of Hayek’s work lies not in economics, political philosophy, or law, but in an integrated view of these disciplines, where the more obscure parts – such as Hayek’s philosophy of mind, his theory of complex phenomena, and his theory of rules as cognitive enhancers – are the founding blocks for his views on economics, political theory, and law. This view, though, further underscores the tension between the unity and diversity in Hayek’s thought. In this chapter, I shall attempt to cast some light on this tension in Hayek’s work, as I consider Hayek as a speculative philosopher of a philosophical system seeking a foundation for the social sciences. As pointed out, my idea is that Hayek’s being fostered in the cultural milieu of Germany left its mark on him, and that he took from this rich fountain some specifically German themes that he transplanted into the social theory that became a cornerstone of the Anglo-Saxon worldview.

As pointed out, the explanatory concepts I have used are to consider Hayek as a (i) speculative philosopher of a (ii) philosophical system seeking a (iii) foundation for the social sciences. These concepts are used to explain why Hayek ranged over such a wide area of interests, and why

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this is an integral part of his research agenda. It is also my hope that they go some way towards an understanding of the unity and diversity in Hayek’s thought. The aim of this exercise is to provide an alternative interpretative vehicle, or viewpoint, from which to assess Hayek’s work. Of course, this alternative also makes understandable the scope of Hayek’s ambition and his grand research project.

As we saw in Chapter 2, the academic milieu in which Hayek was fostered was thoroughly in the sphere of German Kultur. Before the hegemony of the Anglo-Saxon countries in most domains of science, Germany was the super-power of science. In view of Germany’s status in the scientific community, and in view of Hayek being Austrian, my idea, as I have said, is that this German heritage left its mark on Hayek’s intellectual development. This idea is also the reason why I have chosen explanatory concepts that are steeped in German themes. Hayek is well known for many reasons. For economists he is chiefly known for his theory of prices, for political scientists he is principally a liberal political theorist, for many others he is known as an emblematic figure in the defense of an Anglo-Saxon consensus of the good society. In these contexts, it is my impression that analyses of the impact of Hayek’s German heritage on his oeuvre are rare. However, the fact is that Hayek was formed to a large degree in the German cultural sphere, and it would be downright surprising if this had left no trace on the scientific paths he trod. One such instance, in which I believe a German angle of interpretation of the unity of Hayek is called for, is the interpretation of his theory of mind, which is wholly alien to the mind of economists of an Anglo-Saxon mold.

In advancing the description of Hayek’s scientific effort as one of a speculative philosopher of a philosophical system seeking a foundation for the social sciences, I will examine Hayek’s relation to, (i) the distinction between analytical and speculative philosophy, (ii) the search for a foundation (Grundlegung) in philosophy, (iii) the tradition of philosophical systems in 19th century German philosophy, (iv) Neo-Kantianism, and (v) the ontology of historicism. In describing Hayek’s scientific effort as
one of philosophical speculation I hope to come to terms with an understanding of the ultimate aims of Hayek’s research program. This will be further underpinned by the description of Hayek and his search for a foundation (Grundlegung) in philosophy, and the description of Hayek in relation to the tradition of philosophical systems in 19th century German philosophy. Hayek and the quest for a philosophical foundation will also shed light on the foundationalist qualities of Hayek’s philosophy of mind as it pertains to epistemological issues. The comments on the Neo-Kantianism of the 19th century will contribute some further aspects to Hayek’s philosophy of mind and his work on knowledge in social cooperation, such as the limits of reason and an emphasis on an epistemological foundation of the social sciences. Finally, the ontology of historicism is taken as a tacit assumption of Hayek’s explaining the normative flavor of his view of history as a process of progress.

14. Hayek as a Speculative Philosopher

To gain a better understanding of Hayek’s work, I should like to invoke a distinction sometimes used by philosophers, namely the distinction between analytical and speculative philosophy. The idea is to make a distinction between the task of analyzing something given, such as concepts or propositions, from the task of studying reality and developing new theories about it. We might say that speculative philosophy concerns ‘first order’ issues in philosophy, that is, it forms theories about reality. Analytical philosophy, on the other hand, concerns the meta-questions of philosophy, that is, it analyzes the concepts used in ‘first-order’ theories. This distinction has been given several interpretations, one of which has been proposed by philosopher Anders Wedberg. He presents the following scheme:120

Part I. Background

Analysis | Speculation
---|---
To study thought or language. | To study reality beyond thought and language.
To refine and sharpen our instruments for the description of reality. | To use the instruments.
To separate the given into its constituent parts. | To create something new.
To make proposals concerning concept formation and theory construction (proposals that may or may not turn out to be fruitful). | To present theories that are correct or incorrect.

Does not intrude upon the domain of the special sciences. | Does so intrude.
Is relatively free of theoretical risks | Is not so.

What I suggest is that the late Hayek can be characterized as a speculative philosopher, as distinguished from an analytical philosopher. The later Hayek clearly falls into the category of philosophical speculation because he: (i) mostly studied the function of society beyond thought and language, (ii) created a new, original body of theory, (iii) created theories that can be correct or incorrect, (iv) presented novel theories rather than analyzing existing concepts and theories, (v) intruded on the domains of special theories, and, (vi) was constantly taking theoretical risks in his
scientific endeavors.\textsuperscript{121} In addition to Hayek’s “methodological turn” of the 1930’s, away from the ‘a priorism’ of Ludwig von Mises, towards the ‘falsification’ of Karl Popper,\textsuperscript{122} debated by Bruce Caldwell and Terrence Hutchison,\textsuperscript{123} I suggest, as a supplementary expilcatory device, to divide Hayek’s work between analytical and speculative philosophy along the lines of the above distinction by Anders Wedberg.


Part I. Background

The emphasis on philosophical speculation, as defined by Wedberg, may also go some way to explain why Hayek was not part of mainstream economics and social science during the latter part of his career. Whereas economics had turned decidedly positivist after World War II, Hayek had moved away from positivist economics, and entered a chartered course of his own. For Hayek, positivism would remain linked to socialism, as in Vienna of the 1920’s. Finally, as we shall see, Hayek never believed in empiricism as the sole foundation of knowledge. These were not positions shared by mainstream economics and social science.

Further, I would argue that traits of what Wedberg refers to as philosophical speculation contains the seeds of an understanding of the ultimate aims of Hayek’s research program. Most social science is specialized. Generally it is empirical in nature, and to some extent analytical. Hayek’s later work is neither empirical, nor specialized. On the contrary, he moves across several disciplines in a manner pointing in the direction of the current trend of inter-disciplinary social science. He explicitly claims that the answers to the pivotal questions of social science are not to be found in specialization, but at the intersection of multiple disciplines, and that relevant social science is the study of what is not, of hypothetical worlds. Says Hayek:

The fact that an increasing number of social scientists confine themselves to the study of what exists in some part of the social system does not make their results more realistic, but make them largely irrelevant for

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most decisions about the future. Fruitful social science must be largely a study of what is not: a construction of hypothetical models of possible worlds which might exist if some of the alterable conditions were made different. We need a scientific theory chiefly to tell us what would be the effects if some conditions were as they have never been before. All scientific knowledge is knowledge not of particular facts but of hypotheses which have so far withstood systematic attempts at refuting them.\(^{128}\)

As we see, Hayek is clearly a provocative thinker in more respects that in regard to political thought. As the \textit{bête noir} of the Austrian School of Economics was another provocative thinker, Karl Marx, I shall say a few words on the speculative link between Marx and Hayek (this link has been pointed to by many, perhaps most emphatically by Chris Matthew Sciabarra\(^{129}\)). With Marx, Hayek obviously shared the speculative vein. Whereas Marx sought the emancipation of man from the alienation he suffers as a consequence of the division between the private interest and the interest of the community – manifested in private property and a distinct body political\(^{130}\) – Hayek looked for ways in which a society could align private interest with those of the community without postulating an emancipation of human nature: Given that man’s nature is what it is, how can society be set up so as to facilitate peaceful co-habitation among its members?\(^{131}\) Aside from their different conclusions, there are – as pointed out – many issues linking Hayek and Marx. While both sought to reconcile private interest and community interest, economics is also at the center of their work. According to Marx’s historical materialism, it is a scientific certainty that socialism will emancipate man from capitalism in the course of history. Hayek, on the other hand, maintains that his scientific work indicates that freedom under the rule of law is the road to an im-


provement of the human condition, even though this may remain a utopia to strive for, rather than something that necessarily follows from his philosophical system.

As I have said, I believe that understanding Hayek as a speculative philosopher explains why his research agenda was so broad. He set out to build a philosophical system laying a foundation for the social sciences. This, in turn, explains why he ranged over such a wide array of disciplines. If the social scientist of today sets out to prove specified theses conclusively, Hayek tried to answer the speculative issues of social science, albeit in a more inconclusive manner. I argue that because Hayek’s method and aims were different from the way much of social science has been conducted since World War II, his scientific endeavor is harder to make sense of in the light of the prevalent way of conducting social science, and that thinking of Hayek as a speculative philosopher seeking a foundation of the social sciences through his philosophical system may facilitate coming to terms with the tension between unity and diversity in his thought.

In the following, I shall continue to develop some thoughts on specific German themes, and how these relate to understanding Hayek’s project.

15. Hayek as a Foundationalist and System Builder

Continuing on the topic of Hayek’s background in Austria, I want to argue that Hayek’s speculative phase reestablishes some links to dominant themes in 19th century German philosophy. I believe Hayek’s emphasis on these themes alienates him from specialized social science, and that a familiarity with these themes would therefore help remove unnecessary obstacles to a proper understanding of Hayek’s thought.

I propose to describe Hayek as a *foundationalist* and a *system builder* in the German philosophical tradition of the 19th century. I argue, more specifically, that Hayek was a foundationalist in the sense that he sought a foundation (*Grundlegung*) for his social philosophy, and that he was a
system builder in the sense that he tapped into several fields – such as economics, jurisprudence, political science, ethics, and philosophy of mind – integrating these fields as he developed the unity of a social philosophy. Let me elaborate on this. In philosophy, there is a strong tendency to look for a firm foundation for philosophical thought, a keystone on which a theoretical structure can be solidly erected. In 19th century German philosophy, this was evident in the works of philosophers such as Kant, Fichte, Schelling, and Hegel.\footnote{Mats Persson, \\textit{Förnuftskampen: Vitalis Nordström och idealismens kris} (Stockholm, Stehag: Brutus Östlings förlag Symposion, 1994), pp. 33–37. Perhaps while of lesser interest for this study, it is still hard to escape the impression that of all the foundationalist philosophical systems of the 19th century, Herbert Spencer’s is the most congenial to the thought of Hayek. In his, \\textit{A System of Synthetic Philosophy}, Spencer wrought together \\textit{evolution}, the view of society as an \textit{organism} best left to its own development rather than state intervention, and, the view of \textit{morals} as developing in the intersection of biology, psychology and society, to promote, through the process of evolution, freedom, justice and happiness. See Herbert Spencer, \\textit{Political Writings}, ed. John Offer (Cambridge: Cambridge University Press, 1994).} In legal philosophy, the very natural law tradition, and the legal-positivist ideas of the sovereign, the \textit{Grundnorm}, and the rule of recognition are examples of such foundationalist efforts. In the field of political philosophy, there is the idea of the social contract championed by Hobbes, Locke, and Rosseau, among others.\footnote{John Locke, \\textit{Two Treatises of Government} (Cambridge: Cambridge University Press, 2005 [1698]), pp. 330–331; and Ola Zetterquist, \\textit{A Europe of the Member States or of the Citizens: Two Philosophical Perspectives on Sovereignty and Rights in the European Community} (Lund: KFS, 2002), pp. 98–101.} One could argue that Hayek attempted to establish nothing less than an epistemological foundation of the social sciences that would lay down the limits of reason and social knowledge.\footnote{Admittedly, this is more of an analytical approach, than a strict speculative approach. However, I do not think this diminishes the value of viewing Hayek’s work from the perspective of the distinction between the two.}

The philosophical systems of the 19th century spanned over history, logic, ethics, law, political philosophy, etc., and Hayek certainly touched on a number of intellectual fields in his attempts to develop a social philosophy. It is further quite clear that he was not an expert in most of these fields. He believed, however, that all the disciplines he covered belonged...
to essentially the same field of inquiry, viz. social philosophy, and that specialization hinders this field to be covered. He writes:

The most serious effect of this splitting up among several specialisms of what was once a common field of inquiry, however, is that it has left a no-man’s land, a vague subject sometimes called ‘social philosophy.’ Some of the chief disputes within those special disciplines turn, in fact, on differences about questions which are not peculiar to, and therefore also not systematically examined by, any of them, and which are for this reason regarded as ‘philosophical.’ This serves often as an excuse for taking tacitly a position which is supposed to either not require or not be capable of rational justification. Yet these crucial issues on which not only factual interpretations but also political positions wholly depend, are questions which can and must be answered on the basis of fact and logic. They are ‘philosophical’ only in the sense that certain widely but erroneously held beliefs are due to the influence of a philosophical tradition [namely constructivist rationalism] which postulates a false answer to questions capable of a definitive scientific treatment.¹³⁵

It is also clear that Hayek perceived his own task as that of bridging many different disciplines. Talking about his book, Law, Legislation and Liberty, he says:

In fact, I soon discovered that to carry out what I had undertaken would require little less than doing for the twentieth century what Montesquieu had done for the eighteenth. The reader will believe me when I say that in the course of my work I more than once despaired of my ability to come even near the aim I had set myself. I am not speaking here of the fact that Montesquieu was also a great literary genius whom no mere scholar can hope to emulate. I refer rather to the purely intellectual difficulty which is the result of the circumstance that, while for Montesquieu the field which such an undertaking must cover had not yet split into numerous specialisms, it has since become impossible for any man to master even the most important relevant works. Yet, although the problem of an appropriate social order is today studied from the different angles of economics, jurisprudence, political science, sociology, and ethics, the problem is one which can be approached successfully only as a whole. This means that whoever undertakes such a task today cannot claim professional compe-

tence in all the fields with which he has to deal, or be acquainted with the specialized literature available on all the questions that arise.\textsuperscript{136}

If the all-encompassing philosophical systems were at their peak during the first quarter of the 19\textsuperscript{th} century, the tide of specialization of the natural sciences clearly carried the long-term victory. Nevertheless, I argue that Hayek moved from being a specialized analytical economist, towards becoming a speculative philosopher seeking a foundation for the social sciences, and that looking at Hayek’s work from the perspective of a system ambition, it is only fitting that he covered so many disciplines. As we see, to view Hayek as a system builder in a specific German tradition allows us to further understand his ambition to cover the array of disciplines that he did. Further, to view his efforts as foundationalist affords Hayek’s philosophy of mind a natural place in this philosophical system.

16. Neo-Kantianism, Historicism, and Normativity in Hayek’s Thought

In addition, I want to comment on some further specifically German 19\textsuperscript{th} century themes – Neo-Kantianism and Historicism – and how they relate to Hayek and his work. I will first comment on Hayek and Neo-Kantianism, before I turn to comment on Hayek, Historicism and normativity in Hayek’s thought.

In the mid-19\textsuperscript{th} century a renewed interest in Kant, this time from a predominantly epistemological perspective, spurred what is known as \textit{Neo-Kantianism}.\textsuperscript{137} Neo-Kantians attempted to show how the epistemology of Kant limited the scope of reason and science. They did this by reference, not to philosophy (as Kant had done), but rather to the physiology of the brain, and claimed, from a natural science point of view rather than from a philosophical point of view, that all sensations are the products of

\textsuperscript{137} Persson, \textit{Förnuftskampen}, p. 56.
our sensory apparatus, and thus, that while phenomena may be known to us, the so-called things in themselves cannot be known,\footnote{Persson, Förnuftskampen, p. 56} a position that is close to Hayek’s. In doing this, Neo-Kantians charged that other strands of philosophy were attempting to construct foundations of philosophy outside the domain of what is knowable (cf. logical positivism and the Uppsala school of philosophy).\footnote{However, Neo-Kantians also argued for a place in ‘the scientific project of civilization’ for ‘Geisteswissenschaften’, that is, fields outside the methodology of the natural sciences, as legitimate areas of investigation, although with a method that is unique to them. See, Svante Nordin, Från Hägerström till Hedenius: Den moderna svenska filosofin (Bodafors: Doxa, 1983), p. 116.} In view of the natural science bias of Hayek’s epistemological tract The Sensory Order, it is likely that Neo-Kantianism provided a chief source of inspiration for one of Hayek’s central social science tenets: the limits of reason and science. This seems especially likely in view of Hayek studying the anatomy of the brain in Zürich at the laboratory of the brain anatomist von Manakow in the winter of 1919/1920,\footnote{Hayek, The Collected Works of F. A. Hayek, supplement, ed. Kresge and Wenar, Hayek on Hayek: An Autobiographical Dialogue, p. 3; and p. 64. The reason Hayek went to Zurich was that the University of Vienna had closed due to a lack of heating material. In the summer of 1920 Hayek went on to Norway where he translated a book on inflation by the Swedish economist Gustav Cassel, a member of the Stockholm School of Economics. For the suggestion that the Stockholm School of Economics predated J. M. Keynes’s idea of fiscal stimulus in recession, see Leif Lewin, Planhushållningsdebatten (Uppsala: Almqvist & Wiksell, 1967), p. 61ff; and Tore Frängsmyr, Svensk idéhistoria: Bildning och vetenskap under tusen år, vol. 2, 1809–2000 (Stockholm: Bokförlaget Natur och kultur, 2002), p. 239.} which was around the time he produced the first draft of what would become The Sensory Order. To view Hayek as influenced by Neo-Kantianism seems to provide an easily available interpretation of Hayek’s interest in foundationist issues, as well as for the naturalistic approach of his philosophy of mind.

At a deeper level there is also in Hayek’s thought an affinity for one of the main strata of 19th century German thought, viz. the view of history as a process of progress in which reason takes form in human culture. On a general level there were two main traditions in 19th century philosophy: idealism and the new enlightenment.Crudely put, idealism was ontologi-
cally teleological whereas the new enlightenment was naturalistic-mechanistic. For idealism, self-reflection was the epistemological foundation, while for the new enlightenment the epistemological foundation was an empiricism following closely the methods of the natural sciences.\textsuperscript{141} Both traditions though, shared as a meta-premise, the view of history as an unfolding of human progress.\textsuperscript{142}

A favorite subject of 19\textsuperscript{th} century German idealism had been the \textit{philosophy of history}. The systems of Kant, Fichte, and Schelling all contained substantial elements of theorizing on the purpose of history and man’s role in it.\textsuperscript{143} Hegel’s suggestive view of history as the process of realization of \textit{Reason} itself through the development of human culture may be seen as the pinnacle of this line of philosophy. The philosophy of history, though, was challenged by the \textit{Historical School}. Scholars such as the legal historian Karl von Savigny, and political historian, Leopold von Ranke, claimed an empirically based objective science of history instead of a philosophy of history.\textsuperscript{144} In Germany, in the course of the 19\textsuperscript{th} century, philosophy would lose its unique position to history as the edifice of human education (\textit{Bildung}). \textit{Historicism},\textsuperscript{145} which is the broader term used to describe the very influential historical discipline of the 19\textsuperscript{th} century and its world picture (\textit{Weltanschaung}),\textsuperscript{146} denounced the philosophical claim of idealism that the purpose of history could be revealed to man through philosophical reflection, and advanced instead the claim that only through a study of particular historical events, critically analyzed through the lens of empirical source material, would it be possible to

\begin{footnotes}
\item[141] Persson, \textit{Förnuftskampen}, p. 27.
\item[142] Ibid., p. 49.
\item[143] Ibid., pp. 33–37.
\item[144] Ibid., p. 43.
\end{footnotes}
reveal the higher spiritual order taking real form in the history of man. Historicism, in this way, claimed another method for the world picture shared with idealism and the new-enlightenment: that of history, in the most general sense, as a process of progress.

Hayek did not explicitly view history as the stage on which the human drama was played out, but it is clear that he implicitly viewed human development as something moving towards more fulfillment and refinement. Liberalism, from the Scottish philosophers to the Chicago School of Economics, shares this tacit tenet of history in terms of progress. I argue that this being so, sheds light on the issue whether Hayek’s system of thought should be considered as descriptive or normative. Hayek claimed that the errors of socialism are based on fact, and that consequently – on his analysis – the issue of whether socialism is a true theory, could be decided on the basis of science. I venture the claim that the underlying normative flavor of Hayek’s work stems as much from the tacit ontological assumption of history as progress, as from any purposefully normative approach. I think it was clear for Hayek, as for the historically centered 19th century, that, in the long run the human condition would turn for the better. Further to this, the combination of a descriptive theory of society, and the belief in history as progress, seems to tacitly imply a normative character of any description.

It is probably true that the main reason why Hayek comes across as so normative in his political views is the fact that he sees these views as analytical outcomes of his pure social science. I further venture the idea that the reason he stated them in this fashion was partly that he was a child of his time and held a view of history as progress. Just like Hayek said of Mises that he never escaped the rationalism of his time, it may be said that Hayek never escaped the historicism of his time, although he

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lived through a period of history that *prima facie* refuted the idea of history as progress.

17. Summary

This chapter set out to describe: (i) Hayek as speculative philosopher, (ii) Hayek’s relation to the foundationalist tradition in philosophy, (iii) Hayek’s relation to the tradition of philosophical system-building in 19th-century German philosophy, (iv) Hayek’s relation to Neo-Kantianism, and, (v) Hayek’s relation to the idea of history as progress. I have argued that these German themes are likely to have influenced Hayek’s work since he was fostered in the German *Kultur* at a time when Germany was the leading scientific community. It is further my hope that this chapter sheds some light on the tension between the unity and diversity in Hayek’s research agenda. To sum up: Philosophical speculation in the sense of Wedberg is interdisciplinary and risk-taking. I argue that contrary to how social science has been normally conducted after World War II, this is also the case with Hayek, and that this helps explain Hayek’s broad research agenda. The philosophical systems of the 19th century were composed by philosophers who were not only working in their own fields. Neither did Hayek, and I argue that the ultimate end of his research project was a system of social philosophy. In philosophy, there is a tradition of a quest for an ultimate foundation of knowledge. I argue that Hayek sought such an epistemological foundation of the social sciences through his philosophy of mind and his work on knowledge in social cooperation. Neo-Kantianism advanced limits to science and reason on the grounds of the physiology of the brain. I argue that Hayek was influenced by Neo-Kantianism, and that his epistemology is based on the same premises. Idealism, the new enlightenment, and liberalism share the meta-premise of history as progress. I argue that Hayek also shared this meta-premise, and that it explains some of the perceived normative aspect of his work.
The aim of describing Hayek as a speculative philosopher of a philosophical system seeking a foundation for the social sciences is to offer some complementary explanatory concepts in the on-going search for an understanding of Hayek’s research project. These explanatory concepts are not intended to give an exhaustive interpretation of Hayek’s work, but to offer a complementary interpretative vehicle that may help make sense of the unity and diversity in Hayek’s thought.
Chapter 4
Constructivist Rationalism and Political Movements

18. Introduction

Legislation, the deliberate making of law, has justly been described as among the inventions of man the one fraught with the gravest consequences, more far-reaching in its effects even than fire and gun-powder. Unlike law itself, which has never been ‘invented’ in the same sense, the invention of legislation came relatively late in the history of mankind. It gave into the hands of men an instrument of great power which they needed to achieve some good, but which they have not yet learned so to control that it may not produce great evil. It opened to man wholly new possibilities and gave him a new sense of power over his fate. The discussion about who should possess this power has however, unduly overshadowed the much more fundamental question of how far this power should extend. It will certainly remain an exceedingly dangerous power so long as we believe that it will do harm only if wielded by bad men.\(^\text{150}\) Hayek

In the previous two chapters, we have canvassed a background to Hayek’s work from different viewpoints. In this chapter, we shall continue this effort as we place Hayek in terms of political movements. In this chapter, then, I turn to situating Hayek’s ideas – in particular his idea of constructivist rationalism, and his critique of this idea – in terms of political movements, and I shall make use of the idea of an *ideal type* and Sheri

Berman’s distinction between the primacy of politics and the primacy of economics, in doing so. Of course, the reason for doing this is that we may place Hayek’s work in this political landscape without resort to political bias and rhetoric.

The chapter is organized as follows. I first introduce Sheri Berman’s distinction between the primacy of politics, and the primacy of economics. I also try to characterize the notion of constructivist rationalism as an ideal type (Section 19). I then move on to characterize revisionism in political movements with the help of Berman’s work, and place the idea of constructivist rationalism in these movements (Section 20). I then do the same thing with regard to democratic and revolutionary revisionism (Section 21). I continue with a look at social democracy and constructivist rationalism as seen through the lens of Berman’s distinction (Section 22). Finally, I offer some concluding remarks (Section 23).

19. The Primacy of Politics and the Primacy of Economics – Constructivist Rationalism as an Ideal Type

As we have seen, the idea that man may master the development of society, viz. constructivist rationalism (see, Appendix A)\textsuperscript{151} – was an instrumental idea when socialism abandoned the passive role of man in scientific socialism (see, Chapter 1). We have also seen that the more active role for man spelled out by constructivist rationalism is paired with the legislative tool: It is through universal enactment that the good society is realized. As we shall see in Chapter 5, I shall employ Hayek’s conception of constructivist rationalism in order to determine the area of application of the legislation tenet. This Chapter, then, places Hayek’s critique of legislation in the setting of the battles between political movements in the

\textsuperscript{151} In Appendix A, I also point to the distinction between constructivist and evolutionary rationalism in Hayek’s thought.
20th century, by presenting the idea of constructivist rationalism in political movements. As pointed out, in my attempt to characterize constructivist rationalism in terms of political movements and current political programs, I shall employ political scientist Sheri Berman’s interpretation of the ideological battles of the 20th century as battles between the primacy of economics versus the primacy of politics.\footnote{Sheri Berman, “The Primacy of Economics versus the Primacy of Politics: Understanding the Ideological Dynamics of the Twentieth Century,” \textit{Perspectives on Politics}, vol. 7, no. 3 (September, 2009), pp. 561–78.} As we shall see, presentation the idea of constructivist rationalism in political movements, as seen through the lens of Sheri Berman’s view, allows us to place Hayek’s work in this setting.

The primacy of economics, then, is the position that the unhampered workings of the economy will result in the desired society.\footnote{Ibid., p. 561.} The primacy of politics, on the other hand, is the position that it is the active involvement of politics that will enable the realization of the desired society.\footnote{Ibid., p. 561.} I shall understand Berman’s idea of the primacy of politics as roughly equivalent to the idea of constructivist rationalism. In this respect Berman’s chronicle of the primacy of politics in 20th century political movements is also a chronicle of constructivist rationalism in these movements.

However, Hayek primarily uses the idea of constructivist rationalism as a foil against which to put forward his own thoughts.\footnote{Bruce Caldwell, “Hayek and Socialism,” \textit{Journal of Economic Literature}, vol. 35, no. 4 (December 1997), pp. 1871–1873.} In view of this, it is not surprising that this idea does not receive an exhaustively defined content. Likewise, Berman’s idea of the primacy of politics expresses more of a general idea than a well-defined concept. While I will not attempt to define these ideas, I shall briefly comment on how I shall understand Berman’s use of the idea of the primacy of politics, and, in particular, Hayek’s use of the idea of constructivist rationalism. As pointed out, I shall do so with the help of the idea of an ideal type. Let me explain.
There are different ways in which scholars attempt to make use of, and understand, a concept. In the following, I shall briefly comment on the methods of conceptual analysis, explication, and ideal-type analysis. In *conceptual analysis*, one seeks an analytical equivalence between that which is to be explained (analysandum) and that which does the analyzing (analysans). The tacit assumption in conceptual analysis is that there exists an analysandum with fixed properties that are independent of our analysis. Thus, when we say that we inquire into the nature of law, for example, the idea is that there is a fixed concept of law whose import and structure one can clarify. However, sometimes the import of a concept is not sufficiently precise to warrant a conceptual analysis. In these cases, one may instead *explicate a concept*. When explicating a concept, part of the undertaking is to shape the import of the concept to make it useful for a particular purpose. Thus an explication is not concerned with the nature of a concept, or whether the truth of an analysis unveils that nature – or the fixed import – of that concept; but rather with the adequacy of the explication of the concept in view of a particular purpose. As I see it, law is a discipline that is well suited for the method of explication. Arguably, law is a man-made product, and, as such, its concepts cannot be true independently of our analysis of them. However, concepts used when thinking about law can be more or less adequate for that purpose – an issue that the method of explication addresses.

While, as we have seen, the method of conceptual analysis is concerned with the true import and structure of a concept, and the method of explication with the adequacy of a concept in view of its purpose in, say,

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legal thinking, the method of the ideal type is concerned with the interpretation of phenomena of the real world (not an abstract concept). As we remember (see, Chapter 2), Max Weber suggests that the ideal type ought to reflect the part of reality that the observer is interested in, and serve as a kind of utopia with which to compare reality. He further suggests that as a researcher’s tool, and an instrument in social science, the ultimate measure of success or failure of this idea is its usefulness.\(^{159}\) The idea behind the method of the ideal type, then, is not only to facilitate comparison between two or more phenomena, but also to make it possible to avoid having to say that X either is or is not law, say, and to say instead that the question of whether X is law is a matter of degree.\(^ {160}\) We can then pinpoint the real phenomena in relation to the ideal type in order to understand to what degree they are in accord. Let me now give some examples of ideal types. The first example is Weber’s description of economics as an ideal type. SAs we remember Weber saying, “[economics] offers us an ideal picture of events on the commodity market under conditions of a society organized on the principles of an exchange economy, free competition and rigorously rational behavior.”\(^ {161}\) Of course, Weber’s description, and descriptions like it, has been used to indicate to what degree a particular country, or some other social order, is a market economy. Another example is Alf Ross’s ideal type democracy. On Ross’s analysis, an ideal type democracy includes the features that (i) everyone has a right to vote, (ii) the electorate controls representatives, and (iii) the electorate’s ability to vote is spread over a wide range of issues.\(^ {162}\) On these scores, a


democratic system may be measured in order to determine to what degree it lives up to the ideal-type democracy. A final example is Swedish philosopher Ingemar Hedenius use of an ideal-type analysis in terms of ownership. On Swedish philosopher Anders Wedberg’s analysis, the concept of ownership differs according to what legal system we have in mind. On Hedenius view, this is not acceptable. Instead, he resolves the conflict between the consistency of the concept of ownership, and the factual ownership in differing legal orders, through an ideal-type analysis. While claiming that the concept of ownership is everywhere the same, Hedenius argued that the factual ownership in each legal order should be measured as a matter of degree as set against his ideal-type concept of ownership that measured this concept along two dimensions: Protection of possession, and freedom of use.\footnote{Ingemar Hedenius, “Äganderättsbegreppet,” (The Concept of Ownership) in Ingemar Hedenius, Filosofien i ett föränderligt samhälle (Stockholm: Bonniers, 1977), pp. 145–149. For a further discussion of Hedenius’s ideal-type analysis of the concept of ownership, see Torben Spaak, “The Legal Philosophy of Ingemar Hedenius.” Available at http://papers.ssrn.com/}

As pointed out, the usefulness of any ideal type is manifested in how our understanding gains as we map real-world phenomenon against an ideal type. In this setting then, I shall understand Hayek to use the concept of constructivist rationalism as an ideal type – that is, as a stylized ideal with which to compare real-world phenomena. I shall further understand Sheri Berman’s idea of the primacy of politics as an ideal type that is roughly equivalent to constructivist rationalism. In this chapter, we shall compare different political movements as set against these research tools.

Constructivist rationalism, then, covers a wide range of political programs. Let us, however, begin by identifying two important political programs that do not embrace constructivist rationalism: Classical liberalism, and orthodox Marxism. On classical liberalism a rational social order forms of itself through the spontaneous social processes. Orthodox Marxism has it that socialism is the inevitable result of a historical process.
Thus, both classical liberalism and orthodox Marxism hold that the desired society is not attained by rational political construction. Hence, they do not embrace constructivist rationalism. However, as pointed out, the basic idea of constructivist rationalism is common to a wide spectrum of political programs, ranging from the communisms of China and the (former) Soviet Union, and the National Socialism of Germany, to the welfare states of Western Europe and America. These very different political programs share the basic tenet that it lies within the power of the government to shape society in accordance with its intentions through the instrument of legislation.

20. Revisionism

Towards the end of the 19th century, some of Marx’ predictions had failed.\textsuperscript{164} Marx had predicted the gradual pauperization of the working class and the concentration of ownership, but instead workers material standards improved at the same time as ownership became more spread.\textsuperscript{165} Welfare reforms in Germany also made it clear that there was a political option, aside from the market.\textsuperscript{166} Marxist parties across the board were under pressure to act politically to further the circumstances of the broad strata of the population, although this was contrary to idea of the historical inevitability of socialism, as put forward in Marx’s theory of historical materialism.\textsuperscript{167} At the same time, liberalism was under attack for being too laissez-faire.

\textsuperscript{165} Ibid., p. 564.
Under these pressures, there developed in orthodox Marxism and classical liberalism a move away from the primacy of economics – towards the primacy of politics – that is referred to as revisionism. The scientific and historical necessity of Marx’s scientific socialism was replaced in socialist revisionism by the good society as an ideal to be pursued by government. For liberalism, revisionism meant that the good society could not be left to the market alone to foster, but must instead be a task for politicians to actively further. The transition from classical liberalism and orthodox Marxism to revisionism – or from the supremacy of the market and the historical necessity of socialism to an ideal of the good society realized by politics, or, finally, from the primacy of economics to the primacy of politics – is of course linked to the acceptance of the idea that man may master society, viz. constructivist rationalism.

21. Democratic and Revolutionary Revisionism

Revisionists in the liberal camp who defended a more active role for government were called progressives or new liberals. Revisionists in the socialist camp fell into two categories: revolutionary revisionists and democratic revisionists.

Socialist democratic revisionists endorsed capitalist production to a certain degree (albeit not its social consequences) and argued for a replacement of historical materialism in favor of the idea of the primacy of politics (or constructivist rationalism). They further believed that a coalition of interests, including not only the working class, could unite around a vision of a good society and use the power of the democratic state to shape the world into something better. Eduard Bernstein in Germany is perhaps the most famous socialist democratic revisionist.

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169 Ibid., p. 564.
170 Ibid., p. 564; and p. 566.
171 Ibid., p. 565.
In France a number of socialist democratic revisionists argued for the primacy of politics. These thinkers added another important idea: that the uniting concept is not the proletariat, or some other coalition of interests, but the nation.\(^{172}\) This idea had gathered empirical support by the fact that the workers of all nations had fought with enthusiasm for their countries in World War I – a fact that contradicted the teachings of Marx on the international solidarity of the working class. This line of thinking was represented by Jean Jaurès and the national socialism of Alexandre Millerand.\(^{173}\)

It was, however, the *socialist revolutionary revisionists* that would finally marry socialism and nationalism into a powerful political movement. In contrast to the democratic revisionists, the revolutionary revisionists believed that the revamping of society could not be attained in a democratic process.\(^{174}\) The Frenchman George Sorel would be the first socialist to radically endorse capitalist production, abandon historical materialism, and argue for the destruction of the existing social order by revolutionary political action; and – in addition – to argue for nationalism as the uniting force instead of the proletariat.\(^{175}\) It was in Italy that the political program of Sorel would become reality as socialists and nationalists merged their distaste for liberalism, democracy, and the social effects of capitalism with their revolutionary political agendas, into fascism. As is well known, Mussolini went from being a prominent socialist to forming the *Italian National Fascists*. Once in power, the Fascists carried out a primacy of politics program for taming capitalism. This program meant exerting considerable control of capitalist production, as well as initiating programs aimed at reducing the social effects of capitalism.

\(^{175}\) Ibid., p. 566.
such as health insurance, pensions, and paid holidays. In France, the merger of socialist and nationalist ideas was further present in the socialist nationalism of Maurice Barrès, and Action Francais in which Sorel participated.

While the Social Democratic Party in Germany was the prime mover in democratic revisionism, a particular blend of revolutionary revisionism developed there as well. Revolutionary revisionist Adolf Hitler’s political journey describes a similar trajectory to that of Mussolini. In the trenches of the Western front he had been known as “Red Hitler”, but he then went on to forge socialist and nationalist themes in The National Socialist German Workers Party. Like the Fascists before them, the National Socialists in Germany implemented a political program in the spirit of the idea of the primacy of politics. They closely controlled capitalist production, and were at the same time committed to full employment and a social security system. The commitment to the primacy of politics and communitarianism is captured in their slogan “Gemeinnutz geht vor Eigennutz,” and the fact that public spending as share of GDP almost doubled between 1932 and 1938, although part of this increase was due to re-armament.

22. Social Democracy

The Social Democratic vision of democratic revisionism that developed after World War II had as one of its chief influences Hendrik de Man from Belgium. In his Plan du travail, de Man set forth a political program for a transformation of society in the spirit of the primacy of poli-

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177 Ibid., p. 566.
180 Ibid., pp. 571–72.
181 Ibid., p. 569.
The wartime experience had de Man recognize the uniting power of the national sentiment, as well as the prospects of government to control the economy. Like the revolutionary revisionism of Fascism and National Socialism, but unlike the revolutionary revisionism of Lenin’s Russia, the democratic revisionism of de Man rejected an exclusive focus on the working class, advocating instead mass nationalism as the unifying concept. He chose to argue in favor of a national community that included the interests of all employed, including the intellectuals, not just the working class. Being a democratic revisionist, de Man argued for a focus on gaining power through this broadening of the voter base (only later would de Man turn Fascist). De Man argued that once in power, the goal should be to gain control, rather than ownership, of the economy. This was the “third way” between classical liberalism and Soviet style communism. Although de Man’s *Plan du travail* was influential, it is, according to Sheri Berman, in the development of the *Swedish Social Democratic Workers Party* that we can, “observe the full dimensions, and potential, of the new and truly social democratic alternative”.

After World War I, the Swedish Social Democrats still held an orthodox Marxist, primacy of economics, position. But they would soon adopt the idea of constructivist rationalism in line with a primacy of politics position. A number of factors played into this. In the 1928 election the right had used the Russian scare to link the Social Democrats with the development in the Soviet Union, a tactic that was famously successful. Also, some members of the *Stockholm School of Economics* were linked to the Social democratic movement, and the school’s Keynesian approach

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183 Cf. the revamping of the Swedish conservative party, Moderaterna, as “The New Labour Party”. This slogan is meant to displace the meaning of the concept of a ‘worker’ to primarily having to do with employment, instead of social class.
supplied the tools for a move towards the primacy of politics. Furthermore, political realities during the Great Depression made hands-off politics difficult to defend from a moral perspective, as well as being a losing electoral strategy.

The Swedish social democratic revisionism embraced the view that capitalism could be tapped for resources that would then be used to transform society. Nils Karleby, one of the chief proponents of this new line of politics, says on capitalist production: “[…] improvements in the efficiency of economic activity have always been, and should continue to be, the only means […] of improving society’s welfare.” Karleby views capitalist ownership as consisting of a number of rights, and if these rights can be made distinct, they can then be made subject to control by government. In this sense, he regards the control of capitalist ownership by social reform as a way to intrude on the social order of capitalism. Karleby writes:

[…] all social reforms […] resulting in an increase of societal and a decrease of private control over property [represent a stage] in social transformation […] [furthermore] social policies are, in fact, an overstepping of the boundaries of capitalism […] an actual shift in the position of workers in society and the production process. This is the original (and uniquely) social democratic view.

These views, combined with the communitarian vision of the “people’s home” (folkhemmet), meant that whereas the political movements stirring an inspiring vision of the future in Italy and Germany were Fascist and

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National Socialist, it was the Social Democratic Workers Party which held that position in Sweden.\textsuperscript{189}

23. Concluding Remarks

In this chapter, we have roughly equated Hayek’s notion of constructivist rationalism with Sheri Berman’s notion of the primacy of economics, as we have expressly used these notions as ideal types with the aim of placing Hayek’s work in the landscape of political movements. In the meantime, we have also surveyed the major political movements of the 20\textsuperscript{th} century.

As we have seen, revisionism in general, in contrast to classical liberalism and orthodox Marxism, holds a primacy of politics position – or – a constructivist rationalist position; it is the tools of politics that should shape society, not economic forces. Of course, the idea that legislation is the primary tool with which a legislature can effectively and efficiently implement its political agenda is a central tenet of such an endeavor.

The revisionists on the left shared the abandonment of historical materialism, and focused instead on an ideal society that it is the role of politics to implement. In contrast to the revolutionary revisionism of Lenin’s Russia, the other revisionisms – National Socialism and Fascism, the Social Democratic movement and the progressive liberals – shared an appreciation of the material benefits of capitalist production, but were in various degrees critical of the social effects of the capitalist social order. Using the material proceeds from capitalist production, the revolutionary revisionism of National Socialism and Fascism, the democratic revisionism of Social Democracy and the liberal revisionism of progressive liberals, aimed at taming the social order of capitalism and creating a unifying social order under a unifying concept. In the case of Fascism, the unifying concept is that of the nation. In the case of National Socialism, the unify-

\textsuperscript{189} Berman, “The Primacy of Economics versus the Primacy of Politics,” p. 570.
ing concepts are those of race and nation. For social democrats and pro-
gressive liberals, the unifying concept may be said to be some form of
equality.

As pointed out, the Austrian School of Economics has a long-standing
tradition of socialist critique. At the outset, the critique was directed at
orthodox Marxism, as we have seen. Later the Austrian critique of social-
ism was directed at socialist revisionism, according to which it was the
task of politics to stage the socialist society by government ownership of
the means of production. By the time we reach Hayek’s critique of social-
ist schools of thought, it is the modern welfare state and its tacit tenet of
constructivist rationalism – including the idea that legislation is the pri-
mary tool with which to effectively and efficiently implement a political
agenda – that is the target of the critique.

Although Hayek’s rejection of constructivist rationalism applies to the
political programs of revisionism in general – be it Communism, National
Socialism, Fascism, Social Democracy, or progressive liberalism, and
their belief in the primacy of politics – the relevant constructivist rational-
ism under the flag of the primacy of politics today is found in the political
programs of progressive liberalism and social democracy (we may add
“compassionate conservatism” here with its emphasis on government
programs such as Medicare, and which turned decidedly constructivist
rationalist with its view to implement democracy in Iraq). The reason is
of course that these political programs are serious and morally defensible.
We need not consider the by now discredited political movements
brought up in this presentation. However, the idea that legislation is an
efficient instrument for constructing institutions and a desired social order
is not out of fashion. This more moderate, if somewhat vague, idea is an
accepted political platform and a tacit political tenet in most Western
democracies. Therefore, a thought-out critique of this idea – and its ac-
companying idea of legislation as an efficient and effective tool for its
implementation – should be of interest, whether or not this critique turns
out to be persuasive at the end of the day.
Part II:
Hayek’s Critique – Setting the Stage
Chapter 5
Scope and Argumentative Structure

24. Introduction

As we have seen, it is mostly political scientists and economists who have discussed Hayek’s work. As we have seen, though, Hayek’s first academic training was as a lawyer and he returned to the subject matter of law in his later books. In *The Constitution of Liberty* he gives law an important place in his restatement of classical liberalism, and in *Law, Legislation, and Liberty* he writes more specifically about rules and how his social theory relates to, and rests upon, law. Implicit in these works is a critique of legislation. However, as pointed out, the critique has been largely overlooked in jurisprudence and the theory of legislation (as well as in economics and political science). The purpose of this investigation is to clarify and assess Hayek’s critique of legislation. We have clarified the argumentative structure of the critique as follows (Chapter 1).

In this chapter, I shall continue the clarification of Hayek’s critique, as I (i) adjust the scope, or area of application, of the legislation tenet, (ii) continue to map the argumentative structure of the critique in order to further identify the arguments that support the different parts of the structure and in order to make it clear how the parts of the structure relate to each other, and (iii) present one part of the critique, namely the welfare claim. However, I shall also introduce some starting-points of the critique in terms of Hayek’s social theory.

This chapter, then, is organized as follows. I begin with the starting points of Hayek’s critique of legislation, viz. an overview of Hayek’s social theory, emphasizing his legal work (Section 25). One may argue that the critique of legislation takes its starting point in a historical interpretation of the function of law, and that its core argument is to be found in Hayek’s distinction between two kinds of social order, and in his distinction between rules that appropriately function in each kind of social order. In this section, I present both distinctions. I then move on to determine more precisely the scope of the legislation tenet (Section 26). As we remember, this tenet has it that legislation that aims at specific aggregate results in complex social orders will lower the welfare level. In this section, I particularly focus on how to understand the idea of ‘specific aggregate results.’ I continue with a presentation of Hayek’s welfare claim – his generalization of Adam Smith’s formula to the effect that the welfare of a society depends on its utilization of knowledge (Section 27). I then briefly introduce the various parts of Hayek’s work that support the dis-
persal of knowledge thesis and the cultural evolution thesis, respectively (Section 28). In this section, I also discuss the relation between the parts of Hayek’s work that support the theses. I then proceed to discuss the relation between the two line of argument that support the legislation tenet; i.e. whether they depend on each other, or are independent, in support of the legislation tenet (Section 29). In Section 30, I summarize the chapter.

25. The Starting Points of Hayek’s Critique

25.1. The History of Law and the Development of Civilization

On Hayek’s analysis, law is instrumental for the transformation from small-knit communities to the complex social orders of modern society.\textsuperscript{192} According to him, legislation is to a large degree a codification of rules that have developed in a process of cultural evolution.\textsuperscript{193} Many of these rules secure for the individual a private sphere within which he is free to act as he sees fit (cf. Kant’s theory of rights).\textsuperscript{194} On Hayek’s analysis, the law ought to be organized so that this individual sphere is secured.\textsuperscript{195} The reason for this position is his argument for a general correlation between the utilization of knowledge and the welfare level of society.\textsuperscript{196} According to him, guaranteeing the individual a private sphere is the best way to secure that each individual contributes as much of his knowledge as possible to the process of social cooperation, and hence to the welfare of society. As is evident, Hayek’s argument for freedom under the law is

\textsuperscript{193} Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, p. 76.
\textsuperscript{196} Hayek, The Constitution of Liberty, p. 39; and p. 42.
essentially instrumental.\textsuperscript{197} On this view, the only legitimate legal use of coercion is that which upholds the adherence to rules securing the private sphere of individuals.\textsuperscript{198}

Civilization – or modern society – in Hayek’s social theory, is a result of an extension of the utilization of knowledge in society beyond the constitutional ignorance of man.\textsuperscript{199} Law, on this analysis, is the most important instrument for this extension. Civilization is achieved when societies develop from non-complex social orders to complex social orders.\textsuperscript{200} The complex social order, in this context, serves as an institution enabling the individual member of a society to be guided in his actions by more knowledge than his own cognitive faculties would allow. This is attained by sifting, storing and communicating, collective and dispersed knowledge.\textsuperscript{201} The main mechanisms for the storage and communication of knowledge is the law, and, as we shall see, prices.\textsuperscript{202} Prices relay information on the scarcity of means and are the basis for economizing means to achieve as many ends as possible. The law contains knowledge on how to best act in social cooperation and is the basis for engaging in social interaction in a way conducive to social order and the ends pursued. In this context, the obvious focus is the law, although, as we shall see, Hayek’s theory of prices provides an intriguing analogy to his understanding of rules.

As we have seen, Hayek argues for a positive correlation between the utilization of knowledge and welfare. On his analysis, individual freedom

\textsuperscript{197} Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, p. 55.
\textsuperscript{198} Ibid., p. 55.
\textsuperscript{199} Ibid., p. 14.
is the instrument by which a maximization of the utilization of knowledge is secured in social cooperation.\textsuperscript{203} Says Hayek:

The thesis of this book is that a condition of liberty in which all are allowed to use their knowledge for their purposes, restrained only by rules of just conduct of universal application, is likely to produce for them the best conditions for achieving their aims; and that such a system is likely to be achieved and maintained only if all authority, including that of the majority of the people, is limited in the exercise of coercive power by general principles to which the community has committed itself.\textsuperscript{204}

According to Hayek, the only way to achieve a state of freedom – under the restrictions of social co-existence – known to man, is freedom under the law. The law achieves this state of affairs by establishing protected domains within which each man can act freely and make use of his possessions as he sees fit, using his knowledge to achieve his ends.\textsuperscript{205} When man engages in exchange outside his protected domain in order to achieve his ends, he is restricted by the rules of social cooperation and the actions of other members of society. On this analysis, coercion beyond the enforcement of the rules of just conduct limits the range within which each man can apply his knowledge, and – as a result – the welfare of the community will decrease.\textsuperscript{206} As pointed out, Hayek argues that the rules securing protected domains and regulating the terms of just conduct in social cooperation are the products of an extra-mental evolutionary process, as distinguished from deliberate legislation of, say, a parliament.

25.2. Two Kinds of Social Order and Two Kinds of Rule

As I have said, one may argue that the argumentative gist of Hayek’s critique of legislation is to be found in his distinction between two kinds of social orders and the rules that function in each. The concept of an order is a key concept in Hayek’s social theory. He explains this concept as follows:

By ‘order’ we shall throughout describe a state of affairs in which a multiplicity of elements of various kinds are so related to each other that we may learn from our acquaintance with some spatial or temporal part of the whole to form correct expectations concerning the rest, or at least expectations which have a good chance of proving correct.\(^{207}\)

For an order to develop, its constituent parts (human subjects if we speak of a social order) must act with certain regularity. Hayek writes: “The important point is that the regularity of the conduct of the elements will determine the general character of the resulting order….”\(^{208}\) From this vantage point, the importance of rules and law in Hayek’s social theory is clear, especially if we consider his position that complex social orders have superior characteristics in terms of material benefits, or welfare: It is rules that creates the regularity of behavior, the result of which is social order and welfare.

Hayek, then, makes a distinction between two types of order in society. One type of order is of a complexity that does not transcend the cognitive faculties of the human mind.\(^{209}\) He refers to this type of order as organizations or taxis.\(^{210}\) The other type of order is of a complexity that does transcend the cognitive faculties of the human mind.\(^{211}\) On these orders and human society, Hayek comments:

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\(^{208}\) Ibid., p. 40.  
\(^{209}\) Ibid., p. 38.  
\(^{210}\) Ibid., p. 37.  
\(^{211}\) Ibid., p. 38.
Such a spontaneous order results from the individual elements adapting themselves to circumstances which directly affect only some of them, and which in their totality need not be known to anyone, it may extend to circumstances so complex that no mind can comprehend them all. Consequently, the concept becomes particularly important when we turn from mechanical to such ‘more highly organized’ or essentially complex phenomena as we encounter in the realms of life, mind and society. Here we have to deal with ‘grown’ structures with a degree of complexity which they have assumed and could assume only because they were produced by spontaneous ordering forces.212

Hayek refers to this type of order as extended orders or kosmos.213 He maintains that complex social orders are more conducive to the utilization of knowledge in society (and thus to welfare) than are organizations.214

Because of their different levels of complexity, Hayek argues that man can influence the properties of the organization and the complex social order in different ways. The properties of an organization can be shaped in detail according to man’s liking and can be designed to serve specific purposes.215 The properties of a complex social order cannot be shaped in detail according to man’s likings, and they cannot be designed to serve specific purposes.216

A chief point of Hayek’s is that these orders cannot be mixed at will. He writes: “One of our chief contentions will be that, though spontaneous order and organization will always coexist, it is still not possible to mix these two principles of order in any manner we like.”217 The great virtue of the spontaneous orders, on Hayek’s account, is that they allow for an unparalleled utilization of knowledge. However, the prize to be paid for this is that such orders transcend the realm of the human mind, and they will therefore to a large degree escape rational control. Hayek continues:

213 Ibid., p. 37.
215 Ibid., p. 38.
216 Ibid., p. 39.
217 Ibid., p. 46
Thus, by relying on the spontaneously ordering forces, we can extend the scope or range of the order which we may induce to form, precisely because its particular manifestation will depend on many more circumstances than can be known to us – and in the case of a social order, because such an order will utilize the separate knowledge of all its several members, without this knowledge ever being concentrated in a single mind, or being subject to those processes of deliberate coordination and adaption which a mind performs. In consequence, the degree of power of control over the extended and more complex order will be much smaller than that which we could exercise over a made order or taxis. There will be many aspects of it over which we will possess no control at all, or which at least we shall not be able to alter without interfering with – and to that extent impeding – the forces producing the spontaneous order. Any desire we may have concerning the particular position of individual elements, or the relation between particular individuals or groups, could not be satisfied without upsetting the overall order.\footnote{218}

Hayek further claims that different kinds of rules can function in organizations and complex social orders. The rules that function in an organization, Hayek refers to as \textit{thesis}.\footnote{219} The rules that function in complex social orders, he refers to as \textit{nomos}.\footnote{220} The different characters of \textit{thesis} and \textit{nomos} stem from the organization as an entity within the realm of human cognition, and the complex social order as an entity transcending the bounds of human cognition.\footnote{221} The rules of an organization can be designed to achieve specific actions, distributions and properties of the organization.\footnote{222} The rules of a complex social order must be abstract and general, and they cannot serve a specific purpose, except the maintenance of the ongoing concern of the extended order.\footnote{223} As we shall see, it is not only the mixing of the different kinds of social order that cannot be done at whim, this is also true of the mixing of the different kinds of rule, on Hayek’s analysis. He writes:

We shall see that it is impossible, not only to replace the spontaneous order by organization and at the same time to utilize as much of the dispersed knowledge of all its members as possible, but also to improve or correct this order by interfering in it by direct commands. Such a combination of spontaneous order and organization it can never be rational to adopt. While it is sensible to supplement the commands determining an organization by subsidiary rules, and to use organizations as elements of a spontaneous order, it can never be advantageous to supplement the rules governing a spontaneous order by isolated and subsidiary commands concerning those activities where the actions are guided by the general rules of conduct. This is the gist of the argument against ‘interventionism’ or ‘intervention’ in the market order. The reason why such isolated commands requiring specific actions by members of the spontaneous order can never improve but must disrupt that order is that they will refer to a part of a system of interdependent actions determined by information and guided by purposes known only to the several acting persons but not to the directing authority.224

According to Hayek, the rules that induce an overall order and bring beneficial results to the societies adhering to them typically develop in an evolutionary sifting process in which rules that are more conducive to the order of the system prevail.225 These rules develop over time in a process he refers to as cultural evolution.226 Cultural evolution, then, is a sifting process for the establishment of the regularities of behavior most conducive to peaceful coexistence, rational individual action, and rational social order and welfare. The complexity of this process transcends the limits of the human mind, and it is by definition extra-mental on Hayek’s analysis.227 It is by transcending the limits of human cognition that the extension of the utilization of knowledge has been made possible, and hence the welfare-creating forces of our civilization.228 As such, these rules are the unintended consequences of the process of cultural evolution, as is the

227 Ibid., p. 49.
228 Ibid., p. 14.
resulting extended orders. These rules, which transmit inter-generational knowledge on how to best act in social cooperation, allow the individual members of a society to combine them with their own unique knowledge when entering into a specific social situation. When following these rules, individuals contribute to successfully achieving their ends as well as to the development of rules conducive to social order. On Hayek’s analysis, the extra-mental origin of the rules developed in the process of cultural evolution is a main obstacle to a man-made, rational, deliberate design of society, and to legislation as an effective tool to implement a political agenda.

26. The Legislation Tenet

26.1. Introduction

After having reviewed the starting-points of Hayek’s critique, I turn, in this section, to a further investigation of the scope of the legislation tenet; that is, I consider its sphere of application.

As we remember, the legislation tenet has it that legislation that aims at specific aggregate results in complex social orders will decrease the welfare level. As we have seen, this means, more precisely, that the critique is not concerned with the regulation of non-complex social entities (such as for example a government agency, or residential co-ops). Let us also again note that when I speak of welfare levels, I shall use the term welfare to indicate welfare in a material sense. Discussions of welfare in a more inclusive sense are important undertakings. There are several such contributions, such as Amartya Sen’s capabilities approach, or the happiness studies in the vein of economist/psychologist Daniel Kahneman. However, I will employ the concept of welfare along the lines of the ma-

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terial approach taken by the more traditional welfare economics of for example Joseph Stiglitz,\(^{231}\) Paul Samuelson,\(^{232}\) and John Nash.\(^{233}\) While happiness can only in part be pursued through material standards of living, the concept of welfare in the context of Hayek’s critique of legislation concerns material benefits only. Hayek certainly doubts that his social theory is a sure road to happiness,\(^{234}\) but he nonetheless operates with a material concept of welfare.

In this section, I shall first backtrack and discuss how I have delimited the scope of the legislation tenet (Section 26.2.). As we have seen, Hayek’s critique is concerned with what I call specific aggregate results, and I continue with an investigation of the meaning of this notion (Section 26.3.). I shall, in particular, investigate the notion of specific aggregate results in terms of specific distributions among groups and how such distributions relate to ideas of equality. As pointed out, the reason for this focus is that it is important to understand whether Hayek’s critique applies to all forms of redistribution, or whether some form of morally inspired attempts at social cohesion is allowed under its area of application.

26.2. Limiting the Scope of the Legislation Tenet

Let us now backtrack, and work our way toward the statement of Hayek’s critique in terms of the legislation tenet. At first sight, then, Hayek’s critique of legislation seems to consist of the following two tenets.


(1) Legislation in complex social orders cannot be rational.
(2) Legislation that is nevertheless enacted will therefore lower the level of welfare in society.

Put in a more elaborate fashion these tenets would look as follows.

For all and only complex social orders, it is true that:

(1*) the legislature cannot hold the knowledge that is necessary to choose the most efficient means to the desired end, and that
(2*) if the legislature nevertheless does enact a piece of legislation, the welfare level in society will decrease as a result.

From the idea that a legislature cannot have the knowledge to choose the most efficient legislative act to a desired political goal, it seems to follow that such a piece of legislation will necessarily decrease the welfare-level in society. Let me explain how I see it. On an instrumental conception of rationality, to be rational is to use available means as efficiently as possible to attain a specific goal, and to not be rational is to use available means in a way that is less than optimal. For example, one may say that it is rational for a driver to take the shorter of two possible routes to a destination, because in doing so he gets there faster, uses less gas, and puts less mileage on the vehicle. Similarly, if a product can be manufactured in a number of ways, it is rational to produce it in the way that makes use of the least means. In the case of legislation, as we have seen, this means that Hayek believes that a legislature cannot have the knowledge it would need in order to be able to determine what particular

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piece of legislation (among the constitutionally possible ones) would be the most efficient to achieve the desired result. In view of this understanding of the relation between rationality and welfare (the instrumental conception of rationality), we may now collapse the tenets into one.

- Legislation in complex social orders will decrease the welfare level.

However, as the tenet stands, it implies that no piece of legislation that concerns a complex social order can be rational, and thus that all pieces of legislation that concerns complex social orders have adverse welfare effects. This might seem an exaggerated claim. For example: legislation that codifies the fundamental principles of contract, legislation that protects property or legislation that concern damages, all concern complex social orders. It is clear that Hayek would not argue that these examples of legislation could not be rational. On the contrary, he argues that such legislation has a pivotal function in relation to a rational social order. In view of this, we need to further limit the scope of the legislation tenet, and I believe that we should look to the idea of constructivist rationalism – and Hayek’s critique of this idea – in order to do this.

The idea of constructivist rationalism, then, is a foil Hayek often employs to put forward his thoughts. As we have seen, this idea is that institutions, and even society as a whole, are, and should be, the result of human design. Hayek maintains, however, that constructivist rationalism is a false doctrine. The relation between Hayek’s critique of con-

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238 We may note that this may mean either (i) that it is not impossible to determine any such “rational” piece of legislation, or (ii) that it is not possible to choose between several such “rational” legislative acts.


243 Ibid., p. 17.
structivist rationalism and his critique of legislation is brought out by the idea that legislation is the primary tool by which a government implements its political agenda. Of course, a tacit assumption of this idea is that legislation is an effective and efficient tool in this regard. On this idea, then, the tool that realizes the human designs of constructivist rationalism is legislation.

Hayek’s critique of constructivist rationalism is focused on his assertion that the knowledge required for a rational implementation of deliberate designs of society cannot be available to the government agency that would put such a plan in place. This focus on knowledge is further present in Hayek’s key idea in terms of rules – that rules are tools by which man deals with his constitutional ignorance in relation to the knowledge that determine the properties of society. He writes:

To proceed with the this task we must recall once more the fundamental fact stressed at the beginning of this study: the impossibility for anyone of knowing all the particular facts on which the overall order of activities in the Great Society is based. It is one of the curiosities of intellectual history that, in the discussions of rules of conduct, this crucial fact has been so little considered although it alone makes the significance of rules intelligible. Rules are devices for coping with our institutional ignorance. There would be no need for rules among omniscient people who were in agreement on the relative importance of all the different ends. Any examination of the moral or legal order which leaves this fact out of account misses the central problem.

Let me explain Hayek’s position on ignorance, knowledge, and social planning a little further. In a small group, the members of the group can rely on a consensus about the ends pursued. In the extended group, though, this becomes impossible simply because of the increased number of individual sets of preferences. In Hayek’s view, our constitutional

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ignorance sets in at this point;\textsuperscript{248} there is no way we can keep track of everyone’s preferences, and what would be necessary to satisfy them. On Hayek’s analysis, this means that a harmonious extension beyond the small group depends on a method to agree about the means each individual is allowed to employ in striving for his individual ends, since these ends can no longer be simultaneously known and satisfied by group decisions.\textsuperscript{249} The tool Hayek believes have this function is rules; rules that determine which means all individuals in a group are permitted to use in pursuing their ends (while they do not stipulate what those ends should be).\textsuperscript{250}

Let us now return to the issue of how the idea of constructivist rationalism, and Hayek’s critique of this idea, can help us delimit the scope of the legislation tenet. The focus of Hayek’s critique of constructivist rationalism is the idea that the knowledge required for a rational implementation of deliberate designs of society cannot be available to the government agency that would put such a plan in place – regardless of whether these plans aim at (i) a specific institution, (ii) a specific property of society, (iii) a specific distribution among groups in a society, or (iv) any specific aggregate result. The corollary of Hayek’s critique of constructivist rationalism – in terms of his critique of legislation – is that a legislature, or anyone else, cannot have the knowledge necessary to construct rules for a complex social order that would lead to a desired specific aggregate result, without thereby lowering the welfare level.\textsuperscript{251} That is to say: On an instrumental conception of rationality, Hayek denies that legislation that concerns complex orders of society and aims at specific aggregate results can be rational.\textsuperscript{252}

We may now restate the tenet in the following way.

\begin{itemize}
\item \textsuperscript{248} Hayek, \textit{Law, Legislation and Liberty}, vol. 1, \textit{Rules and Order}, p. 2.
\item \textsuperscript{249} Ibid., p. 3.
\item \textsuperscript{250} Ibid., p. 3.
\item \textsuperscript{252} Ibid., p. 5.
\end{itemize}
• Legislation that concerns complex social orders and aims at specific aggregate results will decrease the welfare level.\textsuperscript{253}

As pointed out, I shall refer to this tenet as Hayek’s legislation tenet.

26.3. Specific Aggregate Results and Issues of Distribution  
However, we must further ask ourselves what the above means. As we have seen, specific aggregate results may mean, more specifically, (i) a specific institution (ii) a specific property of society or (iii) a specific distribution among groups in a society. As regards legislation that aims at establishing a specific institution, or a specific property of society, it is clear that on Hayek’s critique such legislation cannot be rational; that is, it is not possible to design legislation that determines the rational means to the desired institution or property of society. But what about specific distributions among groups in a society? This is an issue that is more complicated. It is also an issue that is interesting because, as pointed out, we want to know what measures of social cohesion, if any, are allowed under Hayek’s critique of legislation.

On the one hand, a specific distribution amongst a certain group of people may mean that we secure for each a minimum level of support. Hayek clearly favored such safety nets.\textsuperscript{254} He writes:

The assurance of a certain minimum income for everyone, or a sort of floor below which nobody need fall even when he is unable to provide for himself, appears not only to be a wholly legitimate protection against a risk common to all, but a necessary part of the Great Society […].\textsuperscript{255}


Hayek continues:

There is, however, yet another class of common risks with regard to which the need for government action has until recently not been generally admitted and where as a result of the dissolution of the ties of the local community, and of the development of a highly mobile open society, an increasing number of people are no longer associated with particular groups whose help and support they can count upon in the case of misfortune. The problem here is chiefly the fate of those who for various reasons cannot make their living in the market, such as the sick, the old, the physically or mentally defective, the widows and orphans – that is all people suffering from adverse conditions which may affect anyone and against which most individuals cannot alone make adequate provision but in which a society that has reached a certain level of wealth can afford to provide for all.\footnote{Hayek, Law, Legislation and Liberty, vol. 2, The Mirage of Social Justice, pp. 55–56.}

However, a specific distribution for a certain group of people may also indicate the more demanding idea of \textit{equality}. This idea, in turn, is commonly divided into, (i) equality of opportunity and (ii) equality of result. The idea of \textit{equality of opportunity} is that of creating a society in which everyone has the same basic opportunities to succeed in life. That is, discrimination (or oppression) of individuals on grounds of sex, religion, ethnicity etc., must be banned.\footnote{Richard Arneson, "Equality of Opportunity", The Stanford Encyclopedia of Philosophy (Fall 2008 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2008/entries/equal-opportunity/>.} The idea of \textit{equality of result} is that people should not only have the same opportunities, but that they should also succeed in life to more or less the same degree. To achieve this goal, the government will need to engage in redistribution of resources and may also have to adopt affirmative action plans in many fields.\footnote{Julian Lamont and Christi Favor, "Distributive Justice", The Stanford Encyclopedia of Philosophy (Winter 2012 Edition), Edward N. Zalta (ed.), forthcoming URL = <http://plato.stanford.edu/archives/win2012/entries/justice-distributive/>.} While it seems that Hayek favors the ideal of equality of opportunity,\footnote{Hayek, Law, Legislation and Liberty, vol. 2, The Mirage of Social Justice, p. 84} it is clear that he does not favor the ideal of equality of result:
Part II. Hayek’s Critique – Setting the Stage

It is unfortunate that the endeavor to secure a uniform minimum for all who cannot provide for themselves has become connected with the wholly different aims of securing a ‘just’ distribution of incomes, which, as we have seen, leads to the endeavor to ensure to the individuals the particular standard they have reached. Such assurance would clearly be a privilege that could not be granted to all and could be granted to some only at the expense of worsening the prospects of others.260

Let us now continue to map the scope of the legislation tenet in view of the term ‘specific aggregate results.’

As Robert Nozick points out, many familiar ideals of distribution are “patterned”.261 That a distribution is patterned means that it is determined according to some property of the subjects that are the object of the distribution.262 One may prefer different properties, or patterns, as the basis of such distributions; such as – for example – need, desert, or productivity. As we see, then, thinking of specific distributions among groups in society in terms of equality, as I shall do in this section, is not the only way to pattern a distribution – these distributions can be envisioned as patterned based on other properties than equality, such as those listed above. However, whatever the property – or pattern – on Hayek’s critique the rational means to such a distribution cannot be determined. In conclusion, it is important to understand that Hayek’s critique applies not only to egalitarian concerns, but also to other considerations, or other patterns of distribution.

As we have seen, Hayek seems to support the idea of equality of opportunity,263 while rejecting the idea of equality of result.264 As we have further seen, (i) the idea of equality of opportunity is that there should be

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262 Ibid., p. 156.
no discrimination (or oppression) of individuals, and (ii) the idea of equality of result is that people’s efforts should be rewarded with an equalized degree of success. However, these provisional distinctions need to be refined. In the following, I will elaborate these distinctions and place Hayek with more precision among them.

Even though the idea of equality of opportunity is focused on giving people the same chances in life, it takes its starting point in, and accepts, a conception of society as consisting of hierarchies. Within these hierarchies there are different positions. The positions differ in that some are regarded as better than others. On the idea equality of opportunity, the distribution of positions should be the result of fair competition among all members of society, and not the result of individual characteristics inherent at birth, such as ethnicity, sex or caste etc. Depending on what is regarded as constituting fair competition, the idea of equality of opportunity can be further divided. For instance, the idea of formal equality of opportunity conceives of fair competition as formal requirements in terms of who gets to compete for a desired position in society. The basic formal requirements are (i) that all members of society can compete for an available position, and (ii) the ground on which a person is allotted a position is merit. However, there are those who maintain that formal requirements are not enough to make a competition fair; peoples’ differences with regard to family values, class and economic power etc., still make the competition unfair. With this in mind, the idea of substantive equality of opportunity has it that these factors have to be adjusted for if the competition is to qualify as fair.

With the above distinction between formal and substantive equality of opportunity in mind, we can now further pinpoint Hayek in terms of these ideas. It seems clear that Hayek supports the idea of formal equality of

opportunity, at least in the sense that the law provides equal conditions for all. His support for this idea, though, is instrumentally linked to his understanding of the factual dispersal of knowledge in society and what it implies for governance in complex social orders. He writes:

> Once we see that, in the absence of a unified body of knowledge of all the particulars to be taken into account, the overall order depends on the use of knowledge possessed by the individuals and used for their purposes, it becomes clear that the role of government in that process cannot be to determine particular results for particular individuals or groups, but only to provide certain generic conditions [rules] whose effects on the several individuals will be unpredictable.\(^\text{267}\)

When it comes to the allotment of government positions, he further seems to be in favor of the idea of formal equality of opportunity. Says Hayek:

> The demand for equal opportunity or equal starting conditions (Startgerechtigkeit) appeals to, and has been supported by, many who in general favour the free market order. So far as this refers to such facilities and opportunities as are of necessity affected by governmental decisions (such as appointments to public office and the like), the demand was indeed one of the central points of classical liberalism, usually expressed by the French phrase `la carriere ouverte aux talents`.\(^\text{268}\)

However, it does not seem to be the case that Hayek supports the idea of substantive equality of opportunity, that is, he is not in favor of the idea that fair competition means an adjustment in view of factors such as education, family values and economic position (this is not surprising since the idea of substantive equality of opportunity is close to the idea of equality of result). His main argument against the idea of substantive equality of opportunity, and his argument in favor of the unequal opportunities created by education, family values and economic position, is


\(^{268}\) Ibid., p. 84.
linked to his idea of the positive welfare effects of the utilization of knowledge. He writes:

That at any given moment the position of each individual in society is the result of a past process of tentative exploration, in the course of which he or his ancestors have with varying fortunes pushed into every nook and corner of their (physical and social) environment, and that in consequence opportunities which any change in conditions creates are likely to be acted upon by someone, is the basis of that utilization of widely dispersed factual knowledge on which the affluence and adaptability of a great society rests. But it is at the same time the cause of undesigned and unavoidable inequalities of opportunity which the decisions of one generation create for their descendants.\textsuperscript{269}

I now turn to the idea of equality of result. As we have seen, on this idea the efforts of individuals should be awarded with a similar degree of material success, or – at the very least – that any inequality of material results should be offset by some other kind of favorable material result. As is evident, ideas of equality of result require a redistribution of some kind. Strict egalitarianism is an example of an idea of equality of result that requires such redistribution. On strict egalitarianism, each person should have the same share of material goods. The justification for strict egalitarianism is that because individuals are considered equals as moral beings, their equal share in the material aspects of life ought to mirror this fact.\textsuperscript{270}

Another idea of equality of result is John Rawls’ difference principle.\textsuperscript{271} On this principle, society should be so structured that social and economic differences are offset – or justified – only if the conditions of the least advantaged in society are thereby improved. The thinking behind this principle is that inequalities are beneficial for the economic output of a society. However, according to the difference principle, these inequalities can only be justified if they improve the lot of those worst off.

Hayek holds that ideas of equality of result are flawed. I will briefly try to explain why he holds this position. Hayek argues that to talk about a just distribution necessitates some sort of human agency – something is just, or unjust, because a moral subject has acted purposefully. However, Hayek argues, the factual distribution of material goods in a complex social order is the result of innumerable actions by moral subjects, neither of which has the purpose of the overall distribution of material goods in mind. On Hayek’s analysis, this means that it is nonsensical to talk about a just overall distribution of material goods if we have a society of free men in mind. He writes:

> It has of course to be admitted that the manner in which the benefits and burdens are appointed by the market mechanism would in many instances have to be regarded as very unjust if it were the result of a deliberate allocation to particular people. But this is not the case. Those shares are the outcome of a process the effect of which on particular people was neither intended nor foreseen by any one when the institutions first appeared – institutions which were then permitted to continue because it was found that they improve for all or most the prospects of having their needs satisfied. To demand justice from such a process is clearly absurd, and to single out some people in such a society as entitled to a particular share evidently unjust.\(^{273}\)

If, on the other hand, we have in mind a society in which the actions of men were to be determined by the commands of some kind of authority, then we can say – in a meaningful way – that the distribution of material goods in that society is just or unjust, as it is the result of human agency. On Hayek’s analysis, such a case warrants a meaningful discussion about distributive justice. He writes:

> ‘Social justice’ can be given a meaning only in a directed or ‘command’ economy (such as an army) in which the individuals are ordered what to do; and any particular conception of ‘social justice’ could be realized only in such a centrally directed system. It presupposes that people are guided

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\(^{273}\) Ibid., pp. 64–65.
Chapter 5. Scope and Argumentative Structure

by specific directions and not by rules of just individual conduct. Indeed, no system of rules of just individual conduct, and therefore no free action of the individuals, could produce results satisfying any principle of distributive justice.\(^{274}\)

Since Hayek is in favor of basic social safety nets as well as the idea of formal equality of opportunity, while he is opposed to the ideas of substantive equality of opportunity and equality of result, we may wonder on what grounds he argues that the material goods of a society should be distributed. As we have seen, Hayek’s argument for freedom is instrumental, or consequentialist, rather than deontological. That is, he argues for freedom because it is an instrument to desirable consequences, not because freedom is morally justified from the standpoint of some basic moral principle. On Hayek’s analysis, a society of free men will produce more welfare than a society of men that are less free – freedom is an instrument to a desired end. Indeed, from this perspective we may wonder if Hayek’s position ultimately is tantamount to some form of utilitarianism, a query we shall return to (see, Chapter 16).

Hayek’s argument for freedom is linked to his position on the issue of the distribution of material goods: The rewards for services rendered in a market do not primarily tell the individual his merit, but what he ought to do in the future to further the function of the complex order of society, which, on Hayek’s analysis, enables unparalleled production of welfare. As we see, then, the prime purpose of the distribution of material goods is to make sure that the order of society that ensures the highest production of welfare continues to function. Hayek’s argument is thus based on distribution as an instrument to achieve a desired end – rather than the moral virtue of the distribution itself. Says he:

Their [prices] function is not so much to reward people for what they have done as to tell them what in their own as well as in general interest they ought to do. We shall then also see that, to hold out a sufficient incentive for those movements which are required to maintain a market order, it

will often be necessary that the return of people’s efforts do not correspond to recognizable merit, but should show that, in spite of the best efforts of which they were capable, and for reasons they could not have known, their efforts were either more or less successful than they had reason to expect.\footnote{275}{Hayek, Law, Legislation and Liberty, vol. 2, The Mirage of Social Justice, pp. 71–72.}

On Hayek’s analysis – if we aspire to the favorable consequences of a distribution that is the result of market incentives – we also have to accept that merit may go unrewarded, and that failure may be unwarranted in terms of merit. He writes:

> The fact is simply that we consent to retain, and agree to enforce, uniform rules for a procedure which has greatly improved the chances of all to have their wants satisfied, but at the price of all individuals and groups incurring the risk of unmerited failure. With the acceptance of this procedure the recompense of different groups and individuals becomes exempt from deliberate control.\footnote{276}{Ibid., p. 70.}

In this section we have adjusted the scope of Hayek’s critique of legislation. \textit{i.e.}, we have determined with more precision the area of application of the legislation tenet. To sum up: Hayek’s critique of legislation is confined to issues of material welfare. The legislation tenet is further limited in scope in that it applies to complex social orders only. Consequently, legislation that concerns non-complex social entities, or legislation that concerns complex social entities but does not aim at specific aggregate results can be rational on Hayek’s critique. Additionally, if a specific aggregate result means a specific institution or a specific property of society, this is unproblematic; these instances are clearly covered by Hayek’s critique. However, we have been trying to pinpoint the more precise meaning of the legislation tenet if a specific aggregate result is to mean a specific distribution among groups in a society. As we have seen, this section suggests that Hayek’s critique of legislation does not apply to legislation that aims at creating a safety net, or at establishing the princi-
ple of equality of opportunity, but that it does apply to legislation that aims at establishing the principle of substantive equality of opportunity, or the principle of equality of result. On Hayek’s analysis, then, this means that while legislation that regulates complex social orders and concerns basic social safety nets, or the ideal of equality of opportunity, can be rational and need not lower the level of welfare, legislation that strives for substantive equality of opportunity, or the ideal of equality of result, cannot be rational and will lower the welfare level.

Let us take notice that some may object that it is perfectly possible to draft legislation that is the most efficient means to a particular aggregate result in a complex social order. So far, it has been a tacit assumption that in order to draft a rational piece of legislation, a legislature will need the relevant knowledge. Now, some may argue that the extent of the relevant knowledge is much smaller than Hayek says it is. Others may argue that we do not quite know if a piece of legislation is the most efficient means to a particular aggregate result, and so, on the assumption that as long as we do not know that it is harmful we may continue with that policy. A third category may accept that a piece of legislation cannot be rational, while insisting that there is overriding moral concerns that propel us to stick to that kind of legislation. These objections need not concern us at the moment. However, they underline that Hayek’s critique is not primarily concerned with the impossibility of attaining a desired specific aggregate result through a legislative act (although it may contain such a claim), but that that his critique is concerned with how legislation affects the level of material welfare. It should be noted that those who prefer certain specific results in terms of society often do this on a conception of justice – a conception that may even demand that the welfare level has to yield for other concerns. This, nonetheless, is not how Hayek’s critique of legislation is to be understood.

A final note: The legislation tenet seems to invite the question in relation to what particular situations the welfare level will decrease. Part of the answer is given by this section; but however evident, let us be clear
and spell it out. Compared to the following situations, the situation depicted in the legislation tenet will decrease the welfare level: (i) a situation in which legislation does not aim at specific aggregate results in a complex social order, and (ii) a situation in which legislation aims at specific aggregate results in a non-complex social order. These provisions follow from adjusting the scope of the legislation thesis, as we have done in this section. However, there is another point of comparison that seems to be very much part of Hayek’s critique of legislation, namely a situation in which there are evolutionary rules. As we shall see with regard to the cultural evolution thesis, this thesis takes the form of a point of comparison – or baseline – that Hayek argues have superior characteristics in terms of the utilization of knowledge, and consequently, in terms of welfare.

27. The Welfare Claim

As we remember, the dispersal of knowledge thesis and the cultural evolution thesis – in conjunction with the welfare claim – form two lines of argument in support of the legislation tenet. In this section, I shall present the welfare claim.

On the welfare claim, there is a positive correlation between the level of knowledge utilized in social cooperation in a society, $S$, and the degree of welfare enjoyed in $S$, such that an increase in the utilization of knowledge will bring about an increased level of welfare in $S$, and that a decrease in the utilization of knowledge will bring about a decreased level of welfare in $S$.

Hayek’s work that concerns knowledge in the social sciences is considered to be his crowning achievement in economics. The dispersal of knowledge is perhaps the main theme of Hayek’s work in this regard, and it is the source of the so-called Hayek problem; that is, how to rationally coordinate a social entity when the full knowledge of that social entity escapes the agency that attempts such coordination. As is obvious, I shall
argue that an important claim of Hayek’s in his work that pertains to knowledge in social cooperation is an extension of Adam Smith’s famous formula – that the welfare level of a society depends on its level of division of labor – to the effect that the welfare level instead primarily depends on the extent to which knowledge is utilized (admittedly a function of the division of labor to a large extent). As we have seen, the welfare claim has considerable importance for the interpretation of Hayek’s critique of legislation, because the welfare claim combines with the dispersal of knowledge thesis and the cultural evolution thesis in the support of the legislation tenet.

Since the welfare claim takes its starting point in the work of Adam Smith, I begin this section with a description of the relevant parts of Smith’s work before I move on to consider Hayek’s position.

Adam Smith maintained that the most general factor in the productivity of labor is the gradual specialization of the workforce; that is, the division of labor. In the famous Chapter 1 – “On the Division of Labour” – in *An inquiry into the Nature and Causes of the Wealth of Nations*, Smith writes:

> The greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed, or applied, seem to have been the effects of the division of labour.\(^{277}\)

What makes the division of labor possible, on Smith’s analysis, is exchange. Thus, Smith argues that the productivity-enhancing and welfare-creating capacity of the specialization of the workforce is limited by the possibilities of the agents to exchange goods and services. Smith writes:

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As it is the power of exchanging that gives occasion to the division of labour, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market.  

The division of labor, in turn, gives rise to a general “opulence”, or welfare, in society. Says Smith:

> It is the great multiplication of the productions of all the different arts, in consequence of the division of labour, which occasions, in a well-governed society, the universal opulence which extends itself to the lowest rank of the people. Every workman has a great quantity of his own work to dispose of beyond what he himself has occasion for; and every other workman being exactly in the same situation, he is enabled to exchange a great quantity of his own goods for a great quantity, or what comes to the same thing, for the price of a great quantity of theirs. He supplies them abundantly with what they have occasion for, and a general plenty diffuses itself through all the different ranks of society.

The process of an increasing division of labor is not the result of conscious planning in Smith’s theory, but the result of a natural inclination of man to engage in exchange with his fellow men. Smith writes:

> This division of labour, from which so many advantages are derived, is not originally the effect of any human wisdom, which foresees and intends the general opulence to which it gives occasion. It is the necessary, though very slow and gradual, consequence of a certain propensity in human nature which has in view no such extensive utility; the propensity to truck, barter, and exchange one thing for another.

On the basis of Smith’s work, Hayek argues that the division of labor leads to an increase in the utilization of knowledge in society. He seeks to further generalize Smith’s theory and maintains that inherent in the

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279 Ibid., p. 15
280 Ibid., vol. 1, p. 17. Cf. Carl Menger’s different view on this matter, see Chapter 2.
division of labor, there is a more basic property of the welfare-creating forces of increased specialization – the division of knowledge:

Clearly there is here a problem of the division of knowledge which is quite analogous to, and at least as important as, the problem of the division of labor. But, while the latter has been one of the main subjects of investigation ever since the beginning of our science, the former has been as completely neglected, although it seems to me to be the really central problem of economics as a social science.\(^{282}\)

As we remember, Ludwig von Mises was a chief influence on Hayek’s intellectual development (see, Chapter 2). As we further remember, Mises’s argument against rational calculation under socialism indicates that information on a factor market is dispersed among the agents of that market. Now, Hayek takes von Mises’s cue of the theme of dispersal of information, and claims that the division of knowledge is an even more general feature of society than Adam Smith’s dictum of the division of labor.\(^{283}\) Hayek continues:

Another consequence of this basic fact which must be stressed here is that only in small groups of primitive society can collaboration between members rest largely on the circumstance that at any one moment they will know more or less the same particular circumstances. [...] The situation is wholly different in the Great or Open Society where millions of men interact and where civilization as we know it has developed. Economics has long stressed the ‘division of labour’ which such a situation involves. But it has laid much less stress on the fragmentation of knowledge, on the fact that each member of society can have only a small fraction of the


knowledge possessed by all, and that each is therefore ignorant of most of
the facts on which the workings of society rests.\footnote{284}{Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, pp. 13–14. Footnote omitted.}

So, if in Smith’s theory there is a correlation between the division of la-
bor and the opulence of a society, there is in Hayek’s theory a correlation
between the aggregate level of knowledge utilized in social cooperation
and the level of welfare in a society.\footnote{285}{Ibid., p. 14.} Says Hayek:

Although the fact that the people of the West are today so far ahead of the
others in wealth is in part the consequence of a greater accumulation of
capital, it is mainly the result of their more effective utilization of
knowledge.\footnote{286}{Hayek, The Constitution of Liberty, p. 42}

As civilization progresses and incorporates increasing levels of
knowledge, Hayek maintains that the division of knowledge increases the
individuals’ ignorance of the social processes.\footnote{287}{Cf. Alfred Whitehead as quoted by Hayek, “It is a profoundly erroneous truism, repeated by all copy-books and by eminent people when they are making speeches, that we should cultivate the habit of thinking what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them.” See Hayek, “The Use of Knowledge in Society,” in Individualism and Economic Order, p. 88.} In fact, it would seem
that the idea of an increasing ignorance is the corollary to idea of dis-
persed knowledge, although differently expressed. Hayek writes:

Man prides himself on the increase in his knowledge. But, as a result of
what he has himself created, the limitations of his conscious knowledge
and therefore of the range of ignorance significant for his conscious ac-
tions have constantly increased […] The more civilized we become, the
more relatively ignorant must each individual be of the facts on which the
working of his civilization becomes. The very division of knowledge in-
creases the necessary ignorance of the individual of most of this
As we see, then, Hayek views the development of civilization as the gradual overcoming of man’s cognitive limitations by an extension of our knowledge base for action to include the knowledge man does not himself possess. In this way, there is in Hayek’s thought a link between the level of ignorance and the level of development of a society: A high level of ignorance of the sum total of the knowledge of the social processes indicates a high level of development, since a high level of development is signified by a complexity of arrangement of which any individual must be increasingly ignorant. Says Hayek:

Most of the advantages of social life, especially in its more advanced forms which we call “civilization”, rest on the fact that the individual benefits from more knowledge than he is aware of. It might be said that civilization begins when the individual in the pursuit of his ends can make use of more knowledge than he has himself acquired and when he can transcend the boundaries of his ignorance by profiting from knowledge he does not himself possess.²⁸⁹

The process of an increase in the total amount of knowledge entering into social cooperation, then, has as one of its corollaries an increased ignorance of the sum total of this knowledge on the part of each individual agent (cf. the dispersal of knowledge thesis). As we have seen, the dispersal of knowledge means that no agency, such as a government or a legislature, can amass it, and, on Hayek’s analysis, this further means that the problem of a rational social order is not to calculate an optimal distribution from a set of data (since these data are dispersed among the individuals and not available to any agency) but to find the best use of knowledge that cannot be gathered or controlled.²⁹⁰

As pointed out, Hayek’s development of Adam Smith’s work in terms of the idea that welfare is positively correlated with the utilization of knowledge in social cooperation is a basis of Hayek’s critique of legislation because the dispersal of knowledge thesis and the cultural evolution

thesis support the legislation tenet in conjunction the welfare claim. Let us now proceed to consider these theses.

28. The Dispersal of Knowledge Thesis and the Cultural Evolution Thesis

28.1. Introduction

To recapitulate: The argumentative structure of Hayek’s critique is as follows.

If we spell out this structure in terms of tenet, claim, and theses, it is as follows:

*The Legislation Tenet:* Legislation that concerns complex social orders and aims at specific aggregate results will decrease the level of welfare in the relevant society.291

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The Welfare Claim: There is a positive correlation between the level of knowledge utilized in social cooperation in a society, S, and the degree of welfare enjoyed in S, such that an increase in the utilization of knowledge will bring about an increased level of welfare in S, and that a decrease in the utilization of knowledge will bring about a decreased level of welfare in S.  

The Dispersal of Knowledge Thesis: The total knowledge that determines the aggregate properties of a complex social order is necessarily dispersed and not available in full to any agency, such as a legislature.

The Cultural Evolution Thesis: Rules that develop in a process of cultural evolution are more conducive to the utilization of knowledge in social cooperation, than are rules enacted by a legislature.

So far in this chapter we have, among other things, adjusted the scope of the legislation tenet, and presented Hayek’s welfare claim. It is now time to explain (i) how Hayek supports the dispersal of knowledge thesis and the cultural evolution thesis, and (ii) how the various parts of Hayek’s work that support the theses relate to each other.

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28.2. The Dispersal of Knowledge Thesis

According to the dispersal of knowledge thesis, as we have seen, the total knowledge that determines the aggregate properties of a complex social order is necessarily dispersed and not available in full to any agency, such as a legislature. As we have further seen, the line of argument that is based on the dispersal of knowledge thesis and the welfare claim has it that a legislature cannot have the requisite knowledge in order to determine which legislative act (of the permissible ones) is the most efficient means to the desired end. Finally, we have seen that legislation that entails a less than optimal use of resources implies – on an instrumental conception of rationality – that this legislation is not rational. On this line of argument such legislation will decrease the material level of welfare, as not being rational – on an instrumental conception of rationality – means to not use means as efficiently as possible. Consequently, Hayek’s line of argument amounts to the claim that a legislature cannot have the knowledge required to rationally design legislation that aims at specific aggregate results in complex social orders.

There are several parts of Hayek’s work that support the dispersal of knowledge thesis: his philosophy of mind, his work related to the idea of complexity, his identification of a separate category of knowledge, viz., know-how, and his critique of a central theory in economics – general equilibrium theory. Let me briefly comment on each of these parts of Hayek’s work, starting with his philosophy of mind.

In his philosophy of mind, Hayek argues that the human mind is constructed and operates in such a way that there is an absolute limit to its ability to understand and explain complex phenomena, such as for instance complex social orders. In effect, this argument means that the human mind can only explain complex phenomena along their principal
way of functioning, because it cannot encompass full knowledge of these phenomena.

Additional support for the dispersal of knowledge thesis is found in Hayek’s work related to the idea of complexity. In this work Hayek elaborates the key characteristics of this science, namely (i) that knowledge in complex phenomena is necessarily dispersed among its individual parts, yet coordinated to the benefit of the whole, and (ii) that the sum total of this knowledge is not available to any of its parts, and thus that it is not possible for any of its parts to determine the rational means to aggregate ends in such systems. Hayek’s conclusion is that social science methodology that regards the complex is limited in scope to explanations of the principal ways of functioning of these phenomena.

Hayek’s further identifies a separate category of knowledge, viz., know-how. On Hayek’s analysis, this is a very important category of knowledge, although by definition it is non-communicable. From the non-communicable property of know-how it follows that this category of knowledge is necessarily dispersed among individuals, and – consequent-ly – it cannot be amassed by any agency; be it an economist (as in the case of Hayek’s critique of general equilibrium theory), a legislature (as in the case of Hayek’s critique of legislation), or a government (as in the case of Hayek’s general critique of social planning).

Finally, the dispersal of knowledge thesis is supported by Hayek’s critique of general equilibrium theory – a significant theory in economics. This critique rests on Hayek’s observation that the knowledge of a society is dispersed as a matter of fact, and thus inaccessible to an economist, or any other agency, as a basis for precise predictions (or legislative acts).

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knowledge necessary to determine what particular piece of legislation (among the permissible) would be the most efficient to achieve the desired result.

As regards the support of the dispersal of knowledge thesis, the support that the various parts of Hayek’s work lend, are independent of each other. As we shall see, this is important because I will argue that whereas Hayek’s philosophy of mind does not lend convincing support for the dispersal of knowledge thesis, his work related to the idea of complexity, his distinction of know-how, and his critique of general equilibrium theory do. Consequently, I shall argue that the line of argument in support of the legislation tenet that is based on the conjunction of the dispersal of knowledge thesis and the welfare claim is true.

28.3. The Cultural Evolution Thesis

The cultural evolution thesis, then, has it that rules developed in a process of cultural evolution are more conducive to the utilization of knowledge than are the deliberately created rules of a legislature. Consequently, on the welfare claim, rules of an evolutionary origin are more conducive to welfare than are legislative rules.

As we see, the cultural evolution thesis raises the issue of a point of comparison – a baseline\(^3\) in relation to which we can say that one situation features a higher level of welfare than another situation. In comparison to a situation in which there are evolutionary rules, Hayek argues that the welfare level will decrease in a situation in which there are legislative rules that concern complex social orders and aim at specific aggregate results. As we shall see, Hayek’s position on this issue is binary, in that he seems to envision either a situation in which there are only legislative rules, or a situation in which there are only evolutionary rules. We shall

later return to this binary position of Hayek’s, especially in relation to the work of Elinor Ostrom (see, Chapter 13)

As I understand it, the cultural evolution thesis is supported by a so-called many-minds argument, according to which processes involving many minds will lead to a better result than processes involving fewer minds. The reason for this is that the more minds are involved, the more knowledge the result of the process will be based on. With regard to rules, we shall understand this argument to mean that rules developed in an evolutionary process are based on more knowledge than are rules enacted by a legislature, because the evolutionary process involves more people than the legislative process. As Hayek sees it, this means that rules developed in an evolutionary process are – so to speak – better than rules of a legislative process. More specifically, evolutionary rules trump legislative rules with respect to the utilization of knowledge on three counts, (i) they contain ‘better’ knowledge, (ii) they are more conducive to individuals taking advantage of their unique position with regard to situation-specific information and know-how, and (iii) they are more conducive to individuals basing their actions on the knowledge of others.

Out of these three arguments that support the cultural evolution thesis, (i) is independent, and we can think of (ii) in one version dependent on (i), and one version that is independent of (ii), while (iii) clearly is dependent on (i). However, as we shall see, the line of argument in support of the legislation tenet that is based on the conjunction of the cultural evolution thesis and the welfare claim is refuted by the work of Elinor Ostrom. In particular, her empirical studies show that a combination of evolutionary rules and deliberately created rules outperforms solely evolutionary rules in terms of welfare.
29. The Relation between the Two Lines of Argument in Support of the Legislation Tenet

As to the relation between the two lines of argument that support the legislation tenet, I shall first say a few words about the relation between the dispersal of knowledge thesis and the cultural evolution thesis. First of all, we may conclude that the dispersal of knowledge thesis and the cultural evolution thesis support the legislation tenet in conjunction with the welfare claim; that is, while the lines of argument based on the theses are independent of each other in their support of the legislation tenet, the lines of argument themselves rely for that support on the conjunction of the dispersal of knowledge thesis and the welfare claim, on the one hand, and the conjunction of the cultural evolution thesis and the welfare claim, on the other hand.

As we have seen, the dispersal of knowledge thesis has it that legislation aiming at specific aggregate results in complex social orders cannot be based on sufficient knowledge, and will – according to the welfare claim – lower the welfare level in society. As we have seen, on an instrumental conception of rationality, this means that Hayek’s claim amounts to the thesis that legislation aiming at specific aggregate results in complex social orders cannot be rational.

The cultural evolution thesis, on the other hand, is a positive assertion that there is an alternative better than legislation in terms of the utilization of knowledge, and – according to the welfare claim – in terms of welfare. As we have seen, the cultural evolution thesis, in this way, takes the form of a point of a comparison (or a baseline). The legislation tenet, then, is supported by one argument on why evolutionary rules perform better than legislative rules in terms of welfare, and by one argument on why legislation that aims at specific aggregate results in complex social orders will decrease the welfare level.

Due to the different nature of these theses, they are independent of each other, so that while the line of argument that is based on the con-
junction of the dispersal of knowledge thesis and the welfare claim may support the legislation tenet successfully, the line of argument that is based on the conjunction of the cultural evolution thesis and the welfare claim may not do so, without compromising the support of the legislation tenet. In view of the results of this investigation, this is of some importance, as we shall find that whereas the dispersal of knowledge thesis is true, the cultural evolution thesis is false. As we have seen, this is important, as I shall argue that one line of argument is true, while the other line of argument is false. As is clear, then, I shall argue that the legislation tenet is true.

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As pointed out, to clarify Hayek’s critique of legislation means to determine its precise assertion, as well as to determine the scope, or area of application of the critique. It further means to map the argumentative structure of the critique, i.e. to determine how the assertion of the critique is supported, and how the parts of the argumentative structure relate to each other. Finally, it also means to present these arguments. After having reviewed the starting-points of Hayek’s critique (Section 25), I turned to a further investigation of the scope of the legislation tenet, delimiting its area of application (Section 26), to presenting the welfare claim (Section 27), and to a further mapping the argumentative structure of the critique (Sections 28 and 29). In this chapter, I have briefly indicated the final results of this investigation in terms of Hayek’s critique of legislation. However, I must now turn to a proper assessment of the dispersal of knowledge thesis and the cultural evolution thesis, and the arguments that support these theses.

In this chapter, I have briefly indicated the final results of this investigation in terms of Hayek’s critique of legislation. However, I must now turn to a proper assessment of the dispersal of knowledge thesis and the
cultural evolution thesis, and the arguments that support these theses. To this task – and to the presentation of the arguments on which the theses rest – I turn in “Part III” and “Part IV” of this investigation.

30. Summary

In Section 25, I discussed some starting-points of Hayek’s critique. According to Hayek, legislation is to a large degree a codification of rules that have developed in an evolutionary process of cultural evolution. Many of these rules secure for the individual a private sphere within which he is free to act as he sees fit. On Hayek’s analysis, the law ought to be organized so that this individual sphere is secured. The only way to achieve a state of freedom – under the restrictions of social co-existence – known to man, is freedom under the law, according to Hayek. The law achieves this state of affairs by establishing protected domains within which each man can act freely and make use of his possessions as he sees fit, using his knowledge to achieve his ends.

As we have seen, one may argue that the argumentative gist of Hayek’s critique of legislation is to be found in his distinction between two kinds of social orders and the rules that function in each. Hayek, then, makes a distinction between two types of order in society. One type of order is of a complexity that does not transcend the cognitive faculties of the human mind. The other type of order is of a complexity that does transcend the cognitive faculties of the human mind. He maintains that complex social orders are more conducive to the utilization of knowledge in society (and thus to welfare) than are organizations. The properties of an organization can be shaped in detail according to man’s liking and can be designed to serve specific purposes. The properties of a complex social order cannot be shaped in detail according to man’s likings, and they cannot be designed to serve specific purposes.

Hayek further claims that different kinds of rules can function in organizations and complex social orders. The rules of an organization can
be designed to achieve specific actions, distributions and properties of the organization. The rules of a complex social order must be abstract and general, and they cannot serve a specific purpose, except the maintenance of the ongoing concern of the extended order. According to Hayek, the rules that induce an overall order and bring beneficial results to the societies adhering to them typically develop in an evolutionary sifting process in which rules that are more conducive to the order of the system prevail. The complexity of this process transcends the limits of the human mind, and it is by definition extra-mental on Hayek’s analysis. The extra-mental origin of the rules developed in the process of cultural evolution is a main obstacle to a man-made, rational, deliberate design of society, and to legislation as an effective tool to implement a political agenda, on Hayek’s analysis.

In Section 26, I investigated the scope of the legislation tenet; that is, I considered its area of application. The legislation tenet, then, is confined to issues of material welfare. The legislation tenet is further limited in scope in that it applies to complex social orders only. Consequently, legislation that concerns non-complex social entities, or legislation that concerns complex social entities, but does not aim at specific aggregate results, can be rational on Hayek’s critique. However, we attempted to pinpoint the more precise meaning of this tenet and turned to the issue of specific distributions among groups in a society. As we have seen, I suggest that Hayek’s critique of legislation does not apply to legislation that aims at creating a safety net, or at establishing the principle of equality of opportunity, but that it does apply to legislation that aims at establishing the principle of substantive equality of opportunity, or the principle of equality of result.

In Section 27, I presented Hayek’s welfare claim. On the welfare claim, there is a positive correlation between the level of knowledge utilized in social cooperation in a society, $S$, and the degree of welfare enjoyed in $S$, such that an increase in the utilization of knowledge will bring about an increased level of welfare in $S$, and that a decrease in the utiliza-
tion of knowledge will bring about a decreased level of welfare in S. Of course, Hayek’s development of Adam Smith’s work, in terms of the idea that welfare is positively correlated to the utilization of knowledge in social cooperation, is a basis of Hayek’s critique of legislation because the dispersal of knowledge thesis and the cultural evolution thesis support the legislation tenet in conjunction with the *welfare claim*.

In Section 28, I continued to map the argumentative structure of Hayek’s critique of legislation as I briefly presented the arguments that support the dispersal of knowledge thesis and the cultural evolution thesis. We illustrated this argumentative structure as follows:

![Argumentative Structure Diagram](image)

*Legislation tenet* → *Welfare claim* → *Dispensal of knowledge thesis* → *Cultural evolution thesis*

The dispersal of knowledge thesis, then, is supported by Hayek’s philosophy of mind, his work related to the idea of complexity, his identification of the knowledge category know-how, and his critique of a central theory in economics, namely general equilibrium theory. We concluded that these arguments support the dispersal of knowledge thesis independently, and that all of these arguments, except the support that derives from Hayek’s philosophy of mind, successfully support the dispersal of knowledge thesis. Thus, this thesis and the line of argument that is based on it are true.

As to the cultural evolution thesis, as we have seen, this thesis is supported by a many-minds argument. We further identified three specific arguments of Hayek’s in support of this thesis. However, as we shall see, the line of argument that is based on the cultural evolution thesis is refut-
ed by the work of political scientist Elinor Ostrom, in particular by her empirical investigations.

In Section 29, finally, I discussed the relation between the two lines of argument that support the legislation tenet. So, while these lines of argument are independent of each other, they do rely on a conjunction of the dispersal of knowledge thesis and the welfare claim, on the one hand, and a conjunction of the cultural evolution thesis and the welfare claim, on the other hand (that is, these lines of arguments depend on this conjunction). The independence of these lines of argument is important, as we shall find the dispersal of knowledge thesis true and the cultural evolution thesis false.
Part III:
The Dispersal of Knowledge Thesis
Introduction Part Three

His concern was human nature in general, and his theory of knowledge was intended mainly as a step towards an understanding of the conduct of man as a moral being and a member of society.\footnote{F. A. Hayek, “The Legal and Political Philosophy of David Hume,” in F. A. Hayek, Studies in Philosophy, Politics and Economics (London: Routledge & Keegan Paul, 1967), p. 111. Hayek readily admits that Hume was a major source of inspiration for his legal and political philosophy, and it is certainly possible to maintain that Hayek’s contribution in these fields is an elaboration on themes supplied by Hume.}

Hayek on David Hume

Having thus far gained an overview of Hayek’s critique of legislation, it is now time to turn exclusively to the dispersal of knowledge thesis. It is clear that the idea of the dispersal of knowledge is central to Hayek’s work, both as he himself understood it, and in the view of Hayek scholars.

The idea of dispersed knowledge originated in Hayek’s work in economics in the 1930’s. As pointed out, though, there are several parts of Hayek’s work that support the dispersal of knowledge thesis. In addition to Hayek’s work in economics (his critique of general equilibrium theory) – his philosophy of mind, his work related to the idea of complexity, and his distinction of the knowledge category know-how – support this thesis (although, not all of them successfully).

In any case, it is clear that Hayek’s work on knowledge – or knowledge in social cooperation, as I shall refer to it – and particularly...
his idea of the dispersal of knowledge, is viewed as his most enduring contribution to social science.\(^{302}\) Hayek concurs when he says:

It was really the beginning of my looking at things in a new light. If you asked me, I would say that up till that moment I was developing conventional ideas. With the ‘37 lecture to the Economics Club in London, my Presidential Address, which was “Economics and Knowledge”, I started my own way of thinking. Sometimes in private I say I have made one discovery and two inventions in the social sciences: the discovery is the approach of the utilization of dispersed knowledge, which is the short formula which I use for it; the two inventions I have made are denationalization of money and my system of democracy… And it was with a feeling of sudden illumination, sudden enlightenment, that I – I wrote that lecture in a certain state of excitement. I was aware that I was putting down things which were fairly well known in a new form, and perhaps it was the most exciting moment of my career when I saw it in print.\(^{303}\)

Further, it is clear that Hayek’s work on knowledge in social cooperation was an important part of the reason why he was awarded the Nobel Prize in economics together with Swedish economist Gunnar Myrdal in 1974.\(^{304}\)

However, it is my impression that most commentators on Hayek have refrained from a thorough analysis of the theme of dispersed knowledge,\(^{305}\) and that his arguments have not been as well understood as


\(^{303}\) Armen Alchian, ed., “Nobel Prize Winning Economist.” UCLA, Charles E. Young Research Library, Department of Special Collections, Oral History Transcript no. 300/224, pp. 425–426. Transcript of an interview conducted in 1978 under the Auspices of the Oral History Program, University Library, UCLA. Copyright Regents of the University of California.


\(^{305}\) See for instance, Caldwell, Hayek’s Challenge; Alan Ebenstein, Hayek’s Journey: The Mind of Friedrich Hayek (New York: Palgrave Macmillan, 2003); and Steven Fleet-
they might be. As should be clear, I argue that the issue of rational legislation is one such case. In economics, Hayek and the theme of dispersed knowledge are mostly related to prices and the general problem of the availability of knowledge to an agency (such as a legislature). The problem for an agency to acquire the necessary knowledge to rationally coordinate the activities in a social entity is referred to by many names, such as “the knowledge problem,” “the information problem” and the “Hayek Hypothesis.” The issue referred to by these names is one of the most commonly cited in economics. But, as is suggested by the different names used to refer to it, there seems to be no general agreement on what exactly the “knowledge problem” or the “Hayek Hypothesis” is. As I see it, the issue referred to by these names is of more significant importance and goes beyond pure economics in the fashion that Hayek grappled with it. In fact, Hayek’s work in economics that is related to the dispersal of knowledge is a starting point for much of his work in the social sciences, and although it is clear that Hayek’s critique of equilibrium theory and his theory of prices are important parts of economic theory, the theme of the dispersal of knowledge permeates most of his work in other disciplines than economics. As pointed out in Chapter 1, Hayek ranged over many disciplines, such as economics, philosophy of mind, complexity theory, and law; and the theme of the dispersal of knowledge is an integral part of all these facets of his social philosophy. This is especially true for his

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Peter Boettke, “Hayek and Market Socialism: Science, Ideology and Public Policy,” Hayek Memorial Lecture, delivered at The London School of Economics (October 19, 2004), p. 10, see http://www2.lse.ac.uk/publicEvents/events/2004/20040907t1611z001.aspx


work on the function of rules and their relation to economic phenomena. Says Hayek:

Though at one time a very pure and narrow economic theorist, I was led from technical economics into all kinds of questions usually regarded as philosophical. When I look back, it seems to have all begun, nearly thirty years ago, with an essay on “Economics and Knowledge” in which I examined what seemed to me some of the central difficulties of pure economic theory. Its main conclusion was that the task of economic theory was to explain how an overall order of economic activity was achieved which utilized a large amount of knowledge which was not concentrated in any one mind but existed only as the separate knowledge of thousands or millions of different individuals. But it was still a long way from this to an adequate insight into the relations between the abstract rules which the individual follow in his actions, and the abstract overall order which is formed as the result of his responding, within the limits imposed on him by those abstract rules, to the concrete particular concrete circumstances which he encounters. It was only through a reexamination of the age-old concept of freedom under the law, the basic conception of traditional liberalism, and of the problems of the philosophy of law which this raises, that I have reached what now seems to me to be a tolerably clear picture of the nature of the spontaneous order of which liberal economists have so long been talking.\(^\text{310}\)

As we see, it is clear that while the interest of economists in Hayek is mostly limited to his theory of prices and to how markets perform with regard to knowledge, Hayek’s larger undertaking is by no means restricted to these areas. As has been stressed earlier, the entire Hayek corpus wrestles with the role of knowledge for rational action and rational social order. As we shall see, the themes of heuristics, tools and artifacts – such as prices – for the circumvention of the cognitive limits of man, would resurface in Hayek’s work on rules and law. In his later writings, Hayek is occupied with the role and function of rules – and law – with regard to rational action and rational social order. As we remember, Hayek argues that economics and law are intertwined in the understanding of society. In

his critique of equilibrium theory, Hayek maintains that knowledge is indeed dispersed, and this idea, as we shall see, is the cornerstone of his thinking on law.

As pointed out, I argue that the dispersal of knowledge thesis is supported by (i) Hayek’s philosophy of mind, (ii) his work on complexity, (iii) his distinction of a category of knowledge referred to as know-how, and (iv) his critique of general equilibrium theory. As we have seen, they do so independently. As I argue that Hayek’s philosophy of mind does not support the dispersal of knowledge thesis – but that his work on complexity, his distinction of a category of knowledge referred to as know-how, and his critique of general equilibrium theory, do – I shall consequently further argue that the dispersal of knowledge thesis is true.

I shall begin “Part III” by presenting Hayek’s philosophy of mind (Chapter 6). I then present his work related to the idea of complexity (Chapter 7). I continue with his distinction of a separate category of knowledge – know-how (Chapter 8). Finally, I present Hayek’s critique of general equilibrium theory (Chapter 9). Following these chapters, I challenge the dispersal of knowledge thesis as I present work of social scientists Elinor Ostrom and Joshua Epstein (Chapter 10). Both Ostrom and Epstein have developed tools that aim to improve rule design. The question I ask in Chapter 10 is whether these tools – aiming to produce rules that are rational – somehow circumvent, or make irrelevant, the dispersal of knowledge thesis. I conclude “Part III” of this investigation with an attempt to infuse some practical relevance into Hayek’s critique. For this purpose, I develop a legislative policy tool based on Hayek’s conception of coercion and the welfare claim (Chapter 11).
Chapter 6
Philosophy of Mind

31. Introduction

In this chapter, I turn to Hayek’s philosophy of mind in an attempt to clarify and assess its support for the dispersal of knowledge thesis. As pointed out, I shall argue that his philosophy of mind does not support the dispersal of knowledge thesis.

The support of Hayek’s philosophy of mind for the dispersal of knowledge thesis primarily involves two ideas. The first idea is that knowledge consists entirely of mental constructs, and that there is no basis for knowing anything of the world external to the subject. If true, this idea no doubt supports the idea that knowledge is dispersed on the subjects. However, the idea that knowledge consists entirely of mental constructs is very general and withdraws any attempt at a rational understanding of the world we live in. I shall therefore leave it aside in terms of its support of the dispersal of knowledge thesis, although I shall present this idea in the pages that follow.

The second idea of Hayek’s philosophy of mind that support the dispersal of knowledge thesis is that in order to forge an explanation, the explaining entity (the human mind, in Hayek’s case) must be of an equal, or higher, degree of complexity than the phenomenon that is to be explained, such as a society. As we shall see, this idea means that there is an absolute limit to the human mind’s capacity for explanation of complex phenomena, an idea that we shall refer to as cognitive closure. The link to
between the idea of cognitive closure and the dispersal of knowledge thesis is that there is a limit to the amount of knowledge a human mind may hold, and thus the total amount of knowledge is dispersed on other human minds. Admittedly this link is very general; but, as we shall see, the idea of cognitive closure is closely linked to the central idea to be discussed in the next chapter, namely the idea that the human mind does not have the capacity to determine the rational means to specific aggregate results with regard to complex phenomena, such as society. This link is all the more pertinent as Hayek was led to the idea of complexity by his work on a philosophy of mind. We may even say that the idea of cognitive closure, and Hayek’s work on complexity, are interwoven, as they address the same issues, although from different vantage points. However, I shall also discard the idea of cognitive closure in terms of its support of the dispersal of knowledge thesis. The main reasons for doing so are (i) that the truth of the idea is difficult to judge, and (ii) that the idea appears to be self-defeating; that is, I cannot see how the truth of this idea may be sought on its own premises.

Hayek penned an outline of a philosophy of mind already in the 1920’s but it was not until 1952 that he published *The Sensory Order*. In that book, Hayek asks himself why an economist would go into an issue that psychologists hesitate to investigate, and he explains that “[i]n the end it was concern with the logical character of social theory which forced me to re-examine systematically my ideas on theoretical psychology.” This was before cognitive science had been established as a discipline, and the book did not receive much attention. In any case, Hay-

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312 Ibid., p. v.
313 However, cognitive scientists such as Frank Rosenblatt, Edward G. Boring and Marvin Minsky were at least aware of *The Sensory Order* when developing their own work. See, Leslie Marsh, “Hayek: Cognitive scientist Avant la Lettre,” in ed. William N. Butos, *The Social Science of Hayek’s ’The Sensory Order’*, vol. 13, Advances in Austrian Economics (Bingley, UK: Emerald, 2010), p. 142. Other noted persons who appreciated *The Sensory order* include biologist Gerald Edelman, physicist Erwin Schrödinger, and philosopher John Searle. See, ibid., pp. 142–143.
Part III. The Dispersal of Knowledge Thesis

Friedrich Hayek’s philosophy of mind has certainly been overshadowed by his work in economics and political philosophy until relatively late. However, Hayek considered his philosophy of mind to be an important part of his work. And, as we shall see, this is a view that is becoming increasingly common among Hayek scholars. Says Hayek on *The Sensory Order*:

My colleagues in the social sciences generally find my study on The Sensory Order. An inquiry into the Foundations of Theoretical Psychology (London and Chicago, 1952) uninteresting or indigestible. But the work on it has helped me greatly to clear my mind on much that is relevant to social theory. My conception of evolution, of a spontaneous order and of the methods and limits of our endeavors to explain complex phenomena have been formed largely in the course of the work on that book. As I was using the work I had done in my student days on theoretical psychology in forming my views on the methodology of the social sciences, so the working out of my earlier ideas on psychology with the help of what I had

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learned in the social sciences helped me greatly in all my later scientific developments.\textsuperscript{316}

This chapter, then, is organized as follows. First, I present Hayek’s account of the function of the mind (Section 32). Secondly, I turn to the support of his philosophy of mind for the dispersal of knowledge thesis as it is found in the idea of cognitive closure and the idea of knowledge as mental constructs (Section 33). I then continue to discuss the support for the dispersal of knowledge thesis, focusing on the secondary literature and the idea of cognitive closure (Section 34). Finally, I summarize the chapter (Section 35).

32. The Function of the Mind

Philosophy of mind, then, is an academic field that is concerned with the nature of the mind, as well as mental events in relation to the body, most particularly the brain. In this section, I shall give an account of how Hayek views the function of the mind, which goes into what we may call the epistemic impossibility of social planning.\textsuperscript{317}

If we are to label Hayek’s philosophy of mind, we may call it naturalistic, as he explains the mind along physiological lines. However, his view is not empiricist, as he argues that the human mind does form views on objects in the physical world as based on perceptions that transmit factual properties of these object. As we shall see, he argues, instead, that we determine a property of an object in the physical world only in terms of the place of an impulse in the complex structure of the cerebral cortex.


On Hayek’s analysis, our cerebral cortex discriminates between objects in the real world, as well as between properties of objects in the real world, on the grounds of what pattern they produce in the nervous system. This position of Hayek’s further links his philosophy of mind to his work related to the idea of complexity, and, as we shall see, some argue that Hayek in this way expresses very modern conclusions in the field of the philosophy of mind.

I shall begin by framing Hayek’s investigation as I state his basic queries and starting-points concerning a theory of mind. Then, I shall discuss his concepts of classification and linkages.

Hayek is interested in the relation between the physical world and the representation of that world as presented to us by our senses. He starting point as regards the problem of the mind is the fact that there is a physical order and a phenomenal order, where the physical order exists outside of our mind and the phenomenal order exists inside the mind. He writes, “We want to know the kind of process by which a given physical situation is transformed into a certain phenomenal picture.” In order to further structure his investigation, Hayek identifies three distinct orders:

(i) The physical order,
(ii) The neural order of fibers and impulses, and
(iii) The phenomenal order of sensations.

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318 Hayek, *The Sensory Order*, p. 1. The main source of inspiration for Hayek’s theory was the work of Ernst Mach. In the following passage, he describes how he first came to the conclusion that no transmission of any quality from the physical to the phenomenal orders is necessary for a complete theory of mind: “I still vividly remember how in reading Mach, in an experience very similar to that which Mach himself describes with reference to Kant’s Ding an sich, I suddenly realized how a consistent development of Mach’s analysis of perceptual organization made his own concept of sensory elements superfluous […].” See, Hayek, *The Sensory Order*, p. iv.

319 Ibid., p. 3.
320 Ibid., p. 7.
321 Ibid., p. 39.
Against this background, Hayek argues that the basic problem of a theory of mind is that the first and third orders are not isomorphic; that is, they are not structurally equivalent in terms of the formal relations that connect the parts that make up the whole.\footnote{322}{Hayek, *The Sensory Order*, pp. 37–38; and p. 46.}

He takes it that the second and the third of these orders are isomorphic, and he explains that the problem of the mind arises from the fact that the physical order does not entail the same formal relationships connecting its parts, as the orders of fibers and phenomena respectively do. He explains this in the following way:

What we call ‘mind’ is thus a particular order of a set of events taking place in some organism and in some manner related to, but not identical with, the physical order of events in the environment. The problem which the existence of mental phenomena raises is therefore how in a part of the physical order (namely an organism) a sub-system can be formed which in some sense […] may be said to reflect some features of the physical order as a whole, and which thereby enables the organism which contains such a partial reproduction of the environmental order to behave appropriately towards its surroundings.\footnote{323}{Ibid., p. 16.}

Hayek views the nervous system as a hierarchical system of different levels that are connected to each other.\footnote{324}{Ibid., p. 56.} This system gets ever more complex as it reaches the cerebral cortex. Through this system impulses can be propagated, some of which originate in the physical world. The quality of the impulse propagated through the nervous system is always the same, according to Hayek, and does not in itself affect the resulting sensations. Importantly, then, he argues that there is no quality of the stimuli emanating in the physical environment that translates into some corresponding quality of the impulse in the nervous system. In this way, sensations are truly interpretations of the physical order in his theory of mind, and are not in any way reflections of some absolute quality of that order. Consequently, he argues that there is no such thing as the unific-
tion of science through a reduction of all phenomena in physical terms, and hence, in particular, with regard to the social sciences, human action cannot be reduced to anything resembling the method of the physical sciences, but must instead fall back on mental events, incapable of further reduction.\textsuperscript{325}

\textit{Classification}

As an impulse moves through the nervous system, it will form a pattern. As a result of that pattern, and of how the different parts of the pattern relate to each other, a sensation is born. A sensation, on Hayek’s theory, is thus a result of the faculty of the mind to differentiate between relations that make up a pattern of impulses.\textsuperscript{326} The process by which Hayek envisions the relations between the impulses to be established is consequently a kind of pattern recognition (see, Chapter 7). He refers to the resulting phenomenal order as a result of a process of classification.\textsuperscript{327} In this sense, a classification is an ability to discriminate between different re-occurring events, and on the basis of their specific effect, have them belong to a specific class.\textsuperscript{328} This classification process continues in a rising degree of complexity. The bodily reflexes would typically exemplify a simple classification. A complex classification would involve the recognition by the nervous system of several patterns, already classified as distinct classes, and, on the basis of these classifications, further classifications of these classes.

So, this process of classification of patterns in the nervous system is recognized by the mind as representing certain phenomena in the physical order.\textsuperscript{329} But, these patterns can also be recognized by the mind as belonging to an act of classification. In this regard, a large part of the classification process is further classifications from the original stimuli produced.

\textsuperscript{325} Hayek, \textit{The Sensory Order}, p. 190.
\textsuperscript{326} Ibid., p. 166.
\textsuperscript{327} Ibid., p. 48.
\textsuperscript{328} Ibid., p. 48
\textsuperscript{329} Ibid., p. 64; and 143.
by the original impulse. By this system of complex forms of classifications of classifications, the mind evolves into ever more complex forms of abstraction, further removed from the stimuli emanating in the physical order. With a varying degree of complexity, this progression ends up in the phenomenal order along the spectrum from basic sensations to abstract concepts.

**Linkages**

Hayek refers to the nervous system as the *static* aspect of the phenomenal order. In the nervous system, there are paths formed by repeated usage, or inheritance. The paths are a kind of memory of the past patterns formed in the nervous system. These paths are sustained by *linkages*, by which Hayek understands a lasting effect on the nervous system impressed by previous impulses, as a kind of trace (synaptic association in the terminology of current philosophy of mind). In this sense, what the empiricist refers to as experience is in the case of inherited linkages

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330 F. A. Hayek, “Sensory Order after 25 years,” in ed. Walter B. Weimer and David S. Palermo, *Cognition and the Symbolic Processes*, vol. 2 (Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1982), p. 288. There are two aspects of his theory that Hayek claims were distinctly new at the time. The first is that he had done away with the idea that any quality of the original stimuli, emanating in the physical order, or any quality of the impulse propagated through the nervous system, determines any part of the sensation in the phenomenal order. The second aspect – a result of the first – is that sensations are determined by the place of the impulse in the structure of the nervous system, or, put differently, by the relation between the impulses and the order of fibers. The following quote is informative on these issues: “The point on which the theory of determination of mental qualities which will be more fully developed in the next chapters differs from the position taken by practically all current psychological theories is thus the contention that the sensory (or other mental) qualities are not in some manner originally attached to, or an original attribute of, the individual psychological impulses, but that the whole of these impulses is determined by the system of connexions by which the impulses can be transmitted from neuron to neuron; that it is thus the position of the individual impulse or group of impulses in the whole system of such connexions which gives it its distinct quality […]” See, Hayek, *The Sensory Order*, p. 53.

331 Ibid., p. 115.


conditioned by some kind of pre-sensory experience.\textsuperscript{334} The maps (neural networks in the terminology of current philosophy of mind\textsuperscript{335}) that are formed by the linkages in the nervous system will thus gradually change in response to their environment in a feedback mechanism (a perception/action cycle to use the terminology of current philosophy of mind\textsuperscript{336}).\textsuperscript{337} What Hayek refers to as the dynamic aspect of the nervous system is the constant flow of impulses and the forming of patterns guided by past linkages as the progression of classifications reaches towards becoming sensations in the phenomenal order.\textsuperscript{338}

Going back to the lack of isomorphism between the physical and phenomenal orders, and the basic problem of a philosophy of mind, Hayek maintains that the order created by the linkages is not identical to that of the physical order.\textsuperscript{339} According to Hayek, some of the reasons for this lack of isomorphism are that the human receptor organs for receiving stimuli from the physical world are sensitive to only some of the properties of that order (for example, only some frequencies of electromagnetic waves are visible to humans), and that the individual’s physical environ-

\textsuperscript{334} Cf. Immanuel Kant: “That in which alone the sensation can be posited and ordered in a certain form, cannot itself be a sensation; and therefore, while the matter of all appearance is given to us a posteriori only, its form must lie ready for the sensation a priori in the mind, and so must allow of being considered apart from all sensations.” Immanuel Kant, \textit{Critique of Pure Reason}, 2\textsuperscript{nd} ed., trans. Norman Kemp Smith (Boston: Bedford-St Martins, 1965), p. 66. In relation to this quote, cf. Hayek: “… that this system of connexions is acquired in the course of the development of the species and the individual by a kind of ‘experience’ or ‘learning’; and that it reproduces therefore at every stage of its development certain relationships existing in the physical environment between the stimuli evoking the impulses…. This central contention may also be expressed more briefly by saying that ‘we do not first have sensations which are then preserved by memory, but it is as a result of physiological memory that the physiological impulses are converted into sensations.’” See, Hayek, \textit{The Sensory Order}, p. 53. The quote from within the quote is taken from a 1920 draft of \textit{The Sensory Order}. Cf. also the terms phylogenetic and ontogenetic. See, Hayek, \textit{The Sensory Order}, p. 60; and pp. 80–81.


\textsuperscript{336} Ibid., p. 8.

\textsuperscript{337} Cf. the discipline of cybernetics.

\textsuperscript{338} Hayek, \textit{The Sensory Order}, p. 44.

\textsuperscript{339} Ibid., p. 108.
ment is not representative of the physical order in general, which means that the learning process of individuals will cover only their specific environment.

In the next section, I turn to the issue of how Hayek’s philosophy of mind supports the dispersal of knowledge thesis.

33. Knowledge as Mental Constructs and Cognitive Closure

As pointed out, there are primarily two ideas in Hayek’s philosophy of mind that support the dispersal of knowledge thesis, namely, the idea of knowledge as mental constructs, and the idea of cognitive closure. In the concluding chapter of *The Sensory Order*, entitled “Philosophical consequences,” Hayek discusses these two ideas that have a special bearing on the dispersal of knowledge thesis. Although, the idea of knowledge as entirely made up of mental constructs means that there is no basis for rational understanding of the world external to man – and, as pointed out, I shall leave it aside in terms of the support of the dispersal of knowledge thesis – I shall briefly present this idea in this section. However, I shall focus on the idea of cognitive closure.

**Knowledge as Mental Constructs**

The standard empiricist view on knowledge is that the mind comes across properties of the real world, referred to as sense data, and that on the basis of such sense data knowledge is born. The first assumption of this so-called crude empiricist approach is that the mind is capable of forming experience out of the sense data. The second assumption is that properties of the real world are correctly relayed – via the sense data – by the nerv-

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ous system to the mind. It is obvious that Hayek challenges both these assumptions.

Concerning the first assumption, as we have seen, it is a central tenet behind Hayek’s theory that no quality of the stimuli of the physical world is transmitted to the phenomenal order. In other words, whatever view of the physical order our minds form, it has nothing to do with the real properties of that world, other than that our mind, in a broad sense, is a subsystem, or organism, that belongs to the physical world, and that our physical subsistence suggests that that the phenomenal order gives us reasonably correct guidance on how to navigate that world.

Hayek also challenges the second assumption of the crude empiricist approach – that factual qualities of the physical order are correctly transformed into sensations. On his philosophy of mind, experience of the physical world is only possible after the mind has formed linkages, enabling it to differentiate between impulses and the relation between them. Some of this experience is necessarily pre-sensory, because the mind’s ability to construct a phenomenal order is conditioned on an already existing ability of the nervous system to form patterns of the impulses transmitted in the order of the fibers.

But how can these pre-sensory experiences come about? Hayek explains that in a tabula rasa there do already exist linkages, as a result of genetic inheritance. These pre-sensory linkages include, for instance, our basic reflexes and our perceptive senses. The other part of the sensory experience that makes sensory experience possible is made up of the individual’s learning process that further develops the maps, *viz.*, the patterns of linkages formed in the nervous system. According to Hayek, the result is that knowledge of the physical world by necessity is made up of theories, since there is no direct knowledge of the absolute qualities of that world.

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343 Ibid., p. 167.
344 Ibid., p. 143.
In view of the above, Hayek maintains that his theory revokes some of the epistemological tenets of empiricism solely on the grounds of a more consistent application of its basic outlook on knowledge: that the foundation of knowledge is not experience, but pre-sensory experience; what we know of the external world is not what we know from experience of that world, but what we know implicitly of our apparatus for knowing that world. In conclusion, Hayek rejects the view that knowledge about the external world must be validated by conscious sense experience. He writes:

> It requires a deliberate effort to divest oneself of the habitual assumption that all we have learnt from experience must be true of the external (physical) world. But since all we can ever learn from experience are generalizations about certain kinds of events, and since no number of particular instances can ever prove such a generalization, knowledge based entirely on experience may yet be entirely false.\(^{345}\)

In a general sense, then, we see that Hayek’s view on knowledge as mental constructs supports the dispersal of knowledge thesis. However, we may ask whether the relevant knowledge is knowledge of the physical world, or, knowledge of the phenomenal world. As pointed out, I will stop short of going further into this issue because the idea of knowledge made up entirely of mental constructs is so general and wide-ranging and withdraws any attempt at rational understanding of our world. Instead, I shall move on to Hayek’s view on explanation and the idea of cognitive closure.

**Explanation and Cognitive Closure**

Moving on to consider the idea of cognitive closure, it is clear that Hayek views explanation as something that can be explained by his theory. On the topic of explanation, he draws a parallel with a *model*, a distinct pattern formed within the maps (neural networks) of the neural system (that neural networks are so to speak nested in one another is a later conclusion

of this discipline.\textsuperscript{346,347} He illustrates the relation between map and model, referring to the map as a system of co-ordinates, and the model as the structure defined by a specific equation defining a possible model within the map. Says Hayek:

The relation which exists between our ‘model’ and the ‘map’ may also be compared in some respects to the relation existing between some complex geometrical structure and the system of co-ordinates with reference to which they can be defined. The essential characteristics of the structure will be described in terms of an equation which can be interpreted with reference to many possible systems of co-ordinates, and the actual structure will appear different according as we represent it within different (say Cartesian or polar) co-ordinates. What is significant about the structure of our ‘model’ is not the actual relations in space between the impulses, but solely in their relations to the structure of connexions, relations which correspond to those expressed by the equation by which a given structure is defined in analytical geometry.\textsuperscript{348}

The concept of a model as a way of the mind to explain phenomena is, Hayek continues, useless as long as the model is supposed to have some kind of original attachment to the original object it tries to explain. The usefulness of the model comes into play when it is considered as a special case of the classification process.\textsuperscript{349} In this sense, the model is a distinct pattern recognized as having a certain meaning. For instance, we can think of a process of several classifications, like, if a, b and c, then x, y, and z, which continues until a distinct pattern is formed that is uniquely recognized by the phenomenal order as referring to a certain model of some explanation.

Explanations can be of very different sorts. According to Hayek, they may consist of a model explaining the few properties common to a variety of phenomena, or they may approach more of a detailed description

\textsuperscript{347} Hayek, *The Sensory Order*, p. 115–116.
\textsuperscript{348} Ibid., p. 117.
\textsuperscript{349} Ibid., p. 117; and p. 181.
taking account of more particulars, but being limited to fewer phenomena. These distinctions, according to Hayek, mirror the familiar distinction between theoretical and applied science.

On Hayek’s theory, the limit of explanation is that the map, the neural networks in the neural system, needs to be of a higher degree of complexity than the model, the representation within the nervous system of what is to be fitted and explained: The complexity of the map amounts to the maximum degree of complexity that the map can explain. So, on Hayek’s analysis, there is a limit to what we can explain. Phenomena that are more complex than our map are by definition excluded from the realm of the possible to explain in detail. He writes (see also “Appendix B”):

The proposition that we have tried to establish is that any apparatus of classification must possess a structure of a higher degree of complexity than is possessed by the objects which it classifies; and that, therefore, the capacity of any explaining agent must be limited to objects with a structure possessing a degree of complexity lower than its own. If this is correct, it means that no explaining agent can ever explain objects of its own kind, or of its own degree of complexity, and, therefore, that the human brain can never fully explain its own operations.\(^{350}\)

As we see, then, according to Hayek, the scope of man’s explanatory powers is subject to an absolute limit. If we think of the human mind as a complex system of connections, an exhaustive explanation of a phenomenon needs to be given a representation in the human mind. If the complexity of the object to be explained is of higher degree than the human mind, then the powers to represent that object in the human mind will be exhausted, as is the explanatory possibility. In the case of a human mind explaining another human mind, this impossibility implies what we have referred to as cognitive closure. However, on this idea the impossibility it conveys is absolute and not awaiting its resolution by refined techniques.

or theories. In the case of society, which consists of individuals guided in their sociality by their minds, the cognitive closure becomes even more acute. Hayek concludes that when explaining phenomena of a degree of complexity approaching the limits of the explanatory powers of the human mind, the one avenue left is to explain these phenomena along their principal ways of functioning. He writes:

Applying the same general principle to the human brain as an apparatus of classification it would appear to mean that, even though we may understand its modus operandi in general terms, or, in other words, possess an explanation of the principle on which it operates, we shall never, by means of the same brain, be able to arrive at a detailed explanation of its working in particular circumstances, or be able to predict what the results of its operations will be. To achieve this would require a brain of a higher order of complexity, though it might be built on the same general principles. Such a brain might be able to explain what happens in our brain, but it would in turn still be unable fully to explain its own operations, and so on.

On the idea that society is more complex than a single human being, because societies consist of human beings, it is clear that on Hayek’s analysis society cannot be explained in detail, but only along its principles of functioning. As we shall see in the next chapter, Hayek continues this line of investigation in his work related to the idea of complexity.

In conclusion, Hayek maintains that since any apparatus for explanation, such as the mind, must always remain to a certain degree more complex than any object it can fully explain, we must always content ourselves with an explanation of the principles by which the mind – or any other phenomena of the equivalent, or a higher, degree of complexity – works. We have referred to this idea as cognitive closure. It is further clear that the kind of explanation Hayek has in mind with regard to the idea of cognitive closure is an exhaustive explanation, as he writes: “For

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352 Hayek, *The Sensory Order*, pp. 188–89.
353 Ibid., p. 185.
our purposes the complete classification of the object is its complete definition, containing all that with which we are concerned in respect to it.”

As we have seen, Hayek views his philosophy of mind as central for his further work in the social sciences – especially with regard to complex social orders and the explanation of such orders. We have also seen that Hayek views the mind as a complex entity that functions as a decentralized spontaneous order. The limits of this complex system are what establish the support for the dispersal of knowledge thesis: If full knowledge of an individual mind is excluded according to the idea of cognitive closure, then full knowledge of society will also be excluded because, if nothing else, a society is made up of many minds. In the case of a legislature attempting to draft a piece of legislation that purports to state the means to a desired aggregate result in a complex social order, this is not possible in view of Hayek’s philosophy of mind, because human cognition cannot take in the amount of knowledge that would be necessary for such an enterprise.

As we shall see, Hayek even argues that the absolute limits of the mind in view of the complexities of the social and physical worlds are analogous to Gödel’s proof that certain properties of an analytical system cannot be proved. Hayek’s view, then, that there is an absolute limit to the explanatory power of the human mind – such that the human mind cannot furnish explanations of entities of a higher degree that itself – forms the main support for the dispersal of knowledge thesis from his philosophy of mind. However, in the next section, I shall continue to discuss this idea, and relate Hayek’s philosophy of mind to the secondary literature on the subject.

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34. Discussion – The Secondary Literature

Whereas Hayek’s work in economics that pertains to the dispersal of knowledge thesis is acknowledged in the social sciences – and appreciated as seminal in the field of economics\(^{356}\) – his philosophy of mind has been largely neglected in these fields,\(^{357}\) despite a surge in the academic interest in Hayek’s writings,\(^{358}\) and attempts to argue for the importance of Hayek’s philosophy of mind for his overall social philosophy.\(^{359}\) Even though, as we have seen, Hayek himself regarded his philosophy of mind as crucial for his thought, little interest was paid at first to this part of Hayek’s work within Austrian Economics and Hayek studies. However, interest in Hayek’s philosophy of mind has grown of late. The first wave of studies of Hayek’s philosophy of mind started in the 1980’s (it in-


cludes scholars such as Gerald Edelman,\textsuperscript{360} John Gray,\textsuperscript{361} Carsten Hermann-Pilath,\textsuperscript{362} Manfred Streit,\textsuperscript{363} David Tuerck,\textsuperscript{364} and Joaquin Fuster,\textsuperscript{365}, whereas a second wave of such studies begins around 2000 (including for instance Gerald Steele,\textsuperscript{366} Bruce Caldwell,\textsuperscript{367} Eric Baum,\textsuperscript{368} Brian Loasby,\textsuperscript{369} Thomas McQuade & William Butos,\textsuperscript{370} Edward Feser,\textsuperscript{371} William Butos and Roger Koppl\textsuperscript{372}), and has continuously grown since.

Among the commentators on *The Sensory Order*, there are, roughly speaking, those who believe that the book is something separate and different from Hayek’s other work. Scholars such as Fritz Machlup,\textsuperscript{373} Jochen Runde,\textsuperscript{374} and Jim Tomlinson\textsuperscript{375} do not deny that Hayek’s philosophy

\begin{footnotesize}
\begin{enumerate}
\item Gerald Steele, “Hayek’s Sensory Order,” *Theory & Psychology*, vol. 12, no. 3 (2002), pp. 125–147.
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of mind is a valuable contribution, but they think it is separate from his other efforts. Other writers, however, tend to view Hayek’s philosophy of mind as an important part of his social theory; Robert Nadeau,376 Robert de Vries,377 Viktor Vanberg,378 Ulrich Witt,379 Salvatore Rizzello,380 William Butos, Roger Koppl,381 and Steven Horwitz,382 among others, takes this view.

Interestingly, Daniel D’Amico and Peter Boettke argue that although it is important that The Sensory Order gains more attention, it should not be overemphasized as the key to Hayek’s thinking.383 So for instance, they argue that Vanberg, Horwitz, Butos and Koppl view The Sensory Order as the key to Hayek’s broader research program. However, D’Amico and Boettke believe the opposite to be true, namely that economics is the key to understanding Hayek’s research program, and in turn The Sensory

380 Salvatore Rizzello, The Economics of the Mind (Massachusetts: Edward Elgar, 1997).
Order. The linchpin of this argument is that *The Sensory Order* should be viewed as an application of the basic idea that was worked out in economics, namely that “institutional rules engender patterned outcomes”.

I do not generally agree with D’Amico and Boettke. However, I do agree with them that the general theory of Hayek’s seems to be that “institutional rules engender patterned outcomes,” and that *The Sensory Order* can be understood as an application of this idea, as can the gist of Hayek’s book *Law, Legislation and Liberty*. However, I would argue that these examples are not to be placed in economics, but rather in the interdisciplinary field that Hayek argues for. In any case, I argue that *The Sensory Order* indeed is a very different work, and that some of its key ideas influence Hayek’s general theory. So for instance, the idea of our constitutional ignorance, which undergirds Hayek’s work on rules, gets substance from the ideas of cognitive closure and knowledge as mental constructs as they are put forward in Hayek’s philosophy of mind. It is further evident that ideas along the lines of cognitive closure were in Hayek’s head and writings already in the 1930’s. As we shall see, he comes up with the idea of dispersed knowledge in his critique of equilibrium theory (see, Chapter 9), and the idea of non-communicable knowledge becomes an essential part of his later writings (see, Chapter 8). When Hayek speaks of the irredeemable limits of our knowledge, he incorporates in this claim the idea of cognitive closure. So, it seems as if Hayek’s application, and appreciation, of complexity theory all begins in earnest with *The Sensory Order*. All in all, I grant D’Amico and Boettke that *The Sensory Order* should not be made to be the theoretical starting

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Part III. The Dispersal of Knowledge Thesis

point for Hayek’s work. However, I do not agree that his general theory on the relation between rules and complex systems got its most elaborated answer in Hayek’s work in economics (rather in law, or, more precisely, in jurisprudence), and I think that the ideas of cognitive closure and complexity found their most elaborate treatment in his philosophy of mind and was foundational (on this, see Chapter 3) for some of his other major efforts.

Moving on to consider other philosophers of mind, we have seen that Hayek takes his starting point in a physiological conception of the mind, and that his philosophy of mind can be characterized as naturalistic. Hayek scholar Edward Feser says that, “a case could even be made for it [The Sensory Order] as the most comprehensive and plausible attempt yet made to carry out the project of naturalizing the mind.”388 Another way to characterize Hayek’s philosophy of mind is to say that it is connectionist, the idea being that it conceives of the mind as the emergent properties of uniform and simple units in a complex neural network.389 Hayek’s philosophy of mind certainly provides an argument for man’s constitutional limitations regarding knowledge and reason, and as such it is in keeping with his better-known efforts in the social sciences. For instance, David Tuerck argues that Hayek’s philosophy of mind pre-dated certain developments in cognitive science and artificial intelligence, most notably the notion of the mind as a machine, a metaphor suggested by the invention of the so-called Turing machine.390 Likewise, Adam Gifford maintains that neuroscientists appreciate Hayek’s understanding of the mind as a complex system functioning along the lines of a decentralized spontane-

ous order.\footnote{Gifford, “The Knowledge Problem, Determinism, and The Sensory Order,” Revue of Austrian Economics, p. 269.} As we have seen, Hayek’s formal proof of the constitutional limitations of the human mind according to which no organism can exhaustively explain an organism of a higher degree of complexity than itself, is viewed by himself as a generalization of Gödel’s proof that certain properties of an analytical system cannot be proved.\footnote{F. A. Hayek, “Rules, Perception and Intelligibility,” in F. A. Hayek, Studies in Philosophy, Politics and Economics (Chicago: Chicago University Press, 1967), p. 62; and Tuerck, “Economics as Mechanism: The Mind as Machine in Hayek’s Sensory Order,” Constitutional Political Economy, pp 286–287.}

Hayek’s most consistent promoter among philosophers of mind has been Jouquin Fuster, who argues that Hayek made a lasting contribution to this field and pioneered the understanding of the mind as a matter of the relations between neural networks, among other things.\footnote{Joaquin Fuster, “Hayek in Today’s Cognitive Neuroscience,” in ed. Leslie March, Hayek in Mind: Hayek’s Philosophical Psychology, vol. 15, Advances in Austrian Economics, pp. 3–4; and p. 8.} As Fuster puts it:;

[i]t is truly astonishing that its author, in the middle of the ignorance that existed in the first half of the 20th century about the anatomical and physiological organization of the cortex, would instinctively coincide with the evidence of the second half of the century.\footnote{Marsh, “Hayek: Cognitive Scientist Avant la Lettre,” in ed. Butos, The Social Science of Hayek’s ‘The Sensory Order’, vol. 13, Advances in Austrian Economics, p. 142.}

Other noted persons who appreciated The Sensory Order include biologist Gerald Edelman, physicist Erwin Schrödinger, and philosopher John Searle.\footnote{Ibid., pp. 142–43.}

As we have seen in this chapter, an assessment of Hayek’s philosophy of mind is a difficult task. As we saw in Chapter 1, assessments of Hayek’s work in general are “dicey” in the words of his biographer Bruce Caldwell. This is partly due to the volume of his work, but also because he covered so many disciplines, and because many of those disciplines are crucial to an understanding of it. This issue is of course pertinent in
relation to his philosophy of mind: It is simply difficult to assess ideas that are far removed from the mainstream of social science.

As we have seen, the secondary literature on Hayek’s philosophy of mind is not as tainted by political ideas as other areas of Hayek studies. Judging from this literature, it seems that Hayek has at least some ardent supporters and that his work predicted some future developments in this field, such as the idea of the mind as made up of hierarchically organized neural networks that distinguish mental objects in terms of the relation between these neural networks.396

On a general level, then, we have seen that the link between the idea of cognitive closure and the dispersal of knowledge thesis is very general: as there is a limit to the amount of knowledge a human mind may hold, the total amount of this knowledge is dispersed on other human minds. On the idea of cognitive closure, the human mind cannot explain phenomena more complex than itself, and because society consists of individuals guided in their sociality by the minds, the cognitive closure is further underscored as a constitutional limit that cannot be resolved by further scientific progress.

As pointed out, though, the idea of cognitive closure is closely linked to a central idea of the next chapter: the idea that the human mind does not have the capacity to determine the rational means to specific aggregate results within complex orders of society. As further pointed out, Hayek was led to the idea of complexity by his work on a philosophy of mind, and Hayek’s work on complexity and the idea of cognitive closure are interwoven, as they address the same issues, although from different angles of approach. From this point of view, the idea of cognitive closure is important for an understanding of Hayek’s critique of legislation as the idea of complexity is an important part of that critique.

396 We may note in passing that the 2014 Nobel Prize in Physiology and Medicine is awarded on the basis of the idea that the brain forms coordinate systems in order to navigate the physical world.
No doubt, the idea of cognitive closure is intriguing. However, the truth of this idea remains vague. Apart from the elusiveness of its truth, my strongest objection to the support from the idea of cognitive closure for the dispersal of knowledge thesis, is that Hayek conceives of explanation to a degree of exhaustion that I find unrealistic when he says: “For our purposes the complete classification of the object is its complete definition, containing all that with which we are concerned in respect to it.” To me, it seems as if the idea of cognitive closure is, so to speak, self-defeating, because I cannot understand how the truth of this idea can be investigated in view of its own premises: How are we to judge the truth of the idea of cognitive closure, if we cannot have sufficient knowledge of the mind? Given the idea that we can never investigate the properties of the brain to a degree that we may fully explain it, and that therefore no social phenomena may receive an exhaustive explanation, one may ask if this is setting the bar to high. One possibility may be to view the idea of cognitive closure as an implication of the more general idea of the constitutional limits of our cognitive apparatus, but this hardly seems satisfactory. In conclusion, I argue that the idea of cognitive closure does not convincingly support the dispersal of knowledge thesis.

Let me finally comment on the fact that Hayek’s philosophy of mind can be understood in two ways in relation to his critique of legislation, two ways that correspond to the twin ideas reviewed in this section – knowledge as mental constructs and cognitive closure, respectively. First, it can be understood as support for the idea that the human mind cannot furnish explanations of highly complex entities, such as a society (which is the way I have chosen to understand it in this chapter). Secondly, Hayek’s philosophy of mind could be understood as an epistemological argument supporting the idea that knowledge of the physical world is not possible, only knowledge of our apparatus for such knowledge. If we chose to understand Hayek’s philosophy of mind in this latter way, it

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would provide a theoretical explanation of the cognitive limits that result in the dispersal of knowledge. As we shall see, it is clear that Hayek tacitly assumes epistemological limits of the human cognitive capacity in his critique of general equilibrium theory, and in his theory of prices (see, Chapter 9). Understood in this way, then, Hayek’s philosophy of mind is an epistemological argument that is complementary to the economics considerations in support of the dispersal of knowledge thesis.398

However, as we have seen, I shall take his philosophy of mind to support the dispersal of knowledge thesis in terms of the absolute limits of explanation in relation to understanding and control of complex social realities.399 The reason for this view is that I take Hayek himself to be closer to understanding his argument in this way — in particular in terms of the absolute limits of explanation in relation to understanding and control of complex social realities.400 Hayek clearly conceives of the mind along the lines of the idea of complexity, and although I argue that the support of his philosophy of mind for the dispersal of knowledge thesis is not successful, the combination of the ideas of Hayek’s philosophy of mind and his work related to the idea of complexity no doubt form an important aspect of his critique of legislation.

35. Summary

Hayek considered his philosophy of mind to be an important part of his work, especially as it informed his social science in terms of the idea of complexity, the limits of explanation of complex phenomena, and evolutionary forms of development. A general surge in the academic interest in

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399 Hayek, The Sensory Order, p. v; and p. 185.
400 Ibid., p. v; and p. 185.
Hayek’s writings (including his philosophy of mind) has spawned attempts to argue for the importance of Hayek’s philosophy of mind for his overall social philosophy.

Hayek’s efforts may be labeled naturalistic, as he explains the mind along physiological lines. However, his views are not empiricist – on Hayek’s analysis the human mind does not perceive objective qualities of objects in the physical world – as he argues that it is only in terms of the place of an impulse in relation to other such impulses that we can discriminate between them on the grounds of what pattern they produce in the complex structure of the cerebral cortex, and, in turn, associate them with some property of objects in the physical world.

Philosophy of mind is an academic field that is concerned with the nature of the mind, as well as mental events in relation to the body, most particularly the brain. In his philosophy of mind, Hayek views the nervous system as a hierarchical system consisting of different levels that are connected to each other. The quality of an impulse propagated through the nervous system does not in itself affect the resulting sensations: There is no quality of the stimuli emanating in the physical environment that translates into some corresponding quality of the impulse in the nervous system.

As an impulse moves through the nervous system, it will form a pattern. A sensation is a result of the faculty of the mind to differentiate between relations that make up patterns of impulses. The process by which Hayek envisions the relations between the impulses to be established is consequently a kind of pattern recognition that he refers to as classification. In the nervous system, there are paths formed by repeated usage, or inheritance. The paths are a kind of memory of the past patterns formed in the nervous system. These paths are sustained by linkages, by which Hayek understands a lasting effect on the nervous system impressed by previous impulses.

The support of Hayek’s philosophy of mind for the dispersal of knowledge thesis involves primarily two ideas. The first idea is that
knowledge consists entirely of mental constructs, and that there is no basis for knowing anything of the world external to the subject. This idea is so general as to withdraw any attempt at rational understanding of the world, and I therefore discard it in terms of its support of the dispersal of knowledge thesis. The second idea – cognitive closure – is that in order to forge an explanation, the explaining entity must be of an equal or higher degree of complexity, than the phenomenon that is to be explained. This idea means that there is an absolute limit to the human mind’s capacity for explanation of complex phenomena. In the final analysis, I discard this idea as well in terms of its support of the dispersal of knowledge thesis. The main reasons for this were that the truth of the idea is difficult to judge, and that the idea appears to be `self-defeating´.
36. Introduction

In this chapter, I continue to investigate the support for the dispersal of knowledge thesis, and I shall do this in terms of Hayek’s work related to the idea of complexity. The general support for the dispersal of knowledge thesis in terms of the idea of complexity is as follows: Complex orders are everywhere, society being one example, and a distinguishing feature of these orders is that the knowledge of them is dispersed throughout them, and not available in concentrated form. In terms of legislation this means that a legislator cannot command the necessary knowledge to legislate – aiming at specific aggregate results in complex social orders – without thereby lowering the welfare level. As pointed out, I argue that Hayek’s work related to the idea of complexity supports the dispersal of knowledge thesis, and, as we shall see, the main reason for this position is that science has confirmed the positions taken by Hayek, in particular with regard to phenomena that we cannot command full knowledge of, and the issues involved in governance of such phenomena.

As we have seen, Hayek was led onto the idea of complexity by his work on a philosophy of mind. As we have further seen, Hayek was led to the conclusion that phenomena that transcend the explanatory powers of the human mind can only be investigated along their principal ways of functioning. In his work related to the idea of complexity, Hayek continues this line of investigation with regard to social phenomena, as he re-
gards society as a phenomenon that is of a higher degree of complexity than the human mind (partly because it consists of many human minds in a social setting). It is through an investigation of social science method with regard to phenomena characterized by complexity that he is led to the conclusion that these phenomena can only be investigated along their principal ways of functioning, because the necessary knowledge for predictions of individual manifestations of these phenomena remains elusive. This, then, is the idea of Hayek’s work related to the idea of complexity that forms the more specific support of the dispersal of knowledge thesis.

However, the idea of complexity is an important pillar of Hayek’s work in more respects than in relation to its support of the dispersal of knowledge thesis, and in this chapter I shall trace the idea of complexity in Hayek’s work as it is the glue that connects many parts of his broad research agenda (on this, see Chapter 3) – not least Hayek’s views on the complexity of the human mind and the complexity of society, and the lack of deliberate control these complexities involve. Although Hayek was a pioneer in the development of complexity theory, and was deeply immersed in the burgeoning literature on the subject, he did not develop a fully-fledged theory of complex phenomena. However, he did contemplate the implications of an approach to the social sciences based on an appreciation of the idea of complexity. As is the case with the philosophy of mind, theories of complexity are not Hayek’s primary area of expertise. Nor are they mine. In any case, I shall argue that the idea of complexity is foundational for Hayek (in particular as it is related to the epistemological concerns of his philosophy of mind, see Chapters 3 and 6).

As the idea of complexity has become a very accepted part of social science, I shall devote part of this chapter to an outline of this idea, and some of the fields that have resulted from it. Further, I will weave together themes of Hayek’s as these are united by the idea of complexity.

In the previous chapter, we saw that Hayek scholars Daniel D’Amico and Peter Boettke maintain that the general theory of Hayek is that “institutional rules engender patterned outcomes”. In terms of the idea of complexity, this means that rules are key for the workings of society as they induce such “patterned outcomes”. Basically, it is this idea that Hayek grasps and spells out with his distinction between simple and complex social orders, and his distinction between the type of rules that function in each (see, Chapter 5) – distinctions we shall return to in this chapter. Hayek’s objection to legislation, then – in terms of complexity – may be put as follows: If you attempt to implement specifics in a complex system, you will disrupt the function of that system and so impair its functionality. This impairment is due to the fact that these systems make use of large amounts of dispersed knowledge, and the only way to make use of this knowledge is by distributed computing of knowledge that is dispersed throughout the system. Complex orders, then, cannot be controlled or governed in detail because they are not knowable in detail. Of course, this is the idea that is captured in Hayek’s basic thrust of his critique of legislation (see, Chapters 1 and 5).

In this chapter, understanding the support for the dispersal of knowledge consists in trying to make sense of Hayek’s work in the field of complexity. However, as pointed out, not just the part of this work that is exclusively relevant for the dispersal of knowledge thesis, but also how it ties into several other fields of his, and how it unites these fields. When assessing the support for the dispersal of knowledge thesis, I shall take

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the importance of the general idea of complexity for granted. I shall present this idea, and seek to illustrate how Hayek’s thought fits this idea.

Of course, an interesting question is what Hayek does with the idea of complexity in his own work, and in regard to this, I will engage the secondary literature. Complexity, in this context, is a double-edged sword, though: On the one hand, it supports the dispersal of knowledge thesis; on the other hand, as we shall see, it is also a tacit assumption in his work on rules that support the cultural evolution thesis, because – on Hayek’s analysis – it is the complexity of the social that means that the evolutionary process produces better rules than a legislature.

This chapter, then, is organized as follows. I first describe the idea of complexity and some developments in complexity science (Section 37). As we shall see, various scientific fields of inquiry have been established based on the notion of complexity, and these fields have become accepted parts of science. We shall also see that the general outline of a complexity science runs parallel to Hayek’s notion of social order as based on rules. I then move on to discuss Hayek’s distinction between the simple and the complex, and the methodological considerations involved (Section 38). This discussion involves Hayek’s philosophy of mind as it is linked to his philosophy of science, and more specifically to his views on the methodology of the social sciences. I then continue with a presentation of the idea of complexity in relation to Hayek’s social theory in general (Section 39). In this section, I attempt to link the idea of complexity to other branches of Hayek’s thought, primarily law. I also include and comment on some other Hayek scholars’ views on Hayek and the idea of complexity. As we have seen, Hayek insists on the connection between the disciplines of law and economics, and, in Section 40, I offer some comments on this connection in view of the idea of complexity. Although assessing Hayek’s work is a difficult task, as we have seen, I try my hand at an assessment of the support offered by Hayek’s work related to the idea of complexity for the dispersal of knowledge thesis in Section 41. Finally, I summarize the chapter (Section 42).
37. The Idea of Complexity and Complexity Science

In this section, I shall begin by briefly introducing the idea of complexity and some of its key elements. Then, I describe some aspects of the development of a specific complexity science and how it has spawned various disciplines in the social sciences.

What has spawned the field of complexity science is the fact that there are phenomena that do not lend themselves to a description of the individual elements of these phenomena; that is, while we are used to associate science with exact descriptions of individual elements, this is not possible with regard to complex phenomena. Still, the investigative spirit has lead science to investigate these phenomena and form meaningful theories of them. Some examples may illustrate this. It is well known that it is not possible to simultaneously determine the exact speed and location of an elementary particle. However, statistical probability makes it possible to predict the behavior of an aggregate of these particles. Likewise, when mixing two chemical compounds, we cannot know the exact behavior of the individual molecules. However, there are theories that predict the aggregate outcome with precision. In the case of society – while we may form meaningful theories of the aggregate – predictions of individual behavior may be out of reach. The gist of these examples is that while knowledge of the individual parts that make up these phenomena may be unavailable, we may still form meaningful theories of them. As these examples illustrate, a distinguishing feature of complex phenomena is that the knowledge of these phenomena cannot be gathered by human agency, and so remains “dispersed” in these phenomena.

The idea of complexity can be further characterized if we assume that all the phenomena of which we are aware can be divided into simple or complex phenomena, and that what distinguishes simple phenomena from complex phenomena, is that the simple phenomena consist only of relatively few individual elements in order to exhibit their characteristic fea-
tures, whereas complex phenomena consist of a large number of individual elements in order for them to reveal their characteristic features.\textsuperscript{404} Let us further assume that complex phenomena retain a class of properties that are unique to the level of complexity, and independent of the properties of their constituent parts. That matter organized in a high degree of complexity sometimes assumes life is one example of such a property unique to the complexity level. That many atoms, depending on various conditions, assume fluidity or solidity on the complexity level, is another example of a property unique to the complexity level. The properties that are unique to the complexity level are sometimes referred to as emergent properties.\textsuperscript{405} These properties can be paradoxical in relation to those of the constituent parts; there is nothing in the properties of matter on the atom level suggesting life, for example.

Seen from the viewpoint of society, the paradoxical nature of the relation between the whole and the parts may help us understand why the individual actions of many persons, while they do not appear ordered, assume social organization on the level of society (under certain conditions, such as a system of rules conducive to social order). \textit{Prima facie} it would seem that no property of man’s self-serving actions is mirrored in the property of social order at the level of complexity. The idea of emergent properties may also serve as an explanation of Bernard Mandeville’s paradox of “private vices” and “publick benefits”,\textsuperscript{406} as well as to Adam Smith’s observation on the same theme. Says Smith:

\begin{quote}
...[man] intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his in-
\end{quote}


\textsuperscript{406} Bernard Mandeville, \textit{The Fable of the Bees: Or, Private Vices, Publick Benefits} (Indianapolis: Liberty Fund, 1988 [1714]).
tention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it.\footnote{Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (Chicago: The University of Chicago Press, 1976 [1776]), vol. 1, pp. 477–478. Cf. the following 1784 quote by Immanuel Kant, “Individual men and even entire nations little imagine that, while they are pursuing their own ends, each in his own way and often in opposition to others, they are unwittingly guided in their advance along a course intended by nature. They are unconsciously promoting an end which, even if they knew what it was, would scarcely arouse their interest.” See, Immanuel Kant, “Idea for a Universal History with a Cosmopolitan Purpose,” in ed. Hans Reiss, *Kant: Political Writings* (Cambridge: Cambridge University Press, 1991), p. 41.}

In any case, with the explicit purpose of abstracting away the complexities of complex phenomena in order to explain them, a science of networks has emerged over the last decades.\footnote{Mark Newman, Albert-László Barabási, and Duncan J. Watts, “Preface,” in ed. Mark Newman, Albert-László Barabási, and Duncan J. Watts, *The Structure and Dynamics of Network* (Princeton: Princeton University Press, 2006), p. ix. The science of networks is part concerned with general theoretical explanations of networks, and part with empirical application of the theories. The field started out with mathematical models of networks, and has gradually come to be concerned with ‘natural’ networks, such as societies, the Internet, and biological networks. It has occurred mainly as a collaboration of researchers in mathematics, physicists, computer scientists and sociologists.}

It abstracts away the details of a description by focusing solely on the entities, and their connections to other entities, in a complex phenomenon. The entities and their connections are represented as nodes and connections forming a network. The network representation, then, has abstracted away the details of the entities and displays the phenomena only in terms of their connectivity. The connectivity can be represented visually, as nodes and connections, perhaps best thought of in terms of a visual representation of the internet, a vast grid of routers, hubs, computers, and their connecting fibers. Increasingly, in the science of networks, the structural properties of a network are linked to the behavioral characteristics of the network. At the same time networks are appreciated, not necessarily as deterministic objects, but as non-deterministic, stochastic, objects displaying the probability of future developments. Thus, the science of networks is used to investigate
the probability of the future size of a network, or a pandemic, or the possibility of knowledge transmission within a network.\footnote{Newman, Barabási, and Watts, “Preface,” in ed. Newman, Barabási, and Watts, The Structure and Dynamics of Networks, p. ix.}

the topic of the idea of complexity in the social sciences, “[f]ar too long, social scientists have viewed the physics of static, simple systems as the model of science we should try to emulate. Those who want to emulate the science of static, simple systems are grossly out-of-date when it comes to understanding contemporary science...”\textsuperscript{419}

There is a host of further natural science and social science disciplines specifically based on the notion of complexity, such as network science, complex adaptive systems analysis, social network analysis, complexity theory, systems theory, cybernetics, generative social science, etc. All these disciplines aim to characterize something with many parts in intricate arrangement. John Holland, one of the pioneers of complexity science, describes the general features of all complex systems as networks of independent agents that interact with one another according to some internal set of rules or strategies.\textsuperscript{420} Of course, the relation between complex phenomena and rules, brings to mind Hayek’s idea that certain rules – nomos – are instrumental for the emergence of societies characterized by complexity – kosmos (see, Chapter 5)

38. Hayek on Complex Phenomena and Social Science Method

Tying into the previous section, Hayek’s definition of a phenomenon’s level of complexity is as follows: “The minimum number of elements of which an instance of the pattern must consist in order to exhibit all the characteristic attributes of the class of patterns in question appears to provide an unambiguous criterion.”\textsuperscript{421} In this section, we shall see how


Hayek deploys this definition in order to distinguish the different methods by which he maintains that simple and complex phenomenon ought to be investigated.

To begin with, Hayek argues that man’s search for an understanding of his surroundings – the scientific impulse – starts with recognition of regularities (cf. the pattern recognition ability of the human mind, see previous chapter). He puts it as follows:

Questions will arise at first only after our senses have discerned some recurring pattern or order in the events. It is a re-cognition of some regularity (or recurring pattern, or order), of some familiar feature in otherwise different circumstances, which makes us wonder and ask ‘why?’ Our minds are so made that when we notice such regularity in diversity we suspect the presence of the same agent and become curious to detect it. It is to this trait of our minds that we owe whatever understanding and mastery of our environment we have achieved.422

Put in other words, we may say that man’s interest in his surroundings is set up to register the emergent properties of complex phenomena. As we can see, then, Hayek argues that man’s search for regularities, or patterns, is based on theories of what to look for – the facts are theory-laden – in line with the influence of Max Weber on the Austrian School of Economics (see, Chapter 2).423
Hayek’s insistence on the distinction between simple and complex phenomena\textsuperscript{424} is based on considerations of method, and in essence he argues that the methods that apply to investigations of simple phenomena are different from the methods that apply to investigations of complex phenomena. He writes:

It is, indeed, surprising how simple in these terms, i.e., in terms of the number of distinct variables, appear all the laws of physics, and particularly of mechanics, when we look through a collection of formulae expressing them. On the other hand, even such relatively simple constituents of biological phenomena as feedback (or cybernetic) systems, in which a certain combination of physical structures produces an overall structure possessing distinct characteristic properties, require for their description something much more elaborate than anything describing the general laws of mechanics. In fact, when we ask ourselves by what criteria we single out certain phenomena as ‘mechanical’ or ‘physical’, we shall probably find that these laws are simple in the sense defined. Non-physical phenomena are more complex because we call physical what can be described by relatively simple formulae.\textsuperscript{425}

In order to further illustrate Hayek’s position, let us continue on the topic of complexity and the social sciences and assume that we attempt to reduce all social phenomena – simple as well as complex – as far as we possibly could. We may then start by reducing the social to the individual. We would then want to know on which basis this individual object of study behaves as it does. We may continue by analyzing the cognitive apparatus of the individual. The brain consists of roughly 1 trillion neurons with something like 10,000 connections each,\textsuperscript{426} and if we were to

\begin{itemize}
  \item Hayek proposes the following as the measurement of a network’s degree of complexity: “The minimum number of elements of which an instance of the pattern must consist in order to exhibit all the characteristic attributes of the class of patterns in question appears to provide an unambiguous criterion.” See, Hayek, “The Theory of Complex Phenomena,” in Studies in Philosophy, Politics and Economics, p. 25.
  \item Bryan Kolb and Ian Q. Wishaw, An Introduction to Brain and Behavior (Worth Publishers, 2001), Chapter 1.
\end{itemize}
allow the reduction to halt at this level, we would then analyze the neurons and their connections in terms of input and output. This is a process of which the mathematician and game theorist John von Neumann says: “...we are dealing here with parts of logic with which we have practically no experience. The order of complexity is out of all proportion to anything we have ever known.”

In his theory of mind, Hayek claims that he takes the empirical program to its logical conclusion in that he does not accept sensations as the starting point of a theory of mind, but instead further reduces sensations to physical manifestations in our mind, understood as a sub-system in the physical world. Says Hayek: “[...] in so far as we have been led into opposition to some of the theses traditionally associated with empiricism, we have been led to their rejection not from an opposite point of view, but on the contrary, by a more consistent and radical application of its basic idea.”

And he continues: “It might therefore be said that behaviorism, from its own point of view, was not radical and consistent enough, since it took for its starting point a picture of the external world which was derived from our naïve sense experience [...]” As we shall see, and as pointed out by William Bechtel and Da-

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427 Johann von Neumann, “The General and Logical Theory of Automata,” in *Cerebral Mechanisms in Behavior: The Hixon Symposium* (New York: Wiley, 1951), p. 24. On the topic of complexity Hayek goes on to say that, “It may be useful here to give here a few illustrations of the orders of magnitude with which biology and neurology have to deal. While the total number of electrons in the Universe has been estimated at $10^{79}$ and the number of electrons and protons at $10^{100}$, there are in chromosomes with 1000 locations [genes] with 10 allelomorphs $10^{1000}$ possible combinations; and the number of possible proteins is estimated at $10^{2700}$ (L. von Bartalanffy, Problems of Life *Problems of Life*, New York, 1952, p. 103). C. Judson Herrick (*Brains of Rats and Men*, New York), suggests that ‘during a few minutes of intense cortical activity the number of interneuronic connections actually made (counting also those that are actuated more than once in different associated patterns) may well be as great as the total number of atoms in the solar system’ (i.e. $10^{56}$); and Ralph W. Gerard (*Scientific American*, September 1953, p. 118) has estimates that in the course of seventy years a man may accumulate $15 \times 10^{12}$ units of information (‘bits’), which is more than 1000 times larger than the number of nerve cells.” See, Hayek, “The Theory of Complex Phenomena,” in *Studies in Philosophy, Politics and Economics*, p. 25, footnote 8.


429 Ibid., p. 27.
vid Tuerck, Hayek’s philosophy of mind may be said to explain man’s
cognitive apparatus along the lines of a complex system of distributed
computing, comparable to the cognitive science fields of connectionism
and neural networks.430

So, by claiming to take empiricism at its own premises, and reducing
the mind to its physical manifestations, Hayek reaches the conclusion that
the brain is too complicated to account for, other than along its principal
ways of functioning. The conclusion of this strict reductionist, empirical
approach leads Hayek to claim that the methodology of simple phenome-
na does not apply to the mind, and so he concludes that the methodology
of complexity must be used. From the seeming impossibility of a reduc-
tionist program in the social sciences, and the complexity of the human
mind, Hayek advances the methodology of complex phenomena. With
regard to this methodology, Hayek maintains that as the complexity of an
object of study rises, the level of falsifiability of any given theory de-
creases. He writes:

The advance of science will thus have to proceed in two different direc-
tions: while it is certainly desirable to make our theories as falsifiable as
possible, we must also push forward into fields where, as we advance, the
degree of falsifiability necessarily decreases. This is the price we have to
pay for an advance into the field of complex phenomena.431

But let us backtrack and see if we can further our understanding of Hay-
kek’s reasoning.

As we have seen, Hayek holds that man, on the basis of theory-laden
observations, search for regularities, or patterns. Some patterns are im-
mediately recognized by our senses. Other patterns cannot be perceived

by our senses, and are first constructed in our minds. Out of the regularities we construct models of explanation.\footnote{Hayek, \textit{The Sensory Order}, pp. 179–182.} The most abstract tool for constructing these models is mathematics, according to Hayek.\footnote{Hayek, “The Theory of Complex Phenomena,” in \textit{Studies in Philosophy, Politics and Economics}, p. 23.} However, there is a difference between considering a theoretical description of a regularity, be it mathematical or not, as a tool with which we can (i) make predictions of individual events, or (ii) state that under certain conditions a regularity of a specific kind will appear. According to Hayek, the distinction between (i) and (ii) takes on importance as we move from simple to complex phenomena.\footnote{Ibid., p. 25.} For the sake of illustration, let us make a comparison between two sets of models of explanation, the \textit{physical} explanation of how two bodies interact, and the \textit{biological} explanation of how species evolve. In the first description, numerical values can be inserted in the model of explanation (let us envision this model as an equation), and on this basis of numerical values, individual manifestations of the interaction of two bodies can be described and predicted. In the second description, numerical values can most likely not be inserted in the model of explanation, which means that it is not possible, on this basis of numerical values, or facts, to predict individual manifestations, such as for instance how an individual species will evolve.

If we move one step closer to the subject matter of the social, we may take a look at an economics description of an exchange economy. For such a description to arrive at a prediction of individual manifestations would mean to determine numerical values of prices and individual utilities, etc., collect this data, and finally compute them.\footnote{See Chapter 9, on Hayek’s critique of general equilibrium theory.} So far, this has not been possible. Hayek writes:
No economist has yet succeeded in making a fortune by buying or selling commodities on the basis of his scientific prediction of future prices (even though some may have done so by selling such predictions).\textsuperscript{436}

According to Hayek, as we shall see, part of the reason why it is impossible to compute predictions is that some of the data of this description of events consist of the individual perceptions and misperceptions of the agents (see, Chapter 9): The agent may know these events in some sense, or be aware of them, but he still may not be able to communicate them.\textsuperscript{437}

Now, Hayek argues that this does not at all make the description useless. For instance, such a description can predict the state of the complexity level given the conditions that govern the actions of the individual agents. The prediction of a state somewhat like capitalism under conditions of freedom under the law is one such prediction. This is in itself an important description and prediction (albeit not of an individual event) that can also be falsified by experience, according to Hayek. He writes:

We are, however, interested not only in individual events, and it is also not only predictions of individual events which can be empirically tested. We are equally interested in the recurrence of abstract patterns as such; and the prediction that a pattern of a certain kind will appear in defined circumstances is a falsifiable (and therefore empirical) statement.\textsuperscript{438}

Science is usually viewed as concerned with establishing laws of cause and effect in the manner described by Hans Kelsen as follows: “A scientific law is the rule by which two phenomena are connected with each other according to the principle of causality, that is to say, as cause and effect.”\textsuperscript{439} According to Hayek, this view of science is perfectly applicable


to the study of simple phenomena, but as we move to the study of complex phenomena it becomes misleading. The chief property of a scientific law is that it describes a relation between cause and effect that is general for all relations of the type in question. In order to stipulate the law, one often needs several observations of particular events. In the case of complex phenomena, these particular events are obviously out of reach of the scientist, according to Hayek. In the sense that we can state that under certain conditions any one of a predicted range of possible states of a given complex phenomena will occur, there is indeed a distinct causal relation between the initial set of conditions and the range of possible states, but this causal relation does not involve any knowledge of the particular events determining the final state, and as such is no scientific law in the ordinary meaning, according to Hayek:

In this sense we may well have achieved a very elaborate and quite useful theory about some kind of complex phenomenon and yet have to admit that we do not know of a single law, in the ordinary sense of the word, which this kind of phenomenon obeys. I believe this to be in a great measure true of social phenomena: though we possess theories of social structures, I rather doubt whether we know of any ‘laws’ which social phenomena obeys.\footnote{Hayek, “The Theory of Complex Phenomena,” in \textit{Studies in Philosophy, Politics and Economics}, p. 42.}

Since social science, then, can only construct ‘wholes,’ according to Hayek, and from these aggregates draw conclusions on the functioning of the phenomenon in question; these theories can never be verified in the traditional sense by observing individual phenomena as a basis of the scientific law. He writes:

The theory itself, (the mental scheme for the interpretation,) can never be “verified” but only tested for its consistency. It may be irrelevant because the conditions to which it refers never occur; or it may prove inadequate because it does not take account of a sufficient number of conditions. But it can no more be disproved by facts than logic or mathematics.\footnote{Ibid., p. 42.}
Hayek maintains that whereas in the natural sciences, it is the individual elements that constitute the empirical element, in the social science, it is the complex phenomena, consisting of numerous individual elements, that constitute the empirical element. Says he:

In the social science it is the elements of the complex phenomena which are known beyond the possibility of dispute. In the natural sciences they can at best be only surmised. The existence of these elements is so much more certain than any regularities in the complex phenomena to which they give rise that it is they which constitute the truly empirical factor in the social sciences.  

In consequence, Hayek claims that in regard to complex phenomena, scientific laws in the classic sense are harmful. He writes:

And the prejudice that in order to be scientific one must produce laws may yet prove to be one of the most harmful of methodological conceptions. It may have been useful to some extent for the reason given by Popper, that ‘simple statements […] are to be prized more highly’ in all fields where simple statements are significant. But is seems to me that there will always be fields where it can be shown that all such simple statements must be false and where in consequence also the prejudice in favour of ‘laws’ must be harmful.

Through his philosophy of mind, his work on knowledge in social cooperation, and his work related to complex phenomena, Hayek advances a version of scientific explanation that discards the methods applicable to simple phenomena, and instead argues for pattern prediction within a theory of complex phenomena in the social sciences. He writes:

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What we must get rid of is the naïve superstition that the world must be so organized that it is possible by direct observation to discover simple regularities between all phenomena and that this is a necessary pre-supposition for the application of the scientific method. What we have by now discovered about the organization of many complex structures should be sufficient to teach us that there is no reason to expect this, and that if we want to get ahead in these fields our aims will have to be somewhat different from what they are in the fields of simple phenomena.\(^{445}\)

As we have seen, the general support for the dispersal of knowledge thesis in terms of the idea of complexity means that complex structures are everywhere (society being one example), and a distinguishing feature of these structures is that the knowledge of them is dispersed throughout the structures and not available in concentrated form; that is, the knowledge is dispersed. As pointed out, the importance of the idea of complexity has been taken as a given in view of our considerations of this part of Hayek’s work and its support of the dispersal of knowledge thesis. However, in this section, we have traced the relation between ideas of complexity and (i) Hayek’s views on his philosophy of mind as a bridge to ideas of complexity, (ii) Hayek’s understanding on social science methodology, and, more generally, (iii) philosophy of science and scientific laws.

To sum up: Hayek claims that our mind is set up to look for regularities, and in looking for these regularities man is guided by theories of what to look for. He further insists on the distinction between simple and complex phenomena and argues that different methods are suitable to the respective kind of phenomena. He claims that by applying a strict empiricist, reductionist approach to mental phenomena, in which the mental phenomena are reduced to their physical parts, a theory of mind must make use of a theory of complex phenomena, since such a reduction of mental processes to physical manifestations will necessarily lead to such a complicated picture of the mind that we are forced to use the methods of the complex. His further conclusion is that the social sciences must

also adhere to the methodology of the complex, and in doing this must understand the concept of scientific laws in a different way.

In the next section, we shall continue to probe Hayek’s social theory, focusing more exclusively on the topics of dispersed knowledge and rational control of complex phenomena.

39. Complexity, Knowledge, and Rational Control in Hayek’s Social Theory

One important issue in Hayek’s social philosophy is how individuals with limited informational and computational powers may act rationally in a physical and social reality that is complex beyond these limitations. Another important issue is how the interplay between individuals with limited informational and computational faculties can be managed within the confines of a physical and social reality of a level of complexity that lies well beyond the individuals of that interplay. That is: How can society be governed in a rational manner? From this perspective, the issue of how the relation between knowledge and complex phenomena affects how we may understand the properties of rational action and rational social order permeates Hayek’s social philosophy. Not only are individuals themselves complex orders, but their perceptions, beliefs and motivations are also the result of a complex apparatus for cognition that interprets a complex order of actions as a basis for their own actions. As we shall see, Hayek maintains that these perceptions, beliefs and motivations are the basic facts of the social sciences, and this circumstance clearly separates the social sciences from the natural sciences, in which the object of study is external to the human mind and society – and – as Stefano

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447 Ibid., p. 241.
Fiori points out, in which, in many cases, the level of complexity is relatively low in terms of the number of elements involved and in terms of the relations between them.\textsuperscript{448} In view of the above, it is not surprising that Hayek scholar Walter Weimer argues that the idea of complexity is foundational for Hayek.\textsuperscript{449} As pointed out, I agree that it seems that the idea of complexity is the link between many themes of Hayek’s research agenda, a position further shared by Hayek scholars such as Karen Vaughn and Frédérique Chaumont-Chancelier.\textsuperscript{450} As we have seen, it was Hayek’s investigation of the complexity of the neural order, and the relation between the physical order and the order of sensations, that led him to perceive complexity on a wider scale.\textsuperscript{451} In turn, it was the idea of complexity that led Hayek onto the theme of evolution, and later onto his theory of the cultural evolution of rules of just conduct (see, Chapter 12).\textsuperscript{452} As we shall see, notions of complexity are also present in his critique of general equilibrium theory (see, Chapter 9). I view of the this, as we have seen, Hayek claims the importance of his theory of mind for his social philosophy\textsuperscript{453} and has the following to say about the similarity between the complexity of the mind and that of society:


It should not be difficult now to recognize the similar limitations applying to theoretical explanations of the phenomena of the mind and society. One of the chief results so far achieved by theoretical work in these fields seems to me to be the demonstration that here individual events regularly depend on so many concrete circumstances that we shall never in fact be in a position to ascertain them all; and that in consequence not only the ideal of prediction and control must largely remain beyond our reach, but also the hope remains illusory that we can discover by observation regular connections between individual events.454

In this sense, it is the idea of complexity that links Hayek’s philosophy of mind to his theories of the law, the market and social orders.455 As hinted at previously, I view his work related to the human mind and complex phenomena to be logically prior to other parts of his social philosophy.

Given that human behavior is a constituent of complex economic and social systems, as well as a result of a complex system for cognition, Hayek explores what this means for our theoretical understanding and practical control of society.456 If you will: Given that the cognitive apparatus of a complex biological system makes sense of distributed knowledge in some fashion, how does the social order and market operate in an analogous fashion?457 What actions are rational in view of man’s bounded rationality and the constraints on his capacity for knowledge and explanation? And how do we effectuate a rational social order in face of our limitations as human beings and the complexity of the social? In line with these remarks, Walter Weimar agrees with the first editor of The Complete Works of F. A. Hayek, William Bartley, and argues that the key feature of Hayek’s social philosophy: “is an analysis of the tacit, decentralized, and therefore unconscious nature of the rationality of complex

455 Chaumont-Chancelier, “Hayek’s Complexity,” Journal des Etudes Economistes et des Etudes Humaine, p. 547
457 Ibid., p. 267.
In relation to Hayek, the idea of complexity, and knowledge, Hayek scholar Karen Vaughn goes on to say that:

Complexity theory is essentially about information; its organization, communication and evolution while Hayek’s philosophy of science, his theory of the brain, his understanding of a market economy and his theory of social evolution all revolve around his essential insights about the nature and limitations of human knowledge.\textsuperscript{459}

In Hayek’s social philosophy, the general properties of complex systems, such as society, influence social science methodology and social policy. Rational control in a traditional sense does not seem to be a viable option when dealing with complex systems.\textsuperscript{460} As regards social science methodology, this limits what we can describe or explain. This line of argument follows along the lines of Hayek’s reasoning on the “explanation of the principles” of complex phenomena, accounted for in the previous chapter. Hayek, though, as pointed out, claims that there is an empirical element, or possibility, in social science: Although the aim of a study of individual elements of society, in order to try and form a view of the whole, will be lost in complexity,\textsuperscript{461} the emergent properties of a society can be empirically observed, and these observations are falsifiable.\textsuperscript{462}

As regards policy, the properties of complex structures affect the terms and scope of what a policy maker can control in societal development. Crudely put, Hayek argues that modern civilization is of such a high degree of complexity that there is no way of knowing how policy regulating behavior will affect the overall nature of the complex order of society, or the emergent properties of such a society. Further, he argues that although


\textsuperscript{459} Ibid., pp. 244–245.

\textsuperscript{460} Ibid., p. 245.


we may not know how certain policies will affect society, we can predict a high degree of probability that certain classes of policies will have negative economic effects. Of course, these views are also objections to constructivist rationalism and the idea that legislation is an efficient and effective tool with which to implement a political agenda.

As we have seen, the general idea of complexity incorporates the idea that the knowledge of complex phenomena is dispersed within them, and that therefore rational control of this type of phenomena is excluded. In view of this, the properties of a society are difficult to influence in the way perceived by constructivist rationalism and the proponents of legislation as a means to rationally construct society. This stance is also mirrored in Hayek’s distinction between *taxis* and *kosmos*, that is, between orders that stay within the bounds of human cognition and orders that do not, or, between simple and complex orders. Hayek claims that while the simple structure of the *taxis* can be made to man’s likings in detail by the issuance of commands, the complex structures of a *kosmos*, although highly beneficial to man, must remain outside the detailed influence by man as they evolve from the actions of its members, actions that are— in turn— dictated by the general abstract rules of just conduct. Moreover,

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463 Hayek, *Law, Legislation and Liberty*, vol. 1, *Rules and Order*, p. 11. We may compare this to the stance of Elinor Ostrom when she claims that due to the complexity of the matter, all policy implementations must be regarded as experiments. See, Ostrom, *Understanding Institutional Diversity*, p. 244. Cf. also the following quote by Hayek, “The number of separate variables which in any particular social phenomenon will determine the result of a given change will as a rule be far too large for any human mind to master and manipulate them effectively.” See, Hayek, *The Counter-Revolution of Science*, p. 42.


466 Cf. the distinction in venture capital and management literature between how to manage firms in which all employees know each other and firms in which they do not. See, AnnaLee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge: Harvard University Press, 1996); and William D. Bygrave and Jeffrey A. Timmons, *Venture Capital at the Crossroads* (Boston: Harvard Business
Hayek claims that distinctly different sets of rules are compatible with *taxis* and *kosmos* respectively. As pointed out, he refers to the rules that function in an organization as *thesis*, and to the rules that function in extended orders as *nomos*. He explains that the reason why *thesis* and *nomos* have different characteristics is that whereas the organization is an entity that does not transcend the level of complexity of the human mind, the extended order does transcend the level of complexity of the human mind. Thus, *thesis* can be designed to achieve specific actions, distributions and properties of the organization, while *nomos* must be abstract, general, and cannot serve a specific purpose, except the function of the extended order as such.

If we assume, as we did at the outset of this chapter – that phenomena can be divided into a category of simple phenomena and a category of complex phenomena – complex phenomena would then by definition be more difficult to fully explain. The argument pursued by Hayek, as I understand it, is that this being so, science needs to view explanation of complex phenomena in a different manner than it views explanation of simple phenomena. This would entail not only a clear limit to what scientific explanation can achieve in terms of a full explanation of complex phenomena, but also the notion of different methods for investigating the simple and the complex. According to Hayek, the methods for explaining complex phenomena require a re-positioning of some basic positions. In short, the method proposed by Hayek is to strip the account of a phenomenon to a degree that we can manage, thereby making it possible to explain complex phenomena, not in detail, but along the general principles governing them. Accepting that a full description is not possible, then,

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468 Ibid., p. 94.
469 Ibid., pp. 48–49.
470 Ibid., p. 49.
471 Ibid., p. 50.
paves the way for an understanding of complex phenomena that would not be possible within a framework of a full description.

Although we have considered the importance of the idea of complexity as a given, we have continued, in this section, to probe Hayek’s social theory in relation to this idea. In particular, we have focused on the issues of dispersed knowledge and rational control. As has been made further clear, these issues are at the heart of Hayek’s social theory.

40. Complexity, Law, and Economics

That there is a connection between economics, the idea of complexity, and Hayek’s work on rules, is clear. As we have seen previously, Hayek maintains a strong interconnection between law and economics in that legal scholars seek to understand the rules upon which the social order rests; orders that economists chiefly study. In view of this chapter, it is clear that it is the idea of complexity that binds these two disciplines together. In this section, I shall briefly comment on how this link is perceived by one of the representatives of complexity economics. I shall also interpret how we may understand this inter-connection in terms of the idea of complexity.

Brian Arthur of the Santa Fe Institute, one of the pioneers in the application of complexity theory to economics, comments on the connection between ‘complexity economics’ and Austrian economics as follows: “Right after we published our first findings [about the implications of complexity theory for economics], we started getting letters from all over the country saying, ‘you know, all you have done is rediscover Austrian economics’ […] I admit I wasn’t familiar with Hayek and von Mises at the time. But now that I’ve read them, I can see that this is essentially true.”

As we have seen, there is in Hayek’s thought a general conne-

tion between economics and complexity. More specifically, Hayek maintains that there is a strong inter-connection between law and economics in that if the agents of a society follow certain rules that are conducive to pattern formation (some of which are codified in the legal system), a complex social order will arise, usually referred to by the term ‘capitalism’. It is in the relation between the rules of just conduct and the resulting overall pattern that the relation between law and economics is most clearly brought out. The virtue of law is that it provides an understanding of the structure of rules – the legal order – that is the precondition for the development of complex social orders, such as exchange economics of scale. The virtue of economics is that it provides a general description of the behavioral assumptions of man, the conditions for pattern formation on the social level (usually excluding the legal aspect), and the resulting overall order. As we have seen, this inter-connection between law and economics was clearly perceived by Hayek (see, Chapter 1).

We may now see the outlines of a theory of the inter-connection of law and economics under the umbrella of complexity theory. We may express this idea as follows: The entities of the complex network of society are made up of firms and agents. The behavioral assumptions are that individuals maximize their utilities and firms maximize their profits. That is to say, in essence, these entities are welfare maximizers. Utility and profits are increased when the entities enter into exchange with one another. Exchange allows the entities to focus their labor on the kind of production they are most suited to, while still being able to acquire other utilities through exchange. By focusing their labor on what they are best suited to, they increase productivity. This is the process Adam Smith referred to when he said that “[t]he greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed, or applied, seem to have been the effects of the division of labour.”

Over time rules have developed, the following

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of which promotes exchange and hence specialization, and thus the maximization of utilities and profits, or welfare. The networks of exchange extended as the rules conducive to them were adhered to. At some point, governments realized the virtues of these rules as conducive to welfare and social order, and as a result the law enforces property rights, torts, contracts, freedom of enterprise, etc. In relation to complexity theory, we may say that as the moral habits conducive to pattern formation were adhered to by some, they at some point went through a phase transition\textsuperscript{475} after which they were adhered to as rules followed by a majority. On another level, we may say that as the rules conducive to pattern formation of complex orders were adhered to, societies went through phase transitions and took on the giant component\textsuperscript{476} (emergent property) of robustness at the complexity level.\textsuperscript{477} Thus, over time, a general adaptation of entities to each other, and their exchange environment, took place. The robustness of the resulting order we call social order.

41. Assessment

In this Chapter, we have seen that the idea of complexity is foundational for Hayek. In view of this, we have traced the idea of complexity through a number of Hayekian themes in order to understand how uniting this idea is for Hayek’s social theory in general, and for his critique of legislation in particular.

As made plain in this Chapter, there is a large and rapidly growing literature on issues of complexity. From the standpoint of our current knowledge, it seems safe to argue that complex phenomena exist, and that

\textsuperscript{475} A term used to indicate that when a property reaches a critical level it becomes dominant is a narrow time frame.

\textsuperscript{476} After going through a phase transition, a dominant property of a complex phenomenon is often referred to as a giant component.

mind and society are among them. The support from Hayek’s work in the field of complexity is in line with contemporary findings in this field, and, as we have seen, it stresses that complex phenomena are defined by a dispersal of knowledge – a knowledge that is not available in concentrat-
ed form

As we have seen, Hayek’s philosophy of mind and his work related to the idea of complexity are closely linked. But, however interesting is his philosophy of mind, I do not find its support of the dispersal of knowledge thesis convincing, as we have seen. However, if we strip this idea off the part that concerns the human mind, the empirical support for the idea that knowledge in complex systems is dispersed remains strong. In the case of Hayek’s work related to the idea of complexity, science has moved decidedly in the direction taken by Hayek. So, even if Hayek’s work in itself may not be conclusive in its support of the dispersal thesis, developments in scientific fields related to the idea of complexity validates that support; in fact, the basic idea of the dispersal of knowledge thesis is a distinguishing feature of the idea of complexity.

In conclusion, Hayek’s work on complexity is not a fully developed theory. However, his ideas – not least the idea that knowledge of complex systems is dispersed in these systems and not available in aggregate form – have been validated by the development of complexity science. In view of this, I argue that his work in this field supports the dispersal of knowledge thesis.

42. Summary

Complex phenomena are distinguished from simple phenomena by the number of elements needed to display their characteristics, and complex phenomena may display properties that are not representative of the individual elements but are unique to the aggregate level. A large number of scientific fields of inquiry have developed based on the idea of complexity, and these fields have become accepted parts of science. The general
outline of a complexity science runs parallel to Hayek’s notion of social order as based on rules. We sought to further understand the concept of social order out of seemingly irregular individuals in view of this distinction and the social science tradition of Mandeville and Smith. We have also seen that the idea of complexity ties together a number of strands in Hayek’s thought.

Hayek claims that our mind is set up to look for regularities, and in looking for these regularities man is guided by theories of what to look for. He further insists on the distinction between simple and complex phenomena and argues that different methods are suitable to the respective kind of phenomena. He claims that by applying a strict empiricist, reductionist approach to mental phenomena, in which the mental phenomena are reduced to their physical parts, a theory of mind must make use of a theory of complex phenomena, since such a reduction of mental processes to physical manifestations will necessarily lead to such a complicated picture of the mind that we are forced to use the methods of the complex. His further conclusion is that the social sciences must also adhere to the methodology of the complex, and in doing this must understand the concept of scientific laws in a different way.

An important issue in Hayek’s social philosophy is how individuals with limited informational and computational powers may act rationally in a physical and social reality that is complex beyond these limitations. As we have seen, the idea of complexity is foundational for Hayek, and it links Hayek’s philosophy of mind to his theories of the law, the market and social orders. As we have further seen, I argue that his work related to the human mind and complex phenomena are logically prior to other parts of his social philosophy. The general properties of complex systems, such as society, influence social science methodology and social policy. Issues of dispersed knowledge and rational control are at the heart of Hayek’s social theory, as rational control in a traditional sense does not seem to be a viable option when dealing with complex systems.
We have also seen how the disciplines of law and economics are interconnected by the idea of complexity. Law is the study of the rules that are the foundation of the social order that is the object of study of economics. The link between these disciplines is reinforced by the view of complex phenomena as rule induced.

As we have seen, Hayek’s work related to the idea of complexity supports the dispersal of knowledge thesis, and that the main reason for this position is that science supports the direction taken by Hayek.
Chapter 8
The Role of Know-How

43. Introduction

I began with daily life, with those aspects of life that control us without our even being aware of them: habit or, better yet, routine – those thousands of acts that flower and reach fruition without anyone’s having made a decision, acts of which we are not even fully aware. I think mankind is more than waist-deep in daily routine. Countless inherited acts, accumulated pell-mell and repeated time after time to this very day, become habits that help us live, imprison us, and make decisions for us throughout our lives. These acts are incentives, pulsions, patterns, ways of acting and reacting that sometimes – more frequently than we might suspect – go back to the beginnings of mankind’s history.478

Fernand Braudel, Afterthoughts on Material Civilization and Capitalism

In my attempt to clarify and assess Hayek’s critique of legislation, I now turn to the support of the dispersal of knowledge thesis in terms of Hayek’s identification of a separate category of knowledge, referred to as know-how. On Hayek’s analysis, know-how is a very important category of knowledge, although by definition it is non-communicable. Prima facie, the existence of know-how supports the dispersal knowledge thesis in the following manner: From the non-communicable property of know-how, it follows that know-how is necessarily dispersed among the individuals holding it, and consequently that it cannot be amassed by any

agency, such as a legislature. As we see, this support is clear enough. However, we may ask what type of knowledge it is that we may refer to as know-how? As we shall see, know-how is a type of knowledge that is associated with a skill, with knowing how something is done. On Hayek’s account, this makes this type of knowledge important when seeking to understand the function of society. We shall of course be interested in the concept of know-how, but it is primarily the factual knowledge that is covered by this concept that is of interest in Hayek’s critique of legislation. As pointed out, I argue that Hayek’s identification of know-how supports the dispersal of knowledge thesis, because it is accord with common sense experience, and because the work of Gilbert Ryle and Michael Polanyi has made the concept of know-how accepted in the science community.

This chapter is organized as follows. I shall begin by making clear the distinctions concerning knowledge that we may discern in Hayek’s work, know-how chief among them (Section 44). In this section, I also introduce Gilbert Ryle’s concept of know-how, and Michael Polanyi’s idea of tacit knowledge. I then turn to a discussion of the support of Hayek’s notion of know-how for the dispersal of knowledge thesis (Section 45). I continue with a discussion of yet another category of knowledge that Hayek employs, namely knowledge that is not part of the conscious (Section 46). I shall discuss whether this category of knowledge supports the dispersal of knowledge thesis, and whether it is to be considered as part of the category of know-how. In Section 47, I discuss the secondary literature on the topic of Hayek and know-how. Finally, I summarize the chapter (Section 48).

44. Distinctions Concerning Knowledge in Hayek’s Thought

As we shall see, there are several distinctions to be made concerning Hayek’s use of the term knowledge. The seeds of the idea of non-
communicable knowledge seem to be present already in his critique of general equilibrium theory (see, Chapter 9). As Hayek made further use of this idea in his later work, it was inspired by his own philosophy of mind, Gilbert Ryle’s concept of know-how, and Michael Polanyi’s concept of tacit knowledge. However, Hayek was never quite clear about the concept, and he would use both the term tacit knowledge and the term know-how. The basic idea of non-communicable knowledge, though, became a central part of his work.

Hayek claims that the empirical element in economic theory consists of the role of knowledge in the social process (see, Chapter 9). Under the heading of 'knowledge', though, he subsumes different aspects of the human mind’s awareness of its surroundings; that is, he does not distinguish between the different types of knowledge that he operates with. To gain a better understanding of the idea of knowledge in Hayek’s thought – and more specifically his critique of legislation – we need to take a closer look at the different phenomena that can be distinguished under the heading of knowledge in his writings.

In the literature on Austrian economics, a distinction is often made between knowledge and information. Scholars such as Brian Loasby, Ken Binmore, and Leland Yeager, for instance, all point to this distinction.


However, many Hayek scholars call attention to the fact that there is also a third category of knowledge to which Hayek attributes specific importance—perhaps especially with regard to rules.\textsuperscript{484} As pointed out, I shall refer to this category of knowledge as know-how. I propose, then, to divide knowledge in the work of Hayek into three categories: (i) knowledge, (ii) information, and (iii) know-how. In short, the category of knowledge includes theoretical knowledge; the category of information includes data on particulars, such as where and when something will take place, or the prices of goods, while the category of know-how, finally, includes— for example—habits and skills. The familiar distinction between information and knowledge, I think is sufficiently clear to not require further comments. So let me discuss know-how a little further, beginning with the works of Gilbert Ryle and Michael Polanyi.

Gilbert Ryle makes a distinction between \textit{knowing what} and \textit{knowing how}, where, crudely put, knowing what refers to knowledge that we can state, and knowing how refers to knowledge that we cannot state.\textsuperscript{485} Examples of know-how include, for example, the ability to ride a bike, or to make a musical instrument sound in a particular way, etc. We may know how to perform acts based on know-how, but it is difficult to state exhaustively a theoretical description of how it is done.

In his philosophy of mind, Ryle attempts to dispel what he regards as the myth of the mind-body dichotomy as it has been received since Descartes.\textsuperscript{486} When, in the 17\textsuperscript{th} century, it turned out that there was an available description of the physical world in terms of mechanics, the inevitable objection posed by men of God, Descartes among them, was that the soul of man could not possibly belong to the same category as the physical

\textsuperscript{483} Bruce Caldwell, “Information, the Tip of the Tacit Iceberg,” \textit{Econ Journal Watch}, vol. 2, no. 1, (April, 2005), pp. 70–74.


\textsuperscript{486} Ibid., p. 13.
aspects of man. Descartes’s well known solution was the dichotomy between mind and body, where the mind does not obey the laws of mechanics. In *The Concept of mind*, Ryle attacks the mind-body dichotomy by way of an investigation of the concept of mind; that is, he does not aim to add new knowledge on the mind, but to clarify our concept of the mind.

On Ryle’s analysis, the mind body dichotomy, paired with the triumphs of science, led to a focus on mental operations that are consciously intelligent, *i.e.*, operations such as determining the truth of propositions, or otherwise theorizing. However, Ryle argues that there is large set of actions with regard to which we exercise our knowledge in purposeful acts, but without theorizing – his point being that these acts exemplify acts of the mind in which the mind and the body work as one unit, not as a two separate units. As we have seen, Ryle referred to the knowledge expressed in those acts as *know-how*. Says Ryle:

Knowing how, then, is a disposition, but not a single-track disposition like a reflex or a habit. Its exercises are observances of rules of canons or the application of criteria, but they are not tandem operations of theoretically avowing maxims and then putting them into practice.

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488 Ibid., p. 13. See the following quote: “The official doctrine, which hails chiefly from Descartes, is something like this. With the doubtful exceptions of idiots and infants in arms every human being is both a body and a mind. Some would prefer to say that every human being is both a body and a mind. His body and his mind are ordinarily harnessed together, but after the death of the body his mid may continue to exit and function. Human bodies are in space and are subject to mechanical laws which govern all other bodies in space. […] But minds are not in space, nor are their operations subject to mechanical laws.”
489 Ibid., p. 9.
490 Ibid., p. 27.
491 Ibid., p. 27. See the following quote: “The main object of this chapter is to show that there are many activities which directly display qualities of mind, yet are neither themselves intellectual operations nor yet effects of intellectual operations. Intellectual practice is not a step-child of theory.”
492 Ibid., p. 46.
As is clear, Ryle maintains that it is difficult to articulate know-how exactly.\textsuperscript{493} Interestingly, he also views know-how as a matter of following rules, a position he shares with Hayek, as we shall see (see, Chapter 12).

As pointed out, another label frequently used to refer to the part of our knowledge that we are not able to state – non-communicable knowledge – is tacit knowledge.\textsuperscript{494} While Ryle, in his investigation of the concept of mind, is content to, “rectify the logical geography of the knowledge we already possess”,\textsuperscript{495} Michael Polanyi has a somewhat different agenda for his book \textit{Personal Knowledge – Towards a Post-Critical Philosophy}. A physical chemist of distinction, Polanyi turned to philosophy with a view to reconsider “the nature and justification of scientific knowledge.”\textsuperscript{496} The part of Polanyi’s work that is most pertinent for Hayek’s position is his view that in an act of knowing, the subject is not detached from the object, but is embedded in it, and that that the act of knowing is a skill for which the use of tools and rules of action become necessary. Polanyi writes:

\begin{quote}
Skillful knowing and doing is performed by subordinating a set of particulars, as clues or tools, to the shaping of a skillful achievement, whether practical or theoretical. […] Clues and tools are things used as such and not observed in themselves. They are made to function as extensions of our bodily equipment and this involves a certain change in our being.\textsuperscript{497}
\end{quote}

However, Polanyi, just as Ryle, considers this category of knowledge to be in essence an observance of rules that we may not be able to articulate. Polanyi continues:

\begin{quote}
I shall take as my clue for this investigation the well-known fact that the aim of a skillful performance is achieved by the observance of a set of rules which are not known as such to the person following them. For ex-
\end{quote}

\textsuperscript{493} Ryle, \textit{The Concept of Mind}, p. 55.
\textsuperscript{495} Ibid., p. vii.
\textsuperscript{496} Ibid., p. vii.
\textsuperscript{497} Ibid., p. vii.
ample, the decisive factor by which the swimmer keeps himself afloat is
the manner by which he regulates his respiration; he keeps his buoyancy
at an increased level by refraining from emptying his lungs when breath-
ing out and by inflating them more than usual when breathing in: yet this
is not generally known to swimmers.\textsuperscript{498}

So far Ryle and Polanyi on non-communicable knowledge; let us now
move on to Hayek’s view on know-how and the dispersal of knowledge
thesis.

45. The Dispersal of Knowledge Thesis and
Know-How

References to non-communicable knowledge come early in Hayek’s wri-
tings. In his 1935 article, “Socialist Calculation II: The State of the De-
bate,” Hayek comments on the fact that no one has all necessary
knowledge in his head at any particular moment:

But much of the knowledge that is actually utilized is by no means ‘in ex-
istence’ in this ready-made form. Most of it consists in a technique of
thought which enables the individual engineer to find new solutions rapid-

\textsuperscript{498} Polanyi, \textit{Personal Knowledge}, p. 49. See also the following quote: “Again, from my
interrogations of physicists, engineers and bicycle manufacturers, I have come to the
conclusion that the principle by which the cyclist keeps his balance is not generally
known. The rule observed by the cyclist is this. When he starts falling to the right he
turns the handlebars to the right, so that the course of the bicycle is deflated along a
curve towards the right. This results in a centrifugal force pushing the cyclist to the left
and offsets the gravitational force dragging him down to the right. This maneuver pres-
ently throws the cyclist out of balance to the left, which he counteracts by turning the
handlebars to the left; and so he continues to keep himself in balance by winding along
a series of appropriate curvatures. A simple analysis shows that for a given angle of
unbalance the curvature of each winding is inversely proportional to the square of the
speed at which the cyclist is proceeding.

But does this tell us exactly how to ride a bike? No. You obviously cannot adjust the
curvature of your bicycle’s path in proportion to the ratio of your unbalance over the
square of your speed; and if you could you would fall of the machine, for there are a
number of other factors to be taken into account in practice which are left out of the
formulation of this rule. Rules of art can be useful, but they do not determine the prac-
tice of an art; they area maxims, which can serve as a guide to an art only if they can be
integrated into the practical knowledge of an art: They cannot replace this knowledge.”
ly as soon as he is confronted with new constellations of circumstances. To assume the practicability of these mathematical solutions, we should have to assume that the concentration of knowledge at the central authority would also include a capacity to discover any improvement of detail of this sort. 499

As is obvious, the notion of non-communicable knowledge is tied to very specific technical knowledge at this time. As we shall see in Chapter 9, the notion of non-communicable knowledge also plays a part in his critique of general equilibrium theory, 500 and in his theory of prices, 501 even though he was not yet aware of the concept as such. 502 As pointed out, Hayek would later continue to stress the importance of the notion of non-articulate knowledge, and from the Constitution of Liberty and onwards, the concept of non-communicable knowledge becomes more important as Hayek emphasizes our constitutional ignorance.

As is clear, it is a central feature of Hayek’s analysis that the individual will always have a unique advantage – as compared to an agency, such as a legislature – with regard to his knowledge set-up and its deployment for the end he intends in the course of his social interaction. He writes:

... [t]he knowledge of the particular circumstances of time and place. It is with respect to this that practically every individual has some advantage over all others because he possesses information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or are made with his active co-operation. 503

And it is further made clear that Hayek maintains that the individuals’ knowledge set-up cannot be communicated to a legislature, when he continues:

This means that the, in some respects always unique, combinations of individual knowledge and skills, which the market enables them to use, will not merely, or even in the first instance, be such knowledge of facts as they could list and communicate if some authority asked them to do so. The knowledge of which I speak consists rather of a capacity to find out particular circumstances, which becomes effective only if possessors of this knowledge are informed by the market which kind of things or services are wanted, and how urgently they are wanted.\(^{504}\)

On the premise that the utilization of knowledge is the determinant of the welfare level (cf. the welfare claim) it is obviously important that know-how can be deployed freely. As we have seen, Hayek claims that each individual’s knowledge set-up is unique. First, it is unique simply in that a specific individual has a unique knowledge set-up. Secondly, it is unique in that the individual always attempts to apply this knowledge set-up as diligently as possible to maximize his outcome. Thirdly, it is unique in that it cannot be transferred to a government agency. In terms of legislation, this means that the legislature will base legislative acts on inferior knowledge.

On Hayek’s analysis, as we have seen, know-how resides as non-communicable knowledge with the individuals of a society. If this is so, know-how cannot be communicated in written or oral communication, and it is necessarily dispersed and not possible to amass by a legislature, or any other agency. As pointed out, then, the existence of the type of knowledge we call ‘know-how’ supports the dispersal of knowledge thesis. However, in the next section, I shall argue that Hayek – in addition to the category of knowledge we have referred to as know-how – distin-

guishes yet another category of the human mind’s awareness of its surroundings, namely knowledge that is not part of the conscious.\textsuperscript{505} Although it is not evident whether we are to subsume this category of knowledge under the heading of know-how, I shall argue that the existence of this category further underscores the support offered by the distinction of know-how for the dispersal of knowledge thesis, as well as puts Hayek closer to Polanyi’s concept of tacit knowledge than to Ryle’s concept of know-how (even though Hayek seems to prefer the use of the term know-how).

46. The Dispersal of Knowledge Thesis and Knowledge Not Part of the Conscious

Although Hayek held a firm belief in the existence of non-communicable knowledge – and it no doubt is an important part of his critique of equilibrium theory, socialism and legislation – he sometimes seems to use it as an expository vehicle rather than as a clear-cut concept. As Hayek neglected to determine with precision the import of the concepts as he used them, and as he did not separate the use of the concepts of know-how and tacit knowledge, I shall, in this section, consider Hayek’s idea that much of the knowledge that determines social cooperation is not part of our conscious experience. In conjunction with this, as pointed out, I shall argue that Hayek is closer to Polanyi’s concept of tacit knowledge than to Ryle’s concept of know-how. As further pointed out, I shall further argue that the concept of non-communicable knowledge that is not part of our conscious experience strengthens the support of the distinction of know-how for the dispersal of knowledge thesis.

As we have seen, I have made distinctions between information, knowledge, and know-how in Hayek’s work. However, apart from these

\textsuperscript{505} Knowledge in this context is a misnomer since knowledge is traditionally supposed to be the result of conscious mental processes. However, I believe the term ‘knowledge not part of the conscious’ makes it sufficiently clear for the reader what I have in mind.
distinctions, as pointed out, there is yet another distinction to be made: that between knowledge that is part of our conscious experience and knowledge that is not. In *The Counter-Revolution of Science*, Hayek writes:

> Indeed any social processes which deserve to be called 'social' in distinction to the action of the individuals are almost *ex definitione* not conscious. In so far as such processes are capable of producing a useful order which could not have been produced by conscious direction, any attempt to make them subject to such direction would necessarily mean that we restrict what social activity can achieve to the inferior of the individual.\(^{506}\)

In Hayek’s later writings there is also an emphasis on knowledge that is not part of the conscious as an important part of the aggregate knowledge in a society. So, for instance, in the *Constitution of Liberty*, he writes: “The identification of the growth of civilization with the growth of knowledge would be very misleading, however, if by ‘knowledge’ we meant only the conscious, explicit knowledge of individuals, the knowledge which enables us to state that this or that is so-and-so.”\(^{507}\) In any case, as we have seen (in Chapter 5), Hayek speaks of knowledge as the foundation of the growth of civilization. In doing this, he includes all knowledge that consists of man’s adaptations to his natural and social surroundings, as it is stored in experience. His examples of these adaptations are emotions, experience, tools, artifacts, heuristics, and institutions, such as rules. He writes:

> The growth of knowledge and the growth of civilization are the same only if we interpret knowledge to include all the human adaptations to environment in which past experience has been incorporated. Not all knowledge in this sense is part of our intellect, nor is our intellect the whole of our knowledge. Our habits and skills, our emotional attitudes, our tools and our institutions – all are in this sense adaptations to past experience which have grown up by selective elimination of less suitable

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conduct. They are as much an indispensable foundation of successful action as is our conscious knowledge.\textsuperscript{508}

In conclusion, it is clear that if knowledge that is not part of our conscious experience is an important part of the knowledge that determines the social processes, as Hayek seems to claim, then this distinction supports the thesis that knowledge is dispersed among individual, as it would necessarily be out of reach of the legislature. However, I shall not go into the question if we are to subsume this category of knowledge under know-how, or if it is a further separate category of knowledge. Though hard to assess in itself, if true, this wider significance of non-communicative knowledge further strengthens the support of the dispersal of knowledge thesis.

In this context, let us also note that Hayek’s emphasis on tools and emotions as essential parts of our ‘knowledge’ seems to put him closer to Polanyi than to Ryle. While Ryle’s theory of mind is an exercise in conceptual analysis, Hayek’s own theory of mind, as we have seen, is an attempt to naturalize the mind. As we have seen, Hayek refrains from analyzing the concept of knowledge to which he attributes such importance. There is, however, no doubt that he attempts to understand knowledge in terms of scientific justification (as Polanyi does). In his critique of equilibrium theory, for instance, it is clear that his rejection of the idea that the subjective knowledge of the agent can be relayed as objective knowledge to the economist is one such example (see, next Chapter). It is further clear that when he speaks of the use of tools, or the following of rules, or the unavailability of knowledge to an agency as it resides with the individual subject, he talks of knowledge in the embedded sense of Polanyi. This interpretation is also supported by the readings of John Bladel,\textsuperscript{509} and Struan Jacobs.\textsuperscript{510} However, I shall not push further

an interpretative reconstruction on the matter of Polanyi’s influence on Hayek with regard to this issue, but shall be content to point out that Hayek’s use of the concept of non-communicable knowledge seems to be closer to that of Polanyi than to that of Ryle.\(^{511}\)

47. The Secondary Literature

In the previous sections, I attempted to clarify the support of Hayek’s notion of know-how for the dispersal of knowledge thesis (although it is not quite clear how the idea of knowledge that is not part of our conscious fits the concept of know-how in Hayek’s work). In this section, I shall discuss (i) the general importance of the theme of knowledge in economics, (ii) how Austrian economics has influenced the mainstream economic discipline of ´Information Economics´, and (iii) how the concept of non-communicable knowledge is viewed in studies of Austrian Economics in general, and in studies of Hayek in particular. As we shall see, the concept of non-communicable knowledge has generally gained in importance, especially in Austrian Economics, and many Hayek scholars support the view that the concept of non-communicable knowledge is important to Hayek.

The theme of knowledge is central to Austrian economics, and, as we have seen, a distinction is often made between knowledge and information in the literature on Austrian economics.\(^{512}\) Economist and Hayek


\(^{511}\) There are many points of confluence between Hayek and Polanyi, of which I shall mention only a few here. They are both influenced by the Gestalt school of psychology (see Polanyi, *Personal Knowledge*, p. vii), they both stress that science is only possible if underpinned by values that make it possible (see Polanyi, *Personal Knowledge*, p. 203), and finally they both emphasize tradition in passing on knowledge (see Polanyi, *Personal Knowledge*, p 53).

\(^{512}\) On the topic of the distinction between information and knowledge in Austrian economics, Kirzner, “Information-Knowledge and Action-Knowledge,” *Econ Journal Watch*, pp 75–81; Caldwell, “Information, the Tip of the Tacit Iceberg,” *Econ Journal*
scholar, Peter Boettke, has even argued that what constitutes the claim to difference of the Austrian School of Economics in relation to other schools of economic thought, is precisely its view on knowledge,\textsuperscript{513} and, as pointed out, one of the main themes of Austrian economics, and of Hayek, is how markets generate knowledge (on this, see Chapter 2).

In the neo-classical model of general equilibrium theory, a market is presumed to perform best when \textit{exogenous information} is as efficiently distributed a possible. However, the Austrian School of Economics takes a different view on this issue and maintains that the market process is essentially a process for the discovery of \textit{indigenous information} (cf. Hayek’s work related to competition, prices, and rules, see next chapter). This view was taken up by the proponents of Information Economics and applied within the confines of the general equilibrium theory of neo-classical economics.\textsuperscript{514} However, while in Information Economics, information asymmetries have adverse effects on the efficiency of a market, they constitute the indispensable entrepreneurial opportunities on the analysis of the Austrian School of Economics (cf. Joseph Schumpeter’s concept of creative destruction).\textsuperscript{515} As we see, then, the interest of the Austrian School of Economics in issues of knowledge has influenced other schools of thought, primarily Information Economics, even though these schools differ in their interpretation of the role and function of knowledge.


\textsuperscript{514} Major contributors to the field of information economics are George Akerlof, Michael Spence and Joseph Stiglitz.

that while know-how may be difficult to articulate, it is however not impossible. Some Austrian economics scholars of the Mises’s school find the concept of know-how objectionable on grounds that deal with differences in thought between Hayek and Mises (Hermann Hoppe, Murray Rothbard and Leland Yeager). Then there are those scholars, such as Carlo Zappia, Steven Fleetwood, and Victor Vanberg, who do not attribute too large an importance to the concept of know-how in Hayek’s work, arguing that it does not fit the overall rationalism they perceive in his thought.

As we have seen previously, any attempt to assess Hayek’s work is a difficult undertaking. As to his identification of a separate category of knowledge – know-how – it is accepted, not least as set against the work of Ryle and Polanyi. As to his distinction of yet another part of knowledge that is not part of our conscious experience, it is not clear if this kind of knowledge is part of the concept of know-how, or not, even though the general idea supports the dispersal of knowledge thesis. As I argue that the distinction of the category of know-how supports the dispersal of knowledge thesis, we may ask what separates this position from my position that Hayek’s philosophy of mind does not support the dispersal of knowledge thesis. As the concept of know-how is almost equally elusive, and has almost equally far-reaching consequences, one may think that I should dismiss it, just as I did with Hayek’s philosophy of mind.

Chapter 8. The Role of Know-How

Nonetheless, there are two issues that differ. The first issue is the fact that the concept of know-how has become accepted in the scientific community due to the works of Ryle and Polanyi. This acceptance has not been bestowed on the idea of cognitive closure. The second issue is that the notion of non-communicable knowledge that is unique to the individual – is a common sense experience shared by many; when asked if we may help explain the performance of some task, and we answer that we may just as well perform the task ourselves, as this surely is faster – instead of explaining how it is done – we exemplify the kind of knowledge that Hayek, Ryle, and Polanyi describe.\footnote{Nonetheless, there are two issues that differ. The first issue is the fact that the concept of know-how has become accepted in the scientific community due to the works of Ryle and Polanyi. This acceptance has not been bestowed on the idea of cognitive closure. The second issue is that the notion of non-communicable knowledge that is unique to the individual – is a common sense experience shared by many; when asked if we may help explain the performance of some task, and we answer that we may just as well perform the task ourselves, as this surely is faster – instead of explaining how it is done – we exemplify the kind of knowledge that Hayek, Ryle, and Polanyi describe.}{530} On a general level, it also seems to me that regardless of which side of the political spectrum one subscribes to, it is not in dispute that part of the disappointing economic performance of socialist systems is due to regulation that hinders this uniquely individual knowledge to contribute to the production of material welfare. This empirical evidence indicates that know-how is an important ingredient in the aggregate knowledge of society, and thus, on the premise that it cannot be communicated, that it necessarily remains with its individual holders, \textit{i.e.} is dispersed. 

Aside from the different types of knowledge, discussed in this chapter, Hayek is interested in how knowledge, information and know-how are generated, discovered, acquired, communicated, and stored. And he is, of course, interested, more specifically, in the question of how institutions – such as rules – come into play in the generation, discovery, acquisition, communication and storage of knowledge, information and know-how. It is on the basis of his views on these issues that Hayek challenges the view of constructivist rationalism – that institutions can, and should be, deliberately designed for specific purposes. And it is of course this wider aspect of the role of knowledge, information and know-how in social coop-
eration that we wish to investigate in relation to Hayek’s critique of legislation.

48. Summary

In this chapter, I divide knowledge in the work of Hayek into three categories: (i) knowledge, (ii) information, and (iii) know-how. We have seen that the category of knowledge includes theoretical knowledge, and that the category of information includes data on particulars, while the category of know-how includes – for example – habits and skills. As we have further seen, one may easily perform acts based on know-how, while it is difficult to state exhaustively a theoretical description of how these acts are performed. Gilbert Ryle’s concept of know-how, and Michael Polanyi’s idea of tacit knowledge, lay the groundwork for the idea of non-communicable knowledge. Both Ryle and Polanyi view non-communicable knowledge as in essence an observance of rules that we may not be able to articulate.

Hayek’s writings contain references to non-communicable knowledge early on, and in his later writings the concept of non-communicable knowledge becomes even more important. On Hayek’s analysis, the non-communicable nature of know-how means that it necessarily remains with the individual holder. If this is so, know-how cannot be communicated in written or oral communication and it is necessarily dispersed and not possible to amass by a legislature, or any other agency.

In addition to know-how, Hayek distinguishes yet another category of knowledge, viz. knowledge that is not part of the conscious. As we have seen, I argue that this wider category further underscores the support for the dispersal of knowledge thesis from the idea of non-communicable knowledge, as well as puts Hayek closer to Polanyi’s concept of tacit knowledge than to Ryle’s concept of know-how. However, I am not certain if we are to subsume this category of knowledge under know-how, or whether it is a separate category of knowledge.
The issue of knowledge defines the Austrian School of Economics, and Information Economics has continued the tradition of focusing on these issues. Recently, the notion of non-communicable knowledge has gained increased attention in the social sciences. With this, Hayek’s notion of non-communicable knowledge has gained attention, and so have the similar concepts of Polanyi and Ryle. Today most Hayek scholars agree that Hayek made use of the notion of non-communicable knowledge, even though they differ in opinion on its significance.

I argue that the identification of the category of know-how supports the dispersal of knowledge thesis primarily (i) because the concept of know-how has become accepted in the scientific community due to the works of Ryle and Polanyi, and (ii) because the notion of non-communicable knowledge that is unique to the individual is a common sense experience. Hayek’s distinction of yet another category of knowledge – a knowledge that is not part of our conscious experience – underscores the support of the knowledge category of know-how for the dispersal of knowledge thesis.
Chapter 9
The Critique of Equilibrium Theory

49. Introduction

“We have never designed our economic system. We are not intelligent enough for that.”

Hayek

As we remember, we stated the legislation tenet as follows: Legislation that concerns complex social orders and aims at specific aggregate results will decrease the level of welfare. In Chapter 5, we determined the scope of the legislation tenet in terms of the concept of welfare, different social orders, and the term ‘specific aggregate results.’ In the same chapter, Hayek’s general claim that the welfare level in a society depends on the utilization of knowledge in that society was also presented. As we further remember, the argumentative structure of Hayek’s critique of legislation is such that this welfare claim supports the legislation tenet in conjunction with the dispersal of knowledge thesis, as they form two lines of argument; one that is based on the dispersal of knowledge thesis and the welfare claim, and one that is based on the cultural evolution thesis and the welfare claim.
In this chapter, I turn to consider the dispersal of knowledge as it is supported by Hayek’s critique of general equilibrium theory. As we remember, this thesis has it that the total knowledge that determines the aggregate properties of a complex social order is necessarily dispersed and not available in full to any agency, such as a legislature. I shall argue that this critique supports the dispersal of knowledge thesis. The main reason is that the critique of equilibrium theory itself is firmly accepted in economics, and, of course, this critique is the foundation for Hayek’s idea that knowledge is dispersed. An additional reason why I consider the critique of equilibrium theory to support the dispersal of knowledge thesis stems from Hayek’s theory of prices; as we shall see, the dispersal of knowledge thesis is a necessary condition for Hayek’s theory of prices, and, as we know, logic tells us that if the dispersal of knowledge thesis is a necessary condition for the theory of prices, this means that the theory of prices is a sufficient condition for the dispersal of knowledge thesis. In any case, the support for Hayek’s theory of prices is massive; this means that the truth of the theory of prices implies the truth of the dispersal of knowledge thesis.

As we shall see, the theory of prices also illustrates the dispersal of knowledge thesis. However, the direct support of this thesis is to be found

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531 However, if the dispersal of knowledge thesis is a sufficient condition (but not a necessary condition) for the theory of prices, the reverse holds, namely that the truth of the dispersal of knowledge thesis implicates the truth of the theory of prices. As is obvious, I shall argue that the dispersal of knowledge thesis is s necessary condition for the theory of prices.
in the critique of general equilibrium theory. This is the reason why the main focus of the chapter is on that critique. As we shall see, Hayek’s theory of competition further illustrates the dispersal of knowledge thesis. It is however not as accepted as the theory of prices, and I shall not be able to infer from this theory whether the dispersal of knowledge thesis is true, or not.

In Chapters 6, 7, and 8, I have investigated the various parts of Hayek’s work that support the dispersal of knowledge thesis. In Chapter 6, I investigated its support from Hayek’s philosophy of mind. In Chapter 7, I investigated the support for the dispersal of knowledge thesis in terms of Hayek’s work in the field related to the idea of complexity. In Chapter 8, the notion of non-communicable knowledge – know-how – was presented as a further support of the dispersal of knowledge thesis. In this chapter, as pointed out, I shall continue to investigate the support for the dispersal of knowledge thesis, and I shall do this by way of discussing Hayek’s critique of a central theory in economics, namely, general equilibrium theory. However, as we have seen, in order to further understand the support of the critique of general equilibrium theory for the dispersal of knowledge thesis, I shall also present Hayek’s theories of prices and competition. The theory of prices, I present because – in line with the above – that theory is an important part of the support for the dispersal of knowledge thesis from the critique of equilibrium theory. I present the theory of competition, because it further exemplifies the dispersal of knowledge thesis, and because this theory, along with the theory of prices, highlights a specifically important aspect of Hayek’s critique of legislation, namely the evolutionary development of rules as based on dispersed knowledge.

As a preliminary, let us note that it seems that in the critique of general equilibrium theory Hayek operates with a notion of dispersal of knowledge as a matter of fact, while the distinction of the separate category of know-how suggests the necessity of the dispersal of knowledge. While it is reasonable to assume that in his work in economics, Hayek
operated with a factual understanding of the dispersal of knowledge, and that his distinction of know-how means an understanding of the dispersal of knowledge in terms of necessity, it is not entirely clear what Hayek intends with regard to this issue. However, it is clear that Hayek means that knowledge is dispersed and that it is practically difficult to gather, and I will not engage in an attempt to understand what a distinction between necessity and fact means for this issue.

I shall begin this section with a presentation of Hayek’s critique of general equilibrium theory (Section 50). I then proceed to discuss how we are to further understand this critique in terms of legislation, and, as pointed out, I propose that we look to his theory of prices (Section 51). This theory displays how, in the face of the practical difficulties of gathering dispersed knowledge, a tool – the price – develops in the course of the interaction of the individual holders of that dispersed knowledge. As we shall see, this process is in many respects analogous to Hayek’s view on the development of rules in a process he refers to as cultural evolution.

I continue with a presentation of Hayek’s theory of competition (Section 52). This theory is explicitly based on the notion of dispersed knowledge and provides further hints of how we are to understand Hayek in terms of law and rules. I then offer some comments on heuristics that are based on the notion of the dispersal of knowledge (Section 53). As the theories of prices and competition show, Hayek believes that heuristics form as a result of the dispersal knowledge. In regard to this, we shall take notice of prices as one such heuristic, but also of the important analogy between Hayek’s theory of prices and his work on the evolutionary development of rules. Finally, I summarize the chapter (Section 54).

50. Equilibrium Theory – Hayek’s Critique

In the critique of general equilibrium theory, a number of themes and earlier influences of Hayek’s come together, such as (i) Carl Menger’s
subjective theory of value, (ii) Mises’s critique of socialism, \(^\text{532}\) (iii) Hayek’s participation in the socialist calculation debate, \(^\text{533}\) and (iv) his early work on a theory of mind. The critique was first formulated in the famous article “Economics and Knowledge”. \(^\text{534}\) Out of this critique emanated both the idea that knowledge is correlated to welfare (the welfare claim) and the idea that the knowledge that determines the societal development is dispersed and not available to any agency (the dispersal of knowledge thesis). As we have seen, Hayek’s work on knowledge – or knowledge in social cooperation, as I refer to it – is viewed as his most enduring contribution to social science. \(^\text{535}\)

As we remember, Ludwig von Mises was a chief influence on Hayek’s intellectual development (see, Chapter 2). As we further remember, Mises’s argument against rational calculation under socialism indicates that information on a factor market is dispersed among the agents of that market. Hayek took von Mises’s cue of the theme of dispersal of information, and in his critique of general equilibrium theory Hayek claims that the dispersal of the knowledge determining the social process is an even more

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general feature of society than Adam Smith’s dictum of the division of labor (see, Chapter 5).\textsuperscript{536} An issue of von Mises’s critique of socialism and the socialist calculation debate (see, Chapter 2) that would influence Hayek for the remainder of his career, is whether it is possible for a government agency to have knowledge of the social process and to use this knowledge as a basis for the construction of the rational institutions of a rational social order. As we have seen, the fact of the dispersal of knowledge means that no agency, such as a government or a legislature, can amass it. On Hayek’s analysis, this means that the problem of a rational social order is not to calculate an optimal distribution from a set of data (as in general equilibrium theory), but to find the best use of knowledge that cannot be gathered or controlled.\textsuperscript{537} He writes:

What is the problem we wish to solve when we try to construct a rational social order? On certain familiar assumptions the answer is simple enough. \textit{If} we possess all the relevant information, \textit{if} we can start out from a given system of preferences and \textit{if} we command complete knowledge of available means, the problem which remains is purely one of logic. […] This, however, is emphatically \textit{not} the economic problem which society faces. […] The peculiar character of the problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the individuals possess. The economic problem of society is thus not merely a problem of how to allocate “given” resources – if “given” is taken to mean given to a single mind which deliberately solves the problem set by these “data.” It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these indi-

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viduals know. Or, to put it briefly, it is a problem of the utilization of knowledge not given to anyone in its totality.\textsuperscript{538}

However, \textit{General equilibrium theory} is an economic theory, according to which it is possible to compute, on the basis of data, an optimal distribution of goods.\textsuperscript{539} These data include, for example, knowledge of prices, knowledge of products, and knowledge of the personal preferences of the acting agents. At the time of Hayek’s critique, equilibrium theory was the dominating economic theory, a position it still holds to a large degree. Hayek argues that the results of equilibrium theory are implicit in its assumptions, and hence, on his analysis, there is an essentially tautological element in this theory.\textsuperscript{540} He also argues that equilibrium theory can tell us little about the “real world” and, as we have seen, that the real problem of economics, or social science, is not how to compute data, but how to describe the process by which the acting individuals generate, acquire, and communicate the data (or knowledge). He writes:

Indeed, my main contention will be that the tautologies, of which formal equilibrium analysis in economics essentially consists, can be turned into propositions which tell us anything about causation in the real world only in so far as we are able to fill those formal propositions with definite statements about how knowledge is acquired and communicated. In short, I shall contend that the empirical element in economic theory – the only part which is concerned not merely with implications but with causes and effects and which leads therefore to conclusions which, at any rate in principle, are capable of verification – consists of propositions about the acquisition of knowledge.\textsuperscript{541}

\textsuperscript{541} Ibid., p. 33.
While Hayek criticizes equilibrium theory, he never questions that there is, in fact, a very real tendency towards equilibrium. However, he criticizes equilibrium theory on three main points. He argues, (i) that real-world social phenomena takes place over time, and that equilibrium theory can only describe an economic system at given point in time, (ii) that in the real-world social phenomena are constituted by several people, and that equilibrium theory cannot account for more than one person, and, (iii) that the data, or facts, that equilibrium theory is based on cannot be objective, and consequently that any scientific claims of the theory are dubious. I will discuss his objections to general equilibrium theory in turn, starting with the issue of time.

**Time**

Real world economic activity takes place over time. Plans are made and executed, factors of production are procured, products are produced and sold, etc. Equilibrium theory describes a system of relations at a given point in time as being in equilibrium if the distribution of goods is optimal, which means that: “[…] everyone has economized – that is, all individuals have made the best possible choices in the light of their own preferences and given their endowments, technologies and information – and in which those choices have been coordinated and made compatible with the choices of everyone else.” Of course, in the real world, the execution of a plan is made over time, and Hayek argues that equilibrium analysis cannot account for this property of human interaction. With time agents acquire new knowledge in the economic system described by equilibrium theory, and thus the equilibrium description at a given point in time is no longer accurate since this new knowledge, or these new facts,

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543 Ibid., pp. 36–37.
544 Ibid., pp. 37–38.
545 Ibid., p. 39.
change the optimal distribution of goods. Consequently, the equilibrium
description is no longer valid, or has to be made again, in light of this new
knowledge. As pointed out, Hayek does not question the empirical fact of
equilibrium as a real world general adjustment of actions in social rela-
tions. What he questions is the description of this adjustment in equili-
rium theory regarding the time factor. He writes:

[...] since equilibrium is a relationship between actions, and since the ac-
tions of one person must necessarily take place successively in time, it is
obvious that the passage of time is essential to give the concept of equilib-
rium any meaning. This deserves mention, since many economists appear
to have been unable to find a place for time in equilibrium analysis and
consequently have suggested that equilibrium must be conceived of as
timeless. This seems to me to be a meaningless statement. 547

As we see, Hayek zooms in on the problem for an economist to produce
an exhaustive description of a social system that changes over time. Even
if we accept that it is possible to make an accurate description at a given
point in time, a continuously accurate description makes the task all the
more complex. If we compare the situation of the economist attempting a
description of a state of equilibrium with that of a legislature, the same
kind of difficulties apply to a legislature in that a perfectly informed deci-
sion may not be completely adjusted to changes of circumstances over
time. With regard to civil law this is of course the reason that rules are
general and are expected to cover an indefinite number of future cases,
and that the application of a general rule to a specific case involves taking
into account the specific circumstances of that case. These measures, if
you will, are of course the result of a recognition that a legislature cannot
foresee the social developments that a piece of legislation will be part of,
or that a court need to take the particular circumstances surrounding a

case into account when applying a piece of legislation on which to decide the case.\textsuperscript{548}

If we consider more specific legislative acts in light of Hayek’s critique of general equilibrium theory in terms of the time factor, these legislative acts may well lose their relevance as circumstances change. China’s one-child policy is one such example. At a time of rapid population growth, this rule may have been adjusted to the circumstances. Over time, though, it will put China in a situation in which the workforce will shrink relative to the rest of the population, which, in turn, will decrease China’s productive capacity and increase the financial burden on the working population in relation to the non-working population. In fact, this might already be happening. We may say that the one-child policy is less adjusted to the prevailing circumstances, than to the situation that gave rise to its enactment. Hayek’s point here is of course that even if we accept the idea that it is possible to access the knowledge necessary for an exhaustive description at a given point in time, changes in circumstances will leave that description non-exhaustive. In the case of a legislature, on Hayek’s analysis, this means that rules must instead be general and without a particular purpose they are set to achieve.\textsuperscript{549} However, as Hayek sees it, if a legislature drafts a piece of legislation that is intended to be the most efficient means to a desired political goal that consists of a specific aggregate result in a complex social order, it will decrease the welfare level.

\textit{Multiple Agents}

I now turn to consider the question of \textit{multi-agent systems} in Hayek’s critique of general equilibrium theory. Just as human action takes place over time, social interaction in a competitive society takes place among several agents. Part of the information, or data, of the state of such an


\textsuperscript{549} Ibid., pp. 50–51.
economic system is the agents’ expectations of other agents’ plans, and the actions entailed in these plans. In order to make the data analytically computable, the agents’ respective plans, and the actions of the execution of these plans, must be treated as known to all the agents in the system. Hayek claims that this is an unrealistic assumption simply because in the real world, this, of course, is not the case. He writes:

There is no special difficulty about the concept of an isolated person […] acting over a period according to a preconceived plan. In this case, the plan need not satisfy any special criteria in order that its execution be conceivable. The situation is, however, different with plans determined upon simultaneously but independently by a number of persons. […] This means that the plans of different individuals must in a special sense be compatible if it is to be even conceivable that they should be able to carry all of them out. Or, to put the same thing in different words, since some of the data on which any one person will base his plans will be the expectation that other people will act in a particular way, it is essential for the compatibility of the different plans that the plans of the one contain exactly those actions which form the data for the plans of the other. In the traditional part of equilibrium analysis part of this difficulty is apparently avoided by the assumption that the data, […], are equally given to all individuals […]. That this does not really overcome the difficulty created by the fact that one person’s actions are the other person’s data, and that it involves to some degree circular reasoning, has often been pointed out.550

One of Hayek’s main objections to constructivist rationalism is that premises beyond doubt cannot be established in complex social settings (see, Appendix A). Hayek’s critique of general equilibrium theory reinforces his point that the complexities in a multi-agent case make the task daunting to master. If we imagine that a government was to make a rational decision, it would in effect have to deal with the same kind of complexities as those in the multi-agent case Hayek points to in his critique of equilibrium theory. This line of critique, then, seems to further corroborate the dispersal of knowledge thesis, Hayek’s point being that it is im-

possible to give an exhaustive description of a multi-agent situation, because the knowledge is dispersed among the agents and is not available to the economist (or to a legislature).

**Objective Data**

In the first two points accounted for in Hayek’s critique of general equilibrium theory – the issues of time and multi-agent systems – Hayek argues for the essential difficulties of any analytical elaboration in which the data supplied are those of a society. The third point goes into the nature of these data. A description making use of a formal method of analysis depends for its accuracy on the correctness of the empirical observations, or data, on the basis of which the formal analysis is performed. Let me give two standard examples. If we want to know the amount of energy of a physical body, we need correct measurements of its mass and the speed of light. To be able to calculate the trajectory of a physical body, let us say a bullet fired from a rifle, we need correct measurements of (i) the mass of the bullet, (ii) the speed at which the bullet leaves the barrel, (iii), the elevation of the rifle (vertical plane), (iv), the air resistance of the bullet (its shape), and (v) the gravitational force.\(^551\) Only when we have the correct data, can we apply the formal analysis successfully. Along this line of argument, Hayek argues that the data used in formal equilibrium analysis will not be correct enough to validate a formal analysis.\(^552\)

How an agent acts in a situation is determined by the agent’s subjective perception of the external facts of the situation and by the agent’s subjective preferences. The *preferences* of the agent are a product of the agent’s individual perception. In this sense they are objective to the agent, according to Hayek. But, Hayek points out, it is unclear how a personal

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\(^{551}\) I extend particular gratitude to physicist Johan Holmén for the exact conditions of this exercise.

Part III. The Dispersal of Knowledge Thesis

preference, however objective to the agent, can be said to constitute an objective fact that the economist can use in his calculations.\textsuperscript{553}

Regarding the \textit{external facts} of an economic system, described by equilibrium theory, they can be said to be objective, according to Hayek, and to be data that the economist can use. But, just as with the personal preferences of the agents, what determines agents’ actions is not the way the external facts are objectively given to the economist making the description, but how the agent subjectively perceives the external facts and how these perceptions determine actions. And, of course, in real life, different agents perceive situations differently. Says Hayek:

There seems to be no possible doubt that these two concepts of “data,” on the one hand, in the sense of the objective real facts, as the observing economist is supposed to know them, and, on the other, in the subjective sense, as things known to the persons whose behavior we try to explain, are really fundamentally different and ought to be carefully distinguished. And, as we shall see, the question why the data in the subjective sense of the term should ever come to correspond to the objective data is one of the main problems we have to answer.\textsuperscript{554}

If we imagine a legislature trying to establish premises beyond doubt as the basis for deducing conclusions that, in turn, are to be the basis of decisions on legislation, this line of critique undergirds the notion that full knowledge determining the social process is out of reach of any agency, simply because of its subjective nature.

Hayek’s points of critique of general equilibrium theory – (i) time, (ii) multi-agent systems, and (iii) the objectivity of data – are handled in general equilibrium theory by the assumption of \textit{perfect knowledge}; i.e., the assumption that all agents simultaneously possess all relevant knowledge. Instead of claiming that general equilibrium theory makes available a description of real world events, Hayek emphasizes the tautological char-


\textsuperscript{554} Ibid., p. 39. Cf. Hayek’s philosophy of mind and the relation between the physical world and the phenomenal world.
acter of the theory when it assumes away what is, according to him, capable of verification – *first*, the process by which agents acquire knowledge, and *secondly*, the general conditions under which there is a tendency towards equilibrium. He writes:

In the usual presentations of equilibrium analysis it is generally made to appear as if these questions of how equilibrium comes about were solved. But, if we look closer, it soon becomes evident that these apparent demonstrations amount to no more than the apparent proof of what is already assumed. The device generally adopted for this purpose is the assumption of a perfect market where every event becomes known instantaneously to every member. It is necessary to remember here that the perfect market which is required to satisfy the assumptions of equilibrium analysis must not be confined to the particular markets of all the individual commodities; the whole economic system must be assumed to be one perfect market in which everybody knows everything. The assumption of a perfect market, then, means nothing less than that all the members of a community, even if they are not supposed to be strictly omniscient, are at least supposed to know automatically all that is relevant for their decisions. It seems that the skeleton in our cupboard, the “economic man,” whom we have exorcised with prayer and fasting, has returned through the back door in the form of a quasi-omniscient individual. The statement that, if people know everything, they are in equilibrium is true simply because that is how we define equilibrium.\(^{555}\)

As we see, then, Hayek’s three main points of criticism of general equilibrium theory all point to the impossibility for an agency to gain access to an exhaustive description of a complex social phenomenon, since it is in fact dispersed. As we shall see, Hayek would later identify institutions – in particular legal rules – as the heuristics that induce cognitively im-

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perfect subjects to achieve a state of equilibrium in the face of such a dispersal of knowledge (see, chapter 12).\textsuperscript{556}

Hayek’s critique of equilibrium theory obviously holds a special place in Hayek’s work. What equilibrium theory claims to achieve is the ability to describe a rational state of a social order in economic terms. On an instrumental conception of rationality, the theory purports to state how to structure a given situation so that as many subjects achieve as many ends as possible in line with their preferences, \textit{i.e.}, to use the available means as efficiently as possible. As we have seen, Hayek puts forward arguments why an agency – in this case an economist – cannot have the knowledge that is needed for an equilibrium description, that is, the knowledge that is needed to state the rational optimum of a society.

However accepted, we shall proceed to investigate Hayek’s theory of prices in order to further our understanding of the idea of the dispersal of knowledge in relation to law and rules. As pointed out, the theory of prices is related to the critique of legislation in that it is an illustration, or application, of the dispersal of knowledge thesis. As we have seen, the theory of prices further seems to be critical for the assessment of the support for the dispersal of knowledge thesis from the critique of equilibrium theory (in terms of logic). However, Hayek’s theory of prices is also related to his work on rules – their function and how they develop. As we shall see, Hayek argues that prices – as well as rules – result from social interaction as based on dispersed knowledge. As we try to adapt our actions to real-world circumstances, the unintended results are the development of rules and prices, on his analysis. Further, as we shall see, the function of rules is similar in Hayek’s view to that of prices in that they are heuristics; that is, tools that help us act rationally in a short-hand way. Embedded in these tools is the collective experience of some aspect of the physical or social world we live in. And by following the indications of prices and rules our behavior will be adapted to this experience, or

knowledge. The argument, then, is that behavior based on prices and rules is better aligned with real-world circumstances. Prices and rules make us more rational without necessarily increasing our understanding; but importantly – we can act as if we had this knowledge (one could argue that we at least possess this knowledge).\footnote{557}

Later in this chapter, as pointed out, we shall also take a close look at Hayek’s theory of competition, which further exemplifies how the factual dispersal of knowledge affects the workings of a society.

51. Hayek’s Theory of Prices

Together with the critique of general equilibrium theory, Hayek’s theory of prices is part of his legacy that makes him a famous economist.\footnote{558} The theory of prices is linked to the idea of the dispersal of knowledge thesis as it is expressed in the critique of equilibrium theory. In fact, the theory of prices is based on the assumption that knowledge (or information) is dispersed, and it illustrates important aspects of this thesis; the theory clarifies how the dispersal of knowledge induces another kind of institution, namely the price (or a rule), an institution that is not the product of deliberation, but instead a result of social cooperation. As pointed out, the theory of prices is massively supported in economics, and the fact that the dispersal of knowledge thesis is a necessary condition for the theory of prices implies, on logic, that the dispersal of knowledge thesis is also true.\footnote{559}

\footnote{557} For a further discussion of the concept of knowledge in Hayek’s work, see the previous chapter, and Chapter 12.
\footnote{559} As we remember, however, if the dispersal of knowledge thesis is a sufficient condition (but not a necessary condition) for the theory of prices, the reverse holds, namely that the truth of the dispersal of knowledge thesis implicates the truth of the theory of prices. As is obvious, then, I shall argue that the dispersal of knowledge thesis is a necessary condition for the theory of prices.
As we remember, the issue of the formation of prices is an important part of von Mises’s argument against socialism (see, Chapter 2). As pointed out, von Mises’s argument foreshadowed the dispersal of knowledge thesis, because Mises claimed that the information that goes into the making of prices is, so to speak, out there – dispersed – among the agents on a market. As we have seen, he further maintained that prices are the result of an information-trading activity that, in turn, is a result of the interaction of agents on a market. The thrust of von Mises’s argument is that in a situation in which a government agency owns the factors going into production, there will be no information-trading among agents on the factor market, and hence no factor prices. The crucial function of prices is that they relay information on the scarcity of a factor, or a product, and as such are a basis for economic – or rational – use of means to ends. A central issue in the socialist calculation debate had been whether a government agency could use factors of production rationally without prices to indicate their economic, or rational, use (see, Chapter 2). Socialists would argue either that prices are not needed for a rational use of means, or that the price mechanism can be re-created by the government. Given Hayek’s analogy between the way prices and rules come about, the obvious question is whether a government agency, in this case a legislature, can re-create the process in which, according to Hayek, rules develop – namely the process of cultural evolution (see, Chapter 12).\footnote{For a further discussion of this issue, see Chapter 12.}

While von Mises’s argument was directed at the possibility of the rational use of means in a situation when the government owns the factors of production, Hayek elaborated the inherent consequences of von Mises’s argument for a theory of prices.\footnote{Peter Boettke, “Hayek’s the Road to Serfdom Revisited: Government Failure in the Argument against Socialism,” \textit{Eastern Economic Journal}, vol. 21, no. 1 (winter, 1995), p. 9.} Hayek argues that the essential feature of prices is as symbols of change.\footnote{Hayek, “The Use of Knowledge in Society,” in \textit{Individualism and Economic Order}, p. 87.} As such symbols, prices re-
flect real-world changes of circumstances, captured in a number, denoted in some currency. One of the characteristic features of the price system, according to Hayek, is how little the agents need to know in order to take the right action. The price system, in this way, acts as an 'economizer' of information in that an agent can act in accordance with the multifaceted real-world changes of circumstances that determine a price, simply by letting his actions be based on the symbol alone – a symbol that reflects these circumstances. While the real-world changes of circumstances may be beyond what is possible for one man to acquire knowledge of, or make sense of, the price symbol is well within what is possible for one man to take into account. Says Hayek:

We must look at the price system as such a mechanism for communicating information if we want to understand its real function which, of course, it fulfils less perfectly as prices grow more rigid. [...] The most significant fact about this system is the economy of knowledge with which it operates, or how little the individual participants need to know in order to be able to take the right action. In abbreviated form, by a kind of symbol, only the most essential information is passed on and passed on only to those concerned. It is more than a metaphor to describe the price system as a kind of machinery for registering change, or a system of telecommunications which enables individual producers to watch merely the movements of a few pointers, as an engineer might watch the hands of a few dials, in order to adjust their activities to changes of which they may never know more than is reflected in the price movement.563

As the following quote indicates, Hayek’s theory of prices is an application of the dispersal of knowledge thesis, in which the influence of von Mises’s argument comes together with his own critique of the assumption of perfect knowledge in general equilibrium theory.

[...] I fear that our theoretical habits of approaching the problem with the assumption of more or less perfect knowledge on the part of almost everyone has made us somewhat blind to the true function of the price mech-

anism and led us to apply rather misleading standards in judging its efficiency. The marvel is that in a case like that of scarcity of one raw material, without an order being issued, without more than perhaps a handful of people knowing the cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly; that is, they move in the right direction. [...] I have deliberately used the word “marvel” to shock the reader out of the complacency with which we often take the workings of this mechanism for granted. I am convinced that if it were the result of deliberate human design, and if the people guided by the price changes understood that their decisions have significance far beyond their immediate aim, this mechanism would have been acclaimed as one of the greatest triumphs of the human mind.\(^{564}\)

If one holds the view that it is possible, by reason alone, to construct the rational institutions of a rational social order – legal rules among them – on the basis of knowledge of the social processes, the position taken by Hayek raises obvious issues with this view. In light of this, Hayek’s theory of prices, as pointed out, illustrates the thesis of the dispersal of knowledge as it pertains to the impossibility of either an economist, or a legislature, to collect the knowledge of the social process as a basis for rational decisions. In this sense, Hayek’s theory of prices is an important application of the dispersal of knowledge thesis.

As we have seen, Hayek argues that prices are important tools because the knowledge that guides people’s actions are dispersed and out of reach. As we have further seen, Hayek indicates how dispersed knowledge can be condensed into a tool – the price – by the interaction of individuals. As pointed out, his work on rules is related to his theory of prices as he claims that rules result from social interaction. In his work on rules, Hayek argues that there is much knowledge that a single individual cannot command, and that rules are a remedy for this state of affairs if they are viewed as tools that condensate the collective experienced that emerge

\(^{564}\) Hayek, “The Use of Knowledge in Society,” in *Individualism and Economic Order*, p. 87.
over time as a consequence of `knowledge trading’ between many agents over time. As we have seen, then, the dispersal of knowledge thesis is the assumption from which Hayek’s theory of prices takes its starting point; in fact, it is a necessary condition for this theory. As we have further seen, on the laws of logic, this fact – and the massive support for Hayek’s theory of prices in the scientific community that indicate the truth of the theory at this juncture of current knowledge – implies the truth of the dispersal of knowledge thesis.

Let us now proceed to Hayek’s theory of competition, in order to further illustrate his stance on the dispersal of knowledge in relation to rules and law.

52. Hayek’s Theory of Competition

I began this chapter by describing Hayek’s critique of general equilibrium theory as it displays the inherent difficulty for any agent, be it an economist or a legislature, to command complete knowledge of a social phenomenon. From the critique of equilibrium theory it is clear that Hayek argues that knowledge of the social process is dispersed among the agents of a society. In his theory of prices, the dispersal of knowledge thesis receives further support and exemplification, and, as pointed out, this is also the case with his work on rules (see, Chapter 12). As we have seen, he claims that prices are economizers of information in that the individual agent, by acting on the price, acts on a much wider set of information of which he need not be aware. The price mechanism, then, is a kind of heuristic that enables man to take advantage of the information of others in order to better align his acts to real-world circumstances. As we have seen, this is also the case with rules, on Hayek’s analysis.

As pointed out, Hayek, and most commentators on his work, appears to agree that his work on knowledge in social cooperation is his most
important contribution to social science.\textsuperscript{565} At the same time, as mentioned earlier, most commentators have refrained from a thorough analysis of Hayek’s position on knowledge and the concepts involved.\textsuperscript{566} In view of the dispersal of knowledge thesis, Hayek argues that economic theory, or any social science theory, should be concerned with the generation, discovery, acquisition, communication, and storage of knowledge, since this is the part of the theory that concerns real-world events and is capable of verification.\textsuperscript{567} He also suggests a general method for the discovery of the knowledge going into the social process, namely the method of competition.\textsuperscript{568}

In these comments, I shall briefly present this method. Hayek’s theory of competition is not as accepted as his theory of prices, or his critique of general equilibrium theory, and, as pointed out, we cannot infer from the theory whether the dispersal of knowledge thesis is true or not. However, it does illustrate the dispersal of knowledge thesis, and in particular it highlights how dispersed knowledge may result in institutions, such as rules.

In equilibrium theory, as we have seen, the data, or knowledge, is simultaneously and exhaustively given to all the agents on the assumption of perfect knowledge. When a system is described as being in equilibrium, it is implicit in general equilibrium theory that it is also under a condition of perfect competition. Now, Hayek argues that if competition is a method for discovering knowledge, it is a logical fallacy to claim that perfect competition is a condition in which the knowledge is simultaneously and exhaustively given to all the agents, prior to the condition of equilibrium.

\textsuperscript{565} Caldwell, Hayek’s Challenge, p. 338.
\textsuperscript{567} Hayek, “Economics and Knowledge,” in Individualism and Economic Order, p. 33; p. 46; p. 51; and p. 55.
Viewing competition as a discovery procedure of knowledge, as Hayek does, seems to exclude that knowledge is given, as it were, prior to that discovery procedure. And competition, according to Hayek, is just this method for finding the knowledge that is useful in the very specific individual computation of a choice in a social setting. Competition, in this sense, has no purpose, but is simply a method for maximizing outcome through an explorative process in search of dispersed knowledge. Hayek writes:

Against this, it is salutary to remember that, wherever the use of competition can be rationally justified, it is on the ground that we do not know in advance the facts that determine the actions of competitors. In sports or in examinations, no less than in the award of government contracts or of prices for poetry, it would clearly be pointless to arrange for competition, if it were certain beforehand who would do best. As indicated in the title of this lecture, I propose to consider competition as a procedure for the discovery of such facts as, without resort to it, would not be known to anyone, or at least would not be utilized.

I believe that it is against the background of Hayek’s view on competition that we shall understand the basis of the formation of prices and rules as consisting of the free interplay of agents in the discovery of knowledge, as conceptually linked to the dispersal of knowledge thesis. It is through the method of competition that dispersed knowledge is discovered and turned into heuristics such as prices and rules. As we remember, a central feature of Hayek’s work that relates to the dispersal of knowledge thesis is that the essential feature of any investigation of society is how knowledge is used, communicated and stored in social cooperation. As we have seen, Hayek, in his philosophy of mind, argues that man’s cogni-

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tive faculties are constitutionally limited. These cognitive limits of man suggest that knowledge being distributed among more agents, whose combined cognitive abilities outstrip those of the fewer agents, can increase the aggregate knowledge of the social process. The increased level of knowledge, stored in a distributed fashion, gives a more exhaustive description of the physical reality man navigates with the use of his limited cognitive faculties. As such, this more exhaustive description increases the probability of man to make the right decisions.

In light of this, Hayek’s arguments for competition, freedom, and later, cultural evolution, can be understood as arguments for the employment of methods by which the human description of the physical and social worlds is as exhaustive as possible – the better the mental description is aligned to the physical and social worlds, the more it increases the chances of achieving ends. On this analysis, rules and prices – and competition – are tools by which more knowledge can be made accessible to the individual agent than her cognitive faculties alone would allow, and, so, they increase the chances that limited means suffice for the ends in sight. In chapter 12, I will continue to discuss this “many-minds” aspect of Hayek’s critique.

53. Comments – Dispersed Knowledge and Law

As is clear, the issue of knowledge in relation to rational action and rational social order is key for Hayek. He views institutions – such as prices – as heuristics for the circumvention of the cognitive limits of man. The general theme of institutions dealing with, and structuring, dilemmas of a social reality that is more complex than the cognitive faculties of man, is present also in Hayek’s work related to the idea of complexity, as we have seen. In his later writings, Hayek is occupied with the role and function of rules – and law – with regard to rational action and rational social order. As should be clear, Hayek’s basic argument on rules is the same as the argument for competition, prices, and liberty. He argues that freedom
of exchange results in prices that contain a more exhaustive description of real-world circumstances. This analysis was carried over to rules and Hayek essentially argues that in a market economy, the function performed by rules, is similar to that of prices, as they mirror an exhaustive description of real-world circumstance. From this perspective one could say that the cultural evolution of rules is for rules, what competition is for prices: It is the method by which the mental description of the physical reality is made as exhaustive as possible by taking into account as much dispersed knowledge as possible. It is through the competitive method that the institutions, such as legal systems and prices, that are most conducive to the persistence of the group employing them, will survive in the process that Hayek calls cultural evolution (see, Chapter 12 below). As we have seen, Hayek is interested in how knowledge is generated, discovered, acquired, communicated, and stored. And he is, of course, interested, more specifically, in the question of how institutions come into play in the generation, discovery, acquisition, communication and storage of knowledge, information and know-how. It is on the basis of his statement on the empirical element of economic theory that Hayek challenges the view of constructivist rationalism that institutions can, and should be, deliberately designed for specific purposes. As pointed out, it is this wider aspect of the role of knowledge, information and know-how in social cooperation that we wish to investigate in relation to Hayek’s critique of legislation.

As we have seen, the problem for an agency (such as a legislature) to acquire the necessary knowledge to rationally coordinate the activities in a social entity is referred to by many names, such as “the knowledge problem,”\(^{573}\) “the information problem”\(^{574}\) and the “Hayek Hypothesis.”\(^{575}\)


In fact, the issue referred to by these names is one of the most commonly cited in economics. However, as these different names suggest, there seems to be no general agreement on what exactly the “knowledge problem,” or the “Hayek Hypothesis” is. As pointed out, the issue referred to by these names is significant beyond economics in the fashion that Hayek grappled with it, as the dispersal of knowledge thesis is an integral part of much of his work in the social sciences, especially as regards to function of rules and their relation to economic phenomena.\footnote{F. A. Hayek, “Kinds of Rationalism,” in F. A. Hayek, 	extit{Studies in Philosophy, Politics, and Economics} (London: Routledge & Kegan Paul, 1967), pp. 91–92.}

Finally, we should take notice that as Hayek understands equilibrium in the sense that all agents’ plans are compatible, it has been suggested that the mechanism for the kind of foresight this necessitates is rules;\footnote{Karen I. Vaughn, “Hayek’s Implicit Economics: Rules and the Problem of Order,” 	extit{Review of Austrian Economics}, vol. 11 (1999), p. 135.} rules that give us probable cause to expect “the other” to behave in a predicted fashion (for a further discussion of this issue, see Sections 68, and 76).

As pointed out, assessments of Hayek’s work are problematic. In the secondary literature, of course, Hayek critique of equilibrium theory was thoroughly discussed in the 1930’s and 1940’s. However, these discussions regard economic theory. Needless to say, I am not competent to discuss the finer points of this critique, or, the critique of the critique. However, what we are interested in here is how this critique supports an important thesis of Hayek’s critique of legislation, namely the dispersal of knowledge thesis. On this count, the secondary literature is unanimous in not putting the central idea of this thesis in question. A number of Hayek scholars, such as Bruce Caldwell,\footnote{Bruce Caldwell, 	extit{Hayek’s Challenge: An Intellectual Biography of F. A. Hayek} (Chicago: The University of Chicago Press, 2004), p. 338.} Andrew Gamble,\footnote{Andrew Gamble, “Hayek on Knowledge, Economics, and Society,” in ed. Edward Feser, 	extit{The Cambridge Companion to Hayek} (Cambridge: Cambridge University Press, 2006), p. 111.} Peter Boettke,\footnote{Peter Boettke, “The Austrian Contribution to Political Economy,” 	extit{Review of Austrian Economics}, vol. 5 (1998), p. 135.}
Stephen Böhm, Meghnad Desai, Lawrence Connin, Fritz Machlup, and Gary Becker point out its specific significance in Hayek’s work.

As we have seen in this chapter, Hayek’s provides accepted arguments for the dispersal of knowledge thesis in his critique of equilibrium theory. When we judge the credibility of the dispersal of knowledge thesis we should keep in mind that the thesis is the basis for Hayek’s commonly accepted and celebrated theory of prices. The fact that the theory of prices is viewed as an accepted theory, and that it is conditioned on the dispersal of knowledge, is a very strong reason to believe that the dispersal of knowledge thesis is true. As pointed out, because the dispersal of knowledge thesis as a necessary condition for the theory of prices, the truth of this theory implies – on logic – the truth of the dispersal of knowledge thesis. All in all, the support for the dispersal of knowledge as presented in Hayek’s critique of equilibrium theory (and his theory of prices), is considerable.

54. Summary

Hayek maintains that there is a factual tendency towards equilibrium. However, he criticizes equilibrium theory on three main points. He argues, (i) that real-world social phenomena takes place over time, and that equilibrium theory can only describe an economic system at given point

in time, (ii) that in the real-world social phenomena are constituted by several people, and that equilibrium theory cannot account for more than one person, and, (iii) that the data, or facts, that equilibrium theory is based on cannot be objective, and consequently that any scientific claims of the theory are dubious. These points of criticism point to the impossibility for an agency to gain access to an exhaustive description of a complex social phenomenon, since it is in fact dispersed.

Hayek’s theory of prices is related to the critique of legislation in that it is an illustration, or application, of the dispersal of knowledge thesis. Hayek argues that the essential feature of prices is as symbols of real-world change, captured in a number. The price system, in this way, acts as an economizer of information in that an agent can act in accordance with the multifaceted real-world changes of circumstances that determine a price by letting his actions be based on a symbol that reflects these circumstances. While the real-world changes of circumstances may not be possible for one man to acquire knowledge of (that knowledge is dispersed), following the symbol of the price is possible.

However, his theory of prices is also related to his work on rules – their function and how they develop. Hayek argues that prices – as well as rules – result from social interaction as based on dispersed knowledge. As we try to adapt our actions to real-world circumstances, the unintended results are the development of rules and prices, on his analysis. Further, as we shall see, the function of rules is similar, in Hayek’s view, to that of prices in that they are heuristics; that is, tools that help us act rationally. Embedded in these tools is the collective experience of some aspect of the physical or social world we live in. Prices and rules make us more rational without necessarily increasing our understanding; but – importantly – we can act as if we had this knowledge.

As we have seen, the dispersal of knowledge thesis is a necessary condition for Hayek’s theory of prices. As we have further seen, on the laws of logic, this fact – and the massive support for Hayek’s theory of prices
in the scientific community – implies the truth of the dispersal of knowledge thesis.

Hayek’s theory of competition is explicitly based on the notion of dispersed knowledge and highlights how dispersed knowledge may result in institutions, such as rules. As the theories of prices and competition show, Hayek believes that heuristics form as a result of the dispersal knowledge. In regard to this, we shall take notice of prices as one such heuristic, but also of the important analogy between Hayek’s theory of prices and his work on the evolutionary development of rules. As we have seen, Hayek’s basic argument for rules is the same as the argument for competition, prices, and liberty. He argues that freedom of exchange results in prices that contain a more exhaustive description of real-world circumstances. This analysis was carried over to rules and Hayek essentially argues that in a market economy, the function performed by rules, is similar to that of prices.

I argue that Hayek’s critique of equilibrium theory supports the dispersal of knowledge thesis. The main reasons for this position is that the critique of equilibrium theory itself is firmly accepted in economics, but also that Hayek’s celebrated theory of prices relies on the idea of dispersed knowledge. As we have seen, the dispersal of knowledge thesis is in fact a necessary precondition for Hayek’s theory of prices. As we know, logic tells us that if the dispersal of knowledge thesis is a necessary condition for the theory of prices, this means that the truth of the theory of prices implicates the truth of the dispersal of knowledge thesis.
55. Introduction

In “Part III” of this investigation, we have so far investigated the parts of Hayek’s work that support the dispersal of knowledge thesis. As we remember (Chapter 5), the various parts of Hayek’s work that support the dispersal of knowledge thesis do this independently; that is, for the dispersal of knowledge thesis to be true, it needs support from only one of the arguments presented in Chapter 6-9. As we have seen, Hayek’s work on complexity, his identification of the knowledge category know-how, and his critique of general equilibrium theory provide support for dispersal of knowledge thesis, while his philosophy of mind – although closely linked to his work in the field of complexity – does not. Thus, the dispersal of knowledge thesis is true.

As we further remember, the two lines of argument – based on the conjunction of the dispersal of knowledge thesis and the welfare claim, and on the conjunction of the cultural evolution thesis and the welfare claim – support the legislation tenet independently; i.e., the fact that the dispersal of knowledge thesis is true means that the legislation tenet is true. However, I now want to consider the possibility of designing legislation in a way that would circumvent the dispersal of knowledge thesis. That is to say, I want to consider tools that aim to design rules that successfully aim at specific aggregate results in complex social orders –
without commanding the requisite knowledge – short of necessarily decreasing welfare. Even though, as is evident, Hayek argues that it is not possible to master the knowledge necessary to legislate in a way that successfully achieves specific aggregate results in complex social orders without thereby lowering the welfare level; are there methods, or tools, that may achieve this?

In this chapter, I shall present Elinor Ostrom’s and Joshua Epstein’s efforts at developing tools for the improvement of deliberate rule design. These efforts are particularly interesting in light of Hayek’s critique of legislation, as they are so clearly in the vein of Hayek, while at the same time making it clear that while contemporary social scientists often share the basics of Hayek’s outlook, they may nevertheless develop new ways of looking at the same set of issues. I shall argue that while it is no doubt interesting to consider the tools of Ostrom and Epstein, their attempts do not seriously challenge the dispersal of knowledge thesis. Ostrom is such an authority in the field of institutional policy analysis that a closer look at her work in this regard is mandated. However, as we shall see, her attempts, even though stimulating, clearly needs more work. As for Epstein, his tool shows great promise, even though it is hard to say exactly what it amounts to.

Not only, as pointed out, do Ostrom’s empirical investigations refute the cultural evolution thesis, she also presents tools by which to improve deliberate rule design. What makes her work interesting in this regard is that while her platform is very similar to Hayek’s, her approach is very different. Whereas both Hayek and Ostrom argue that rational legislation is not an option, Ostrom – but not Hayek – seeks to understand rule change and how the quality of deliberate rule design can be improved. She acts upon the belief that rules can be improved and goes on to develop her syntax grammar of institutions, and her application of this syntax grammar to game theory. Of course, Ostrom is not just any researcher – her work on institutions and rules is justly famous. However, I shall argue that even though her position in the social science community warrants an
investigation of her views in this regard, her ideas needs further development in order to fulfill their promise.

As Ostrom points out, agent-based computational models will probably be central to efforts of improved rule design, and in this chapter I present one such agent-based computational effort, namely, Joshua Epstein’s generativist social science. As we shall see, this tool shows great promise, even though it does not yet successfully challenge the dispersal of knowledge thesis. As Epstein’s tool surely needs more work, it seems as if the promise it holds out – that rational legislation can be developed without the requisite knowledge – is not unrealistic. Further to this, it answers some of Hayek’s requests for developments in the social sciences, such as inter-disciplinarity, evolutionary modes of explanation, and a more powerful mathematics.

The chapter is organized as follows. I begin with a presentation of Ostrom’s syntax grammar of rules. I shall also explain how to apply this syntax – and game theory – to the task of improved rule design (Section 56). In this section, I also elaborate some examples of how this method may be used. I then move on to the agent-based computational tool for enhanced rules, implicit in the generative social science of Joshua Epstein (Section 57). As in the previous section, I elaborate some examples of how the generative social science may be used. Finally, I offer some comments on the science of legislation and rule improvement (Section 58).

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56. Game Theory and Elinor Ostrom’s Taxonomy of Rules

56.1. Introduction

It is clear that Ostrom shares Hayek’s view that legislative rules may have adverse welfare effects.\(^{587}\) Further to this, she agrees with Hayek that rule design is complex to the point that it is in effect practically impossible to have the information and compute it for an optimal rule choice.\(^{588}\) Ostrom also agrees with Hayek the view that we cannot presume that a legislator has the relevant knowledge, or, that the knowledge of a legislator is superior to the agent that is active in the social sphere that a rule aims to regulate.\(^{589}\) All in all, indications are that she endorses the general thrust of the legislation tenet as it is supported by the dispersal of knowledge thesis.

However, aside from the fact that Ostrom’s work shares many positions with Hayek, there is, as pointed out, a difference in approaches between Ostrom and Hayek. His main focus is a criticism of the possibility of rational legislation. He suggests that there is an evolutionary process for the development of rules, but his aim is not to develop tools that further rule design. Her approach, on the other hand, is to look for an understanding of institutional change, and more specifically, rule change. While optimal rule design is not possible that on Ostrom’s analysis (as on Hayek’s), she strives to understand rules, rule change, and how to improve rule design with her syntax grammar, and the application of it to strategic modeling of rules (game theory). So even if Ostrom’s work in this regard does not seriously challenge the dispersal of knowledge thesis, or the legislation tenet, her standing as a scholar of rules and institutions makes it relevant to present her work in this field. As pointed out, these

\(^{587}\) Ostrom, *Understanding Institutional Diversity*, p. 255.

\(^{588}\) Ibid., p. 239; and p. 31.

\(^{589}\) Ibid., p. 238.
ideas are stimulating, even though they need more elaboration to fulfill their promise.

What I intend to do in the following is to present Ostrom’s syntax grammar of rules (Section 56.2.) and explain how this can be applied to game theory and a strategic analysis of rule choice (Section 56.3.).

56.2. Rule Improvement – Syntax Grammar

As we shall see, Ostrom believes that institutions are the rules of the game; that is, she believes that institutions essentially are rules (on this, see, Introduction to “Part IV”). However, according to Ostrom there is no agreement on what exactly these rules of the game are, and she maintains that scholars use the term ‘rule’ with different meanings. Ostrom’s point is that if we are to accumulate knowledge about the institutional phenomenon of rules, scholars ought to mean the same thing when we use the same word. For this reason she introduces three different kinds of institutional statements – as she calls them – namely, rules, norms, and shared strategies. Her reason for doing this, of course, is that she acknowledges that there are, in fact, different rules of the game, and that we ought to be able to distinguish between these types with a precise vocabulary denoting them. Ostrom claims that her syntax grammar allows her to clearly distinguish between rules, on the one hand, and norms and shared strategies, on the other, and to focus when necessary on the evolution and transformation of one kind of institutional statement into another. While her syntax grammar is not a tool that can be immediately applied to the improvement of rules, it aims in a general way at this goal. It is also the basis of Ostrom’s application of game theory to the development of rules. Therefore, I shall briefly outline this syntax grammar. Furthermore, it is an interesting example of how freely inter-disciplinary

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590 Ostrom, Understanding Institutional Diversity, p. 3.
591 Ibid., p. 178.
592 Ibid., p. 140.
social scientists borrow ideas and concepts from various disciplines, in this case jurisprudence, in order to forge new frameworks.

In Ostrom’s syntax grammar an institutional statement is the broad term for the classes of shared, strategies, norms and rules: But, how then, does Ostrom distinguish between these three classes of institutional statements? Well, she does this with the help of five components of institutional statements that she introduces. These components are [ATTRIBUTE], [DEONTIC], [A/M], [CONDITION], and [OR ELSE].\(^{593}\) Ostrom’s syntax grammar distinguishes between institutional statements by reference to the number of the components they include.\(^{594}\) Rules contain all five of the components.\(^{595}\) Norms, on the other hand, contain only the four first components, and lack the [OR ELSE] component.\(^{596}\) That is, they lack a government agency sanction. Shared strategies contain the [ATTRIBUTE] [A/M] [CONDITION] components.\(^{597}\)

Any rule can thus be written as [ATTRIBUTE] [DEONTIC] [A/M] [CONDITION] [OR ELSE], any norm as [ATTRIBUTE] [DEONTIC] [A/M] [CONDITION], and any shared strategy as [ATTRIBUTE] [A/M] [CONDITION]. I will now, in short, present these components.

As one might expect, the component [ATTRIBUTE], is for a holder, such as anyone must be 21 years of age, or female etc.\(^{598}\) The component [DEONTIC] represents the three modes introduced by von Wright:\(^{599}\) those of being permitted, obliged or forbidden.\(^{600}\) The [A/M] component describes an action, or an outcome, that is related to the deontic component, such as that of applying for a driving license, or buying alcohol.\(^{601}\)

\(^{593}\) It should be noted that Ostrom follows von Wright’s distinction between generative rules and regulatory rules and that the syntax grammar applies to the regulatory kind of rules, see Ostrom, Understanding Institutional Diversity, p. 138.

\(^{594}\) Ostrom, Understanding Institutional Diversity, p. 140.

\(^{595}\) Ibid., p. 140.

\(^{596}\) Ibid., p. 140.

\(^{597}\) Ibid., p. 140.

\(^{598}\) Ibid., p. 141.


\(^{600}\) Ostrom, Understanding Institutional Diversity, pp. 141–42.

\(^{601}\) Ibid., p. 148.
The component [CONDITION] defines an action, or outcome, that is permitted, obliged or forbidden such as “is forbidden to drive a vehicle.” The [OR ELSE] condition describes the consequence of not performing the relevant action.

I will not give a detailed presentation of Ostrom’s five conditions, but the following examples of the different kinds of institutional statements will give the reader an idea of how Ostrom views the components. An example of a rule would be: Any citizen over the age of eighteen must file a tax statement with the tax authority in February of each year, or the tax authority will issue a fine, and taxes will be based on the estimates of the authority. With the attributes marked, the rule looks as follows: [ATTRIBUTE] Any citizen over the age of eighteen [DEONTIC] must [AIM] file a tax statement with the tax agency [CONDITION] in February of each year [OR ELSE], or the tax authority will issue a fine, and taxes will be based on the estimates of the agency. An example of a norm would be: The participant in a sports game is obliged to acknowledge to the opponent awareness of random luck if he wins a point due to it. With the attributes marked, the norm looks as follows: [ATTRIBUTE] The participant in a sports game [DEONTIC] is obliged [AIM] to acknowledge awareness of random luck [CONDITION] if he wins a point or scores due to it. An example of a shared strategy would be: In a group of people with a common task, a member who cannot accomplish his part of the effort, asks the other members for help. With the attributes marked, the shared strategy looks as follows: [ATTRIBUTE] A member in a group of people with a common task, [AIM] asks the other members for help [CONDITION] if he or she cannot accomplish their part of the effort.

As we have seen, Ostrom’s syntax grammar should make possible a shared analytical approach across disciplines that should increase cumulatively the knowledge of rules, and hence increase the possibility of successful legislation. As Ostrom points out, an important desideratum in

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602 Ostrom, Understanding Institutional Diversity, p. 149.
603 Ibid., p. 149ff.
any scientific endeavor is that the terms we use denote the same entity when different speakers use them. It is important that we mean the same thing when we use a term if we are to communicate what we know about the phenomenon we discuss. With regard to rules, Ostrom observes a wide discrepancy between the terms used and what they denote (see her interesting table of the diverse terminology\(^604\)). In order to remedy this, she presents her institutional syntax grammar.\(^605\) If she is right, a shared analytical terminology across disciplines with the further aim to make possible a cumulative body of knowledge of institutions and rules, will occasion a more positive outlook of the future of legislation for the simple reason that the more knowledge we have in common, the greater is the chance that the knowledge is correct and that we can put it to good use.

As we have seen in this section, Ostrom’s syntax grammar addresses an important issue, even though it is not immediately applicable to endeavors of rule improvement. However, her syntax grammar is the basis of her application of game theory to the development of rules. As we have further seen, it also makes it clear how inter-disciplinary social scientists borrow concepts from various disciplines when forging new frameworks. I now move on to discuss the syntax grammar and its relation to formal modeling of strategic situations – game theory.

56.3. Rule Improvement – Game Theory

In the following, I shall first briefly introduce game theory and then proceed to present Ostrom’s view on how to apply this tool to rule design as based on her syntax grammar. Then, I present one standard game often used in game theory – the snatch game. Finally, I attempt to illustrate – using the snatch game – how game theory may be used in rule design.

\(^604\) Ostrom, *Understanding Institutional Diversity*, p. 178

\(^605\) Ibid., pp. 139–140.
Game theory, then, builds on the idea that many situations in real life take the form of a game. Examples of such real-life games are the game of negotiating a contract, the game of getting a piece of legislation passed in parliament, or the game of finding the quickest way through rush-hour traffic. As one might expect, game theory can only predict outcomes when the individuals act rationally, that is, when the theorist can predict what actions will be the taken by participants in the game. When participants have so-called ‘other-regarding’ preferences, game theory cannot predict outcomes. Ostrom explicitly aims to widen the rationality assumption and expand the game theoretical framework to include strategic situations that involve a rule choice (an other-regarding preference) – situations that game theory have not been able to model.

Having thus removed the possibility to make accurate predictions, one may wonder what the point is of Ostrom’s exercise. Well, first of all Ostrom believes that any institutional situation can be conceived of as a game. Secondly, she argues that the fact that an expanded game-theoretical framework cannot provide correct predictions does not mean that there is nothing to learn from such a framework. To structure a strategic situation that involves rules helps us to determine its constituent parts; how they relate to each other, and how changes affect the structure of the strategic situation. As pointed out, she further argues that agent-based computer simulation is another viable formal method to study rules.

According to Ostrom, game theory (rational choice), as inspired by the simplifying assumptions of economics proper, is an appropriate tool for describing interaction in a lot of situations, especially those that are similar to “market” situations (cf. Vernon Smith and experimental eco-

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607 Ibid., p. 2.
608 Ibid., pp. 6–7.
609 For the jurisprudent it should be pointed out that game theory is a ubiquitous analytical tool in the social sciences. There are many general introductions to game theory, for instance, Ken Binmore, *Game Theory: A Very Short Introduction* (Oxford: Oxford University Press, 2007).
nomics, see Chapter 14). Whenever it is possible to predict outcomes that are verified empirically using these simplified assumptions, one does not need to look further than to game theory, according to Ostrom. However, in many situations, typically involving trust and common pool resources (such as natural resources, or tax funds), or more generally speaking, “market failure” cases; that is, cases that cannot be properly modeled with the assumptions of game theory and in which predictions are not empirically supported, “[…] one has to dig under the surface to begin to understand why,” says Ostrom. Assuming that, “[…] individuals are fallible learners trying to do the best they can in the long term by using norms and heuristics in making their immediate decisions,” Ostrom reaches behind the simplifying assumptions of neo-classical economics in order to further disentangle the generic components – which, she argues, all institutions consist of – in order to provide a framework for understanding the complexity of the situations that typically cannot be modeled in game theory.

On Ostrom’s analysis, one important situation, in which the level of complexity renders it impossible to model in game theory, is a strategic choice of rules (from the point of view of the legislature, this implies a choice of legislation). And, as we have seen in the previous section, Ostrom especially focuses on rules when breaking down institutions into a set of generic building blocks. As we have further seen, one aim of her efforts is to produce a common taxonomy when working with institutions in general – and rules in particular – so that social science may communicate and cumulate knowledge more effectively. The more general aim of trying to “animate” the “market failure” cases by trying to conceptualize their inherent complexity, beyond the assumptions that

610 Ostrom, Understanding Institutional Diversity, pp. 7–8; and p. 100.
611 Ibid., p. 8.
612 Ibid., p. 8.
613 Ibid., p. 7.
614 Ibid., pp. 219–220.
615 Ibid., p. 6; and p. 11.
work so well when modeling “market” situations, is to provide an understand-
ing of policy change when working with rules, since, as Ostrom says, “[i]f the individuals who are crafting and modifying rules do not understand how particular combinations of rules affect actions and outcomes in a particular ecological and cultural environment, rule changes may produce unexpected and, at times, disastrous outcomes.”  

Let us now move on to illustrate a formal game and how it can be expanded to include rules. My aim is to shed light on how Ostrom believes that game theory can improve our understanding of rules and rule change. The game-theoretical approach also makes it clear how economists abstract away superfluous information of a situation in order to concentrate on its salient features (cf. complexity science, see Chapter 7). Ostrom follows this approach and argues that one should strive to reach a sufficient level of abstraction that allows one to explain the issues involved. I will follow Ostrom’s lead in this exercise and use the “snatch game”. In this game there are two farms. Farm 1 produces hot dogs and farm 2 produces hot dog buns (or any other two products that are preferably enjoyed together, such as meat and potatoes). The value of a hot dog is assumed to be equal to that of a hot dog bun. The strategic situation is that farm 1 could either offer an exchange of hot dogs for hot dog buns, or withhold such an offer. If the offer is made, it consists of half of the hot dogs of farm 1. Farm 2, on the other hand, can (a) refuse the offer, (b) snatch what is offered, or (c) agree to exchange half of its hot dog buns for half of the hot dogs of farm 1.

There are then three possible results of the game, (i) no exchange (farm 1 does not offer, or farm 2 refuses the offer), (ii) snatching (farm 2 snatches what farm 1 offers), and (iii) exchange (farm 1 offers and farm 2 accepts the offer).

The most advantageous result from the aggregate point of view (society) is exchange, in which case the products fully complement each other.

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616 Ostrom, *Understanding Institutional Diversity*, p. 3.
617 Ibid., p. 35.
Chapter 10. Challenging the Dispersal of Knowledge Thesis

With only half their product, but with the complimentary product to go with it, both parties are in a better position than initially (the marginal utility of the complementary product is higher).

Under an assumption of strict rationality, the prediction of game theory of the snatch game is that no exchange will take place. The snatch game illustrates the ubiquitous social dilemma: The short-term incentives are not rigged towards long-term optimal aggregate outcomes (the short-term incentive is for farm 2 to snatch what is offered).

Let us now take a look at the snatch game with rules. This will illustrate how much more complicated the modeling becomes when rules are included, how the addition of rules makes it possible to predict exchange, and how game theory can be used as a tool to model strategic situations that are largely structured by rules.

In order for her to analyze a game with rules, Ostrom introduces delta parameters. She uses \( \Delta \) (capital delta) and \( \delta \) (common delta), to formalize the [DEONTIC] component of her syntax grammar. These delta parameters state the payoffs for obeying or breaking the rule. The delta parameter is thus the sum of costs and rewards of obeying or breaking a rule. The change in payoff of obeying the rule, Ostrom states as \( \delta \) (obeying). The change in payoff of breaking the rules, she states as \( \delta \) (breaking). The sum of the delta parameter is thus the sum of the change in payoff for obeying a rule, and the change in the payoff for breaking a rule. Ostrom consequently states this as: \( \Delta = \delta \) (obeying) + \( \delta \) (breaking).

As a way to capture the normative nature of rules in formal analysis, Ostrom further distinguishes between a change in payoffs that emanates from an external source, and a change in payoffs that emanates from an internal source. The change in payoffs from obeying a rule for external

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619 Ibid., p. 146.
620 Ibid., p. 146.
621 Ibid., p. 146.
622 Ibid., p. 146.
reasons she states as $\delta$ (obeying external). The change in payoffs from obeying a rule for internal reasons she states as $\delta$ (obeying internal). Consequently, she states the change in payoffs from breaking a rule for external reasons as $\delta$ (breaking external). The change in payoffs from breaking a rule for internal reasons, she states as $\delta$ (breaking internal). The delta parameter can then be states as: $\Delta = \delta$ (obeying external) + $\delta$ (obeying internal) + $\delta$ (breaking external) + $\delta$ (breaking internal).^{623}

I will now expand the snatch game with the institutional statements rules, norms and shared strategies. As we remember, there are two farms in the snatch game; farm 1 produces hot dogs, and farm 2 produces the complimentary product hot dog buns. The strategic situation is that farm 1 could either offer, or withhold an offer of exchange, and that farm 2 may refuse the offer, agree to exchange, or snatch.

Let us assume that in the snatch game there is a rule in force that forbids snatching. Let us also assume that whether farm 2 adheres to this rule is monitored. The new participant in the game – the monitoring agent – has a pay-off structure that looks as follows: $\delta$ (monitor) = $\delta$ (not monitor). This means that there is a 50% chance that the monitoring agent carries out his task and consequently a 50% risk that farm 2 is monitored in this respect. If caught breaking the rule, the farms are sanctioned.

Let us further assume that there is a norm to the effect that if you receive an offer from someone you trust, you accept the offer and reciprocate. Since this is a norm in Ostrom’s syntax grammar, it lacks the [OR ELSE] component, that is, it lacks a government agency imposed sanction. Let us also assume that the payoff for farm 2 related to this norm looks as follows: $\delta$ (obeying) > $\delta$ (breaking). Thus the payoff for obeying the norm is positive and the norm is obeyed. In the absence of trust, farm 2 falls back on the rationality assumption and maximizes utility.

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^{623} Ostrom, *Understanding Institutional Diversity*, p. 146.
Let us finally assume that there is no rule, norm or shared strategy that concerns offers. The decision of farm 1 whether to make an offer, or not, is thus solely based on deliberation of maximizing utility.

Given this strategic set-up, we can predict a positive probability that farm 1 will at some point make an offer. Farm 1 knows that snatching is monitored and sanctioned. Farm 1 also knows that there is only a 50% chance of the monitoring being carried out. However, we may imagine a number of situations in which farm 1 will make an offer. Perhaps farm 1 knows that the monitoring agent ardently carries out his duties the first week each month (after he draws his pay), or that some member of farm 1 at some point have an extra need of the nutrition in hot dog buns for health reasons. In any case, in view of the 50% chance of monitoring of snatching, an offer will probably be made.

Farm 1 also knows that since they do not know farm 2, no trust has developed between them (and thus they do not adhere to the norm that tells them to reciprocate an offer made from someone you trust). However, farm 1 also knows that in the absence of trust, farm 2 will act in view of maximizing utility, and while they do not know farm 2, they know that farm 2 possesses a complimentary product, and consequently that they – as well as farm 1 – would gain from an exchange.

Once an offer is made, farm 2 has to consider the risk that it is monitored, in which case they agree to the offer. However, their short-term incentive is to snatch since this leaves them with all of their hot dog buns and half as many hot dogs.

We can further tweak and expand the above strategic situation. Let us continue to assume that there is rule that forbids snatching. Let us also assume that farm 1 and farm 2 are monitored and sanctioned if they break the rule so that $\delta$ (obeying external) $> \delta$ (breaking external). For this to be the case, the new participant in the game, the monitoring agent must have a positive pay off for actually carrying out the monitoring. Either the monitoring agent is himself monitored and sanctioned, so that part of his delta parameter can be stated $\delta$ (monitor external) $> \delta$ (not monitor exter-
nal), or the monitoring agent has a strong normative view that he should monitor and sanction breaking of the rule that forbids snatching, so that part of his delta parameter can be stated $\delta_{\text{monitor internal}} > \delta_{\text{not monitor internal}}$. The monitoring agent may also have a combination of external and internal motivations in which $\delta_{\text{monitor}} > \delta_{\text{not monitor}}$.

Let us further assume that there is a norm to the effect that if you receive an offer that displays trust, you accept the offer and reciprocate. This norm, then, lacks the [OR ELSE] component. However, the delta parameter can still have an external variable if, for instance, the breaking of the norm leads to ostracizing behavior from your peers. Let us assume that the payoff for farm 1 and farm 2 related to this norm looks as follows: $\delta_{\text{obeying external + internal}} \leq \delta_{\text{breaking external+ internal}}$. Thus the payoff for breaking the norm is equal, or greater, than the payoff for obeying the rule. When the norm is not adhered to, farm 2 relies on the decision of the most senior woman in the household who is usually hostile to outsiders.

Let us finally continue to assume that there is no rule, norm or shared strategy that concerns offers. As before, the decision of farm 1 whether to make an offer or not is thus solely based on deliberation of maximizing utility.

Given this strategic set-up, we can still predict a positive probability that farm 1 will at some point make an offer. In this case, farm 1 knows that snatching is rigorously monitored and sanctioned. They also know that if their offer displays trust, there is a norm that indicates that farm 2 will accept the offer. However, they also know that the norm is mostly not adhered to, although sometimes it is. They further know that in the absence of the adherence to the norm, the most senior female member of farm 2 will make the decision and that she is hostile to outsiders.

In this way we can continue to tweak strategic situations to illustrate a variety of issues related to rules and other institutional statements. According to Ostrom, we can investigate how an institutional statement evolves into another kind of institutional statement, how a change in the
initial conditions influences the outcome of the game, and how participants that adhere to different institutional statements affect a strategic situation (cf. stockbrokers who either follow, or do not follow, rules that ban insider trading) etc. Of course, it is not difficult to envision the value of such an enterprise to anyone, such as a legislator, who attempts to design rules.

Ostrom’s application of the syntax grammar to the formal modeling of strategic situations, then, should make possible a further analytical understanding of the structure of situations in which rules play a large part, as well as provide a tool to model outcomes with the aim to produce more successful legislation. As we have seen, Ostrom argues that any institutional setting can be mapped in a game. As we further have seen, game theory can be used to structure a strategic situation involving rules. Ostrom also argues that the fact that an expanded game-theoretical framework cannot provide correct predictions does not mean that there is nothing to learn from such a framework. This should be a powerful tool to a further understanding of rules, not least because game theory is such an accepted feature of social science so that many disciplines can be involved in this enterprise.

As we have seen, Ostrom’s work is interesting for many reasons. First of all it is interesting because she borrows freely from many disciplines, and in a creative way forges these into an explanatory framework. So, for instance, she borrows the deontological distinctions from jurisprudence, and she borrows game theory from economics. She then integrates her findings into a framework in institutional policy analysis. However, it is clear that her framework is not only of interest to institutional policy analysts, but also to legal and economic scholars. Even, though, as we have seen, Ostrom’s ideas need more work (and we have tried our hand at some developments of these ideas in this section), and even though her work in this regard does not seriously challenge the dispersal of knowledge thesis, the way she forges her framework through a creative borrowing, I believe should be an inspiration.
57. The Generative Social Science of Joshua Epstein

57.1. Introduction

Joshua Epstein’s generative social science is a tool, or a methodological approach, that has emerged out of complexity science as it is practiced at the inter-disciplinary Santa Fe Institute. As I have said, the concept of complexity is foundational for Hayek and it forms the link between many themes of Hayek’s research agenda. As we have seen, it was Hayek’s investigation of the complexity of the neural order and the relation between the physical order and the order of sensations, that led him to perceive complexity on a wider scale. In turn, it was the idea of complexity that led Hayek on to the theme of evolution and later on to his theory of the cultural evolution of rules of just conduct. Of course, the concept of complexity is also present in his critique of general equilibrium theory. As we have seen, it is, in this sense, the concept of complexity that links Hayek’s philosophy of mind to his theories of the law, the market and social orders. Of course, the concept of complexity is also a keystone of Hayek’s critique of legislation.

As we remember, Hayek claims a strong analogy between the complexity of mind and the complexity of society (viewing society as a distributed computing device, see Chapter 7) and goes on to argue that we need a more powerful mathematics if it is to be meaningfully applied in the social sciences. These positions are mirrored in Joshua Epstein’s generative social science. As I have said, generative social science shows great promise. It seems to me that it may, in the future, make the dispersal of knowledge thesis irrelevant for designing rules, and so undermine the

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dispersal of knowledge thesis. In short, this is made possible by having artificial agents interact over time according to rules. These rules then may be tweaked until optimal results are met. Of course, this computerized social interaction is iterated at “fast forward” so to speak. And this is what separates it from its real-life counterpart.

In this section, I will first briefly outline Epstein’s generative social science and state some similarities in approach to that of Hayek (Section 57.2.). Then, I suggest how generative social science relates to Ostrom’s attempt to provide tools for improved rule design (Section 57.3.).

57.2. Agent-Based Computational Models

Generative social science is a quite new discipline. The central idea behind its approach to social science explanation is to let a multitude of heterogeneous agents interact and then study the aggregate outcome under differing conditions. These agents are guided in their actions by rules. And these rules are the decisive factor in generating the aggregate outcome. This computerized mimicking of social interaction makes it possible to (i) search for explanations of historical social outcomes, or (ii) experiment with future results of changes in an institutional set-up.

As we shall see, generativist social science is firmly rooted in complexity science (see, Chapter 7). The general question of the generativist approach is: “How [do] ensembles achieve functionalities (or properties) their constituents’ lack?” 625 or more elaborately: “How could the decentralized local interactions of heterogeneous autonomous agents generate the given regularity?” 626 This question is then answered by setting up an experiment in the following way: “Situate an initial population of autonomous heterogeneous agents in a relevant spatial environment; allow

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626 Ibid., p. 5. Cf. the concept of emergent properties.
them to interact according to simple local rules, and thereby generate – or ‘grow’ – the macroscopic regularity from the bottom up.”

In searching for an explanation of the macro structure, the generativist approach focuses on “generative sufficiency,” that is, how little rationality is sufficient at the micro level to generate the macro regularity. In this sense, as in Vernon Smith’s work (see, Section 77.2.), micro level rationality and macro level equilibrium are decoupled (cf. also Greif’s claim that an “initial grain of truth” will suffice for an equilibrium to be attained in finite time, see Section 76.3). The generative approach differs from much of social science – which states that a given equilibrium is attained under certain conditions – in that it aims to show how equilibrium is attained over time; the rules of the agents are stipulated and the iterative computer simulation of the agents’ interactions shows how the macro level is attained over time, whether an equilibrium or not. In view of this, Epstein puts the generative approach to social science explanation as follows: “If you didn’t grow it, you didn’t explain it.”

As should be clear, generative social science shares many positions with Hayek. However, it should be noted that I do not particularly search for Epstein’s possible support for Hayek’s ideas – my interest in Epstein is spurred by Ostrom’s tools for improved rule design – even though I do note several points of similarity. As we see, there are a number of the positions of the generativist approach that are present, or anticipated, in Hayek’s work. The generativist approach is connectionist, viewing society as a distributed computational device. This of course is very similar to Hayek’s analogy between society and mind, conceived as connectionist systems in modern cognitive science parlance (see, Chapter 6). Further, as we remember, Hayek maintains that the pivotal questions of social science are not likely to be answered by any one of the particular disciplines,

628 Ibid., p. 8.
but rather the answers to these questions are to be found at the intersections of these disciplines. Generative social science is expressly interdisciplinary in pulling together expertise from different disciplines in the natural and social sciences to furnish agent-based models. When the generativists claim the decoupling of micro level rationality and macro level equilibrium, this is very close to Hayek’s claim that cognitively limited agents act according to a set of rules that induce them to act rationally, and that this set of rules is distinct from the order of actions that is the result of the rules being followed (as well as to the experimental findings of Vernon Smith, see Section 77.2.). When the generativist approach uses the term “generative sufficiency,” it could be interpreted as recognition of Hayek’s claim that we can explain complex phenomena only along their principal way of functioning. Further, Epstein invokes Gödelian limits to social science explanation, as do Hayek (on this, see Chapter 6). To “grow” a macro development over time in a multi-agent environment also seems to answer Hayek’s criticism of general equilibrium theory, and, as pointed out, the mathematical tools of generative social science and the computational power of modern computers may also provide the answer to Hayek’s call for more powerful mathematics in the social sciences.

After this introduction of the work of Joshua Epstein, and the presentation of the similar positions taken by Hayek and generative social science, we may now – for the sake of illustration – summarize Hayek’s position in generativist language as the following statements. (a) Distributed knowledge, information, and know-how can be stored in larger quantities than knowledge held in designated places by few. (b) Distributed computing occurs when individuals tap into the vast store of distributed knowledge, information and know-how to guide action. (c) A complex order is an institution by which distributed knowledge, information, and know-how can be stored and then put to use in a specific computation for the purpose of choosing between alternative actions. (d) Rules is the primary heuristic by which distributed knowledge, information, and know-how is relayed as well as the primary heuristic facilitating the computa-
tion in the unique choice situation. The underlying evolutionary perspec-
tive of generative social science is, of course, in line with the work of
Hayek. All the principles of generative social science, as they were stated
above, are indeed close to Hayek’s vision.

57.3. A Practical Tool for Rule-Drafting

I now turn to the question of how generative social science relates to
Ostrom’s call for more work in the area of agent-based computation mod-
eling, and how it relates to Ostrom’s attempt to provide tools with which
to enhance rule design.

Generativist social science seems to confirm the general approach of
Hayek’s work in that it has furthered our understanding of how cognitively
imperfect agents perform in complex social settings. The main contri-
bution of generative social science in relation to legislation, though, is
that generative social science is a tool, with the help of which the evolu-
tionary process can be played up at higher speed. The obvious use of this
tool is to test legislative drafts in the laboratory, so to speak. While this
method does not prove that rationality in legislative matters can be
achieved, it suggests that an increased sphere in which a stronger relation
between intent and outcome in legislative matters can be established by
simulating approximations of the different aggregate variations that a
micro rule of behavior (legislation) gives rise to.

I shall begin by giving some examples in which different phenomena
have been generated; that is – according to Epstein – explained via agent-
based computational modeling. Then, I will describe one such example in
more detail. Finally, I will expand on how this tool may be used to en-
hance rule design.

A number of phenomena have been generated, or explained, using the
agent-based computational tool. The following examples include some of
those phenomena: wealth distribution, firm size and growth rate, price distributions, settlement patterns, economic classes, price equilibria, trade networks, military tactics, organizational behavior, epidemics, traffic congestion, cultural patterns, and segregation. In his book, Generative Social Science: Studies in Agent-Based Computational Modeling, Epstein presents what he refers to as “The Generativist Manifesto,” in which he argues that agent-based computational modeling is a powerful tool to investigate social science issues. He then considers examples of the use of this tool. He investigates such interesting topics as how to generate thoughtless conformity to rules, 

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630 Epstein and Axtell, *Growing Artificial Societies: Social Science from the Bottom Up*, p. 43.
639 Epstein and Axtell, *Growing Artificial Societies: Social Science from the Bottom Up*.
arguing that one striking feature of rules is that they free the individual from individual computation of choice situations (cf. Hayek’s theory of prices in which he argues that the price mechanism operates with a high degree of economy of information – the individual need not know the factual reasons behind a price, he just needs act on it in order to make the “right” decision). He also investigates how subtle rule changes result in large effects. However, the example I present of how to use the generative method is taken from archeology: The re-creation of how the Anasazi people lived and then perished in the Long House Valley in Arizona, USA. Although the general features of this study bear some resemblance to the empirical studies of Ostrom (see, Chapter 13), it is important to note that while Ostrom’s studies attempt to study real-world examples and what lessons to learn from them, Epstein uses the empirical data in this example as a proof against which to test and see whether the generative agent-based computational model can be grown to mimic what really happened. That is, can we specify the micro level rules of behavior that generates, grows or explains the actual macro level history of the Anasazi people?

The Keyanta Anasazi lived in Long House Valley in northeastern Arizona from 800 to 1300 AD, at which time they seem to have disappeared. There exists good data on the physical environment, such as hydrology, aggradation, maize potential and drought severity. There is data available on these parameters per hectar per year (800–1300 AD). There is also good data available on the number of households and where these were located. This data were the input to a data model that could graphically play up the real historical development; that is, mimic the recorded historical development – notably the disappearance of the

645 Epstein, Generative Social Science, pp. 88–89.
646 Ibid., p. 91; and p. 101.
647 Ibid., p. 93.
648 Ibid., pp 93–94.
Anasazi in 1300 AD, but also the fluctuations in the periods in between.\textsuperscript{649} After this data was loaded into the agent-based computational model, the next step was to put the Anasazi and the long-house valley in the position of 800 AD, equip the agents with ethnographically plausible rules of behavior, let the agents interact and then let time pass until 1300 AD.\textsuperscript{650} The micro rules of behavior can then be tweaked with the goal that the artificially grown history of the Anasazi accords with the recorded history of the settlement.

An important question in the archeological community working with the southeast USA has been whether the disappearance of the Anasazi was the result of changes in the physical environment, or whether other factors played a part, such as conflict, disease or institutions.\textsuperscript{651} The actual result of the artificially grown Anasazi history was that the research team managed to mimic the development of fluctuations in population and settlement patterns very close to recorded history.\textsuperscript{652} However, they did not manage to mimic the outright extinction of the Anasazi around 1300 AD. This indicates that there were factors other than the physical environment that contributed to extinction.\textsuperscript{653} However disappointing, this in itself is an interesting result for archeologists.

But the really interesting question is of course how the agent-based computational modeling of generative social science can be used with regard to legislation. In the following, I will construct some examples of what might be investigated using the generative tool.

Let’s say there is a country with a high rate of unemployment among the younger part of the labor force. The government naturally wants to address this issue. Let’s further assume that parts of the unemployed younger labor force share cultural patterns other than those of the country in question. There is reason to anticipate that cultural patterns influence

\textsuperscript{649} Epstein, \textit{Generative Social Science}, p. 93.  
\textsuperscript{650} Ibid., pp. 101–102.  
\textsuperscript{651} Ibid., p. 114.  
\textsuperscript{652} Ibid., p. 107.  
\textsuperscript{653} Ibid., p. 113.
how policies addressing this issue turn out. As I understand it, we can then run two or more artificial tests. In each test, the agents’ micro rules of behavior differ according to cultural group. The results can be used to forge one policy that shows good results for all groups. They can also be used to develop policies that are specifically targeted at groups that hold different cultural patterns. Within these groups, there will be several different sub-groups that, in turn, have differing cultural patterns. With this in mind, several policies can be developed. Of course, the promise of such example is that it contributes to the social well-being of those targeted as well as to the financing of the welfare state, while it must be recognized that such targeted policies may conflict with the idea that the law ought to equally apply to all.

Another issue to investigate is how decriminalization of drugs would impact organized crime. As in the former example, we can postulate two runs – one in which drugs are legalized, and one in which they are not. We can then compare the organized crime rates and compare costs on economic and social parameters of drug use and organized crime. Of course, we can then experiment with situations that do not have just two alternatives, but something in between. We might, for example, legalize some drugs, or we might legalize all drugs while requiring that they be sold only at pharmacies. As in the former example, the promise is to increase the social wellbeing of the population as well as improve the financing of the welfare state. However, in this case we may also envision that government authority as a protector of the Rechtsstat is strengthened. This is an especially important aspect in countries in which this authority is threatened by organized crime.

Yet another issue is how demography is impacted by different policies. Let’s say that a legislature contemplates a parental leave system. However, the cost for such a system is prohibitive. At the same time, the pension system will not carry future burdens unless the demographics are somehow changed. As I understand it, one can then play around with different paternal and maternal policies to see if there is an alignment of parents’
wishes to be with their children and the societal need to change demographics, without breaking the short-term budget constraints.

As we see, it seems that agent-based computational models of generative social science could potentially be very useful tools with which to investigate the future effects of legislation. Of course, the examples can be expanded and varied in endless ways. As Ostrom’s syntax grammar and its application to game theory, as well as Epstein’s generative social science, are relatively recent inventions, we may expect future work to further develop these tools. However, as pointed out, while I consider generative social science to be the more promising tool, future developments will show if agent-based computational modeling delivers on that promise.

58. Comments – The Science of Legislation and Rule Improvement

As pointed out in Chapter 1, a science of legislation (Gezetsgebungslehre), or legisprudence, has sprung up in the past decades within legal research, specifically addressing issues of designing legislation that is better, more justified, or more efficient, issues of what constitutional constraints legislation should be made subject to, as well as investigations of new regulatory landscapes. As pointed out, though, Hayek does not engage in efforts to improve rule design; he focuses on the critique of legislation. However, in this chapter we have investigated whether the tools developed by Ostrom and Epstein may undermine the dispersal of knowledge thesis. As we have seen, Ostrom’s approach is indeed interesting while it clearly needs more work. As for Epstein, his generative social science is more promising in view of undermining the dispersal of knowledge thesis. While it seems that this tool may not yield precise prediction of results, it seems perfectly plausible, or at least promising, that it would result within a close range of results aimed at.
As Ostrom’s work is relevant for the remaining part of this investigation, and indications are that she endorses the general thrust of Hayek’s critique of legislation in terms of the legislation tenet and the dispersal of knowledge thesis – as she shares with Hayek a deep-seated fear of the potential negative welfare consequences of legislation – I shall comment briefly on the facts (i) that she is a skeptical of the possibility of rational legislation as is Hayek, if not more so, and (ii) that she shares the position with Hayek that government officials know less than those to be regulated; that is, she aligns with him on crucial issues. So, Ostrom challenges the assumption of institutional policy analysis, “that designing rules to change the incentives of participants is a relatively simple analytical task.”

Ostrom claims, on the contrary, that rule design is a complex process: She writes:

> Given the nonlinearity and complexity of many action situations, it is challenging to predict the precise effect of a change in a particular rule. [...] It should now be obvious that the search for rules that improve the outcomes obtained in common dilemmas is an incredibly complex task involving a potentially infinite combination of specific rules that could be adopted.

Ostrom argues, much like Hayek, that it is in effect practically impossible to have the information and compute it for an optimal rule choice. She continues: “[T]he option of optimal design is not available to mere mortals. The number of combinations of specific rules that are used to create action situations is far larger than any set that analysts could ever analyze even with space-age computer assistance.”

On the topic of what knowledge a legislature may possess, Ostrom challenges the view that government officials are “saints.” In fact, she argues that there is little basis for the view that government officials are

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654 Ostrom, *Understanding Institutional Diversity*, p. 239.
655 Ibid., p. 239.
656 Ibid., p. 31. Emphasis added. Reference omitted.
657 Ibid., p. 238.
omniscient altruists, pointing out that they are not better informed than the actual user of a resource. So, in the vein of Hayek, she writes:

Nor should we presume that officials have all the relevant knowledge to manage complex dynamic systems while local appropriators are ignorant. The knowledge base of government officials may not, in reality, be better than that of local appropriators who have used a particular resource for years and know its characteristics in considerable detail. Even when the knowledge base is similar, no guarantee exists that government officials (or the researchers who advise them) will use available information to make efficient and/or sustainable decisions.  

As we see, Ostrom agrees with Hayek that we cannot presume that a legislator has the relevant knowledge, or, that the knowledge of a legislator is superior to the agent that is active in the social sphere that a rule aims to regulate.

In this chapter, then, I have focused on the efforts of Ostrom and Epstein to improve deliberate rule design at the intersection of economics, law, institutional policy analysis, computer science, and archeology. As will be further developed in relation to the cultural evolution thesis, social science since the time of Hayek has been rapidly expanding into interdisciplinary ventures focusing on the role of rules in social governance, and the role of rules for rational action and rational social order. It is evident that Hayek has served as an inspiration for these lines of investigation. However, as pointed out, while many of these scholars share a basic outlook with Hayek, their take on these issues sometimes differ from his. In the Chapters 13 and 14 in particular, I shall delve into this field of inter-disciplinary ventures focusing on the role of rules.

However, let us now proceed, in the next chapter, to consider whether there are any practical lessons to be learned from Hayek’s critique. After all, legislation is a practical matter of governance and in the next chapter I shall develop a legislative policy tool as based on the welfare claim and Hayek’s conception of coercion.

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Chapter 11
A Policy Tool for Legislation

59. Introduction
In the previous chapter, we challenged the dispersal of knowledge thesis by invoking the work of Elinor Ostrom and Joshua Epstein. In this chapter, we shall continue to relate to the dispersal of knowledge thesis and seek to distill some practical relevance from Hayek’s admittedly abstract critique of legislation. We shall do so by elaborating a legislative policy tool as based on Hayek’s conception of coercion and the welfare claim. The focus on Hayek’s conception of coercion is due to that the idea that coercion hinders agents’ utilization of knowledge – and thus decreases the welfare level – is the flipside of the line of argument that rules not based on full knowledge cannot be rational and will decrease the welfare level.

As we have seen, the dispersal of knowledge thesis is true as it is independently supported by three out of four arguments presented by Hayek (see, Chapters 6-9). Further to this, the legislation tenet is independently supported by the two lines of argument that support it. As we have seen, this means that Hayek’s critique of legislation is true (even if we are to clarify and assess the line of argument that is based on the conjunction of the cultural evolution thesis and the welfare claim in “Part IV” of this investigation). Nonetheless, in the previous chapter we sought to investigate whether Ostrom’s syntax grammar of rules and its application to game theory, or Epstein’s generative social science, could somehow evade the dispersal of knowledge thesis and make it plausible that a deliberate design of rules can aim at specific aggregate results in complex
social orders without thereby decreasing the level of welfare, \textit{i.e.}, contradict the legislation tenet. However, neither Ostrom nor Epstein manages to seriously challenge the dispersal of knowledge thesis. As pointed out, we shall continue to relate to the dispersal of knowledge thesis as we search to extract practical guidelines from Hayek’s critique. And we shall do this in terms of Hayek’s conception of coercion and the welfare claim. Let me explain.

Up till now, the line of argument in terms of the dispersal of knowledge thesis, has been that a legislature cannot have the knowledge necessary to design rules aiming at specific aggregate results in complex orders of society without thereby lowering the welfare level. If we have, so far, focused on the effect of the dispersal of knowledge thesis for a legislature, we shall in this chapter focus on its effect on the \textit{individual agent}.

The dispersal of knowledge thesis, as we remember, has it that the sum total of the knowledge that determines the aggregate properties of a complex social order are necessarily dispersed and not available in full to a legislature in that social order. Of course, this thesis means not only that the aggregate knowledge determining the aggregate properties of society is not available to a legislature, but also that it is dispersed among the individuals that make up society.\footnote{As we shall see, Hayek maintains that knowledge may also be dispersed on institutions, tools, artifacts, and emotional attitudes.} In view of the welfare claim, it is, of course, important that the knowledge dispersed on the individual subjects may be utilized to an as large extent as possible.

As pointed out, in this chapter we shall recalibrate our focus from the legislature to the individual subjects and their utilization of knowledge. We shall focus on legal coercion,\footnote{On the view of most legal scholars it is the existence of legal coercion, that make the subjects obey the law. See, e.g. Karl Olivecrona, \textit{Law as Fact}. 1\textsuperscript{st} ed. (Copenhagen: Einar Munksgaard & London: Humphrey Milford, 1939), Chapter 2.} the point of departure being that it is legislative coercion that hinders the subjects to deploy the full extent of their own knowledge base, and, therefore, on the welfare claim, legal coercion will decrease the level of welfare.

\footnote{As we shall see, Hayek maintains that knowledge may also be dispersed on institutions, tools, artifacts, and emotional attitudes.}
As pointed out, it seems, then, that the idea that coercion hinders the agents’ utilization of welfare and decreases the welfare level, is the companion – or flipside – of the line of argument that rules not based on full knowledge cannot be rational and will decrease the welfare level. In view of this, I shall attempt to operationalize Hayek’s critique of legislation, using his conception of coercion as the steppingstone to this more operationalized view. After all, legislation is a practical matter, and we want to glean whatever practical guidance we can from Hayek’s critique.

This chapter is organized as follows. I begin with a brief presentation of Hayek’s conception of coercion (Section 60). Having done that, I comment on and take stock of how Hayek’s view on coercion (and the welfare claim) may be operationalized as an argument (Section 61). Finally, I consider this argument as a general policy tool in legislative matters (Section 62). Section 63, is a run-up to “Part IV” of this investigation.

Let us now proceed to consider Hayek’s view on coercion.

60. Hayek on Coercion

We remember that Hayek’s argument for liberty is instrumental in nature (see, Section 25.1.). He argues for freedom based on his view that freedom is conducive to the utilization of knowledge, and thus to welfare creation (cf. the welfare claim), not because he perceives it as an important moral value (although that may have been the case, he does not make his argument that way).661 On Hayek’s analysis, as we remember, the original function of law is to establish for each person a protected sphere within which he is free to deploy his capacities and means to the best of his knowledge.662 Liberty and property, on this analysis, are the

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means by which individuals maximize their utilization of knowledge and hence their contributions to the welfare of society.\textsuperscript{663} However, on Hayek’s view, and on the views of most legal scholars, coercive measures are needed to secure a legal order.\textsuperscript{664} The situation Hayek is critical of is when legislation authorizes coercion that goes beyond this basic function. As we shall see, he argues that coercion in this fashion may hinder the utilization of knowledge, and that this means, in keeping with the welfare claim, that it will decrease the welfare level in society.

I understand Hayek’s argument concerning coercion in the following way. To exercise coercion means that the coerced makes decisions that are in part dictated by the coercer.\textsuperscript{665} As we have seen with regard to the dispersal of knowledge thesis, Hayek means that every individual has a unique position with regard to his knowledge set-up in relation to achieving his goals in an efficient manner (cf. instrumental rationality). This unique position means that the individual has unique insight into (i) the information he possesses – for instance, specifics on the time of a market clearing, the place of some transaction, or the quantity (scarcity) of some product in some market – that is relevant to achieve his goals in an efficient manner, and (ii) unique insight into his know-how (his abilities) that is relevant to achieve his goals in an efficient manner. To the extent that coercion affects this unique position of the individual, the unique information and know-how of the individual cannot be used to achieve a goal as efficiently as possible.\textsuperscript{666} In view of this, Hayek argues that the welfare level in society will decrease because of the correlation between the utilization of knowledge and the welfare level in society (the welfare claim).

In connection with Hayek’s conception of coercion, it is worth noticing that we shall not understand Hayek to mean that law is not coercive. A pivotal point of Hayek’s is that the law is a condition for complex so-

\textsuperscript{665} Ibid., p. 117.
\textsuperscript{666} Ibid., p. 118.
cial orders. As we have seen, according to Hayek, this type of social order fares much better in terms of welfare creation than other types of social orders. The coercion needed to uphold the law, and thereby protect the development of complex social orders, is both legitimate and has a positive welfare effect, on Hayek’s analysis. The negative welfare effects are related to the coercion authorized by legislation that aims at specific aggregate results in complex social orders, (the legislation tenet). Of course, because of the aggregate nature of the specific results Hayek has in mind in his legislation tenet, they are often associated with coercive measures – if society as a whole is to take on some specific property, this means that all, or almost all, of its members need align with the measures required for this property to come about.

In any case, any complex order of society involves an effective legal system that is maintained by coercive measures. These measures are well-known and do not concern the government aiming at specific aggregate results, but solely concerns the defense of the legal order. The important aspect of this fact, on Hayek’s account, is that the majority of situations in which legal coercion may occur, the individual can enter at his own will, since he can foresee these situations. He writes:

The threat of coercion has a very different effect from that of actual and unavoidable coercion, if it refers only to known circumstances which can be avoided by the potential object of coercion. The great majority of the threats of coercion that a free society must employ are of this avoidable kind, Most of the rules that it enforces, particularly its private law, do not constrain private persons […] to perform specific actions. The sanctions of the law are designed only to prevent a person from doing certain things or to make him perform obligations that he has incurred. Provided that I know beforehand that if I place myself in a particular position, I shall be coerced and provided that I can avoid putting myself in such a position, I need never be coerced.667

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As pointed out, the most important characteristic of legislative coercion that is more extensive than the basic function to secure the legal order, on Hayek’s analysis, is that it deprives the coerced of the ability to deploy his full knowledge, information, or know-how when participating in social interaction with the aim to achieve his ends. Hayek continues:

[The coerced] is deprived of the possibility of using his knowledge for his own aims. The effective use of a person’s intelligence and knowledge in the pursuit of his aims requires that he is able to foresee some of the conditions of his environment and adhere to a plan of action. [...] Coercion thus is bad because it prevents a person from using his mental powers to the full and consequently from making the greatest contribution that he is capable of to the community. Though the coerced will still do the best he can do for himself at any given moment, the only comprehensive design that his actions fit into is that of another man. 668

Of course, on Hayek’s view, the view that coercion deprives the coerced of the ability to utilize his knowledge, information, or know-how in full is correlated with a decrease in the welfare level.

As we see, Hayek’s conception of coercion and its relation to legislation is clear-cut and easy to grasp. As such, it carries weight as a policy tool, or so I shall argue. In the next section, I shall therefore proceed to consider how to develop Hayek’s view on coercion (and the welfare claim) as an argument on legislative policy.

61. An Argument on Legislative Policy

In the following, I intend to use Hayek’s conception of coercion and the welfare claim in the process of developing an argument on legislative policy.

As we shall see, this policy tool is very general. Some may argue that it is so general as to be of little use. However, I shall argue that arguments on policy rely for their effectiveness on being general in the sense that they can be communicated and shared, and, as such, serve as common

norm on how “things are to be done. The view that policy rules should be ‘simple’ finds broad support in the literature on economic policy rules and in the empirical evidence of such rules that have regulated government agencies successfully, such as policy rules on inflation targets and budgetary discipline.

The section is organized as follows. First, I shall state the argument in some detail, secondly, I shall discuss the premises and the conclusion of the argument, and, thirdly, I shall suggest how we may use this argument as a guiding policy tool for legislation.

The argument, then, looks as follows.669

(P1) Human welfare will be maximized if, and only if, the utilization of knowledge in society is maximized.670

(P2) If agents use coercive powers to influence the choices of other agents of means to ends, the utilization of knowledge in society will not be maximized.671

(C) If agents use coercive powers to influence the choices of other agents of means to ends, human welfare will not be maximized.

And with supporting premises:

669 We may also express the argument as follows:
(P1) p ⇔ q
(P2) r ⇒ ¬ q
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(C) r ⇒ ¬ p


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(P1) Human welfare will be maximized if, and only if, the utilization of knowledge in society is maximized.

(P2) If agents use coercive powers to influence the choices of other agents of means to ends, the utilization of knowledge in society will not be maximized.

(P1P2) On the individual level, an agent (including an agent with coercive power) will generally have less knowledge about the means to an end, than will an agent who pursues that end.

(P2P2) On the individual level, if an agent’s choices of the means to an end are influenced by another agent’s use of coercive power, then the utilized level of knowledge about the means will in general not be maximized.

(P3P2) On the aggregate level, the level of knowledge utilized in society for choosing the most efficient means for the realization of ends, will generally not be maximized when agents use coercive power to influence other agents’ pursuit of ends.

(C) If agents use coercive powers to influence the choices of other agents of means to ends, human welfare will not be maximized.

This argument addresses three central issues that are likely to appear in connection with any argument against legal coercion based on Hayek’s work, viz. (i) the transition from the individual to the aggregate level, (ii) the fact that there will indeed be cases in which an agent with coercive powers knows more about the means to an end than an agent without coercive powers who pursues that end, and (iii) the fact that coercive power exercised by the state is in a certain sense necessary for a maximization of welfare.

I will now proceed to discuss the premises and the conclusion of the argument.
Part III. The Dispersal of Knowledge Thesis

Premise One

(P1) Human welfare will be maximized if, and only if, the utilization of knowledge in society is maximized.

As pointed out, Hayek sought to further generalize Adam Smith’s famous dictum that the key to the wealth of nations is the division of labor.672 Hayek claims that inherent in the division of labor is an even more abstract and general feature, namely the division of knowledge. For Smith the division of labor was limited by the extent of the market. As Hayek sees it, the division of labor is limited by the exchange of knowledge. As is obvious, premise one puts knowledge center stage in terms of what determines the welfare level, as it is a restatement of the welfare claim.

As pointed out, Hayek’s conclusion is that in order to make possible a rational economic order the central issue is how to make the best use of knowledge of facts known only to the individual actors making up the whole. This conclusion may strike us as somewhat counter-intuitive because we sympathize with a notion of rationality as one of determining an efficient outcome based on a consideration of all the facts. In the case of an economic order, the facts cannot be known. So, in view of this, a rational order of society would be one in which the knowledge, dispersed among the agents in that society, maximizes the individual agent’s outcomes, and in conjunction makes the overall order as beneficial to its members as possible. On Hayek’s account, as we have seen, the key question for this to come about is how to facilitate the utilization of dispersed knowledge.

Premise Two

(P2) If agents use coercive powers to influence the choices of other agents of means to ends, the utilization of knowledge in society will not be maximized.

As an outcome of the difference between the individual and aggregate levels, the distinction between agents with, and agents without, coercive powers is stressed, since agents interact in the market processes all the time and influence each other’s choices of ends and means. But whereas this interaction is part of the market process, what distinguishes an agent with coercive powers is that he affects the market process without being part of the reciprocity of the knowledge exchange in the marketplace. By doing this, he can influence a complex exchange situation, and tip it off-balance, with a less favorable result for the participating agents compared to expectations. On the aggregate level, this will have a negative effect on welfare, on Hayek’s analysis.

Supporting Premises

(P1P2) On the individual level, an agent (including an agent with coercive power) will generally have less knowledge about the means to an end, than will an agent who pursues that end.

(P2P2) On the individual level, if an agent’s choices of the means to an end are influenced by another agent’s use of coercive power, then the utilized level of knowledge about the means will in general not be maximized.

(P3P2) On the aggregate level, the level of knowledge utilized in society for choosing the most efficient use of means for the realization of ends will generally not be maximized when agents use coercive power to influence other agents’ pursuit of ends.

There can be little doubt, that on the aggregate level, agents generally know more about their business than others, including agents with coercive powers. Equally, it is clear that on the individual level there will be particular cases in which an agent with coercive powers knows more about the means to a specific end, than an agent without coercive powers pursuing that end. This issue is addressed by the transition from the individual to the aggregate level by the use of the concepts ‘general’ and
‘aggregate.’ This allows for the empirical fact just stated, without sacrificing the validity of the argument.

Conclusion
(C) If agents use coercive powers to influence the choice of other agents of means to ends, human welfare will not be maximized.

A standard objection to any argument against constructivist rationalism, is that opponents of constructivist rationalism are opposed to the state in general, even though the state, it is argued, is necessary to uphold the order of social cooperation upon which any well-functioning market depends. So in order not to exclude all state action, the distinction between state action which lowers the aggregate level of utilized knowledge, and state action that does not, should be emphasized. This distinction leaves room for state action, albeit not any state action, assuming that the state strives for a maximum level of welfare for its citizens along the lines of Hayek’s analysis. On a general level, it does not matter if excessive coercive power is exercised by the state, or, for instance, by organized crime. The result – a lowering of the aggregate level of knowledge and hence welfare – will be the same in either case.

As we see, then, this argument addresses three crucial issues: (i) the transition from the individual to the aggregate level, (ii) the circumstance that there are indeed cases in which an agent with coercive powers knows more about the means to an end than an agent without coercive powers actively pursuing that end, and (iii) the circumstance that coercive power exercised by the state is necessary for the maximization of welfare. As is clear, I further argue that this argument holds promise as a tool with the help of which we can further our understanding of the potential negative welfare effects of legislation, including laws justifying coercion. The chief reasons for this stance are the following. First, Hayek’s critique is primarily not concerned with the question of whether or not it is possible to control society in detail, but rather with the degree to which society can
be governed without thereby throwing off-balance the institutions by which a maximum of knowledge can be employed for the public good. *Secondly*, since legislation is a political activity, a simple analytical tool could be of considerable value in policy debates, as well as in the practical drafting process.

**A Policy Tool**

I argue that if Hayek is right, the conclusion of this line of argument can be modified as a general rule of policy in legislative matters. The conclusion – if agents use coercive powers to influence the choice of other agents of means to ends, human welfare will not be maximized – would then read as follows: A rational pursuit of human welfare requires that the use of coercive power by the government in society be minimized. While acknowledging that coercive power is the necessary precondition for upholding the order of social cooperation, it states the limits of state coercive power in light of the positive correlation between the utilization of knowledge and welfare – agents know more about their respective means to ends than the state does. In matters of legislation, I therefore suggest that a guiding rule can be stated as follows: A rational pursuit of human welfare requires that the legislative use of coercive power in society be minimized.673

The aim of this chapter, then, has been to present a framework within which we can identify the potential harmful welfare effects of legal coercion that extends beyond the protection of the individual spheres of the members of a society (cf. Kant’s theory of rights). Since political agendas, in the standard view, are implemented through acts of legislation, the discussions of such frameworks are of course important undertakings in the applied science of the theory of legislation (*Gesetzgebungstheorie*).

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673 Of course, the use of the term ‘minimized’ leaves room for a certain flexibility to develop in practice.
62. Comments – Generality and the Success of Policy Rules

In this chapter, I have tried to extract practical guidance from Hayek’s critique of legislation. As we have seen, I have done so in terms of a policy tool based on an argument developed from Hayek’s view of coercion and the welfare claim.

As we have seen, Hayek’s argument regarding legal coercion runs as follows: (1) There is a positive correlation between the utilization of knowledge in society and its welfare level, such that the more knowledge is utilized the higher the welfare level (the welfare claim). (2) The knowledge in society, though, is dispersed among its citizens, and no person, or group of persons, can possess the knowledge going into a society in its totality (the dispersal of knowledge thesis). (3) Consequently, the individual utilization of knowledge is crucial for the welfare level, and, according to Hayek, the individual is uniquely positioned to apply his knowledge, information and know-how in a way that realizes as many ends as efficiently as possible. (4) However, coercion circumscribes the individuals’ possibilities to apply their full knowledge, information, or know-how, because the conditions for their actions are determined to some extent by the coercer. (5) Thus, a legislative act that authorizes coercion that limits individuals’ utilization of their knowledge, information, or know-how in their private spheres will decrease the welfare level in society.

However, we should keep in mind that coercion is an essential feature of law, and, as we have seen, with respect to the protected sphere of the individual Hayek maintains that coercion that secures the law in this respect is justified, the situation Hayek criticizes is when these areas of

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choice are regulated in a way that authorizes the use of coercion within the private sphere of the individual.

True, one might object that the legal order not only hinders individuals to act as they see fit, but also gives them the opportunity to act as they see fit. This is, of course, true. What I mean is that the legal order protects the individual from violence and coercion that could hinder their utilization of their knowledge.

As we have seen (Chapter 1), Hayek does not support the idea of laissez-faire, he believes that it is a basic duty of a community to provide for those in need, and he believes in insurance based social security. In view of this, a possible way of understanding Hayek’s critique of legislation is as a plea for a use of the legislative tool that is conducive to the production of material benefits, so that we can use the proceeds to fulfill our moral obligation to supply welfare to those who cannot do so for themselves. If we accept Hayek’s analysis, the question is how to identify the border beyond which legislation will be detrimental to the welfare of the citizens in any given society. However, this view of Hayek’s efforts also raises the question whether Hayek’s critique is utilitarian and not strictly based on “fact and logic”, a question we shall return to (see, Chapter 16).

Finally, we should again take note that the policy rule that I have suggested is open to the criticism that it is vague to the point of being difficult to use. I am not sure that I have a convincing answer to such a critique, although, as pointed out, in legislative matters, as in many other policy matters, the opinions of those involved dictates what is a reasonable course of action, and in that sense guidelines held by those in office determines these lines of demarcation. In view of this, simplicity and clarity increase the chances of shared standards, as is evident in past suc-

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cessful policy rules, such as inflation targets and budgetary spending constraints.

63. Run-Up to “Part IV” of the Investigation

As we are ready to move on to the next part if this investigation, let us take stock of the situation so far. As we remember, the purpose of this investigation is (i) to clarify Hayek’s critique of legislation, and (ii) to assess that critique. As we have seen, to clarify the critique means to determine the precise assertion of the critique. It further means to determine its scope, or area of application. It also means to map the argumentative structure of the critique, *i.e.*, to determine what arguments support the assertion of the critique and how these arguments relate to each other. As is obvious, clarifying Hayek’s critique also means to present the arguments on which it is based.

As we remember, the assertion of Hayek’s critique, *the legislation tenet*, has it that legislation that aims at specific aggregate results in complex social orders will decrease the welfare level. As for delimiting the scope of this tenet, this means that the critique is not concerned with the regulation of non-complex social entities, such as for example a government agency, or residential co-ops. As we further remember, the legislation tenet is not concerned with regulation of general properties of a complex social order, such as the holding of promises, or the compensation of damages. Instead, it is concerned with what I have called *specific aggregate results*. As we remember, specific aggregate results may mean (i) a specific institution, (ii) a specific property of society, or (iii) a specific distribution among groups in a society. With regard to legislation that aims at establishing a specific institution, or a specific property of society, we concluded that it is clear that on Hayek’s critique such legislation cannot be rational; that is, it is not possible to design legislation that determine the rational means to the desired institution or property of society: As for *specific distributions among groups* in a society, this may mean
either a minimum level of support, or some conception of equality. We concluded that Hayek supports the idea of a minimum level of support, and the idea of formal equality of opportunity, while rejects the idea of substantive equality of opportunity, and the idea of equality of result. Finally, we have also adjusted the area of application of Hayek’s critique in that it is concerned with welfare in a material sense, and not in an inclusive sense.

As to the argumentative structure of the critique, we remember the basic structure as follows: The legislation tenet is supported by two lines of argument theses; one that is based on the conjunction of the dispersal of knowledge thesis and the welfare claim, and one that is based on the conjunction of the cultural evolution thesis and the welfare claim. We illustrated this structure as follows:

![Diagram]

We also concluded that the two lines of argument are independent of each other in their support of the legislation tenet.

As to the assessment of Hayek’s critique, we have seen that this is fraught with issues. The arguments supporting the dispersal of knowledge thesis are very different in nature as they stem from philosophy of mind, economics, and complexity theory. As we have seen, leading Hayek scholar Bruce Caldwell points out, this “makes any attempt at assessment of his ideas dicey, to say the least.” With this in mind, as we have seen,

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I find the dispersal of knowledge thesis true, as I find three out of four arguments presented by Hayek convincing (Chapters 6–9). Although the efforts of Ostrom and Epstein are promising, they do not undermine the thesis (Chapter 10). In this chapter (Chapter 11), I have further attempted to give Hayek’s critique some practical value in terms of a policy tool.

Moreover, as the lines of argument are independent of each other in their support of the legislation tenet, the conclusion so far is that Hayek’s critique holds true. However, let us now proceed to Hayek’s intriguing second line of defense for his critique, namely that rules of an evolutionary origin are more favorable to the utilization of knowledge (the cultural evolution thesis) – and thus to welfare (the welfare claim) – than are legislative rules. This exercise will involve us in less exegesis of Hayek’s work, and instead point us in the direction of the inter-disciplinary social science focusing on rules of Elinor Ostrom, Vernon Smith, and Avner Greif.
Part IV:
The Cultural Evolution Thesis
I devoted “Part III” of this investigation to the dispersal of knowledge thesis. I now turn to the cultural evolution thesis of Hayek’s critique of legislation in “Part IV” of this book (Chapters 12–14).

As we remember, the cultural evolution thesis has it that rules that have been developed in a process of cultural evolution are more conducive to the utilization of knowledge in social cooperation than are rules enacted by a legislature. As we remember, the cultural evolution thesis is supported by a so-called many-minds argument, according to which processes that involve many minds lead to a better result than processes that involve fewer minds, as the many minds processes are based on more knowledge.

In short, Hayek’s argument line of argument, based on the conjunction of the welfare claim and the cultural evolution thesis, runs as follows: Rules developed in the process of cultural evolution are more favorable to the utilization of knowledge than are legislative rules (the cultural evolution thesis), and therefore they help bring about a higher level of welfare than do legislative rules (the welfare claim).

I shall argue that the cultural evolution thesis and the welfare claim do not combine to support the legislation tenet. The main reason for this is empirical in nature, namely the various investigations of institutional regimes conducted by political scientist Elinor Ostrom. Her observations indicate that deliberate legislation – combined with evolutionary rules – outperforms solely evolutionary rules in terms of welfare.
Although I do not find the line of argument that is based on the cultural evolution thesis true, I find the cultural evolution thesis highly interesting because of its link to contemporary interdisciplinary work in the social sciences focusing on rules. As pointed out, Hayek has influenced this line of research not least because he is an economist that focuses on rules and law. And while some of his ideas find support in the contemporary work that is inspired by his efforts, other aspects, such as the cultural evolution thesis, are refuted by it.

As we shall see, the cultural evolution thesis is implicitly based on the notion of knowledge laid down in rules, an idea that appears ill-conceived in light of the traditional view that knowledge is part of the mind of an individual. However, contemporary social science largely accepts the idea that rules developed in evolutionary processes function as heuristics that bear compressed knowledge; and, as such, rules are guides to successful individual action and equilibrium social outcomes. Furthermore, the idea that rules foster rational action and rational social order is also key in Hayek’s work on rules and in his critique of legislation. This is a very intriguing idea, and, as we shall see, it is at the heart of Hayek’s position that law and economics are closely related because rules induce rational outcomes in economic terms. I shall look into this idea based on the work of experimental economist Vernon Smith and economic historian Avner Greif.

As we see, then, Hayek’s cultural evolution thesis is refuted, but it has a lot to offer in terms of its impact on modern social science that is concerned with rules, as it is clear that social science focusing on rules is both influenced by Hayek and contributes to our understanding of his critique of legislation. As pointed out, there is also an increasing focus on rules; institutions – and rules in particular – receive wide attention in contemporary social science. For jurisprudents, this emphasis on rules in the social sciences, other than law, may be somewhat surprising. The background to this emphasis depends on an equation of institutions with
rules, which, in turn, goes back to Nobel Laureate Douglas North’s distinction between organizations and institutions. He writes:

A crucial distinction in this study is made between institutions and organizations… Organizations include political bodies, [...] economic bodies, [...] social bodies, [...] and educational bodies. They are groups of individuals bound by some common purpose to achieve objectives… [T]he emphasis in this study is on the institutions that are the underlying rules of the game… []

That institutions are viewed as the “rules of the game,” may be seen as one of the reasons why economics, institutional policy analysis, and interdisciplinary social science in general, have come to focus on rules. As we shall see, Hayek’s idea of the cultural evolution of rules of just conduct has been debated, and it has been criticized as well as defended. Many of the ideas that Hayek acted upon, have been confirmed by work of the social scientists discussed in the coming chapters. However, some of his ideas have been approached differently, and new light has been shed on these ideas.

The coming chapters are organized as follows. In Chapter 12, I present Hayek’s work on rules, and, of course, I focus especially on the cultural evolution thesis. In Chapter 13, I focus on Ostrom’s empirical investigations, which refute the line of argument based on this thesis. Finally, in Chapter 14, I focus on the idea that rules are instrumental for rational action and rational social order, a central idea in the cultural evolution thesis, and a focal point of Hayek and contemporary social science.

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Chapter 12
The Function and Origin of Rules

64. Introduction

We often ascribe to the excellency of man’s genius, and the depth of his penetration, what is in reality owing to the length of time, and the experience of many generations.\textsuperscript{681}

Bernard Mandeville

Hayek’s work on rules was his last major scientific effort and it is a synthesis of his previous work. As has been stressed earlier, the entire Hayek corpus wrestles with the role of knowledge in social cooperation and heuristics such as institutions, rules, tools and artifacts with the help of which the cognitive limits of man may be circumvented. However, Hayek’s work on rules is far-ranging and not easy to grasp. In this chapter, I will take the whole range of his work on rules into consideration, and I will attempt to give a structured account of it – although I shall focus on the parts that are relevant to the cultural evolution thesis.\textsuperscript{682}

On the cultural evolution thesis, as we remember, rules that have been developed in a process of cultural evolution are more conducive to the


\textsuperscript{682} The literature on evolutionary concepts and the law is large. However, in this context it is of course Hayek’s arguments in support of his cultural evolution thesis that is of particular interest. For a thorough survey of the literature on evolution and the law, see, Mauro Zamboni, “Evolutionary Theory and Legal Positivism: A Possible Marriage.” Unpublished manuscript. On file with the author.
utilization of knowledge in social cooperation than are rules enacted by a legislature. As we have seen, Hayek’s line of argument, then, based on the conjunction of the welfare claim and the cultural evolution thesis, runs as follows: Rules developed in the process of cultural evolution are more favorable to the utilization of knowledge than are legislative rules (the cultural evolution thesis), and therefore they help bring about a higher level of welfare than do legislative rules (the welfare claim). As we shall see, Hayek’s position takes the form of a point of comparison as it is binary; he seems to envision either a situation in which there are legislative rules, or a situation in which there are evolutionary rules.

As pointed out, I shall argue that the cultural evolution thesis and the welfare claim do not combine to support the legislation tenet. As we have seen, the main reason for this is empirical in nature, namely the various investigations of institutional regimes conducted by political scientist Elinor Ostrom. As her investigations show, a combination of legislative and evolutionary rules has been observed to perform better in terms of welfare than solely evolutionary rules (on this, see next chapter). This chapter, though, is focused on the cultural evolution thesis, and the arguments that Hayek adduces in support of this thesis. However, as pointed out, Hayek’s work on rules is a summation of his earlier efforts and ranging in itself, and I will attempt to present an account of many aspects of his work in this regard, although I shall focus on the cultural evolution thesis.

As we shall see, Hayek means that rules at different levels guide the action of our sensory apparatus and how we understand other people. However, he also means that rules determine, and make possible, complex orders of society. The interplay between, (i) individuals guided by a complex apparatus of cognition and (ii) complex social orders governed by rules, is in focus for Hayek. As we shall see, Hayek further argues that rules in the normative sense are connected to a factual state of affairs that they are set to preserve or make better, and that the regularities of action
and the overall order are analytically distinct. In Section 65, I continue to expand on the general role of rules in Hayek’s social philosophy.

As we shall see, Hayek’s earliest introduction to science was through the theory of evolution. However, he argues that the theory of evolution is commonly misinterpreted as providing a specific explanation of what has actually taken place in terms of species development in the course of the history of our planet. He points out that this erroneous interpretation is the source of misinterpretation of the theory with regard to ethics and social science. He claims that instead of being a theory of how life has evolved on earth, the theory of evolution is a general theory applicable to all instances of pattern development. In line with his view on the theory of evolution, Hayek argues that morals are neither the product of our reason, nor of our instincts; instead, he argues that moral rules develop in the process of human interaction, and as a result thereof. On Hayek’s account, the rules that induce an overall order and bring beneficial results to the societies adhering to them, typically develop over time in an evolutionary sifting process in which rules more conducive to the order of the system prevails. Hayek refers to this process as cultural evolution, and he holds that the complexity of the process of rule formation along the lines of cultural evolution transcends the limits of the human mind and is by definition extra-mental.\textsuperscript{683} As is clear, Hayek maintains that the result of the process of cultural evolution – evolutionary rules – means an increased utilization of knowledge and consequently an increase in the level of welfare, as compared to legislative rules. In Section 66, I present the cultural evolution thesis, focusing on evolution.

Hayek’s arguments for the cultural evolution thesis are supported by a so-called many-minds argument. Crudely put this type of argument rests on the idea that processes that involve many minds lead to a better result than processes that involve fewer minds. The reason for this is that the

more minds that are involved, the more knowledge the result of the process will be based on. With regard to rules, we shall understand this argument to mean that rules developed in an evolutionary process are based on more knowledge than are rules enacted by a legislature, because the evolutionary process involves more people than does the legislative process. On Hayek’s analysis, this means that rules developed in an evolutionary process are – so to speak – better than rules of a legislative process. More specifically, evolutionary rules trump legislative rules on three counts, (i) they (the evolutionary rules) contain ‘better’ knowledge, (ii) they are more conducive to individuals taking advantage of their unique position with regard to situation-specific information and know-how, and (iii) they are more conducive to individuals basing their actions on the knowledge of others. I shall argue that these arguments are successful, although ultimately defeated by the empirical findings of Elinor Ostrom. In Section 67, I present these arguments in more detail.

As is clear, then, this chapter is organized as follows. There are three main sections. In the first, I present the general role of rules in Hayek’s social philosophy (Section 65). I continue with a presentation of the cultural evolution thesis, focusing on evolution (Section 66). I then turn to an analysis of Hayek’s arguments in support of the cultural evolution thesis (Section 67). Finally, I offer some concluding remarks on rules, equilibrium, and the development of society (Section 68), before I summarize the chapter (Section 69).

65. Rules in Hayek’s Social Theory

65.1. Introduction

It is clear that in the mature statement of his social philosophy, Hayek accords to rules a key – if not the key – role. This section aims to illustrate the wide scope of Hayek’s work on rules in terms of its role in his social theory. This wide scope is important in order to understand how his
work on rules relates to other parts of his social philosophy, such as the ideas on the limits of the human mind, the dispersal of knowledge, complexity, and evolution. In this sense it is an important backdrop to his overall stance in social science.

Generalizing, there are two primary foci in Hayek’s work on rules. The first focus is to show how human understanding and communication are conditioned on rules, and, in addition, to show how rules induce cognitively limited individuals to act rationally. This part of his work on rules may even be referred to as a general theory of human behavior, or human interaction. As pointed out, this purpose of Hayek’s work on rules illustrates how constitutional Hayek regards rules to be for human life. The second focus is to show what types of rule are conducive to rational social order, and how this type of rules develops. More specifically, this means to show how rules are conducive to the development of complex social orders, the utilization of knowledge, and the production of welfare.

I begin this section with a presentation of Hayek’s first focus in his work on rules – that human understanding and communication are conditioned on rules (Section 65.2.). Then, I turn to his second focus – the relation between rules and complex orders of society (Section 65.3.). The distinction between descriptive and normative rules is central to legal scholars, and I continue with presentation of this distinction and explain how Hayek places his work on rules in relation to it (Section 65.4.).

65.2 The First Focus – Rules and Human Understanding

Rules for thought and action constitute the mind, according to Hayek, and from the outset it is clear that he considers man to be a rule-following animal as much as anything else. He writes:

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Man is as much a rule-following animal as a purpose-seeking one. And he is successful not because he knows why he ought to observe the rules which he does observe, or is even capable of stating all these rules in words, but because his thinking and acting are governed by rules which have by a process of selection been evolved in the society in which he lives, and which are thus the product of the experience of generations.\footnote{Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, p. 11. For a critique of this position, see Nigel Pleasants, “The Epistemological Argument against Socialism: A Wittgensteinian Critique of Hayek and Giddens,” Inquiry, vol. 40, no. 1 (March, 1997), pp. 23–45, especially p. 33.}

According to Hayek, man is necessarily ignorant of the functioning of his own mind, as well as of the facts that go into the make-up of social order. This latter fact, then, explains important properties of societies, on Hayek’s analysis. Says he:

The insight into the significance of our institutional ignorance in the economic sphere, and into the methods by which we have learnt to overcome this obstacle, was in fact the starting point for those ideas which in the present book [Law, Legislation and Liberty] are systematically applied to a much wider field. It will be one of our chief contentions that most of the rules of conduct which govern our actions, and most of the institutions which arise out of this regularity, are adaptations to the impossibility of anyone taking conscious account of all the particular facts which enter into the order of society.\footnote{Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, p. 13. Footnote omitted.}

My view is that Hayek’s system of social philosophy is an attempt to provide an explanation of how man conquered ignorance and made civilization possible. In opposition to constructivist rationalism, Hayek maintains that man’s fundamental ignorance may be overcome by the use of rules to induce rationality in individual action and society. He writes:

The constructivist approach leads to false conclusions because man’s actions are largely successful, not merely in the primitive stage but perhaps even more so in civilization, because they are adapted both to the particular facts which he knows and to a great many other facts he does not and cannot know. And this adaptation to the general circumstances that surround him is brought about by his observance of rules which he has not
designed and often does not even know explicitly, although he is able to honour them in action. Or, to put this differently, our adaptation to our environment does not consist only, and perhaps not even chiefly, in an insight into the relations between cause and effect, but also in our actions being governed by rules adapted to the kind of world in which we live, that is, to circumstances which we are not aware of and which yet determine the pattern of our successful actions.\textsuperscript{687}

According to Hayek, then, the adaptation of the mind to social cooperation as a means to enhanced chances of subsistence is in fact the faculty of reason to honor in action rules; rules which may go against the instincts of our species.\textsuperscript{688} Apart from being regularities of behavior in a descriptive sense, the significance of rules lies in their capacity to guide human action.\textsuperscript{689} In an infinite world, we become rational by limiting the scope of our actions by following rules that contain experience on what is rational action. Says Hayek:

Since our whole life consists of facing ever new and unforeseeable circumstances, we cannot make it orderly by deciding in advance all the particular actions we shall take. The only manner in which we can in fact give our lives some order is to adopt certain abstract rules or principles for guidance, and then strictly adhere to the rules we have adopted in our dealing with the new situations as they arise. Our actions form a rational and coherent pattern, not because they have been decided upon as part of a single plan thought out beforehand, but because in each successive decision we limit our range of choice by the same abstract rules.\textsuperscript{690}

\textsuperscript{687} Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, p. pp 11–12.
I now turn to consider Hayek’s view on the role of rules in recognizing abstract patterns, or regularities, in man’s environment. This part of Hayek’s work on rules underscores his wide conception of rules, and how general and important a phenomenon he regarded rules to be for human social life in general, and for inter-personal understanding in particular. According to Hayek, the ability to recognize patterns is the ability to perceive rules, patterns, or regularities, according to which the other uses language, acts with purposefulness, or is in a certain mood, etc. Hayek claims that this ability is “very general and important” and that it is the means by which an understanding of the other forms the basis for an alignment of expectation and result in social interaction (cf. his definition of equilibrium, see Section 53; however, see also Sections 68 and 76 for a further discussion of the issue of the relation between Hayek’s understanding of rules and equilibria).

As pointed out, it is obvious that Hayek’s conception of rules is wider than the traditional legal conception. This is further emphasized by Hayek’s view that know-how (see, Chapter 8) to a large degree consists of an ability to follow non-articulated rules, and that this ability is essential to inter-personal understanding (see above). As we remember, the concept of know-how describes a kind of knowledge that allows us to perform certain actions, or to have certain skills, while we cannot state that knowledge as a theoretical description making use of language. According to Hayek, the category of know-how, then, is a category of skills that

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691 Hayek advances as the most striking instance of this ability the way we understand gestures and facial expressions. He quotes Edward Sapir as saying, “In spite of these difficulties of conscious analysis, we respond to gestures with an extreme alertness and, one might almost say, in accordance with an elaborate and secret code that is written nowhere, known by none, and understood by all.” See, Edward Sapir, “The Unconscious Patterning of Behavior in Society,” in ed. D. G. Mandelbaum, Selected Writings of Edward Sapir (Berkeley: University of California Press, 1949), p. 556.


are performed in line with abstract rules that would be used to state a description of how these tasks are performed.\textsuperscript{694} These rules, though, are not articulate in the minds of the vast majority of the people performing these tasks. Hayek claims that the idea of action guided by non-articulate rules is important for the way rules of justice are followed without necessarily being understood or articulated:

In the instances so far quoted it will probably be readily granted that the ‘know-how’ consists in the capacity to act according to rules which we may be able to discover but which we need not be able to state in order to obey them. The problem is, however, of much wider significance than will perhaps be readily conceded. If what is called Sprachgefühl consists in our capacity to follow yet unformulated rules, there is no reason why, for example, the sense of justice (the Rechtsgefühl) should not also consist in such a capacity to follow rules which we do not know in the sense that we can state them.\textsuperscript{695}

According to Hayek, know-how – all those non-articulated rules that set the boundaries for human action – are usually referred to as either custom or habit. Hayek, though, maintains that to understand these non-articulated rules as predetermining specific actions in specific circumstances is mistaken. Rather, he argues that these non-articulated rules are to be understood as providing a range of possible actions, and more specifically to exclude certain types of action. The individual uses these ideas of permissible, or prohibited, actions in order to determine a specific action in a specific choice situation.\textsuperscript{696} Hayek writes:


\textsuperscript{695} Hayek, “Rules, Perception and Intelligibility,” in Studies in Philosophy, Politics and Economics, p. 43.

The unconscious rules which govern our action are often represented as ‘customs’ or ‘habits’. These terms are somewhat misleading, however, because they are usually understood to refer to very specific or particular actions. But these rules of which we are speaking generally control or circumscribe only certain aspects of concrete actions by providing a general schema which is then adapted to the particular circumstances. They will often merely determine or limit the range of possibilities within which the choice is made consciously. By eliminating certain kinds of action altogether and providing certain routine ways of achieving the object, they merely restrict the alternatives on which a conscious choice is required. The moral rules, for example, which have become part of a man’s nature will mean that certain conceivable choices will not appear at all among the possibilities between which he chooses. Thus even decisions which have been carefully considered will in part be determined by rules of which the acting person is not aware. Like scientific laws, the rules which guide an individual’s action are better seen as determining what he will not do rather than what he will do.

The idea that rules provide a range of permissible – or prohibited – actions is in keeping with Hayek’s view on the theory of evolution, as we shall see later in this chapter.

As we have seen in this section, Hayek perceives a link between man’s constitutional ignorance, rules, and the characteristics of societies. He also argues that rules are instrumental for rationality in human action in that they are crucial to abstract pattern recognition, and that pattern recognition is important to social cooperation. Finally, he links his understanding of rules to the concept of know-how.

65.3. The Second Focus – Rules and Social Order

In this section, I turn to Hayek’s second focus in his work on rules – the relation between rules and complex orders of society. First, I shall, again, consider Hayek’s distinctions between simple and complex social orders, and between the different types of rule that Hayek argues can function in each, as these distinctions are crucial for Hayek’s view on the relation

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between rules and complex social orders. *Secondly*, I turn to consider Hayek’s view on the relation between rules and complex social orders. *Thirdly*, I present a distinction Hayek insists is crucial, namely, that between a system of rules and the order it gives rise to.

**Hayek’s Distinctions that Concern Social Orders and Rules**

As discussed in Chapters 1 and 5, Hayek makes a distinction between two kinds of orders in human society. He refers to the simple social orders that are of a complexity not transcending the cognitive faculties of the human mind as organizations, or *taxis*. He refers to the complex social orders that are of a complexity transcending the cognitive faculties of the human mind as extended orders (or *kosmos*). Moreover, he claims that rules with different characteristics function adequately in organizations and extended orders respectively. He refers to the rules that function in organizations as *thesis*, and he refers to the rules that function in complex social orders as *nomos*. While *thesis* can be designed as commands for specific individuals or groups, this is not possible with regard to *nomos*, on Hayek’s analysis.

The property of *nomos* that they function in complex social orders, then, is linked to Hayek’s instrumental argument in favor of freedom. Hayek argues that if the law is understood as protecting freedom, then freedom, property and the law are inter-dependent concepts. The protection of the *individual zone* secures *individual property* and within this zone man is free to make use of his knowledge (and his possessions) in pursuit of his ends. The *law* constitutes the zone that protects man’s freedom and property (cf. Kant’s concept of rights). According to Hayek, this set-up is the only way known to man to achieve individual freedom and peaceful co-existence in conjunction with welfare creation. Hayek

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700 Ibid., p. 12.
701 Ibid., p. 94.
regards modern society as a complex social order, and the part of his work on rules that is concerned with an evolutionary development of rules only concerns rules (nomos) that can function in complex social orders (kosmos).

Rules and Complex Social Orders

In the following, I will consider Hayek’s view on the relation between the rules that can function in complex orders, and these orders themselves. I begin by giving a historical background.

As is obvious, Hayek maintains a distinction between the systems of rules that give rise to complex social orders, and those orders themselves.\(^{703}\) That the system of rules, and the order it makes possible, are separate entities makes it clear, on Hayek’s analysis, that while an order of actions is the result of individual purposeful action, the overall resulting social order is not the intended result of individuals, since the individual subjects only strive toward their own respective ends.\(^{704}\) According to Hayek, this was also the fundamental insight of 17\(^{th}\) century pamphleteer and social thinker, Bernhard Mandeville. Hayek comments on Mandeville:

His [Mandeville’s] main contention became simply that in the complex order of society the results of men’s actions were very different from what they had intended, and that the individuals, in pursuing their own ends, whether selfish or altruistic, produced useful results for others which they did not anticipate or perhaps even know; and, finally, that the whole order of society, and even all we call culture, was the result of individual strivings which had no such end in view, but which were channeled to serve such ends by institutions, practices, and rules which also never had been deliberately invented but had grown up by the survival of what proved successful.\(^{705}\)


It is this insight that is expressed in the often quoted words of the Scottish moral philosopher Adam Ferguson: “Every step and every movement of the multitude, even in what are termed enlightened ages, are made with equal blindness to the future; and nations stumble upon establishments, which are indeed the result of human action, but not the execution of any human design.” And perhaps most famously by Adam Smith: “[man is] led by an invisible hand to promote an end which was no part of his intention.” It was a hallmark of the Scottish moral philosophers that they considered the emergent properties of society to be the result of evolutionary processes. As we have seen, Hayek endorses this view and extends its foundation within the discipline of complexity science. Clearly, this view is opposed to the view that the properties of society are deliberate human constructs, the view Hayek refers to as constructivist rationalism. He writes:

> It was finally in reaction to this Cartesian rationalism that the British moral philosophers of the eighteenth century, starting from the theory of the common law as much as from the law of nature, built up a theory which made the undesigned results of individual action its central object, and in particular provided a comprehensive theory of the spontaneous order of the market.

On an evolutionary view of society, social order is an emergent property of societies that is a result of the regularities of behavior of their constituent elements – the individuals (cf. complexity theory, see Chapter 7). Hence the importance attributed to rules (cf. complex phenomena as rule-induced, see Chapter 7). According to Hayek, some rules have the general property to induce order in complex systems. Life, mind, and society

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are instances when these types of rules have induced organic life, the mental order, and social orders respectively. The mental order and the social order have been beneficial to life and have thus prevailed.\textsuperscript{710}

Although it is the rule-following behavior of man that induces the order necessary for social life,\textsuperscript{711} the crux is that not just any such set of rules induces an overall order.\textsuperscript{712} What typifies the order-creating rules is that they are not necessarily the most beneficial for the individual entity of a complex system in a specific situation, but that they are conducive to the overall order of that system. We may exemplify this by noting that it is probably easier to increase one’s utilities by killing and stealing, but that most of us adhere to rules that are beneficial to the overall order of the system – rules which bar us from such actions. Says Hayek:

That the system of rules of individual conduct and the order of actions which results from the individuals acting in accordance with them are not the same thing should be obvious as soon as it is stated, although the two are in fact frequently confused. (Lawyers are particularly prone to do so by using the term “order of law” for both.) Not every system of rules of individual conduct will produce an overall order of the actions of a group of individuals; and whether a given system of rules of individual conduct will produce an order of actions, and what kind of order, will depend on the circumstances in which the individuals act. The classical instance in which the very regularity of the elements produces “perfect disorder” is the second law of thermodynamics, the entropy principle. It is evident that in a group of living beings many possible rules of individual conduct would also produce only disorder or make the existence of the group as such impossible. A society of animals or men is always a number of indi-


individuals observing such common rules of conduct as, in the circumstances in which they live, will produce an order of actions.\textsuperscript{713}

It is clear that a central contention of Hayek’s is that social order is the result of the observance of rules. But, as we see, he argues that only certain sets of rules are conducive to an order of actions. On Hayek’s analysis, what determines which sets of rules will give rise to an order of actions are the external circumstances.\textsuperscript{714} Conversely, different sets of rules may give rise to different orders under the same circumstances. Most sets of rules result in no order at all. A society is thus always an order of actions produced by the members of that society as they follow certain rules for action.\textsuperscript{715}

Legal Orders as Distinct from Social Orders

Following the line of argument pursued above, Hayek argues that the overall order of actions is more than the sum of the regularities of behavior (thus, on his analysis, the social order is more than the sum of the order of law) of such an order. The reason for this is that the individual actions – that arise as individuals adhere to rules – are related to each other in a specific way, and it is in the formal nature of the equivalence of these relationships that the structure of the overall order occurs (cf. the concept of isomorphism in Hayek’s philosophy of mind, see Section 32).\textsuperscript{716} The structure of these relationships between individual actions adds a dimension by which the order of actions is defined – a dimension that is not used for the definition of the rules, or the actions themselves.

As is clear, Hayek insists that the social order, and the set of rules it depends on, are distinct. A set of rules exists as matter of fact, even

\textsuperscript{714} Ibid., p. 67.
\textsuperscript{715} Ibid., p. 67.
\textsuperscript{716} Ibid., p. 70. For a distinction between two concepts of the complexity constituting the ‘glue’ in a complex order, see Stefano Fiori, “Hayek’s Theory of Complexity and Knowledge: Dichotomies, Levels of Analysis, and Bounded Rationality,” Journal of Economic Methodology, vol. 16, no. 3 (September, 2009), pp. 265–285.
though part of the set we cannot articulate, according to Hayek. A complex order is manifest as a matter of fact, even though we may not perceive it with our senses. However, rules and orders are not distinct in the weak sense that the overall order is a direct result of actions that follow from the rules, and thus derives as a matter of consequence from a given set of rules. We remember that Hayek argues that rules give a range of possible actions, which means that they do not determine in detail what actions will follow in a given situation. Hayek’s point is that this gives the individual the possibility to apply his own unique knowledge set-up. This means, in the first place, that we cannot deduce from a rule what action will be taken, and, in the second place, that the knowledge that resides with the individual only comes into play in social cooperation as his choices determine his actions within the range permitted by a rule.

As we have seen in this section, then, the distinctions that Hayek makes (i) between rules that function in simple orders and rules that function in complex orders, and (ii) between a set of rules, on the one hand, and the social order it produces, on the other hand, are obviously important features of Hayek’s work on rules, and, more generally, of his social theory.

65.4. Rules in a Normative and in a Descriptive Sense

 Whereas legal scholars think of rules as normative entities, economists, sociologists, and other social scientists often conceive of rules as regularities of behavior. Hayek’s position is somewhat unclear. On the one hand, he takes an economist’s perspective and argues that rules describe regularities of behavior that are important data in any investigation of society. On the other hand, he regards most of the rules that develop in a process of a cultural context of evolution as moral in nature, thus implying that they are normative. Although the issue of rules in a descriptive and in a normative sense is important to jurisprudents (and as we have seen, Hayek’s first training was in law), one must ask how this distinction is rele-
vant to the arguments pursued by Hayek. In this section, I will present Hayek’s somewhat unclear position and explain why I believe that for the purpose of the evaluation of Hayek’s critique of legislation, his position is clearer than it appears at first sight.

As I have said, it is obvious that Hayek conceives of rules in a wider sense than jurisprudents do. He explains that a rule is used to denote a state of affairs in which a regularity of conduct has arisen:717 Says he:

Throughout it should be clearly understood that the term ‘rule’ is used for a statement by which a regularity of the conduct of individuals can be described, irrespective of whether such a rule is ‘known’ to the individuals in any other sense than that they normally act in accordance with it.718

When it comes to non-articulated rules, Hayek argues that it is difficult to uphold the distinction between descriptive and normative rules. He continues:

It is of some importance to recognize that, when we have to deal with non-articulated rules, a distinction that seems very clear and obvious [that between descriptive and normative rules] with respect to articulated rules become much less clear and perhaps sometimes even impossible to draw.719

Further, Hayek argues, (i) that normative rules are related to a factual state of affairs which they are set to preserve, or make better, and (ii) that the normative rules and the overall social order are to be analytically distinct (see the previous section). Rules in the normative sense can be viewed as cultural constraints720 and in that sense man is always constrained by these normative rules defining his actions. It is these con-

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718 Ibid., pp. 67–68.
straints – *i.e.*, rules in the normative sense – that underlie the market and the social order. Says Hayek:

The true element in this is that the normative rules often serve to adapt an action to an order which exists as a fact. That there always exist such an order beyond the regularities of the actions of any one individual, an order at which the particular rules ‘aim’ and into which any one new rule has to be fitted, is the insight which only a theory of the formation of that overall order can adequately give.\(^{721}\)

But, Hayek asks himself, what does it matter from a social science point of view if we view rules as descriptive or normative, as long as they determine behavior? He writes:

It seems that the specific character usually ascribed to ‘norms’ which makes them belong to a different realm of discourse from statements of facts, belongs only to articulated rules, and even there only once the question is raised as to whether we ought to obey them or not. So long as such rules are merely obeyed in fact (either always or at least in most instances), and their observance is ascertainable only from actual behavior, they do not differ from descriptive rules; they are significant as one of the determinants of action, a disposition or inhibition whose operation we infer from what we observe. If such a disposition or inhibition is produced by the teaching of an articulated rule, its effect on actual behavior still remains a fact. To the observer the norms guiding the actions of the individuals in a group are part of the determinants of the events which he perceives and which enable him to explain the overall order of actions as he finds it.\(^{722}\)

It is clear from this exposition that Hayek wears two hats – one as an economist when he views rules in a descriptive sense, and another as a legal scholar when he writes about rules in a normative sense. It is also clear that the distinction between rules in the descriptive sense and rules in the normative sense is not crystal clear in Hayek’s thought. However, as we have seen, he argues that the rules that underlie the development of complex social orders are moral rules. This means that they are on equal


footing with legal rules with regards to the distinction between the descriptive and the normative. So, from the perspective of Hayek’s critique of legislation we can conclude that he is operating with a notion of rules in the normative sense.

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As pointed out, rules are at the center of Hayek’s social theory. However, the scope of his work on rules is wide. In this section, I have attempted to illustrate this wide scope as it is important in order to understand how his work on rules relates to other parts of his social theory, such as the ideas on the limits of the human mind, the dispersal of knowledge, complexity, and evolution.

As we have seen, there are two primary foci in Hayek’s work on rules, where the first focus is to show how human understanding and communication are conditioned on rules and also to show how rules induce cognitively limited individuals to act rationally, and where the second focus is the relation between rules and complex social orders. We have also considered the distinction between rules in a descriptive sense and rules in a normative sense in Hayek’s work on rules. In the next section, we shall move on to the cultural evolution of rules of just conduct.

66. The Cultural Evolution Thesis – Evolution

66.1. Introduction

In this section, I first introduce Hayek’s view on the theory of evolution as it is related to the idea of the cultural evolution of rules of just conduct (Section 66.2.). Then, I proceed to discuss his view on morals as the result of evolutionary processes (Section 66.3.). I continue with a presentation of Hayek’s idea of the cultural evolution of rules of just conduct (Section 66.4.). Finally, I offer some comments on many-minds arguments, rules, and welfare (Section 66.5.).
66.2. Hayek and the Theory of Evolution

Hayek’s earliest introduction to science was through the theory of evolution,\textsuperscript{723} and towards the end of his career he returned to this theory and applied it to the development of rules. In this sub-section, I introduce Hayek’s views on the theory of evolution proper. This sheds light on how Hayek conceived of that theory, and on its relation to his idea of the cultural evolution of rules of just conduct.

Hayek maintains that there is a connection between the work of Charles Darwin and the 18\textsuperscript{th} century Scottish philosophers, primarily Adam Smith.\textsuperscript{724} According to Hayek, it was the feature of Smith’s theory hinting at a theoretical description of the development over time in a complex system that caught the attention of Darwin. Hayek comments on Darwin’s theory of evolution, saying that it has always, although successful, been sitting a little uncomfortably in relation to the scientific idiom of prediction of individual events in the natural sciences. According to Hayek, as we have seen, this idiom has led to the erroneous interpretation of the theory of evolution as providing a specific explanation for what has actually taken place in terms of species development in the course of the history of our planet. He points out that this erroneous interpretation is the source of misinterpretation of the theory with regard to ethics and social science. He claims that instead of being a theory of how life has evolved on earth, the theory of evolution is a more general theory that describes a process that is independent of life on earth and that may well be equally applicable to life on other planets, or to any complex system.

On Hayek’s analysis, then, the theory of evolution describes a process by which the parts of a system adapt to each other and their environment, and over time produces an overall order with certain characteristics. The-\textsuperscript{725}

\textsuperscript{723} Hayek had his earliest training in science in botany through his father whom he helped with his collection of plants. He was deeply influenced by the theory of evolution already at his stage according to one of Hayek’s biographers, Alan Ebenstein. See, Alan Ebenstein, Friedrich Hayek: A Biography (Chicago: University of Chicago Press, 2001), p. 3.

\textsuperscript{724} Hayek, Law, Legislation and Liberty, vol. 1, Rules and Order, p. 23, footnote 33.
se characteristics, in turn, depend on the conditions for this adaptation (cf. the relation between a set of rules and an overall order of actions, see Section 65.3.). In the case of biology, these conditions are genetic inheritance and competition. Says Hayek:

The theory of evolution by natural selection describes a kind of process (or mechanism) which is independent of the particular circumstances in which it has taken place on Earth, which is equally applicable to a course of events in very different circumstances, and which might result in the production of an entirely different set of organisms. The basic conception of the theory is exceedingly simple and it is only in its application to the concrete circumstances that its extraordinary fertility and the range of phenomena for which it can account manifests itself. The basic proposition which has this far-reaching implication is that a mechanism of reduplication with transmittable variations and competitive selection of those which prove to have a better chance of survival will in the course of time produce a great variety of structures adapted to continuous adjustment to the environment and to each other. 725

So, in effect, Hayek claims that the theory of evolution is a general theory applicable to all instances of pattern development. Theoretical explanations of various complex systems have also later developed this approach and applied the theory to a wide number of real-world phenomena, such as, epidemics, 726 cancer, 727 language 728 and society. 729 The theoretical un-

727 Ibid.
728 Ibid.
derstanding of the concept of complexity has also developed in the past decades (see, Chapter 7). While, in this investigation, I am mainly focused on pattern development in society, Hayek thus maintains that the theory of evolution is a general theory of pattern formation. He writes, “It [the theory of evolution] deals with pattern-building forces, the knowledge of which is useful for creating conditions favorable to the production of certain kinds of results, while it will only in comparatively few cases be possible to control all the relevant circumstances.”

On Hayek’s analysis, the theory of evolution is primarily a theory that delimits the possible (cf. his view on rules as permitting a range of action, see Section 65.2.). While he admits that the range of the possible given by the theory is extensive, he points out that the range of what it denies is much greater. And he points out that while this property of the theory implies that it is empirical in nature and, more precisely, that the range of what is not possible under the theory can in principle be falsified. In essence, then, the empirical part of the theory of evolution is what it denies as possible. Hayek writes: “The theory as such, as is true of all theories, describes merely a range of possibilities. In doing this it excludes other conceivable courses of events and thus can be falsified. The empirical content consists in what it forbids.” He continues:

… [t]he range of what is permitted by the theory is undeniably wide. Yet one could also argue that it is only the limitation of our imagination which

**Generative Social Science: Studies in Agent-Based Computational Modeling** (Princeton: Princeton University Press, 2006). This of course is not mentioning the different approaches to complexity in cognitive science, or Hayek’s own work.


Note the influence of Karl Popper’s philosophy of science on Hayek.

prevents us from being more aware of how much greater is the range of the prohibited – how infinite is the variety of conceivable forms of organisms which, thanks to the theory of evolution, we know will not in the foreseeable future appear on Earth.\textsuperscript{734}

On the difference between a scientific idiom of predictions of individual simple manifestations and the predictions of complex patterns along the theory evolution, Hayek contends – in a passage that reminds us of his critique of general equilibrium theory and his critique of legislation – that it is indeed practically impossible to collect all the data we need for a specific computation of an individual manifestation in a complex system. He writes:

Even if we tried to apply our explanatory scheme to a single species consisting of a known number of individuals each of which we were able to observe, and assuming that we were able to ascertain and record every single relevant fact, their sheer number would be such that we should never be able to manipulate them, i.e., to insert these data into the appropriate blanks of our theoretical formula and then to solve the ‘statement equations’ thus determined.\textsuperscript{735}

In this sub-section, then, we have seen that Hayek was inspired by the ideas on evolutionary development of both Adam Smith and Charles Darwin,\textsuperscript{736} that he interprets the theory of evolution as a general theory of pattern formation and prediction that permits developments within a certain range but denies other developments altogether, and that this means that there are no pre-determined results of the theory.

\textsuperscript{735} Ibid., pp. 33. Footnote omitted.
\textsuperscript{736} For the idea that evolutionary explanations are part of a larger set of invisible hand explanation, see Edna Ullmann-Margalit, “The Invisible Hand and the Cunning of Reason,” Social Research, vol. 64, no. 2 (Summer, 1997), p. 182.
66.3. Hayek on the Evolution of Morals

In line with his view on the theory of evolution, Hayek argues that morals are neither the product of our reason, nor of our instincts, as we have seen. Instead, he claims that moral rules are the result of human action, but not of human design.\(^{337}\) This means that he argues that moral rules develop in the process of human interaction, and as a result thereof. However, it further means that morals are not the product of human reason and that Hayek denies human reason the capacity to determine what the moral rules ought to be. He writes:

> Indeed, the basic point of my argument – that morals, including, especially, our institutions of property, freedom and justice, are not a creation of man’s reason but a distinct second endowment conferred on him by cultural evolution – runs counter to the main intellectual outlook of the twentieth century.\(^{338}\)

As we see, Hayek’s view on the development of moral rules reveals how integrated his views on this issue are with his social philosophy. His stance underscores that he does not believe that reason can construct rational moral rules, which – of course – is in line with his thought in general: Man and society have developed over a long course of evolution in which the rules for action conducive to a society’s staying-power have been codified into morals, and, as such, are the victims of evolutionary change. He writes:

> But the basic conclusion that the whole of our civilization and all human values are the result of a long process of evolution in the course of which values, as the aims of human activity appeared, continue to change, seems inescapable in the light of our present knowledge. We are probably also entitled to conclude that our present values exist only as the elements of a particular cultural tradition and are significant only for some more or less long phase of evolution – whether this phase includes some of our pre-human ancestors or is confined to a certain period of human civilization.


\(^{338}\) Hayek, *The Fatal Conceit*, p. 52
Part IV. The Cultural Evolution Thesis

We have no more ground to ascribe to them external existence than to the human race itself. There is thus one possible sense in which we may legitimately regard human values as relative and speak of the probability of their further evolution.\(^739\)

Just as he claims that reductionism in relation to any complex phenomenon is not a viable option in order to obtain a full explanation of the whole (see, Chapter 7), he maintains that we cannot conclude that our present values are what they are because of a detailed knowledge of what has caused them. We can only conclude that they have evolved within a general set of circumstances that made the present values more conducive to the group holding these values, than other values. In this sense, there is no law of evolution that leads to a pre-determined result, but only a range of the possible given by the theory of evolution. According to Hayek, as I have said, the theory of evolution describes a process by which the parts of any given complex system adapt to each other and their environment and over time produce an overall order with certain characteristics. To follow Hayek: The present values of a community are not the empirical content of a description of the development of morals by the theory of evolution. The empirical content of that theory consists in what it forbids. The theory of evolution forbids, for instance, values that are detrimental to the survival of the group holding them. But the values that are actually in use are just one possible set of such values allowed within the range of the possible as stated by the theory, as is also clearly seen in different value systems employed in different human cultures.\(^740\)

Hayek maintains that the opposite view – that reason alone can manage the task of assembling the necessary data to construct, or re-construct, a true moral theory – is one of the reasons for a mental attitude towards


problems related to morals that ascribes too extensive capacities to human reason. He writes:

While the assumption of a sufficient knowledge of the concrete facts generally produces a sort of intellectual hubris which deludes itself that reason can judge all values, the insight into the impossibility of such full knowledge induces an attitude of humility and reverence towards that experience of mankind as a whole that has been precipitated in the values and institutions of existing society.\(^{741}\)

Hayek further explains that this “intellectual hubris”\(^ {742}\) has produced something that he calls “the destruction of values by scientific error,”\(^ {743}\) and that this destruction is a prime concern in his thought. Commenting on this in the introductory chapter of *Law, Legislation and Liberty*, he writes:

What I am ultimately concerned with here, although I can deal only with a small aspect of it, is that destruction of values by scientific error which has increasingly come to seem to me the great tragedy of our time – a tragedy, because the values which scientific error tends to dethrone are the indispensable foundation of all our civilization, including the very scientific efforts which have turned against them. The tendency of constructivism to represent those values which it cannot explain as determined by arbitrary human decisions, or acts of will, or mere emotions, rather than as the necessary conditions of facts which are taken for granted by its expounders, has done much to shake the foundations of civilization, and of science itself, which also rests on a system of values which cannot be scientifically proved.\(^ {744}\)

In this sub-section we have seen that Hayek regards morals as a product of human interaction, and not as a product of rational deliberation. Further, we have seen that Hayek is concerned with what he perceives as a

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\(^ {743}\) Ibid., p. 173.

hubris-like attitude towards morals. In the next section, I will turn to consider Hayek’s idea of the cultural evolution of rules of just conduct.

66.4. Hayek on the Evolution of Rules

I will now consider the cultural evolution of rules of just conduct, which I view as the summation of Hayek’s ideas on mind, complex phenomena, and the role of knowledge in social cooperation.

Because of the inherent limitations of explanation and control of complex phenomena, the theme of complexity led Hayek to consider the idea of evolution as the way to understand the development of these phenomena.\textsuperscript{745} Thus, according to him, the rules that induce an overall order and bring beneficial results to the societies adhering to them typically develop over time in an evolutionary sifting process in which rules more conducive to the order of the system prevail.\textsuperscript{746} Hayek refers to this process as cultural evolution.\textsuperscript{747} Cultural evolution is a process for the establishment of the rules (in the normative sense, see Section 65.4.) that are most conducive to peaceful co-existence, successful individual action, and social order and welfare.\textsuperscript{748} To make an analogy with biological evolution: The

unit of selection in Hayek’s theory of cultural evolution is the social

group. The basis for selection is the success of the rule; that is, how well
the rule promotes the success of the group that adheres to it. The mecha-
nism of change (the process of innovation and replication) in Hayek’s
theory is due to the flexibility of application of rules. Deviations from
rules are either (i) found in changes in the circumstances in which the
rules guide action, or (ii) in individuals coming up with an entrepreneuri-
al, better way, of doing things, i.e. a new rule. Others then follow by
analogy, learning from experience if the rule is successful, that is, if it
solves some problem in a more efficient way.

As we see, then, the evolutionary process of the development of rules
of just conduct, as presented by Hayek, differs in two important ways
from standard Darwinian evolutionary theory. First, the cultural evolution
of rules of just conduct is a much faster process than the genetic process
of the evolution of species.\(^749\) Secondly, the selection takes place on the
group level – the rules beneficial to a group prevail because the group
prevails due to the superiority of the order induced by these rules –
whereas in the Darwinian Theory the selection process takes place on the
individual level. Hayek writes:

> For the understanding of animal and human societies the distinction is
particularly important because the genetic (and in a great measure also the
cultural) transmission of the rules of conduct takes place from individual
to individual, while what may be called the natural selection of rules will
operate on the basis of the greater or lesser efficiency of the resulting order of the group.\(^750\)

From the preceding sections, it is clear that Hayek regards the rules of
just conduct as moral rules and thus to be understood as normative. The

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\(^{750}\) Hayek, “Notes on the Evolution of Systems of Rules of Just Conduct,” in *New Studies in
rules that he has in mind are primarily those that concern property and contract, etc. He writes:

Indeed, if our present order did not already exist we too might hardly believe any such thing could ever be possible, and dismiss any report about it as a tale of the miraculous, about what could never come into being. What are chiefly responsible for having generated this extraordinary order, and the existence of mankind in its present size and structure, are the rules of human conduct that gradually evolved (especially those dealing with several property, honesty, contract, exchange, trade, competition, gain and privacy). These rules are handed on by tradition, teaching and imitation, rather than by instinct… [...] These rules, in effect constituting a new and different morality, and to which I would indeed prefer to confine the term ‘morality’, suppress or restrain the ‘natural morality,’ i.e., those instincts that welded together the small group and secured cooperation within it at the cost of hindering or blocking its expansion.\footnote{Hayek, \textit{The Fatal Conceit}, p 12. Emphasis added.}

Summing up, we have seen that Hayek holds that the complexity of the process of rule formation transcends the limits of the human mind and is by definition extra-mental.\footnote{Hayek, \textit{Law, Legislation and Liberty}, vol. 1, \textit{Rules and Order}, p. 49.} It is by transcending the limits of human cognition that the extension of the utilization of knowledge, information, and know-how is possible, and hence the welfare-creating forces of our civilization.\footnote{Ibid., p. 14.} As such, then, these rules and the resulting extended social orders are the unintended consequences of the process of cultural evolution. These rules, transmitting inter-generational knowledge and know-how on how to best act in social cooperation allow the individual member of a society to combine them with his own unique knowledge, information, and know-how when he acts in the social sphere. As we have seen, Hayek maintains that the result is an increased utilization of knowledge, and consequently an increase in the level of welfare. As pointed out, the extra-mental origin of the rules resulting from the process of cultural evolution is their main advantage in comparison to legislative rules as regards the creation of welfare.
66.5. Comments – Many Minds, Rules, and Welfare

In the next section, we shall go into the specific reasons why Hayek argues that evolutionary rules are more favorable to the utilization of knowledge than are rules enacted by a legislature. However, let us begin by commenting more generally on the evolutionary process and its relation to welfare in Hayek’s thought.

As is obvious, Hayek argues that the rules that have the property of being a heuristic for the ignorance of man typically develop in an evolutionary sifting process, in which rules more conducive to social order survive, a process that Hayek refers to as cultural evolution. On his account, the staggering complexity of this process and the amount of information that goes into it, serve as the main obstacle to a rational deliberate design of legislation. Because of the complexity of this process, it is by definition extra-mental on Hayek’s analysis. It transcends the limits of the human mind at the same time as it constitutes a heuristic by means of which man can base action on more knowledge than his mind alone would allow. This is also the reason why he views rules developed in an evolutionary process as being more conducive to the utilization of knowledge than are rules drafted in a legislature.\(^{754}\) The relation between rules developed in an evolutionary process and welfare may be illustrated as follows, according to Hayek:

\[\text{By following the spontaneously generated moral traditions underlying the competitive market order (traditions which do not satisfy the canons or norms of rationality [...] ), we generate and garner greater knowledge and wealth than could ever be obtained or utilized in a centrally-directed economy whose adherents claim to proceed strictly in accordance with ‘reason’.}\]\(^{755}\)

From his theory of mind, Hayek gained insight into the limitation of man’s cognitive apparatus as a complex system operating according to

\(^{754}\) Hayek, \textit{The Fatal Conceit}, p. 7.
\(^{755}\) Ibid., p. 7.
rules. As we have seen, these insights led him to ponder the complexity of the real world that the cognitive apparatus have to negotiate. He concluded that the complexity of the world imposes some severe restrictions on what we can know about it, and to what extent we can control it. Hayek’s focus on rules is in this sense an outcome of the question of how an agent is to pilot any complex system. The rules, then, are the tools that enable boundedly rational actors to act rationally in a world characterized by a complexity constitutionally beyond them. It is these rules, or regularities of behavior, that underlie the market, or the social order. One may, indeed, say that they are the market.\footnote{Viktor Vanberg, “Spontaneous Market Order and Social Rules: A Critical Examination of F. A. Hayek’s Theory of Cultural Evolution,” Economics and Philosophy, vol. 2 (1986), p. 75.}


through collective decisions, that is, a political process. As I have said, Hayek clearly favored the spontaneous, evolutionary development of rules.\footnote{Hayek, \textit{Law, Legislation and Liberty}, vol. 1, \textit{Rules and Order}, pp. 88–89.}

It is clear that Hayek’s argument that rules that have been developed in an evolutionary process are based on more knowledge than are legislative rules, is related to Hayek’s view on the relation between rules developed in an evolutionary process and complex orders of society. As I have said, I view Hayek’s work on rules as a summation of his earlier efforts, and I shall therefore comment on his work on rules from different angles, so that the reader may understand its relation to various parts of his thought.

As we remember, Hayek argues that evolutionary developed rules are more conducive to the development of complex orders of society than are rules enacted by a legislature, and that societies characterized by complexity are beneficial to human welfare. The reason is that a complex society is in itself an institution, or mechanism, that produces, stores, and communicates knowledge. Given the positive correlation between knowledge and welfare, complex social orders are beneficial in this regard. As we have seen, then, Hayek considers complex orders to be beneficial to (i) peaceful co-existence, (ii) social interaction, and (iii) welfare.

Let me comment briefly on these points in turn. A social order characterized by complexity is by definition extended to a multiplicity of agents. If it were not, it would not be characterized by complexity. In order for this multiplicity of actors to engage in social interaction, hostilities and violence must be excluded as far as possible. Hence one of the characteristic features of social orders characterized by complexity is peaceful co-existence.

We may describe the relation between social interaction, and social orders characterized by complexity, in roughly the same way that we may describe the relation between peaceful co-existence and social orders characterized by complexity. By way of illustration, we may then say that
in a network of any kind the nodes of the network need to be connected, which is a hallmark of a network (cf. Chapter 7). A network in the shape of a society has individuals as its nodes. In order for these nodes to be connected, the individuals need to engage in social interaction. Hence, the existence of a society characterized by complexity depends on social interaction.

As I have said, the concept of welfare is related to societies characterized by complexity, on Hayek’s analysis. Since complex social phenomena can store and communicate knowledge in a distributed fashion, and this way of managing knowledge allows for an increased utilization of knowledge, complex social orders are correlated with an increase in welfare in his thought.

The central issue here is Hayek’s claim that an evolutionary, extra-mental, process produces rules that are more conducive to social orders characterized by complexity and the benefits these bring, than are rules enacted by the legislature. But how does Hayek back up the claim that rules that are the product of an evolutionary process are more conducive to complex orders than rules enacted by a legislature? In order to understand this, we need to scrutinize the relation between the capacity of the human mind and the process to compute knowledge, information and know-how. We remember that Hayek concluded in his theory of mind that in relation to the wealth of knowledge, information, and know-how that constitutes the physical and social world we inhabit, the human mind is insufficient. Complex phenomena, on Hayek’s analysis, are defined by the fact that the total knowledge of them is dispersed and not available in its totality to anyone. We also remember that complex phenomena are rule-induced. But, as I have said earlier in this chapter, not just any set of rules gives rise to regularities of behavior that in turn occasion social orders with the afore-mentioned capacity for knowledge. Adjusting the sets of rules that gives rise to, or are conducive to, complex orders involves the tasks of understanding the basic features of the rules that are conducive to such orders, the composition of a set of rules that is condu-
cive to a complex order of society, and how to adjust a set of rules to continuously changing circumstances. Given the limits of the human mind, the fact of the vastness of the physical and social reality, and the dispersal of knowledge in complex orders of society, Hayek concludes that the possibility of gathering this knowledge as a basis for rational decisions on which rules to draft is illusory. From this vantage point, he argues that the evolutionary process of the development of these rules is extra-mental, that is, it transcends the limits imposed by the capacities of the human mind. The development of these rules takes place in the social interaction of agents over time. Knowledge, information and know-how are sifted, new ways of doing things are tried and tested, and the rules are adjusted to changed external circumstances (as well as to the internal circumstances as the human species develop). In the course of this evolutionary development, so the argument goes, the rules that result in the most advantageous complex orders give these societies an advantage over other societies. Put briefly, the extra-mental quality of the evolutionary process is something that a legislative process could never aspire to. What this quality contributes, on Hayek’s analysis, is to base the adjustment of rules to real-world circumstances on more knowledge, information and know-how, since more minds are involved.  

67. The Cultural Evolution Thesis – Analysis  

67.1. Introduction  
As we remember, the cultural evolution thesis has it that rules that have developed in a process of cultural evolution are more conducive to the utilization of knowledge in social cooperation than are rules enacted by a legislature. Together with the welfare claim, it forms the line of argument that evolutionary rules perform better in terms of welfare because these 

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rules are more favorable to the use of knowledge. As we have seen, this line of argument is refuted by the empirical work by Elinor Ostrom. However, we shall still survey the arguments that Hayek rallies in favor of the cultural evolution thesis.

In this section, then, I shall discuss Hayek’s arguments in support of the cultural evolution thesis, that is, his arguments that rules of an evolutionary origin are more favorable to the utilization of knowledge than are legislative rules. However, I shall also discuss the problematic issue of knowledge contained in rules, an idea that is part of the cultural evolution thesis.

As pointed out, I shall argue that we can distinguish three ways in which Hayek holds that rules developed in an evolutionary process are more conducive to the utilization of knowledge, information and know-how – and thus to welfare – than are legislative rules:

(i) that they [evolutionary rules] contain “better” knowledge, or knowledge of a higher quality, than do legislative rules,
(ii) that they are more conducive to the deployment of the full extent of individuals’ own stock of knowledge than are legislative rules, and
(iii) that they are more conducive to the utilization of the knowledge that resides external to an individual than are legislative rules.

Hayek does not explicitly make these distinctions, but I argue that it is reasonable to read him in this way, and that to do so will facilitate an understanding of his arguments. Because of (i)-(iii), rules developed in an evolutionary process will help bring about a higher level of utilization of knowledge than will legislative rules. Thus, on Hayek’s analysis, a society in which there are evolutionary rules will have a higher level of welfare – in view of the welfare claim – than will a society in which there are legislative rules.
As Hayek maintains that evolutionary rules contain “better” knowledge than legislative rules, I shall begin this section by specifically addressing the problematic idea of knowledge contained in rules (Section 67.2.). I then discuss the three ways in which Hayek maintains that rules developed in an evolutionary process are more conducive to knowledge and welfare than are legislative rules (Sections 67.3.– 67.5.) I conclude this section with some comments on Hayek and the critics of his work on rules (Section 67.6.).

67.2. Knowledge Laid Down in Rules

When Hayek argues that evolutionary rules contain better knowledge, or knowledge of a higher quality, than legislative rules, he assumes that knowledge is somehow laid down in rules, that rules contain, or hold, knowledge. Since knowledge is commonly assumed to be something that a person (or possibly an animal) has, I shall discuss the question of how to understand the notion that knowledge is contained in rules. I shall begin by going into why the idea of knowledge contained in rules is incompatible with the traditional conception of knowledge. Then, I shall discuss different ways in which we may understand the idea of knowledge contained in rules without it conflicting with the traditional understanding of knowledge as something that individuals have. Finally, I shall comment on contemporary social science and explain how it supports the idea of knowledge contained in rules, regardless of this conflict.

The problem, then, is that it is not quite clear what we mean when we say that knowledge is contained in rules. Traditionally, we recognize that human individuals (or in some cases animals) can have knowledge, and that X knows that P if, and only if, (i) X believes that P is the case, (ii) X has good reasons to believe that P is the case, and (iii) P really is the case. Clearly, X has to be someone with a mental capacity to have views on (i)-

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However, there are other conceptions of knowledge, see Bo Wennström, *Lawyer and Language* (Uppsala: Iustus, 1996), pp. 24ff.

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(iii). In view of this, it seems that Hayek operates with a concept of knowledge that is not limited to human individuals in the traditional sense. If we accept the notion of knowledge laid down in rules, it would seem that we have to distinguish between (a) knowledge conceived as something that is held by an individual subject and (b) knowledge conceived as something that is held externally to the individual, but which the individual can somehow access.

In view of these issues, let us briefly look at some possible ways to resolve them. I shall identify three ways in which we may do this. We may think of knowledge contained in rules (i) as knowledge about the positive effects of following rules, (ii) as knowledge in Karl Popper’s objective sense, or (iii) as know-how contained in rules. Let me now discuss these in turn.

One way of reading Hayek, especially in light of the difficulty of the concept of knowledge contained in rules, is to take him to be saying that the knowledge we have of rules is not knowledge that is contained in the rules, but the knowledge that if we follow the rules, the results will be benign. This, then, is not knowledge of some causal connection between the following of rules and some specific result – it is the more general knowledge that if we follow the rules, the overall effects will be benevolent. However, we may question what this really tells us, and it certainly does not seem to be the way Hayek thought of the issue. Another version of this view, is that Hayek does not at all hold the problematic idea that knowledge is laid down in rules, but simply means that when X follows the rules developed in an evolutionary process, he acts as if he had the knowledge that tells him how to act in a specific situation, and that this, in turn, leads to an economizing of means and a higher welfare level. The problem with this line of reasoning is that knowledge is a central concern on the welfare claim – an increase in the utilization of knowledge leads to an increase in the welfare level. If Hayek only means to say that a person who follows rules developed in an evolutionary process acts as if he had knowledge, then the utilization of actual knowledge will not be relevant.
for the welfare claim. Further, as we shall see, Hayek argues that not only are evolutionary rules based on more knowledge, but the knowledge laid down in these rules is better aligned with real-world circumstances, thus implying knowledge in a qualitative sense. The welfare claim, though, states a quantitative correlation between the utilization of knowledge and the welfare level. This raises the question of how the conception of better knowledge is to fit in with the welfare claim.

Given the close personal and scientific ties between Hayek and Karl Popper, it is possible that Hayek was influenced by Popper’s idea of objective knowledge. As is well known, Popper distinguishes between “knowledge in a subjective sense” and “knowledge in an objective sense.” Of the latter type of knowledge Popper says:

> Knowledge in this objective sense is totally independent of anybody’s claim to know; it is also independent of anybody’s belief, or disposition to assent; or to assert, or to act. Knowledge in this objective sense is knowledge without a knower; it is knowledge without a knowing subject.\(^\text{763}\)

On this conception of knowledge, the idea of knowledge contained in rules is not problematic. However, I shall not delve into this potential link between Popper’s and Hayek’s concepts of knowledge, but shall be content to point out that Popper’s idea of an objective knowledge has not gained support among contemporary epistemologists.\(^\text{764}\)

As we remember, I made a distinction between different categories of knowledge in Hayek’s work, (see, Chapter 8), and I also argued that in order to gain a better understanding of the idea of knowledge in Hayek’s critique of legislation, we need to take a closer look at the different phenomena that can be distinguished under the heading of “knowledge” in


his writings. In short, these categories are as follows: (i) knowledge includes theoretical knowledge, (ii) information includes data on particulars, such as where and when something will take place, or the prices of goods, and (iii) know-how, finally, includes — for example — habits, skills, and, on Hayek’s analysis, the ability to follow certain rules in given situations, etc. As we have seen, the category of know-how is a category of skills that are performed in line with abstract rules that would be used to state a description of how these tasks are performed, although it is difficult to state exhaustively a theoretical description of how it is done. It seems clear that while the traditional concept of knowledge entails the idea that knowledge cannot be held by a rule, this is possible on the concept of know-how.

In this section, I have tried to reconcile a concept of knowledge with the idea of knowledge contained in rules. However, regardless of the conceptual muddle that the idea of knowledge contained in rules may give rise to, it is clear that contemporary social science makes use of this idea on lines similar to Popper’s idea of knowledge as independent of an individual holder; the general idea that rules are guides to successful individual action, as well as to equilibrium (rational) aggregate outcomes, is mostly accepted in contemporary social science. As we shall see, in Chapter 14, it is not only an accepted idea, but also a very fertile idea that has attracted wide attention and led to investigations into the role of rules for rational action and rational social order.

67.3. Better Knowledge of Real-World Circumstances

I now return to Hayek’s three arguments in favor of the cultural evolution thesis, and I shall begin to discuss Hayek’s claim that knowledge contained in evolutionary rules is in some sense better than knowledge con-

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765 Hayek, “Rules, Perception and Intelligibility,” in *Studies in Philosophy, Politics and Economics*, p. 43. For further comments on Hayek’s view on the relation between know-how and rules, see Pleasants, “The Epistemological Argument against Socialism: A Wittgensteinian Critique of Hayek and Giddens,” *Inquiry*, p. 27
tained in legislative rules. More specifically, I shall discuss Hayek’s argument that rules developed in an evolutionary process contain better knowledge, or knowledge of a higher quality, than the knowledge contained in rules enacted by a legislature. As we remember, this position of Hayek’s is supported by a so-called many-minds argument. As pointed out, this type of argument rests on the idea that processes that involve many minds lead to better results than processes that involve fewer minds. The reason for this is that the more minds are involved, the more knowledge the result of the process will be based on. Because the evolutionary process involves more people, this argument means that rules developed in an evolutionary process will be based on more knowledge than will the rules of a parliamentary process. And this, in turn, means that rules developed in an evolutionary process are “better” than legislative rules, on Hayek’s analysis. However, we may wonder: better how? As I understand it, Hayek means that evolutionary rules better mirror real-world circumstances than do rules enacted by a legislature. Because our actions take place in the real world, acting on rules that are aligned to the facts of that world help us achieve our ends more efficiently than if the rules had been less aligned with these facts. In short, the contribution of the evolutionary process is to base the adjustment of rules to real-world circumstances on more knowledge, information and know-how because more minds are involved, as the development of these rules takes place in the social interaction of agents over time. Knowledge, information and know-how are sifted, new ways of doing things are tried and tested, and the rules are adjusted to changed external circumstances.

Let us now return to Hayek’s analogous argument that concerns prices, in order to illustrate Hayek’s position (see, Section 51). The analogy between rules and prices, then, is such that rules, like prices, develop as a result of social interaction. They reflect the ever-increasing adjustment to new circumstances as well as an ever better understanding of how to best

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act in social cooperation. Just as with prices, rules reflect real-world circumstances, or, how to act in a way that is aligned with real-world circumstances; be they external physical circumstances, social circumstances, or just a better understanding in general. And just as with prices, it is, on Hayek’s analysis, excluded that any one person, or group of persons, can pull off the task of reflecting adjustments to real-world facts to the extent of the many minds of the larger group, or the many minds of society.

Hayek argues that rules, like prices, are heuristics that induce man to act in a way that is rational in relation to his own ends, as well as in relation to society. Of course, these rules are constraints that prevent us from pursuing a course of action that is rational solely in view of the end at hand, such as a fast increase in utilities by killing and stealing. These rules align what is rational in view of individual means to ends, on the one hand, and what is rational in view of the social order, on the other hand. As I have said regarding the theory of prices, Hayek argues that the price is a condensation of widely dispersed knowledge. The knowledge (or information, or know-how) that ends up reflected in the price is sifted as the agents of a society communicate in the course of social interaction. If any agent, or group of agents, attempt to determine a price, it is excluded, on Hayek’s analysis, that they can do it in a way that correctly mirrors real-world circumstances. This is because the limited number of minds involved excludes that all the facets determining the price will be reflected in the price. While tampering with prices is mostly prohibited with regard to competition, prices that do not correctly mirror real-world facts also lead to actions that are not in accord with these real-world facts, which, in turn, means that resources will not be rationally applied (cf. instrumental rationality) and fewer ends achieved (that is, less welfare). By the same token, this would also be the case with rules.

As I have said, Hayek argues that the sifting of an evolutionary process means that the knowledge contained in the rules that are the product of this process better mirror real-world circumstances than does the knowledge in rules enacted by a legislature. The many minds of this pro-
cess will contribute to the sifting process through their social interaction. The choice process of which rules will constitute regularities of behavior is impersonal, and the process is decided on the grounds of which rules give the ones using them the best handle on reality, and which rules provide the most viable social order. In conclusion, it is the extra-mental nature of the evolutionary process that gives it an edge in better aligning the knowledge contained in evolutionary rules with real-world circumstances. On the basis that rules developed in an evolutionary process are based on more knowledge than legislative rules, and that the knowledge contained in these rules mirrors real-world circumstance more faithfully than the knowledge contained in legislative rules, Hayek maintains that that the evolutionary type rules contain, or hold, better knowledge than legislative rules.767

As pointed out, the basis of the cultural evolution thesis is a “many minds” argument,768 according to which many minds can hold more knowledge than fewer minds. In the process of cultural evolution, the many minds of society trawl for facts that guide the adaptation of rules to the function of the extended order. In the case of rule-making, the many minds of a process of cultural evolution can base the rule-making process on more knowledge than the fewer minds of a legislature and thus arrive at better solutions. In short, the actions that are taken on the basis of these rules will be based on more and better knowledge, and will thus be more conducive to the production of welfare, than if they had been based on legislative rules. In this sense, as we have seen, Hayek’s basic argument for the evolutionary development of rules is the same as that for competition, liberty and prices. He argues that freedom of exchange results in prices that contain a more exhaustive description of real-world circumstances. This analysis was carried over to rules and Hayek essentially

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argues that in a market economy, the function performed by rules is in a sense equivalent to that of prices, as the rules result from the knowledge-trading of social cooperation. Both prices and rules typically relay knowledge (more precisely, according to the distinctions introduced in Chapter 8, prices convey information and rules convey knowledge and know-how). From this perspective, one could say that the cultural evolution of rules is for rules what competition is for prices: It is the method by which the mental description of the physical reality is made as exhaustive as possible by taking into account as much dispersed knowledge as possible. It is through the competitive method that the institutions most conducive to the survival of the group employing them, such as legal systems and the pricing mechanism, will survive in the broader context of what Hayek calls cultural evolution.

That rules hold knowledge seems at the same time natural and alien to jurisprudents – natural in the sense that rules are conceived as being deliberately created to optimize some specific situation and thus providing guidance on how to act, but alien in the sense that Hayek’s conceives of them as the result of an inter-generational sifting process that over time condenses the most valuable experience in rules that have no specific author (although, of course, customary rules comes close). As pointed out, contemporary social science broadly supports the idea that knowledge is contained in rules and can somehow be communicated by rules, but, as we shall further see (see, Section 67.6.), this idea has also been criticized. Implicit in the notion that rules may contain and communicate knowledge is the idea that this knowledge is external to those whose actions are informed by a rule; that is, it is the knowledge of others. In economics, though, it is a mainstream idea that the price mechanism condenses information that is then communicated. As we have seen in this section, the analogy with prices is both intuitive and thought-provoking.
67.4. More Conducive to the Individual Use of Knowledge

In this section, I will discuss the question of whether the evolutionary development of rules produces rules that are more conducive to the individual utilization of knowledge than are rules enacted by a legislature. Since the idea is that evolutionary rules are more conducive to the individual utilization of knowledge because they involve less coercion than do legislative rules, this argument is derivative of the line of argument on coercion developed in Chapter 11. Let us consider how Hayek supports his claim.

We remember that in his work on knowledge in social cooperation, Hayek argues that when it comes to deploying means for the realization of ends, the individual whose means and ends are concerned has a distinct advantage over everyone else. This is a common sense approach. The circumstances pertaining to the realization of an end, such as what skills to apply, what these skills consist of, and the knowledge, information and know-how that pertain to the end in question, etc., are simply closer at hand for the individual whose actions they determine. It is probably fair to say that in almost every instance the individual has a unique insight into the knowledge, information, and know-how that determine the disposition of means, both external and internal to the individual, towards the realization of an end.

As we remember from Chapter 11, the coercive nature of legislative rules may have negative welfare effects, since coercion deprives the coerced of the ability to utilize his own unique stock of knowledge in the most optimal way. On Hayek’s analysis, it is a characteristic of rules developed in an evolutionary process that they allow the individuals to use the whole scope of their knowledge “toolbox” to achieve ends as rationally as possible; that is, with the use of as few means as possible (cf. instrumental rationality). These characteristics are the ones described by legal theory. That is to say, the rules should apply to everyone, including government, and they should apply to an indefinite number of future cases, that is, they should be general. If every individual can use his means in
a more efficient way, then this implies, on the aggregate level, that more knowledge is utilized. This, in turn, frees up resources to get further ends achieved. If you will, this is the welfare claim applied to rules. On Hayek’s account, it also supplies an affirmative answer to the question of why the evolutionary process produces rules that are more conducive to the individual utilization of knowledge than the legislative process.

67.5. More Conducive to the Utilization of the Knowledge of Others

In this section, I discuss the question of whether the evolutionary development of rules produces rules that are more conducive to the individual utilization of knowledge of others, than are legislated rules. In order to discuss this, I shall continue the analogy with prices. As we shall see, this argument is derivative of the evolutionary process; it is the knowledge of the many minds that is laid down in the rules over time, through the social interaction of agents, and is thus made available to those who act according to the rule.

Prices relay information on the scarcity of utilities. A price is the value of a scarce utility, in relation to the scarcity of other utilities, and individuals’ need for it. The value of a utility is given a numerical denomination in some currency, such as money. This is the price. The information on the relative scarcity of the utility need not be known to the member of an extended order acting upon the price. But when the member of an extended order acts on a price, he acts on this extension of his own knowledge, information and know-how.

The rules of conduct of the extended order are the result of an inter-generational learning process on how to best act in social cooperation. The result of this evolutionary process is stored in the rules of just conduct and is communicated by them. The knowledge on social cooperation need not be known to the member of an extended order who acts pursuant to its rules of conduct; but when the member of an extended order bases his actions on these rules, he acts on this extension of his own knowledge.
As pointed out, Hayek argues that civilization is the result of extending the use of knowledge, information and know-how beyond the cognitive limits of man. On this analysis, a society characterized by social order and complexity is an institution enabling this extension. When acting in an extended order, a person can make use of the knowledge, information and know-how of others. This is primarily done by adhering to an institutional framework of which rules developed in an evolutionary process is an important part.

As we have seen, it is implicit in the idea that rules can contain knowledge that it is external to those whose actions are informed by a rule. Further to this, knowledge contained in rules is knowledge of others as it is laid down in the rules in the course of the evolutionary process. It is clear that the argument that evolutionary rules are more conducive to the utilization of the knowledge of others depends on the assumption that knowledge can be held by some other entity than an individual. As pointed out, in economic thought it is a mainstream idea that the price mechanism condenses the information of a multitude of people, and that this information is then communicated in the price. So, the analogy with prices in this instance continues to be intuitive and thought-provoking.

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As is clear, I shall argue that Hayek’s line of argument in support of the legislation tenet that is based on the cultural evolution thesis and the welfare claim is refuted by the work of Elinor Ostrom. However, I shall first say something on how I value the support for the cultural evolution thesis from the arguments covered in this section. I argue that these arguments support the cultural evolution thesis: the argument that evolutionary rules contain “better” knowledge that legislative rules, because I find it likely that the many-minds aspect of the evolutionary process is likely to take more knowledge into account than the legislative process; the argument that evolutionary rules are more conducive the individual utilization of
knowledge, because the evolutionary type rules do not rely on coercion that may hamper the individual utilization of knowledge; the argument that evolutionary rules are more conducive to the utilization of knowledge of others, because the many-minds argument explicitly means that the knowledge of others are part of an evolutionary rule.

67.6. Comments – Hayek and His Critics

In this section we have reviewed Hayek’s arguments in support of the cultural evolution thesis. As we have seen, Hayek’s work on rules stands as a kind of summation of his other theories, but the truth of the cultural evolution thesis is hard to judge. It relies heavily on the other theories as tacit assumptions for the arguments developed. For instance, it assumes that the human mind’s capacities are limited – otherwise man would not need rules to guide him, as he would be able to figure out for himself the rational course of action in every specific situation. Moreover, it assumes that society is a complex phenomenon and that this is only possible given regularities of behavior of its members (and that these rules are rules in the normative sense). It finally presupposes that knowledge in any complex phenomena is dispersed and not available in total to any organization or individual. Hayek’s broader conception of rules, has however received support from more recent developments in the social sciences. Contemporary social science broadly supports the idea that knowledge can somehow be held and communicated by rules, but (as I said) this idea has been criticized. As we have seen, there is an increasing focus on rules in the social sciences,\textsuperscript{769} and with this Hayek’s idea of the cultural evolution of

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rules of just conduct has been debated. The criticisms of Hayek’s idea have mainly focused on the issues of the free-rider problem and whether the unit of selection is the group (as Hayek is well-known for his methodological individualism, this has aroused some interest). The issue of the unit of selection has been of interest primarily to biologists, and the issue of the free-rider problem has been of interest mainly to economists. Victor Vanberg’s 1986 criticism is perhaps the best known, and he concluded that “the notion of cultural group selection is theoretically vague, inconsistent with the basic thrust of Hayek’s individualistic approach and faulty judged on its own merits.” However, more recent commentators, while not agreeing with Hayek that the evolutionary process is the only

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way for the development of rules and institutions, largely conclude that “[a]s far as we can see today, the theory is mostly correct.”\textsuperscript{772}

However, the strength of Hayek’s arguments in favor of the cultural evolution thesis need not concern us, because, as pointed out, the empirical investigations of Elinor Ostrom refutes the line of argument that has it that evolutionary rules are more conducive to the utilization of knowledge – and thus to welfare – than are legislative rules.

68. Concluding Remarks – Rules, Equilibrium, and the Development of Society

Hayek’s theory of mind made him understand man’s cognitive apparatus as limited and as a complex system operating according to rules. His theory of mind led him to the idea of complexity, which imposes limits on what we can know about the world and how far we can control it. In his work on knowledge in social cooperation, Hayek postulates that there is a positive correlation between the rise of civilization and the welfare of society, on the one hand, and the utilization of knowledge, information and know-how, on the other hand. The question, then, is how knowledge, information and know-how are accumulated, stored and communicated.\textsuperscript{773} Hayek’s answer to this question is that institutions, particularly rules, are among the tools by which this is done.\textsuperscript{774}


To recapitulate the basic thrust of Hayek’s line of argument in relation to the law in general: On Hayek’s analysis, law is instrumental for the transformation from small-knit communities to the extended orders of modern society.\textsuperscript{775} According to him, legislation is to a large degree a codification of rules that have developed in an evolutionary process of cultural evolution.\textsuperscript{776} Many of these rules secure for the individual a private sphere within which he is free to act as he sees fit.\textsuperscript{777} On Hayek’s analysis, the law \textit{ought to} be organized so that this individual sphere is secured.\textsuperscript{778} The reason for this position is his argument for a general correlation between the utilization of knowledge and the welfare level of society.\textsuperscript{779} According to him, guaranteeing the individual a private sphere is the best way to secure that each individual contributes as much of his knowledge, information, and know-how as possible to the process of social cooperation, and hence to the welfare of society. On Hayek’s analysis, it is the law that secures the individual sphere. As is evident, Hayek’s argument for freedom under the law is essentially instrumental.\textsuperscript{780} On this view, the only legitimate legal use of coercion is that which upholds the adherence to rules securing the private sphere.\textsuperscript{781}

A central issue in Hayek’s critique of legislation concerns the likelihood that the welfare-creating forces of the utilization of knowledge in social cooperation will be distorted by legislation that affects the utilization of knowledge by authorizing the use of coercion that transgresses the boundaries of the individual sphere, which has traditionally been protected by the law. From this viewpoint, the balance between rules crafted in

\textsuperscript{775} Hayek, \textit{The Fatal Conceit}, p. 6.
\textsuperscript{777} Ibid., pp. 74, 107.
\textsuperscript{778} Ibid., pp. 106–10.
\textsuperscript{779} Hayek, \textit{The Constitution of Liberty}, pp. 39; 42.
\textsuperscript{781} Ibid., p. 55.
and enacted by parliament, and rules developed in an evolutionary process, is decisive. As Hayek puts it:

[The] important question of which of these rules of individual action can be deliberately and profitably altered, and which are likely to evolve gradually with or without such deliberate collective decisions as legislation involves, is rarely systematically considered.\footnote{Hayek, “Notes on the Evolution of Systems of Rules of Just Conduct,” in \textit{New Studies in Philosophy, Politics, Economics and the History of Ideas}, p. 72.}

As we have seen in Hayek’s critique of general equilibrium theory, he claims that the key question in economics is not how to compute states of equilibria on the assumption that men are omniscient, but rather – starting from the premise that knowledge is crucial for any society, albeit dispersed – how knowledge is created and communicated.\footnote{Hayek, \textit{The Constitution of Liberty}, p. 27; Hayek, “Economics and Knowledge,” in \textit{Individualism and Economic Order}, p. 46; and Vaughn, “Hayek’s Implicit Economics: Rules and the Problem of Order,” \textit{Review of Austrian Economics}, p. 136. See also Sugden, “The Role of Inductive Reasoning in the Evolutions of Conventions,” \textit{Law and Philosophy}, pp. 377–410, esp. p. 392; and pp. 394–395 for an interesting parallel between his critique of game theory and the formation of conventions in ‘real’ life.}

Hayek defines a state of equilibrium as a state of affairs in which a plan made by an individual can come to fulfillment at the same time as the plans of others can also reach fruition.\footnote{In this context it is interesting to compare this notion of the price mechanism and institutions, and particularly rules as regularities of behavior with capacities for transmitting knowledge, to the approach of Avner Greif when he defines institutions as equilibrium phenomena, stemming from regularity of action. See, Avner Greif, \textit{Institutions and the Path to the Modern Economy: Lessons from Medieval Trade} (Cambridge: New York: Cambridge University Press, 2006), pp. 134ff.} In relation to a state of equilibrium, rules on Hayek’s account are, “a kind of instrument of production, helping people to predict the behavior of those with whom they must collaborate.”\footnote{Vaughn, “Hayek’s Implicit Economics: Rules and the Problem of Order,” \textit{Review of Austrian Economics}, p. 135.} On this count, Karen Vaughn has argued that Hayek’s theory of prices as communicators of information, and his work on rules as tools for accumulating, storing, and communicating knowledge and know-how, may be viewed as Hayek’s alternative to general equilibrium.
theory as an explanation of economic phenomena. On Hayek’s analysis, our institutions constantly evolve to better perform their function of inducing equilibria; or, put in another way, the evolutionary process favors the rules that develop to be favorable to even further rational arranged social orders, as these orders are further advantageous to their members’ material welfare. Hayek writes:

[traditions and institutions are like tools] ...which the human race has evolved and which enable us to deal with our environment. These are the results of the experience of successive generations which are handed down. And once a more efficient tool is available, it will be used without our knowing why it is better, or even what the alternative is.”

It is in the constant improvement of these tools that our possibilities of development lie, according to Hayek. And on a wider scale it is: “… [in the] successful adaptations of society that are constantly improved and on which depend the range of what we can achieve.”

We have in this chapter been considering Hayek’s sprawling work on rules and the particular arguments in favor of the cultural evolution thesis. Although not true, the line of argument in support of the legislation tenet that is based on the conjunction of the cultural evolution thesis and the welfare claim is nevertheless interesting because it links Hayek’s work to contemporary interdisciplinary work focused on rules. As we have seen, Hayek has influenced this line of research; some of his ideas find support in it, while others are refuted by it.

As is clear, the cultural evolution thesis is implicitly based on the idea of knowledge laid down in rules. Institutions and rules receive extensive attention in contemporary social sciences, and the idea that evolutionary rules function as heuristics that bear compressed knowledge and function

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787 Hayek, The Constitution of Liberty, p. 27.
as guides to successful individual action and equilibrium social outcomes is largely accepted. In Chapter 14, I shall look into the idea that rules foster individual rational action and rational social order in view of the work of experimental economist Vernon Smith and economic historian Avner Greif.

However, in the next chapter, I will consider the work of Elinor Ostrom and explain how it refutes the line of argument under consideration in this chapter.

69. Summary

Hayek’s work on rules is far-ranging and it is a synthesis of much of his earlier work. As such, it also links the earlier parts of his work to his work on rules. As we have seen, there are two primary foci in this work, human understanding and rational action as conditioned on rules, and the relation between rules and complex social orders.

As to the distinction between rules in a descriptive sense and rules in a normative sense, we have seen that Hayek wears two hats. As an economist, he views rules as regularities of behavior, and as a jurisprudent, he views rules in a normative sense. In relation to his critique of legislation, it is clear that Hayek views rules in the normative sense.

Hayek argues that the theory of evolution has been customarily misinterpreted. Instead of being a theory that may account for the development of specifics, it is a general theory of pattern development. On morals, it is Hayek’s position that moral rules are not the product of our reason. Instead he argues that they are the result of social cooperation; the moral rules most conducive to the survival of the group survive in an evolutionary process. This is essentially also his position on the development of rules of just conduct.

I distinguish three arguments of Hayek’s in support of the cultural evolution theses, (i) that they [evolutionary rules] contain “better” knowledge, or knowledge of a higher quality, than do legislative rules,
(ii) that they are more conducive to the deployment of the full extent of individuals’ own stock of knowledge than are legislative rules, and (iii) that they are more conducive to the utilization of the knowledge that resides external to an individual than are legislative rules. I argue that these arguments are successful. However, as we shall see, the line of argument based on the conjunction of the cultural evolution thesis and the welfare claim is refuted by the empirical work of Elinor Ostrom (see, next chapter).

In conjunction with the cultural evolution thesis, we also discussed the idea of knowledge laid down in rules, an idea that is a tacit assumption of this thesis. We concluded that this idea seems to fit in poorly with the traditional conception of knowledge as something that is possessed by an individual mind, but that the idea is accepted in much contemporary social science. However, this idea is the basis of a further idea that is in focus in Hayek’s critique of legislation, as well as in contemporary social science focusing on rules, namely the idea that rules are instrumental in bringing about rational action and rational social order.
Chapter 13
Empirical Studies and Polycentric Government

70. Introduction

In the previous chapter, we surveyed Hayek’s far ranging work on rules, focusing on the cultural evolution thesis and the arguments that support this thesis. As we remember, Hayek’s argument, based on the conjunction of the welfare claim and the cultural evolution thesis, is as follows: Rules developed in the process of cultural evolution are more favorable to the utilization of knowledge than are legislative rules (the cultural evolution thesis), and therefore they help bring about a higher level of welfare than do legislative rules (the welfare claim). However, as pointed out, I shall argue shall argue that the work of Elinor Ostrom refutes Hayek’s line of argument.

As we have seen, the cultural evolution thesis raises the issue of a point of comparison in relation to which we can say that one situation features a higher level of welfare than another situation. In comparison to a situation in which there are evolutionary rules, Hayek argues that the welfare level will decrease in a situation in which there are legislative rules that concern complex social orders and aim at specific aggregate results. As pointed out, Hayek’s position on this issue is binary in that he seems to envision either a situation in which there are legislative rules, or a situation in which there are evolutionary rules. As we shall see, Ostrom’s empirical work shows instances in which a combination of
evolutionary and legislative rules performs better in terms of welfare, than evolutionary rules taken alone do. Hence I shall argue that her work refutes the cultural evolution thesis. More specifically, Ostrom’s work supports the idea that evolutionary rules can be improved upon in a collaborative process between private, local, regional, and national institutional levels – a process she refers to as polycentric government. In this chapter, then, I turn to a review of the line of argument under consideration, in light of Ostrom’s empirical work and her idea of polycentric government.

This chapter is structured as follows. I shall begin with some comments on the affinities between the works of Hayek and Ostrom (Section 71). I continue with a straightforward description of some of Ostrom’s empirical field studies which showcase instances in which a mix of evolutionary and deliberately created rules co-exist within an institutional framework (Section 72). I then discuss how we shall understand Ostrom’s empirical work and her concept of polycentric government in terms of a refutation of Hayek’s line of argument, in support of the legislation tenet, as based on the conjunction of the cultural evolution thesis and the welfare claim (Section 73). Finally, I summarize the chapter (Section 74).

71. Elinor Ostrom and Hayek

As we have seen, social science since the time of Hayek has in part developed along the lines projected by Hayek, and one of the circumstances that make Elinor Ostrom interesting in conjunction with Hayek is that many of their basic positions are so similar. It is clear that Ostrom is a representative of the kind of inter-disciplinary social science that Hayek argued for, but which took off only after his time. As we shall see, Ostrom’s work is thoroughly Hayekian,\(^\text{789}\) and there are some particularly

\(^{789}\) Ostrom seems careful not to reference Hayek. However, the similarities are striking. See for example the following quotes (first a quote in which Hayek quotes Pareto, and then a quote of Ostrom): “If only five changes in rules per component were considered,
interesting views that Ostrom shares with Hayek, views that often have been corroborated in various disciplines. For instance, she shares Hayek’s view that complex phenomena can only be explained along their principal way of functioning, and that the mind uses mental models to furnish explanations. She also shares Hayek’s views that humans are not aware of all the rules they honor in action, that language cannot express the full content of a rule, that there is an analogy between rules and

for example, there would be 5 or 75,525 different situations to analyze. This is a gross simplification, however, since some of the important rules used in field settings include more than twenty-five rules [...] and even over one hundred variants [...]. No set of policy analysts (or even all of the game theorists in the world today) would ever have sufficient time or resources to analyze over 75,000 combinations of rule changes and resulting situations, [...].” (Hayek, “Socialist Calculation III: The Competitive Solution”, in, Hayek, Individualism and Economic Order, pp. 181–182. Quote originally published in Vilfredo Pareto, Manuel d’economie pure (2nd ed., 1927), pp. 233–234): Compare the following quote from Ostrom. It seems inescapable that Ostrom has read Pareto as quoted by Hayek. Says Ostrom: “It may be mentioned here that this determination has by no means the purpose to arrive at a numerical calculation of prices. Let us make the most favorable assumptions for such a calculation of prices, let us assume that we have triumphed over all the difficulties of finding the data of the problem and that we know the ophélimités [utilities] of all the different commodities for each individual, and all the conditions of production of all the commodities, etc. This is already an absurd hypothesis to make. Yet it is not sufficient to make the solution of the problem possible. We have seen that in the case of 100 persons and 700 commodities there will be 70,699 conditions (actually a great number of circumstances which we have so far neglected will further increase that number); we shall therefore have to solve a system of 70,699 equations. This exceeds practically the power of algebraic analysis, and this is even more true [sic.] if one contemplates the fabulous number of equations which one obtains for a population of forty millions and several thousand commodities. In this case the roles would be changed: it would not be mathematics which would assist political economy, but political economy would assist mathematics. In other words, if one really could know all these equations, the only means to solve them which is available to human powers is to observe the practical solution given by the market.” See, Elinor Ostrom, Understanding Institutional Change (Princeton: Princeton University Press, 2005), p. 239.


792 Ostrom, Understanding Institutional Diversity, p. 5; and p. 19.

793 Ibid., p. 20. Ostrom refers to Vincent Ostrom, The Meaning of Democracy and the Vulnerabilities of Democracies: A Response to Tocqueville’s Challenge (Ann Arbor:
genes, that we learn rules in the same way as we learn the grammar of a language (what Hayek refers to as the analogy between Sprachgefühl and Rechtsgfühl),\textsuperscript{795} that rules indeed can develop in an evolutionary process,\textsuperscript{796} that rules, as opposed to genes, are selected not only on the individual level in an evolutionary process, but also,\textsuperscript{797} of course, that rules are of central importance for an understanding of our social life. She further shares Hayek’s view that the human mind has limited informational and computational capacities and that man employs heuristics to deal with this fact.\textsuperscript{798} It is also worth noting that Ostrom argues that scientific work in her field may not yield predictions in the traditional sense, but that pattern prediction may have to suffice. She writes:

> While verifying the empirical warrantability of \textit{precise predictions} has been the guiding standard for much of the work in political economy, we may have to be satisfied with an understanding of the \textit{complexity} of structures and a capacity to expect a broad \textit{pattern} of outcomes from a structure rather than a precise point prediction. An outcome consistent with a pattern may be the best \textit{verification} we can achieve in settings of substantial complexity.\textsuperscript{799}

\textsuperscript{794} Ostrom, \textit{Understanding Institutional Diversity}, p. 20
\textsuperscript{795} Ibid., p. 126. Ostrom refers to Steven Pinker, \textit{The Language Instinct} (New York: W. Morrow, 1994).
\textsuperscript{798} Ostrom, \textit{Understanding Institutional Diversity}, p. 118. Ostrom refers to the work of Herbert Simon, Vincent Ostrom, Douglas North, Reinhard Selten, Bryan Jones, and Oliver Williamson.
As we remember, this is also the position of Hayek as expounded in his work on complex phenomena and in his philosophy of mind: Because an explaining entity must be of a higher degree of complexity than that which is to be explained, the human mind can only be explained along its principal ways of functioning. Likewise, complex phenomena, such as a modern society, may only be explained along its principal ways of functioning.

Apart from these affinities of Hayek and Ostrom, commented on above, Ostrom is of course a highly respected proponent of contemporary inter-disciplinary social science that to no small degree focuses on institutions, and rules in particular. Drawing on work in political science, economics, anthropology, law, sociology and psychology, Elinor Ostrom summed up her research in the 2005 book *Understanding Institutional Diversity*. Following Douglas North (see, Introduction to “Part IV”), she defines institutions as, “...the prescriptions that humans use to organize all forms of repetitive and structured interactions including those within families, neighborhoods, markets, firms, sports leagues, churches, private associations, and governments at all scales,”

Ostrom aims to challenge some basic assumptions of contemporary institutional policy analysis. One assumption she challenges is the idea, “that designing rules to change the incentives of participants is a relatively simple analytical task.” Another assumption of contemporary policy analysis that she challenges is, “the view that organization itself requires central direction.” As we shall see, Ostrom’s empirical findings, and her challenges of the assumptions of contemporary institutional policy

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801 Ibid., p. 8.
802 Ibid., p. 3. Emphasis added.
803 As a matter of fact, Ostrom also challenges, “the view that resource appropriators are helpless to overcome their temptations to harvest excessively from a resource.” See, Ostrom, *Understanding Institutional Diversity*, pp. 237–238. However, this assumption of contemporary institutional policy analysis is of lesser importance in conjunction with the cultural evolution thesis.
804 Ostrom, *Understanding Institutional Diversity*, p. 239.
805 Ibid., p. 240.
analysis, coincide with Hayek’s critique of legislation, although, as pointed out, her empirical results ultimately undermine the line of argument, based on the conjunction of the cultural evolution thesis and the welfare claim, as it supports the legislation thesis.\(^{806}\)

72. Ostrom’s Empirical Studies

In this section, I turn to describing some of Ostrom’s empirical studies. As pointed out, these empirical field studies showcase a mix of evolutionary and deliberately created rules co-existing in institutional frameworks. The analysis of Ostrom’s contribution in terms of Hayek’s line of argument under consideration commences in the next section.

I will describe four of Ostrom’s empirical studies. These studies are based on observations of (i) an irrigation community in Valencia (Spain), (ii) another irrigation community in Alicante (Spain), (iii) the Maine Lobster fishery (US), and (iv) the Pacific salmon fisheries in the state of Washington (US).

As we shall see, many of Ostrom’s studies revolve around social dilemmas, situations in which the short term incentives of agents contribute to long term sub-optimal aggregate outcomes. Therefore, I shall begin this section by commenting on the concept of a social dilemma – a fundamental concept in much social science – and Ostrom’s work relating to these dilemmas, before I proceed to presenting her empirical work.

Social Dilemmas

As pointed out, then, a social dilemma is a situation in which the short-term incentives of the participants lead to actions that are negative for the

\(^{806}\) As we remember, the conjunction of the welfare claim and the cultural evolution thesis and the dispersal of knowledge thesis respectively, support the legislation tenet independently. Thus, the refutation of the conjunction of the welfare claim and the cultural evolution thesis does not undermine Hayek’s critique, as we have found the conjunction of the welfare claim and the dispersal of knowledge thesis true.
long-term social outcome.\textsuperscript{807} For example, individual fishermen have the short-term incentive to catch as much fish as possible, but in the long-term this could mean depletion of fish. In the short-term politicians can appeal to the voter base with generous programs, but in the long-term the cost of these programs may be hard to finance. There may be a short-term incentive for individual citizens to overuse these programs in such a way that it leads to a depletion of tax funds in the long term. As we see, social dilemmas often occur when there is a \textit{common-pool resource} involved.\textsuperscript{808} Common-pool resources, then, are resources such as fish in the ocean, the water in a system of irrigation, or tax funds. A common-pool resource is such that it is difficult to exclude individuals from it and such that it is \textit{non-subtractable}, meaning that if one unit of the resource is taken out of the common pool, then that unit is subtracted from the use of others.\textsuperscript{809} \textit{Subtractable} goods on the other hand are usually available on a market, and when one unit of the subtractable good is consumed this does not mean that the potential consumption of the subtractable good on that market necessarily diminishes.

Theoretical predictions were that there are no rational solutions to social dilemmas; neither socialism, nor market-based ideas could solve them. However, in 1990 Ostrom published her book, \textit{Governing the Commons: The Evolution of Institutions for Collective Action}, in which she gives many examples of successful solutions to social dilemmas observed throughout the world.\textsuperscript{810} More specifically, what Ostrom focuses on are social dilemmas that concern common-pool resources. As pointed out, these situations are characterized by short-term incentives that stimulate the participants to over-use the common pool resource, thus putting the long-term stability of the common pool resource at risk.

\textsuperscript{807} Elinor Ostrom, \textit{Understanding Institutional Diversity}, p. 37.
\textsuperscript{808} Ibid., pp. 23–24.
\textsuperscript{809} Ibid., pp. 24–26.
As we shall see, Ostrom’s empirical observations (i) validate the existence of rules developed in an evolutionary process, and (ii) make it clear that self-regulating institutional regimes can find sustainable solutions to social dilemmas involving common-pool resources, and, most importantly, in the context of Hayek’s critique of legislation, (iii) make it clear that local, regional, and national government agencies can cooperate with self-regulating communities to further enhance an institutional set-up.

I now turn to a description of Ostrom’s empirical field studies, beginning with the irrigation community in Valencia, Spain.

Valencia

On the southern half of Spain’s eastern coastline, the Turia river finds its way towards the Mediterranean. Near the city of Valencia, the river water is used for irrigation by a Huerta (a geographical area that is served by an irrigation system).\footnote{Ostrom, \textit{Governing the Commons: The Evolution of Institutions for Collective Action}, p. 71.} Frost-free winters, hot summers and little rain characterize the region. The irrigation system is therefore a precondition for farming. The Turia river is some years plentiful, and other years it contains relatively small amounts of water. The strategic situation is thus that a number of farmers rely on a common, but often-scarce resource for their success. The river water is a non-subtractable, common-pool resource since a unit of water consumed by one farmer is thus withheld from consumption by the other farmers, and since the short-term incentive of the individual farmers is to consume river water to a degree that is not long-term sustainable. The physical irrigation system itself consists of canals off the river and gates to each plot of land.\footnote{Ibid., pp. 72–73.}

The right to water from the irrigation system is linked to the title to the land.\footnote{Ibid., p. 71.} However, only land that was watered before the re-conquest from the Muslims has a right to water in the institutional set-up.\footnote{Ibid., p. 71.} The basic
principle of allocation of water is that you can draw water from the canals in proportion to the size of your land. The distribution pattern rotates from one canal to the next, and within the canal, from the head of the canal to its tail. This order of distribution is fixed, and whenever the rotation reaches your gate you can draw as much water as you like, provided that you do not waste water. If you miss your turn, you have to wait for the rotation to go full circle and come back to your gate. This is the normal distribution pattern for allocation during the prevailing “seasonal low water”. However, in case of extraordinary drought or abundance the allocation is adjusted accordingly.

As one might expect, there are substantial gains from cheating in the system and it is therefore rigorously monitored. As the distribution pattern rotates, the individual farmer will know when his time is approaching. He will, however, not know the exact time of his slot, as the time each gate can remain open is not limited (although, as pointed out, waste is not allowed). So, when time draws near his turn, the farmer as well as the farmers on the surrounding lots are physically present and can monitor their peers. As well as watching their peers, the farmers as a group can also monitor the “ditch-riders” who patrol the canals and are reimbursed by the farmers. This, in effect, leads to an all-around monitoring system. Historical data reveals a high level of conformity to the norms in the institutional set-up. Fines, though, are not uncommon and

816 Ibid., p. 73.
817 Ibid., p. 73.
818 Ibid., p. 73.
819 Ibid., pp. 72–73.
820 Ibid., p. 73.
821 Ibid., p. 74.
822 Ibid., p. 74.
823 Ibid., p. 74.
824 Ibid., p. 74.
graduated according to the gravity of the offence and the ability of the individual farmer to pay.\textsuperscript{825}

The Huerta is organized in such a way that each major canal has an independent irrigation community.\textsuperscript{826} A Syndic is the chief executive of one such irrigation community.\textsuperscript{827} The Syndics of the irrigation communities take part in a weekly tribunal. This is a water court that meets on Thursday mornings outside the cathedral of Valencia.\textsuperscript{828} There are no lawyers in the water court. An official of the court questions the parties to a dispute, any other person who may have relevant information, and the Syndics on the court (except the Syndic whose canal is concerned). The decision is taken during the court session (and in front of the public, as it takes place outside the Valencia cathedral) and is based on the specific rules of the canal in question. The tribunal may convene for a second tribunal after the water court. This is a coordinating committee that meets when called for – for example regarding extreme draught or maintenance of the canal system. This institutional framework has been in place and has been stable somewhere between 500 and 1000 years. As the example of the Valencia region Huertas shows, evolutionary rules do exist, and there are obviously cases in which they do a good job.

I now turn to three further studies – one more irrigation community, one lobster fishery, and one salmon fishery – that make it clear that local, regional, and national government agency support can improve an existing institutional set-up developed in an evolutionary process.

\textit{Alicante}

As with the earlier example of the Valencia Huerta, the Huerta in Alicante is situated in South-east Spain.\textsuperscript{829} Compared to the Valencia region, the

\textsuperscript{825} Ostrom, \textit{Governing the Commons: The Evolution of Institutions for Collective Action}, p. 74.
\textsuperscript{826} Ibid., p. 71.
\textsuperscript{827} Ibid., p. 71.
\textsuperscript{828} Ibid., p. 71.
\textsuperscript{829} Ibid., p. 70.
Alicante region receives even less rain.\textsuperscript{830} The irrigation community is relatively small, has well-defined boundaries, and over the past centuries an institutional regime has evolved that manages the use of the common resource of the Monnegre River.

The severe shortage of water in Alicante has affected the strategies employed for its allocation. Instead of drawing as much water as you like when it’s your turn, as in Valencia, those with water rights in Alicante acquire a fixed time-slot called a \textit{scrip}.\textsuperscript{831} As we shall see, the shortage of water has also resulted in an advanced market in water rights as well as commercial relations to providers of water from outside the irrigation community.

Before the re-conquest from the Muslims, water rights were tied to title to land within the \textit{Huerta}.\textsuperscript{832} However, after the re-conquest the water rights were separated from the title to land, and thus a separate market for water rights developed.\textsuperscript{833} Then, in 1594, construction of the Tibi Dam began.\textsuperscript{834} With double the amount of water, the new water rights were allotted to those owners of \textit{Huerta} land who had also taken part in the financing of the dam.\textsuperscript{835} These rights were not separated from the title to land, but instead a market for renting these rights developed.\textsuperscript{836} At the same time, the water rights that existed before the dam was built could from then on only be sold to those owners of \textit{Huerta} land who had the newly created water rights.\textsuperscript{837}

The water rights are transformed into physical quantities of water when the timeslots – \textit{scrips} – are allotted in proportion to the water

\textsuperscript{830} Ostrom, \textit{Governing the Commons: The Evolution of Institutions for Collective Action}, p. 78.
\textsuperscript{831} Ibid., p. 78.
\textsuperscript{832} Ibid., p. 78.
\textsuperscript{833} Ibid., p. 78.
\textsuperscript{834} Ibid., p. 78.
\textsuperscript{835} Ibid., p. 78.
\textsuperscript{836} Ibid., pp. 78–79.
\textsuperscript{837} Ibid., p. 78.
rights. The fully exchangeable *scrip* currency is denominated from one hour down to one third of a minute. A *scrip* can be traded in three ways, (i) at the formal auction taking place on Sundays, (ii) on an informal market that takes place right before the formal auction, and (iii) when farmers meet at the market where they sell their produce.

The irrigation community makes information available to the farmers so that they can estimate their needs and what prices to pay for water. This information include the time water is likely to reach a particular property, the amount of water in the Tibi Dam, how much water that was delivered in the last rotation (to whom it was delivered and what prices they paid), the results of the last auction (how much was bought in total, who bought, and how much and the prices they paid).

The organization of the Alicante *Huerta* differs from that in Valencia in that there is only one irrigation community for the entire irrigation system. The irrigation community has a general assembly and an executive commission. To vote for the assembly or the commission, the farmers have to own a certain area of land in the *Huerta*. For a farmer to serve on the commission, he or she has to own an even larger area.

As we see, in comparison to Valencia, the relative shortage of water in the Alicante *Huerta* has resulted in relations outside of the *Huerta* to secure access to water, and in further developed markets for water rights. First of all the Tibi Dam involved them with state and national institutional levels. Secondly, in order to further secure access to water, the *Huerta* has entered into contractual agreements with outside private water companies. Thirdly, there has developed an advanced system of waters rights that can be exchanged through several institutional set-ups. In an evaluation of irrigation systems in South-east Spain, Mass and Anderson

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839 Ibid., p. 79.
840 Ibid., p. 79.
841 Ibid., p. 80.
842 Ibid., p. 80.
843 Ibid., p. 78.
concluded that the Alicante irrigation system is the most efficient system.\(^{844}\)

**Maine and the Pacific North-East**

The *Maine lobster fishery* is an example in which government agencies and the fishers themselves have developed long-term complementary roles.\(^{845}\) The most important entities in this institutional set-up are the harbor gangs and various local and state government agencies.\(^{846}\)

A *harbor gang* is a community that organizes fishers in a particular town and regulates the local fishing practices.\(^{847}\) The harbor gang has an exclusive right to fish lobster in a well-defined territory.\(^{848}\) In order to fish lobster one must be a member of a harbor gang.\(^{849}\) The harbor gangs monitor and sanction each other in an informal manner, such as by destroying the equipment of a fisher that has set traps on another harbor gang’s territory.\(^{850}\) As we see, the territorial system – that the resource in a designated geographical area can be appropriated by one group of users – has a restraining function. This is also true of the harbor gang system that limits the number of appropriators through the required membership in one such gang. Apart from the restraining function of the harbor gangs, the state of Maine has enacted formal laws that regulate the type of lobster that can be caught. The restraining conditions of these laws include minimum and maximum measures of lobster, prohibition against catching egg-carrying lobster, or lobster that once carried eggs.\(^{851}\) Other than the restrictions described, there are no restrictions on how many lobsters each gang can catch.\(^{852}\)


\(^{846}\) Ibid., pp. 284–285.

\(^{847}\) Ibid., p. 284.

\(^{848}\) Ibid., p. 285.

\(^{849}\) Ibid., p. 284.

\(^{850}\) Ibid., p. 285.

\(^{851}\) Ibid., p. 285.

\(^{852}\) Ibid., p. 285.
At various times the local lobster fisheries have encountered problems that they have not been able to solve. At these stages the state of Maine has intervened. In the 1920’s the harbor gangs experienced problems with compliance and the stock of lobster reached a low-point. However, the state of Maine intervened and strengthened the power of the harbor gangs to enforce local rules. More recently, the harbor gang system has again been threatened. This time, the state of Maine divided the local areas into formal zones with a democratically elected council. These local councils now formally regulate fishing practices, such as trap size and the times to set traps etc. Out of these local zone councils evolved an informal council of councils that addressed supra-local issues.

The Pacific salmon fisheries in the state of Washington are another example in which cooperation between several institutional levels has evolved. Before a court decision that gave twenty-one Indian tribes the right to 50% of the salmon in the fishing areas of the tribes, a state and federal institutional regime was in place – a regime that regulated the ocean fishing. With the court decision the fresh-water breeding grounds of the salmon entered the regulatory sphere. The Indian tribal authorities now focus on conserving the stock of breeding salmon, while commercial firms as well as the Indian tribes are engaged in the ocean fisheries.

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I now proceed to consider Ostrom’s empirical investigations and her idea of polycentric government in relation to Hayek’s line of argument in support of the legislation tenet that is based on the conjunction of the cultural evolution thesis and the welfare claim.

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854 Ibid., p. 285.
855 Ibid., p. 285.
856 Ibid., p. 285.
857 Ibid., pp. 285–286
858 Ibid., p. 286.
859 Ibid., p. 286.
73. Ostrom’s Concept of Polycentric Government

In this section, I shall first turn to consider Ostrom’s view that legislation potentially poses a threat to welfare; that is, I shall compare notes on the views of Ostrom and Hayek on this issue. As we shall see, this exercise involves the legislation tenet and the dispersal of knowledge thesis. Secondly, I proceed to consider the cultural evolution thesis, discussing Ostrom’s views on evolutionary rules in institutional settings and how these evolutionary rules may be improved, on Ostrom’s account, in a process of polycentric government. I shall also consider how Ostrom’s concept of polycentric government and her empirical field studies refute Hayek’s line of argument – the conjunction of the cultural evolution thesis and the welfare claim – in support of the legislation tenet.

Legislation and Welfare

As we have seen, Hayek’s over-all concern is with the welfare effects of legislation, as expressed in the legislation thesis. Ostrom shares this general approach, as she is concerned with institutions and rules, “trying to improve human welfare over time.”860 She argues that, “[i]t is also necessary to discuss the threats that can destroy the resilience of complex social structures.”861 It is clear that Ostrom, as does Hayek, holds the view that legislation can have disastrous welfare effects and that the idea of deliberate optimal rule design is one such threat.862 Further to this, one of Ostrom’s empirical findings is that when national governments impose an institutional regime on a self-regulated institutional framework, this framework disappears and the imposed institutional regime will lack legitimacy, which, in turn, leads to an open-access situation that often threatens to deplete a common-pool resource. Ostrom gives a number of empirically validated examples of such legislative failures,863 and these

860 Ostrom, Understanding Institutional Diversity, p. 31.
861 Ibid., p. 31.
862 Ibid., p. 256.
863 Ibid., pp. 221ff. Examples include, (i) nationalization of forests in Thailand, Africa, Nepal, and India, (ii) inshore fisheries that have been taken over by state or national
results offer prima facie support for the view that legislation performs worse in terms of welfare than do evolutionary rules. Commenting on complexity and determinate outcomes, Ostrom goes on to say that:

We all recognize that some efforts at designing or reforming rules have had disastrous results. Developing a “sure-fire” method to avoid all disasters stemming from rules that generate perverse incentives in a particular environment sounds like great advice. I am sure that the designers of modern airplanes would also like to have a sure-fire method to test out all contingencies before sending planes into the air.  

Showing support for (i) the gist of Hayek’s position on deliberate rule design in terms of welfare (the legislation tenet), and (ii) the issue of the knowledge the legislature may possess (the dispersal of knowledge thesis), Ostrom goes on to say:

Further, officials and policy analysts who presume that they have the right design can be dangerous. They are likely to assume that citizens are short-sighted and motivated only by extrinsic benefits and costs. Somehow, the officials and policy analysts assume that they have different motivations and can find the optimal policy because they are not directly involved in the problem. They are indeed isolated from the problems. This leaves them with little capability to adapt and learn in light of the information about outcomes resulting from their policies. All too often, these “optimal” policies have Leviathan-like characteristics to them.

As we see, Ostrom views are uncannily similar to Hayek’s. However, holding that legislation may have negative results in terms of welfare is not necessarily the same thing as saying that evolutionary rules perform better, or worse, than legislative rules, which is why we turned to Ostrom’s empirical field studies.

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864 Ostrom, Understanding Institutional Diversity, p. 255.
865 Ibid., p. 256. References omitted
Having thus commented on Ostrom’s views on the legislation tenet and the dispersal of knowledge thesis, I now proceed to discuss her work in relation Hayek’s line of argument in support of the legislation tenet as it is based on the cultural evolution thesis and the welfare claim. As pointed out, I shall first discuss how evolutionary rules may be improved in a process of polycentric government. Then, I move on to an analysis, in light of Ostrom’s work, of Hayek’s line of argument in support of the legislation tenet.

**Evolutionary Rules, Polycentric Government, and Processes of Experimentation**

As we have seen, it is with regard to the cultural evolution thesis that Ostrom’s work is particularly noteworthy. Ostrom maintains that evolutionary rules exist and that they can be rational, and these standpoints clearly provide initial support for Hayek’s position. As we have seen, Ostrom has observed a number of instances of self-regulated successful institutional regimes with sets of rules that have developed over long periods of time in an evolutionary fashion.866 As we remember, one of the assumptions of contemporary policy analysis that Ostrom challenges is “the view that organization itself requires central direction.”867 This is of course very close to Hayek’s view that organization must not be centrally planned. On Ostrom’s account, this assumption leads policy analysts to pass over real-world self-organization. She writes: “The groups who have actually organized themselves are invisible to those who cannot imagine organization without rules and regulation issued by a central authority.”868 But, as her empirical work makes clear, there are ample observations of self-organization, and not only is there self-organization, such organization tends to produce evolutionary rules.

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867 Ibid., p.240.
868 Ibid., p. 240.
However, Ostrom does not believe that evolutionary rules are enough; in her view they have to be supplemented by legislative rules to forge a successful institutional framework. She writes:

> Norms alone [cf. Ostrom’s syntax grammar for the distinction between norms and rules], however, are not sufficient to support individuals facing the temptations of social dilemmas. Rules that are fair, effective, and legitimate are necessary complements to shared norms for sustaining self-governing institutions over time.⁸⁶⁹

Following up on Hayekian themes such as respect for stable institutions developed in evolutionary processes, knowledge, complexity, evolution and welfare creation, Ostrom argues that rule development ought to take place in a process that she refers to as polycentric government:

> This impossibility [to design rational rules] does not, however, leave me discouraged or hopeless. It does, however, lead me to have great respect for robust institutions that have generated substantial benefits over long periods of time. None have been designed in one step. Rather, accrued learning and knowledge have led those with good information about participants, strategies, ecological conditions, and changes in technology and economic relationships over time to craft sustainable institutions, even though no one will ever know if they are optimal. Thus, […] I dig into the process of learning, adaption, and evolution as processes that enable polycentric institutional arrangements to utilize very general design principles in the dynamic processes of trying to improve human welfare over time. It is also necessary to discuss the threats that can destroy the resilience of complex social systems.⁸⁷⁰

As we remember, Hayek argues that reason does not have the capacity that constructivist rationalism attributes to it. On Hayek’s analysis, this means that man is denied the capacity to determine the rational means to ends, especially in terms of specific aggregate results in complex social orders. However, on Ostrom’s analysis, reason plays an important part in the process to develop rules, albeit not by designing optimal rules, but by

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taking part in a process of experimentation over time. Says Ostrom: “Human agents try to use reason and persuasion in their efforts to devise better rules, but the process of choice from the vast array of rules they might use always involves experimentation.”

As we see, then, Ostrom holds that evolutionary rules can be improved in a collaborative process between private, local, regional, and national institutional levels. Clearly, this standpoint conflicts with the cultural evolution thesis. Unlike Hayek – who suggests that there is an evolutionary process for the development of rules that he prefers, but whose aim is not to develop tools that further rule design – Ostrom goes on to argue that these rules can be improved by deliberative efforts in a process she refers to as polycentric government.

As I see it, there are three ways in which we might interpret Ostrom’s position in relation to Hayek’s line of argument that evolutionary rules outperform legislative rules in welfare terms. The first alternative is that she sides with Hayek and argues that legislation will decrease the welfare level in society in relation to evolutionary rules. The second alternative is that she argues that the negative welfare effects of legislation can be made less negative with her constructivist approach, though still not as good as the welfare effects of rules developed in an evolutionary process. And the third alternative is that she argues that her approach supplies the means to make a legislative effort as good as, or even better, than the evolutionary alternative in terms of welfare.

Alternative one seems likely enough, as Ostrom has spent considerable efforts to empirically assert that something exists that neo-classical economy did not think exists, namely evolutionary developed and self-regulated rational management of common pool resources. Further, alternative two in effect means support for Hayek’s position, because the improved welfare effects of the legislative efforts do not reach the level of

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the evolutionary alternative. What I want to investigate is alternative three.

Whereas Hayek’s view of legislation vis-à-vis rules of an evolutionary nature is binary in that he seems to envision situations that involve either evolutionary rules or legislation, Ostrom argues for institutions that include both types of rule and introduces the concept of polycentric government. In essence, the idea of polycentric government is that each situation that is the target of regulation is unique and context-specific, and that therefore it needs its own mix of institutional statements on the spectrum from user-generated norms to rules on local, regional, and national levels. As I understand Ostrom, she pairs the idea of polycentric government with the view that rule design should be a process of experimentation.

If we are to understand Ostrom to mean that polycentric experimental rule design, in a process of experimentation, including both legislative and evolutionary rules, has a more positive effect on welfare than rules developed in an evolutionary process, we must understand her to mean that she rejects the cultural evolution thesis, and the support of the legislation tenet based on the conjunction of that thesis and the welfare claim. As is clear, I argue that Ostrom’s refutation of Hayek’s support for the legislation tenet depends on her idea of polycentric government, paired with a process of experimentation (of course, her refutation is ultimately based on the results of her empirical field studies).

In the following, I will first present the idea of polycentric government in more detail. Then, I will discuss the presented empirically recorded examples of successful institutional regimes in view of their polycentric characteristics.

As I have said, what the term polycentric government alludes to is the integration, or interplay, between several institutional levels. This idea is related to an empirical observation of Ostrom’s, namely that in real life boundaries of regulatory regimes tend to be quite exact, and that the geographical area of these regulatory regimes tends to be small. The relative small size of these regulatory regimes, in turn, means that they are often
immersed in a larger institutional framework – such as a county, or a state, for instance. These institutional levels may also be part of yet other institutional levels (federal, for instance). As the rules of these small regulatory regimes are based on local knowledge, they are often successful, according to Ostrom. And because they are small, they are nested in further institutional levels. This, then, is the empirical foundation of her belief in polycentric government. As further pointed out, Ostrom believes that polycentric government ought to be paired with the process of deliberate rule design as a process of experimentation.

I now turn to comment on the empirical studies and their polycentric character.

What is interesting from the perspective of the concept of polycentric government is that, in relation to Valencia, the relative shortage of water of the Alicante Huerta has resulted in further relations outside the Huerta to secure access to water. First, the Tibi Dam involved them with state and national institutional levels. Secondly, in order to further secure access to water, the Huerta has entered into contractual agreements with outside private water companies. As I have said, Mass and Anderson concluded in an evaluation of irrigation systems in South-east Spain that the Alicante irrigation system is the most efficient, and that this is also the irrigation system with the most obvious polycentric characteristics.

As we have further seen, at various times the local lobster fisheries in Maine have encountered problems that they have not been able to solve. At these stages the state of Maine has intervened. As we have seen, in

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872 Ostrom’s claims that institutions consist of generic building components found in all institutions, regardless of whether they structure behavior in the public or private domains. She further claims that these building blocks can be used to forge meaningful theories explaining human behavior and social interaction and that the building blocks can help us identify and analyze the various levels of institutions needed for explaining regularities of behavior. See, Ostrom, Understanding Institutional Diversity, p. 3.

873 Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action, p. 78.


the 1920’s the harbor gangs experienced problems with compliance and
the stock of lobster reached a low-point. The state of Maine intervened
and strengthened the power of the harbor gangs to enforce local rules. As we have further seen, more recently, the harbor gang system has again
been threatened. The state of Maine then divided the local areas into for-
mal zones with a democratically elected council. These local councils
now formally regulate fishing practices, such as trap size and the times to
set traps etc. Out of these local zone councils evolved an informal council
of councils, which addressed supra-local issues. The state of Maine has
also enacted formal laws that regulate the kind of lobster that can be
cought. The restraining conditions of these laws include minimum and
maximum measures of lobster and prohibition against catching egg-
carrying lobster or lobster that once carried eggs. However, other than
the restrictions described above, there are no restrictions on how many
lobster each gang can catch. The polycentric government of the Maine
lobster fishery has managed the stock of lobster in a long-term stable
fashion.

The Pacific salmon fisheries in the state of Washington offer another
example in which an institutional regime with polycentric characteristics
has evolved. Before a court decision that gave twenty-one Indian tribes
the right to 50% of the salmon in the fishing areas of the tribes, a state
and federal institutional regime that regulated primarily the ocean fishing
was in place. With the court decision, the fresh-water breeding grounds
of the salmon entered the regulatory sphere traditionally regulated by
Indian tribes. The Indian tribal authorities now focus on conserving the
stock of breeding salmon, while commercial firms as well as the Indian

877 Ibid., p. 285.
878 Ibid., p. 285.
879 Ibid., p. 285.
880 Ibid., p. 285.
882 Ibid., p. 286.
tribes are engaged in the ocean fisheries. The more recent polycentric institutional regime has been more successful in managing the stock of salmon.

As these empirical studies suggest, the idea of polycentric government is that each situation that is the target of regulation is unique and context-specific, and that it therefore needs its own mix of institutional statements on the spectrum from user generated norms to rules on local, regional, and national levels. What I take the concept of polycentric government, taken together with the view that rule design should be a process of experimentation, to mean is (i) that the starting point for rule design is the local level, (ii) that the local, regional, or national government levels deliver institutional support in terms of knowledge, conflict resolution, etc., and (iii) that the experimental process takes place in the community, as well as at the local, regional, and national levels of government.

As we remember, one of Ostrom’s conclusions from her empirical work is that an institutional regime that is implemented top-down on an existing institutional regime that has developed in an evolutionary process tends to lower the welfare level. As we have seen, it is also clear that she has recorded many examples of self-regulated institutional regimes that have evolved in an evolutionary fashion, and that some of these have polycentric characteristics.

The remaining question is whether the concept of polycentric government involves a claim that deliberate regulatory efforts can improve the material conditions of those involved, even if they act within a self-regulated institutional regime characterized by rules developed in an evolutionary process. As we remember, Ostrom argues that legislative rules can have adverse welfare effects, that there can be no optimal rules, and that the search for good regulation should be a process of experimentation. She writes:

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884 Ibid., p. 286.
No one can undertake a complete analysis of all the potential rules that they might use and analytically determine which set of rules will be optimal for the outcomes they value in a particular ecological, economic, social, and political setting. One must recognize that policies involving rule changes must be viewed as experiments.  

However, as we have seen, she argues that deliberate legislation does have a role to play as she continues: “There is a real role for legislators and government agency officials in solving problems at all levels but they need to follow Mark Moore’s advice to become ‘explorers who, with others, seek to discover, define, and produce public value.’”

The question posed, though, is whether Ostrom believes that deliberate legislation – combined with evolutionary rules – within the realm of polycentric government, can outperform solely evolutionary institutional regimes in terms of welfare. As the empirical studies referenced above indicate, it seems that her answer is in the affirmative. She writes:

Are there any ways we can avoid some of the disastrous results that have been produced by systems of governance in the contemporary world? My answer is yes. While no sure-fire methods exist, I will argue that there are approaches to speed up and share the learning that can result from tinkering with rules and gaining experience with outcomes.

And she continues:

In light of still further evidence [detailed in Understanding Institutional Diversity] about the performance of self-organized systems that are consistent with the earlier derived design principles, we can conclude that there are ways of organizing governance that increase the opportunities for adaption and learning in a changing and uncertain world with continued advances in knowledge and technologies.
From the above, it *prima facie* seems that Ostrom argues that deliberate rule design combine with evolutionary rules—within the parameters of the concept of polycentric government, and the idea of rule design as a process of experimentation—to yield better welfare results, than evolutionary rules alone would do. This conclusion indicates that Ostrom’s work rejects the support for the legislation tenet in terms of Hayek’s line of argument that is based on the cultural evolution thesis and the welfare claim. As we remember, though, the two line of argument that support the legislation tenet are independent in their support, and thus, Hayek’s critique still holds true, as we found the former line of argument true.

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In conclusion we may notice that Ostrom strongly attacks a dichotomy that has come to be associated with Hayek: the dichotomy between state and market. As we remember; Hayek’s view on the distinction between legislative rules and evolutionary is binary. Ostrom strongly opposes this view and introduces the observation that these two type rules can mix in a polycentric fashion. Commenting on complexity and rule design, she writes:

Continuing to presume that complex policy problems are simple problems that can be solved through the adoption of simple designs that are given general names, such as private property, government ownership, or community organization, is a dangerous academic approach. Dichotomizing the institutional world into “the market” as contrasted to “the state” is so grossly inadequate and barren that it is surprising how the dichotomy survives as a basic way of organizing academic studies and policy advice. Oversimplification of our design options is dangerous since it hides more
of the working parts needed to design effective, sustainable institutions than it reveals. And, it reduces our awareness of the need to monitor outcomes and improve them over time through better processes of learning and adaption.\textsuperscript{889}

Although the line of argument that supports the legislation tenet in terms of the conjunction of the cultural evolution thesis and the welfare claim, is refuted in view if the work of Elinor Ostrom, as we have seen in this chapter, I shall, as pointed out – in the next chapter – proceed to discuss an important feature of Hayek’s thought that is intrinsically linked to the cultural evolution theses, and the accompanying idea of knowledge laid down in rules, namely the idea that rules foster individual rational action and rational social order; as we shall see, contemporary social science largely sides with Hayek with regard to this idea. In the next chapter, then, we shall review this idea in terms of the work of experimental economist Vernon Smith and economic historian Avner Greif.

74. Summary

In this chapter, we have seen that Ostrom and Hayek share many positions. Further that Ostrom seems to share Hayek’s cautiousness of deliberate legislation in terms of welfare, as well as the position that knowledge is dispersed. Most importantly, though, we have reviewed Ostrom’s empirical investigations that reveal a multitude of instances in which a combination of evolutionary rules and deliberately crafted rules combine to outperform evolutionary rules alone in terms of welfare. As we have seen, these results refute Hayek’s line of argument based on the cultural evolution thesis and the welfare claim. With her concept of polycentric government and her idea of rule design as process of experimentation, Ostrom clarifies how she envisions how evolutionary institutional regimes, and deliberate rule creation, ought to combine in an experi-

mental process of rule design. Finally, we have seen that Ostrom holds that the traditional market/state dichotomy disguises important features of rule design.
Chapter 14
Rules and Rationality

75. Introduction

Although I have found that Elinor Ostrom’s work undermines Hayek’s line of argument in support of the legislation tenet as that support consists of the conjunction of the cultural evolution thesis and the welfare claim, I shall now focus on an influential idea of Hayek’s inherent in the cultural evolution thesis, namely the idea that rules induce individual rationality and rational social orders. As we have seen, the cultural evolution thesis has a lot to offer in terms of its impact on social science concerned with rules. As pointed out, there is an increased focus on issues that pertain to institutions and rules in contemporary social science. As we remember, Douglas North’s equation of institutions with rules plays an important part in explaining this focus. It is also clear that social science focusing on rules is both influenced by Hayek and contributes to our understanding of his critique of legislation.

In this chapter, I shall, more precisely, review Hayek’s idea that rules induce individual rationality and rational social orders in light of the work of two prominent contemporary social scientists, experimental economist Vernon Smith and economic historian Avner Greif. The reason for this focus is of course that the issue at stake is of great interest in general, and for legal scientists in particular, but also because this idea is such an important pillar of Hayek’s critique of legislation, viz., that law and economics are interwoven in an understanding of complex social orders, and in
the productive capacity of such orders. As shall be evident, the works of Smith and Greif have a lot to offer in this issue.

As we remember, the cultural evolution thesis is implicitly based on the notion of knowledge contained in rules. This idea is not in accord with the traditional concept of knowledge as part of an individual mind. As we have seen, though, contemporary social science seems to accept this idea. What is more, this idea is a premise of the idea that rules induce rational action and rational order, obviously an important idea in Hayek’s social theory since he holds (i) that rules make us act rationally in spite of the human mind’s limitations, and (ii) that rules give rise to complex social orders – orders that are rational on Hayek’s analysis. As we shall see, it is implicit in Smith’s and Greif’s work that rules contain knowledge (as well as in the work of Ostrom). What makes their work so interesting is that whereas Hayek conjectured that rules contain knowledge and induce agents to act rationally in light of limited cognitive capacity and limited information and knowledge – and so – contribute to a rational social aggregate, Smith and Greif present firm grounds for such a claim; Smith from an experimental point of view, and Greif from a theoretical angle.

As we shall see, Smith’s experiments show that rules induce individuals to take rational action that contributes to rationality on the aggregate level. Greif on the other hand, provides an intriguing analogy between the fully informed rational actions taken by agents in game theory, and the rule-guided actions taken by boundedly rational agents in the real-world. Rules, on Greif’s account, have the same function in real life as the function of the assumption of fully informed rationality in game theory; in game theory fully informed rational agents act rationally to play an equilibrium outcome game (individual rational action result in rational aggregates); in real-life, not fully informed, boundedly rational agents are steered toward rational action by following rules, thereby playing a real-life equilibrium game; that is, the knowledge bearing capacity of rules
allow not fully informed and boundedly rational agents to take rational action and contribute to a rational social order.

In conjunction with the work of Smith, I shall further conjecture that the function of rules to induce rational individual action and rational social orders may have explanatory power in relation to Adam Smith’s notion of the invisible hand. Whereas the invisible hand is a notion Smith’s employs to illustrate the fact that actions that are rational from a self-serving point of view, somehow also contribute to the aggregate rationality of a social order, I shall argue that we may understand such a situation so that it is not an inviable hand – but rather rules – that steer agents to take individual rational action that contributes to the rationality of the social aggregate.

As we remember, Hayek holds that the adaptation of the mind to social practices that are conducive to subsistence is in fact our propensity to honor rules in action. The significance of rules, then, is that they guide action. On Hayek’s account, we become rational in an infinite world by limiting the scope of our actions by following rules that contain knowledge about what constitutes rational action. He writes:

Since our whole life consists of facing ever new and unforeseeable circumstances, we cannot make it orderly by deciding in advance all the particular actions we shall take. The only manner in which we can in fact give our lives some order is to adopt certain abstract rules or principles for guidance, and then strictly adhere to the rules we have adopted in our dealing with the new situations as they arise. Our actions form a rational and coherent pattern, not because they have been decided upon as part of

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a single plan thought out beforehand, but because in each successive decision we limit our range of choice by the same abstract rules.\(^{892}\)

We further remember that complex phenomena are rule-induced. Thus, on Hayek’s analysis, the development of complex social orders depends on a proper set of rules to make these orders possible. As I have said, Hayek means that complex social orders perform better in terms of welfare than other types of social orders; that is, they produce more material welfare with the same amounts of means, thus being more rational on an instrumental conception of rationality.

I shall begin this chapter with a presentation of Avner Greif’s work on institutions and rules, starting from his analogy between (i) strategic situations modeled in game theory, and (ii) real-world strategic situations in which the players act according to rules (Section 76). I continue with the experimental work of Vernon Smith on the relation between rationality and rules (Section 77). In that section, I shall also argue that Smith’s work constitutes an explanatory bridge between Adam Smith’s notion of the invisible hand, and Hayek’s idea that rules induce rationality. In Section 78, I summarize the chapter.

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76. Avner Greif

76.1. Introduction

This section is organized as follows. First, I present Greif’s work in general (Section 76.2.). Secondly, I present his analogy between strategic situations modeled in game theory, and real-world strategic situations governed by rules (Section 76.3.). In this section, I also comment on how Greif understands the role of rules in advancing rational action and rational social order.

76.2. Rules and Institutions

Starting from the premise that the historical and social sciences are complementary rather than substitutes, Greif draws primarily on economic history, economics, sociology, and history, but also on cognitive science, psychology, and social psychology to forge an explanatory framework of institutions: what they are, how they are instigated, how and why they change, why they differ, and why they are hard to alter. Like Ostrom, Greif adopts Douglas North’s distinction between organizations and institutions, in which institutions are “the rules of the game.”

Greif further distinguishes between the agency perspective and the structural perspective in the study of institutions. The agency perspective views institutions as deliberate creations of individual decision makers. The agency perspective has been dominant in economics. In sociology, on the on the hand, the structural perspective has been dominant. This perspective stresses that institutional structures transcend society and determine its trajectory, as well construct the social worlds of the individ-

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894 Ibid., pp. 4–5.
895 Ibid., pp. 40–41.
896 Ibid., p. 41.
897 Ibid., p. 41.
uals. From the structural perspective, institutions are not deliberate creations of individual decision makers. Greif aims to bridge these two perspectives, arguing that institutions sometimes reflect the agency perspective and sometimes the structural perspective. For this purpose, he defines institutions – regardless of their origin – as regularities of behavior that are self-enforcing equilibria. Says Greif: “An institution can therefore be defined as comprising cognitive, coordinative, informational, and normative social elements that jointly generate a regularity of (social) behavior by enabling, guiding, and motivating it.” As the following quote makes clear, Greif’s approach is very close to that of Hayek:

For an individual to choose behavior, he or she needs to have the appropriate information, a cognitive model, and the ability to anticipate others’ behavior. Individuals also seek guidance on morally appropriate and socially acceptable behavior. Institutional elements provide these cognitive, coordinative, normative, and informational micro-foundations of behavior. At the same time, retrospective and limitedly rational yet forward-looking individuals respond to the behavioral and normative prescriptions provided by institutional elements based on their private information, knowledge, and innate preferences. In situations in which institutions generate behavior, institutional elements constitute equilibrium phenomena that aggregate these features of the situation.

As we see, the understanding of institutions and rules in terms of equilibria call to mind Hayek scholar Karen Vaughn’s suggestion that – in view of Hayek’s critique of general equilibrium theory – we may look to Hayek’s work on rules (and prices) as his alternative to equilibrium theory as an explanatory vehicle for rational social orders in economics.

In the next section, I turn to consider Greif’s analogy between (i) strategic situations modeled in game theory and (ii) real-world strategic situ-

898 Greif, *Institutions and the Path to the Modern Economy*, p. 41.
899 Ibid., pp. 41–42.
900 Ibid., p. 15.
901 Ibid., p. 151.
902 Ibid., p. 16. Emphasis added.
tions governed by rules, and how this analogy may provide support of the crucial idea that rules induce rationality.

76.3. Rational Agency in Game Theory and Rule-Based Action in Real Life – An Analogy

Greif begins by pointing out that rational social optima (rational social orders) are usually referred to as equilibria, where the Nash type equilibrium is the most commonly used. In game theory, most strategic situations modeled have multiple equilibria – that is – multiple rational social optima. This means that while each of those rational social optima can be deduced from the facts of the situation, the choice between them is not deducible (cf. the work of Elinor Ostrom). Greif argues that rules are a heuristic that helps us make the choice between rational social optima. Viewing institutions as equilibrium phenomena allows Greif to consider rules as institutions that provide a heuristic for choosing a particular equilibrium in a multiple equilibrium setting.

Greif goes on to argue that the game-theoretic situation in which fully rational players base their strategies on full and common knowledge is analogous, or corresponds, to the situation in which boundedly rational agents know the common rules by which the players of the game abide. In game theory, the players play an equilibrium outcome game because they are rational and have full knowledge. In real life, the agents play an equilibrium outcome game – despite the fact that are boundedly rational and often poorly informed – because they abide by rules that hold

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903 Ken Binmore, *Game Theory: A Very Short Introduction* (New York: Oxford University Press, 2007), p. 12. It should be pointed out that there is certain ambiguity in the concept of equilibrium. It is often used to mean rational social optima, thus implying Pareto optimality. However, Nash type equilibria need not be rational social optima. In this case, equilibrium refers instead to the more general property of ‘being in balance’. Of course, this distinction between the concept of a Nash equilibrium and the concept of Pareto optimality is important.

904 Greif, *Institutions and the Path to the Modern Economy*, p. 129. Since a host of strategic situations are multi-equilibrium cases, in which there can be no deductible optimal strategy, Greif’s framework draws on empirical historical data to produce a starting point equilibrium for the analysis, to which game theory is then applied.
knowledge on how to act in view of individual and aggregate rationality. Greif writes:

This section argues that the game-theoretic analysis, which assumes a complete model and common knowledge and focuses on equilibrium strategies played by highly rational individuals, corresponds to a situation in which institutionalized rules that aggregate private knowledge and information provide shared cognition, information, and coordination. […] In situations in which an institution generates behavior, the knowledge and information that are compressed into the institutionalized rules enable and guide individuals, despite their limited perception, knowledge, and computational ability, to act in a manner that leads to behavior and reflects the constraints on admissible beliefs and behavior that the game-theoretic equilibrium analysis captures."^{905}

In game theory, the complexity of the computing required to reach equilibrium is considerable – agents have full knowledge and are rational, but the possible actions to be taken are, if not infinite, at least vast. This is why game theory predicts that playing a game with an equilibrium outcome takes a substantial amount of time. However, if the rationality and full knowledge of the players are supplemented with a restriction on the choice of other agents’ actions, a game reaches equilibrium substantially faster. Greif suggests that in real-life these restrictions are supplied by rules. This is why what is modeled and explained in game theory takes place in real life despite the limited cognition and information of man. On Greif’s analysis, individuals tend to perform according to equilibria in complex strategic situations, and they do this because their strategic situations are limited in scope by rules. The learning process involved, Greif argues, is based on “intuitive assertions,” that is, deductions from an initial set of inductive good guesses. These inductive good guesses of other agents’ actions – or knowledge of the rules that guide other agents actions – have the property, given that they are reasonably correct, that in

\[\text{\textsuperscript{905}} \text{Greif, Institutions and the Path to the Modern Economy, p. 126.}\]

\[\text{\textsuperscript{906}} \text{Ibid., p. 132.}\]
a repeated strategic situation, they will allow for equilibrium in a relatively short time frame (cf. Smith’s experiments, see next section).

As we remember, in his famous critique of general equilibrium theory (see Chapter 9), Hayek says on the issue of how subjective beliefs come to correspond to objective facts that, “[o]ur problem of knowledge here is just the existence of this correspondence.” It seems that Greif provides at least a partial explanation for the problem Hayek poses when he (Greif) writes:

Analyzing the process of learning reveals that one of the main requirements for convergence on regularities of behavior is a restriction on each player’s initial subjective beliefs about other players’ strategies. If each player’s initial subjective beliefs assign a positive probability to the events that will indeed occur in the play of the game, then eventually learning will lead each player to be able to predict the behavior of the others. Furthermore, these players will converge in finite time to play a Nash equilibrium of the real game. Subjective beliefs converge on equilibrium beliefs. An initial ‘grain of truth’ regarding others’ behavior is thus sufficient for individuals to learn independently how others will play and for convergence on an equilibrium. 

On Greif’s analysis, as on Hayek’s, rules perform the function described above because they accumulate and distribute knowledge, information, and know-how. According to Greif, these rules may emerge spontaneously or through deliberate human acts. As long as they are equilibria, their source is irrelevant; they may be legal rules, customs, taboos or conventional rules of behavior. Greif writes:

In such situations one does not need to know more than this social rule, because institutionalized rules aggregate private information and knowledge and distribute it in compressed form. If, for Hayek, institutions

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908 Greif, Institutions and the Path to the Modern Economy, pp. 132–133. Emphasis added.
909 Ibid., p. 130.
Part IV. The Cultural Evolution Thesis

constitute a “device for coping with our ignorance,” this device manifests itself in institutionalized rules. Institutionalized rules are a useful device because they provide the cognition, information, and coordination required for choosing behavior. They span the domain within which one can make rational decisions. At the same time, institutionalized rules aggregate the knowledge and information of the interacting individuals. In doing so, they direct individuals to play an equilibrium outcome. In this sense, Greif’s framework obviously offers a theoretical explanation that supports Hayek’s claim that rules are ‘knowledge bearers’ and that they are the central heuristic for rational action and rational social orders. As we have seen, it does this by an analogy with a commonly used and highly respected social science tool, namely game theory. Game theory spans the domain of rational action. Rational players with full and common information and knowledge take rational action and the aggregate social result is rational. As we have seen, Greif argues that this modeled situation is analogous to the real-life situation in which players act guided by rules that contain knowledge that they can make use of and take rational action based on, and (together) produce rational social aggregates. If Greif’s analogy is correct, it provides powerful support for Hayek’s concern and understanding of rules – both the idea that rules contain knowledge, and the idea that rules are instrumental for rational action and rational social order.

In the next section, I will consider Vernon Smith’s experimental work on rules and rationality.

77. Vernon Smith

77.1. Introduction

As we have seen, Hayek has influenced social science in regard to rules and their function. Further, the cultural evolution thesis is based on the

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910 Greif, Institutions and the Path to the Modern Economy, p. 134. Reference omitted.
idea that rules contain knowledge, and this idea, in turn, is the basis of Hayek’s idea that rules induce individual rational action and rational social order. This is a key idea in Hayek’s thought, not least because it links law and economics; the individual actions, and the social orders that economists study, are founded on rules.

In this section, then, I continue to investigate the relation between rules, rational action, and rational social order. I do so on the basis of the empirical work of experimental economist and Nobel Laureate Vernon Smith. I shall relate the findings of Vernon Smith to Hayek’s critique of legislation in general, and specifically to the idea that rules are instrumental for rational action and rational social order. I will also attempt to relate Hayek’s and Vernon Smith’s work on the relation between rules and rationality to Adam Smith’s notion of the invisible hand, arguing that the link between individual utility maximization and rational social orders – suggested by the notion of the invisible hand – finds a different explanation in Hayek’s work on rules, and that this explanation is reinforced by Vernon Smith’s observations of the decoupling of individual and aggregate rationality. In short, I shall argue that whereas Adam Smith postulates an invisible hand that leads the agents to perform actions that are rational in view of the social aggregate, Hayek holds that it is rules that perform this function. I shall also argue that Hayek’s position is supported by Vernon Smith’s experimental results.

This section is organized as follows. First, I present Vernon Smith’s findings on the relation between individual and aggregate rationality (Section 77.2.). Secondly, I discuss the link between Adam Smith’s notion of the invisible hand, Hayek’s understanding of rules, and Vernon Smith’s work in experimental economics (Section 77.3.). In this section, I also comment further on the link between law, individual rational action, and aggregate rational social order.
77.2. Decoupling Individual and Aggregate Rationality

As pointed out, Bernard Mandeville observed that, “private vices” contribute to “publick benefits”. Adam Smith further elaborated this theme of an alignment between private and social interest. The paradoxical nature of this alignment lies in the fact that prima facie private interest seems to exclude social interest. The moral paradox is that it is not considered virtuous to focus exclusively on your own interest, but in doing just that – Mandeville and Smith argue – man in fact contributes to the common good. As we have seen, Adam Smith put it as follows:

... [man] intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it.

Few doubt that there is in fact an alignment of private and social interest, but how to theoretically explain this has remained a pivotal question in the social sciences. As we have seen, Adam Smith concedes a missing link in economic theory on this issue and refers to “an invisible hand”. In neo-classical economics, theoretical explanations include an assumption of the rational agent maximizing (his own) utility. Implicit in this view, social rationality is conditioned on the individual rationality of agents, in the sense that social rationality is assumed to be an aggregate of the individual rationality of the utility-maximizing agents. This assumption has

911 Bernard Mandeville, The Fable of the Bees: Or, Private Vices, Publick Benefits (Indianapolis, Liberty Fund, 1988 [1714]).
912 Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations (Chicago: The University of Chicago Press, 1976 [1776]), vol 1., pp. 477–478. Cf. Immanuel Kant, “Individual men and even entire nations little imagine that, while they are pursuing their own ends, each in his own way and often in opposition to others, they are unwittingly guided in their advance along a course intended by nature. They are unconsciously promoting an end which, even if they knew what it was, would scarcely arouse their interest.” Immanuel Kant, Idea for a Universal History with a Cosmopolitan Purpose, in ed. Hans Reiss, Kant: Political Writings (Cambridge: Cambridge University Press, 1991[1784]), p. 41.
been questioned by Vernon Smith,\textsuperscript{913} who argues that social rationality is not conditioned on individual rationality.\textsuperscript{914} Instead, he argues that individuals, who do not understand their actions in a rational sense, form rational social outcomes in social cooperation (as if they were guided by an invisible hand).\textsuperscript{915} As we shall see, Smith, like Hayek, argues that it is institutions, and rules in particular, (and not “an invisible hand”), that perform this function.

Vernon Smith makes explicit two unstated premises with regard to rationality in social settings, \textit{first}, that rationality on the aggregate level depends on the rationality of the individual decision makers\textsuperscript{916} and, \textit{secondly}, that individual rationality is a cognitively intense calculating process of maximizing self-interest.\textsuperscript{917} According to Vernon Smith, both these premises have been proven false by experiment.\textsuperscript{918} What has been further shown is that information about the environment for exchange is not at all perfect or even held in common: Subjects tend to know only their own circumstances. Participants in Smith’s experiments described the market situation as chaotic, denying the likelihood of a rational outcome on the aggregate level, and further describing their own actions in

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{914} Ibid., p. 23.
  \item \textsuperscript{915} Ibid., p. 23.
  \item \textsuperscript{916} Ibid., p. 8.
  \item \textsuperscript{917} Ibid., p. 8.
  \item \textsuperscript{918} Ibid., pp. 9–10. “What has emerged from 30 years of experimental research is that the preceding premises 1–3 are false. Plott (1987) summarizes many examples. In these experiments (also Smith, 1962), all information on the economic environment is private, far from having perfect or common information, subjects know only their own circumstances. All trading is carried out by an institution such as the decentralized ‘open outcry’ rules of the continuous double auction in which every agent is both a price maker who announces bids to buy (offers to sell) and a price taker who accepts a standing offer to sell (bid to buy). What these and many hundreds of other experiments have shown is that (1) prices and allocations converge quickly to the neighborhood of the predicted rational expectations competitive equilibrium, and (2) these results generalize to a wide variety of posted-price, sealed-bid, and other institutions of exchange, although convergence rates tend to vary and can be influenced by extreme parameter conditions.”
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terms like, “I tried to buy low (sell high),”\textsuperscript{919} or, “I waited until near the end to squeeze the other side.”\textsuperscript{920}

A striking feature of these experiments is that they suggest that less transparent markets equilibrate quicker to rational expectations than more transparent markets do.\textsuperscript{921} This means that the less information available, the stronger is the interdependent learning process by which markets equilibrate. In conclusion: The informational conditions of individual agents can be much weaker than previously thought for a condition of rational optimum to occur on the aggregate level of social interaction.\textsuperscript{922}

Criticizing psychologists/economists and Nobel Laureates Daniel Kahneman and Amos Tverksy, Smith links this finding to institutions inducing rational behavior out of boundedly rational individuals. He goes on to argue that the most important undertaking in the social sciences is not a better model of acting man, but the leap from the boundedly rational individual to rational social aggregates, and how institutions are involved in this process. Says Smith:

\begin{quote}
The fact that private-information experimental markets converge more quickly and reliable to certain rational predictions than complete-information markets do directly contradicts the conclusions of Tversky and Kahneman: ‘Perhaps the major finding of the present article is that the
\end{quote}


\textsuperscript{920} Ibid., p. 10. “Post-experiment discussion with the subjects in the earliest experiments made it plain that (1) subjects are not aware that they are achieving maximum profits collectively and individually, in equilibrium, and, in fact, deny this when asked; and (2) before seeing the results, subjects describe the market situation as confused and disorderly (‘how can you get anything out of these experiments?’). When asked what strategies they used, they are unable to convey insights to the experimenter: ‘I tried to buy low (sell high)’ or ‘I waited until near the end to squeeze the other side.’ These and other bidding, auctioning, and price-posting experiments show the predictive power of non-cooperative equilibrium concepts (competitive or Nash) without any requirement that knowledge be complete and common.”

\textsuperscript{921} Ibid., pp. 10–11. It should be noted that the situations that Smith has studied are competitive situations and not collective action dilemmas.

\textsuperscript{922} Ibid., p. 10. “In these cases, economic theory works, predicatively, under weaker conditions than expected, and no support is provided for the interpretation that the equilibrating process is consciously cognitive. The verbal behavior of subjects strongly contradicts what their actual behavior achieves.”
axioms of rational choice are generally satisfied in transparent situations and often violated in nontransparent ones.’ This is correct in their context, but in experimental markets rational theory often performs best in the ‘nontransparent’ (low information) environment and worst in the ‘transparent’ (high information) environment. The leap is so great when one goes from data on responses on individual choice problems to observed behavior in experimental markets that conclusions of this sort are reversed! This underscores the critique by Coleman (1987) of the implicit premise of the conference that the greatest gains for theory will come from a more sophisticated model of action. ‘It is deficiencies in the apparatus for moving from the level of the individual actor to the behavior of the system that hold the greatest promise of gain’. I think this is the most important implication of experimental economic research. What is imperfectly understood is the precise manner in which institutions serve as social tools that reinforce, even induce, individual rationality.923

The model of economic man and the assumption of complete knowledge have long been regarded as not true to reality. The results of Vernon Smith indicate that the rational outcomes, predicted in economic theory, are not dependent on either the model of economic man, or the assumption of complete knowledge. They further indicate that boundedly rational agents may achieve aggregate rationality in the course of social cooperation. The question, then, is what rules have got to do with this process.


As we have seen, Vernon Smith explicitly questions the assumption that social rationality is an aggregate of individual rationality. However, so does Hayek. As we remember, he argues that the human mind is constitutionally limited in relation to the physical and social reality of our species, and that it is rules that enable man to take rational courses of action. On Hayek’s analysis, the regularities of behavior that result from following

rules, in turn, make the development of complex social orders possible. According to him, these social orders result in rational aggregates. As we see, then, Hayek agrees with Adam Smith, in that he regards the factual move towards equilibrium as given in a setting in which we all go about our own business without giving to much thought to the aggregate state of society. However, Hayek does away with the “invisible hand” (as well as with the coupling of individual and aggregate rationality), and in its place he puts rules. Therefore, the inter-connection between law and economics is of such concern to Hayek. As we have seen previously, Hayek argues that it is not the division of labor that is the central feature behind an increase of the welfare level, but the more general feature of a division of knowledge (or more precisely the level of the utilization of knowledge). Now, Hayek argues that the invisible hand works in quite a different way than Adam Smith envisioned. It is, in fact, not at all an invisible hand, but rules, that perform the function of inducing and coordinating individual rationality, so as to produce aggregate rationality.  

However, as convincing as Hayek’s arguments may seem, they are no doubt reinforced by the work of Vernon Smith. I shall argue that Vernon Smith’s work gives us further reason to believe that rules have an instrumental function in coaxing cognitively limited subjects to take rational action, as well as to contribute to an aggregate rationality. In the following, I shall continue to discuss the relation between rules and rationality in view of the work of Adam Smith, Hayek, and Vernon Smith.

Why is it that experiments show that whereas the individual may not understand his actions in a rational sense, the aggregate outcome in a

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924 The literature on the “invisible hand” is enormous. Although one would think that my conclusion – that rules replace the invisible hand in order to explain the alignment of individual and social rationality – is close at hand in view of Hayek’s work, this does not seem to the case. A general perusal of the literature on the theme of rules in Hayek’s writings and invisible hand explanations turns up quite few items. However, these are mostly focusing on the invisible hand as an explanatory device for the development of rules and institutions, not on the actual replacement of the invisible hand by rules in explanations of why individual actions are so often aligned with forecasted rational expectations on the aggregate level.
social setting tends to equilibrate towards its forecasted rational optimum? On Hayek’s analysis, the answer is that our institutions induce individual behavior conducive to order on the aggregate level. On his account, the observation that social order is conducive to the pursuit of individual ends is empirical in nature, the theoretical explanation of which hinges on the evolutionary development of rules that tell us how to act in social cooperation. As pointed out, the process of the development of these rules for action is extra-mental, on Hayek’s analysis. This is the reason why he claims that we do not possess a rational method that enables us to explain in detail either the process of cultural evolution, or the resulting rules. Or as Vernon Smith puts it: “[…] our institutions have survived because of their merit in coaxing Pareto-efficient [rational] behavior out of agents who do not know what that means.”

Hayek suggests that rules are the primary institutions that make possible a complex order of society. The chief property of law, by which Hayek accords its preeminent position in his social theory, is the instrumentality of rules as holders and transmitters of knowledge – tacit or explicit – on how to best achieve a satisfactory outcome when participating in social interaction. If man wants to live on a higher level of material welfare, he needs to employ the knowledge, information and know-how of others. In order to do this, he must engage in complex orders, the creation of which, in turn, is the results of certain rules being honored in action. In Hayekian terms, we may in fact talk of complex orders of society as the institution enabling knowledge, information and know-how – amassed over long periods of time and distributed on many – to be used by an individual to guide action in a specific social choice situation. And because complex orders are possible only with the use of rules, law is key in Hayek’s thought.

As we see, then, it seems that Hayek’s work on rules has an explanatory function in relation to Adam Smith’s observation that individuals’

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pursuit of personal interests is aligned with collective welfare (the invisible hand). We further see that Vernon Smith’s results – indicating that irrational individuals produce near perfect forecasted rational optimum outcomes in competitive social settings – support this explanatory function. Adam Smith half observed, half theorized that social welfare is promoted by individual members of society pursuing their individual ends, even though the social benefits of their actions are not part of their intention. Hayek holds that it is rules that function to align the acts of the boundedly rational agents with social rationality. Vernon Smith underpins the work of Hayek by empirical observations on the function of rules in the formation of optimal social outcomes in settings where individuals pursue their own interests. As we have seen, though, there is an added flavor to the work of Vernon Smith in that he shows that the rationality of social outcomes is not dependent on the rationality of individuals. In fact such rational social outcomes are attained in the absence of individual rationality. Of course, this is position he shares with Hayek. We have further seen that Vernon Smith supports Hayek’s position that rules are instrumental in forging this rationality.

As pointed out, then, Hayek’s conception of rules as cognitive enhancers appears in this setting to have explanatory power in relation to the results of Vernon Smith – rational social optima are attained by boundedly rational individuals who follow rules. It further appears that Adam Smith’s conception of the invisible hand receives an explanation when Hayek claims that the invisible hand is due to the dual character of the rules of just conduct as they contribute simultaneously to successful individual action and to rational social order. Crudely put, when it appears that an invisible hand leads the individual agents, they are in actual fact guided by rules. As we have seen, Vernon Smith’s observations support Hayek analysis. That this is so is further supported by the work of Avner Greif, as we have seen.

Vernon Smith’s results establish the thesis that rational social outcomes in social settings are not dependent on the rationality of individual
action. As we have seen, Hayek postulates the cognitive limits of the acting man and his limited ability to act strictly rational. He then proceeds to argue that rules (as well as other institutions) are instruments to circumvent this state of affairs. The rules of just conduct are the results of an evolutionary process establishing how to act successfully in social cooperation. These results of the evolutionary process are stored and communicated by the rules. By acting on rules, the boundedly rational agent extends his own cognitive facilities and makes use of knowledge, information and know-how of others, although he may have no idea that this is what he is doing. In this way the boundedly rational agent is “coaxed” into contributing to a forecasted social optimum outcome, even if this was no part of his intention.

As I have said, on Hayek’s analysis, rules function as a sifting device for establishing the most successful rules of conduct and can be said to be an extension of the individual agents’ cognitive faculties. If the law is not allowed to act as a sifting device for establishing the most successful rules of conduct, the function of law as a cognitive extension of individual agents will be disrupted. We might thus say that on a Hayekian view, the welfare-creating forces of social cooperation, identified by Adam Smith, will be hampered if the rules of that cooperation emanate from the government, rather than from the people, because the collective knowledge of the people exceeds by far that of the government.

It seems, then, that according to this analysis, law has a dual function. On the one hand, rules promote the pursuit of individual utility-maximizing, and, on the other hand, they promote the communitarian\(^\text{926}\) effort in which a sifting process establishes the most successful rules for the advancement of social cooperation, welfare and society. In rephrasing

the instrumental function of Hayek’s theory of law in relation to Adam Smith’s observation of the alignment of personal interest and social welfare, we may say the following. By engaging – on the micro level – in the pursuit of individual interest, the individual taps into the collective knowledge base on successful social cooperation, communicated by the law, and, simultaneously – on the macro level – the individual contributes to the process establishing the most successful rules of conduct concerning how to best engage in social cooperation in order to promote social welfare and society. Or, put differently, the welfare-creating forces of society depend on the level of the division of knowledge: The further the extent of the division of knowledge, the more knowledge, information and know-how will be utilized in social cooperation, and, consequently, the more material welfare will be produced. It seems, then, that possibly both individual and social rationality is served by this dual function of law.

As pointed out, an unintended consequence of this process is the formation of complex orders of society. The link between the micro level of the individual, and the macro level of society, suggested by Adam Smith’s observation on the invisible hand and supported by Hayek’s work on rules and their relation to complex social orders, seems to be further reinforced by Vernon Smith’s discovery in the field of experimental economics: The informational conditions of individual agents can be much weaker than previously thought for a condition of rational optimum to occur on the aggregate level of social interaction. In fact, relatively uninformed agents that interact have a strong tendency to quickly form Pareto-optimal aggregates, although they perceive the situation as being

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far from rational, even chaotic. And they do this by following rules. Says Vernon Smith:

Hayek also said that ‘rules alone can unite an extended order, neither all ends pursued nor all means used are known or need to be known to anybody in order to be taken account of within a spontaneous order, such an order forms of itself.’ Ladies and gentlemen, I have seen hundreds and hundreds of spontaneous orders emerge in laboratory experiments. People walk into the laboratory; they receive five dollars for showing up on time, and are escorted to a computer terminal and sit down. There might be a dozen or twenty people in the room who are scattered among various terminals throughout the room; they read the instructions for a laboratory market experiment defining what actions they can take in some form of interactive decision-making or management system. At the end of the experiment whatever they earn in the way of profits in the experiment is paid to them in cash before they leave. Between the time they arrive and the time they leave they create a spontaneous order within the rules governing the market. And their decision making is motivated by earnings while each is constrained by the rules of the market and the actions of other people.930

In the end, we must ask how convincing the idea is that Vernon Smith’s work supports Hayek’s explanation of Adam Smith’s view that individuals are guided by an invisible hand, and how convincing Hayek’s explanation itself is. As is evident, I believe that Vernon Smith’s support of Hayek’s explanation is in plain view. As regards Hayek’s explanation of Adam Smith’s notion of the invisible hand, I find it convincing in itself, but also because I can see no other plausible explanation.

With these thoughts on rules and rationality, I conclude “Part IV” of this investigation.

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78. Summary

In this chapter, we have focused on an influential idea of Hayek’s inherent in the cultural evolution thesis, namely the idea that rules induce individual rationality and rational social orders. We went on to review this idea in light of the work of experimental economist Vernon Smith and economic historian Avner Greif.

As we have seen, it is implicit in Smith’s and Greif’s work that rules contain knowledge, but what makes their work so interesting in relation to Hayek is that Smith and Greif present firm ground for Hayek’s ideas on rules and rationality. As we have seen, Smith’s experiments show that rules induce poorly informed, boundedly rational individuals to take rational action that contributes to rationality on the aggregate level, while Greif provides the analogy between the fully informed rational actions of agents in game theory, and the rule guided real-world actions taken by boundedly rational agents.

As we have further seen, on Greif’s account, rules have the same function in real life as the function of the assumption of fully informed rationality in game theory; in game theory fully informed rational agents act rationally to play a rational outcome game; in real-life not fully informed, boundedly rational agents are steered toward rational action by following rules, thereby playing a real-life equilibrium game. In view of these results, it seems as if the knowledge bearing capacity of rules allow not fully informed and boundedly rational agents to take rational action and contribute to a rational social order.

I further conjectured that the function of rules may have explanatory power in relation to Adam Smith’s concept of the invisible hand. Adam Smith’s employs the notion of the invisible hand in order to illustrate the fact that actions that are rational from a self-serving point of view – as if by magic – also contribute to the aggregate rationality of a social order. As we have seen, I argue that we may understand the situation so that it is not an inviable hand – but rules – that steer agents to take individual rational action that contributes to the rationality of the social aggregate.
In the concluding “Part V” of this investigation, I shall proceed to summarize the results, discuss the relation between Hayek’s critique of legislation and utilitarianism, and offer some concluding reflections on Hayek’s critique and inter-disciplinary social science focusing on rules.
Part V:
Taking Stock
The purpose of this investigation has been twofold, namely, (1) to clarify Hayek’s critique of legislation, and (2) to assess the critique.

Having come this far, it is time to take stock of our efforts. As we have seen, I maintain that Hayek’s critique is true. More specifically, I argue (i) that the line of argument in support of the legislation tenet that is based on the conjunction of the dispersal of knowledge thesis and the welfare claim is true, and (ii) that the line of argument in support of the legislation tenet that is based on the conjunction of the cultural evolution thesis and the welfare claim is false. In terms of our illustration of the argumentative structure of Hayek’s critique, we may display this as follows.

This final part of the investigation, “Part V”, includes three chapters. In Chapter 15, I summarize the results of this investigation. In Chapter 16, I turn to consider the question of whether Hayek’s critique of legislation is somehow evaluative, even though Hayek argues that it is not. More specifically, I shall argue that Hayek’s critique is utilitarian. In Chapter 17, I
offer some reflections on various aspects of this investigation. In this chapter, I first discuss some specifically important features of Hayek’s critique. I then comment on possible future areas of research, suggesting that the relation between Hayek’s critique of legislation and (a) the natural law tradition, and (b) the works of John Rawls, constitute such areas of investigation. I continue with some further reflections on Hayek’s critique in light of the contemporary social scientists whose work has been discussed in the course of this investigation. Finally, I offer some general afterthoughts.
Chapter 15
Summarizing the Results

79. Plotting the Critique

As Hayek scholars are aware, Hayek accorded to law a preeminent position in his major social science works. However, since most Hayek scholars are political scientists or economists, this facet of Hayek’s work has remained relatively unexplored. This is especially true of his critique of legislation.

The first step in the clarification of Hayek’s critique, then, was to plot his critique of legislation as distinct from his well-known general critique of social planning. The later works of Hayek – in which he reworked his social theory as based on law and rules – are primarily, *The Constitution of Liberty* [1960], and *Law, Legislation, and Liberty* [vol. 1, 1973; vol. 2, 1976; vol. 3, 1979]. Among other things, he put forward a theory of law in these books. An important part of this theory consists of a theory of evolutionary rules. It is also clear that Hayek’s reworking of his social theory consists in part of a critique of the possibilities of legislation. We illustrated the relation between (i) Hayek’s critique of legislation, (ii) his theory of evolutionary rules, (iii) his theory of law, and (iv) his general critique of social planning in the following way.
As is clear, the critique of legislation is linked to, but distinct from, the general critique of social planning. Further, the theory of evolutionary rules is a part of the critique of legislation, while his theory of law is not, although it is connected to the theory of evolutionary rules. This investigation, then, has not been about Hayek’s theory of law. Nor has it primarily been about his theory of evolutionary rules, even though this theory has been discussed to the extent that it forms part of the critique. The focus of this investigation has been on Hayek’s critique of legislation.

80. Clarification

Having thus plotted Hayek’s critique in relation to his other work, I turned to consider (i) the central claim of Hayek’s critique, namely, the legislation tenet, and (ii) the scope, or area of application, of this tenet, and (iii) the arguments adduced by Hayek in support of it.

According to the legislation tenet, legislation that aims at specific aggregate results in complex social orders will decrease the welfare level. We attempted to clarify the area of application of this tenet at some length in Chapter 5.

We first concluded that Hayek uses the term ‘welfare’ to indicate welfare in a material sense. While happiness can only in part be pursued through material standards of living – and discussions of welfare in a more inclusive sense are certainly important undertakings – the concept of welfare in the context of Hayek’s critique of legislation concerns mate-
rial benefits only. As we remember, Hayek certainly doubts that his social theory is a sure road to happiness, but he nonetheless operates with a material concept of welfare.

We further concluded that on an instrumental conception of rationality, to be rational is to use available means as efficiently as possible to attain a specific goal. In the case of legislation, this means that Hayek believes that the legislature cannot have the knowledge it would need in order to be able to determine what particular piece of legislation (among the permissible ones) is the most efficient means to the desired result.

We also concluded that the legislation tenet is limited in scope in that it applies to complex social orders only. Hayek’s critique does not concern legislation that does not concern complex social orders, such as for instance regulation of government agencies and the like.

Finally, his critique only concerns legislation that aims at ‘specific aggregate results’ in complex social orders, and consequently not legislation that does not aim at ‘specific aggregate results’. However, in Chapter 5 we made an effort to clarify the term ‘specific aggregate results’ as it occurs in the legislation tenet.

As we have seen, specific aggregate results may mean, more specifically, (i) a specific institution, (ii) a specific property of society or (iii) a specific distribution among groups in a society. As regards legislation that aims at establishing a specific institution, or a specific property of society, it is clear that on Hayek’s critique such legislation cannot be rational; that is, it is not possible to design legislation that determines the rational means to the desired institution or property of society without thereby decreasing the welfare level. But what about specific distributions among groups in a society? This is an issue that is more complicated. It is also an issue that is interesting because, as pointed out, we want to know what

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measures of social cohesion, if any, are allowed under Hayek’s critique of legislation.

With regard to this issue, we first concluded that a specific distribution among a certain group of people may mean that we secure for each person a minimum level of support. As we have seen, Hayek clearly favored such safety nets; secondly, that a particular distribution for a certain group of people may indicate the more demanding idea of equality. This idea, in turn, is commonly divided into, (i) equality of opportunity and (ii) equality of result.

As to the idea of equality of opportunity, we made a further distinction between formal equality of opportunity and substantive equality of opportunity. And it seems clear that Hayek supports the idea of formal equality of opportunity, at least in the sense that the law should provide equal conditions for all. However, it does not seem to be the case that Hayek supports the idea of substantive equality of opportunity; that is, he is not in favor of the idea that fair competition presupposes an adjustment in view of factors such as education, family values and economic position. His main argument against the idea of substantive equality of opportunity, and his argument in favor of the unequal opportunities created by education, family values and economic position, is linked to his idea of the positive welfare effects of the individuals’ utilization of knowledge created by this inequality. As for the idea of equality of result, we concluded that Hayek appears not to favor such ideas.

So – in conclusion – Hayek’s critique does not apply to legislation that aims to (i) create a safety net, or to (ii) establish the principle of equality of opportunity, but it does apply to (a) legislation that aims to establish the principle of substantive equality of opportunity, or (b) the principle of equality of result. On Hayek’s analysis, then, this means that while legislation that concerns basic social safety nets, or the ideal of formal equality of opportunity, can be rational and need not lower the level of welfare; legislation that aims for substantive equality of opportunity, or equality of result, cannot be rational and will lower the welfare level.
Having thus clarified the area of application – or scope – of the legislation tenet, we turned to laying bare the argumentative structure in support of this tenet. As we remember, the legislation tenet is supported by the welfare claim in conjunction with the dispersal of knowledge thesis and the cultural evolution thesis respectively, as these form two lines of argument. We illustrated this argumentative structure of Hayek’s critique as below.

Apart from (i) plotting the critique of legislation as distinct from Hayek’s general critique of social planning, (ii) determining the area of application of the legislation tenet, and (iii) structuring the argumentative structure in support of this tenet, to clarify Hayek’s critique also means to identify the arguments in Hayek’s writings that support the welfare claim and the two theses, and to present these arguments. Thus, in Chapter 5, I presented the welfare claim. In Chapters 6–9, I continued with a presentation of the various arguments that support the dispersal of knowledge thesis. In Chapter 12, I presented the arguments in favor of the cultural evolution thesis.

Finally, to clarify Hayek’s critique involves determining the relation between the various parts of the argumentative structure. This mainly concerns the issue whether the parts of this structure are independent, or whether they depend on some other part of the argumentative structure.

First, the dispersal of knowledge thesis and the cultural evolution thesis in, conjunction with the welfare claim, aim to support the legislation
tenet. They do not separately, or cumulatively, support the legislation tenet, but each thesis in conjunction with the welfare claim supports it. That is, the conjunction of the dispersal of knowledge thesis and the welfare claim form one line of argument in support of the legislation tenet, and the conjunction of the cultural evolution thesis and the welfare claim form another line of argument in support of the legislation tenet. Secondly, these two lines of argument support the legislation tenet independently of each other. While the one line of argument might support the legislation tenet successfully, the other line of argument might not do so, and this would be enough. In view of the results of this investigation, this has been of some importance. Thirdly, we concluded that the various arguments that support the dispersal of knowledge thesis are independent in their support of that thesis, while one of the arguments that support the cultural evolution thesis is independent, and two are not (however, this is of less importance as the line of argument based on this thesis is refuted by the work of Elinor Ostrom).

81. Assessment

As we have seen, assessments of Hayek’s work are fraught with difficulties. They raise problems on a number of counts, perhaps the most significant of which is the fact that his work is explicitly inter-disciplinary. As we have seen, the arguments supporting Hayek’s critique of legislation are culled from a wide variety of disciplines. This aspect of Hayek’s critique is of course intriguing, but, we remember Hayek’s biographer and editor of The Collected Works of F. A. Hayek, Bruce Caldwell, saying that “… part of Hayek’s fascination is that he contributed, at times significantly, to so many fields. … But, in this age of specialist training, it is
also difficult not to feel inadequate when reading him, and his sheer reach makes any attempt at assessment of his ideas dicey, to say the least.”

However, the fact that Hayek ranged over such a wide area of interests is an integral part of his research agenda, and the full impact of Hayek’s work lies in an integrated view of the disciplines he covered. As we have seen, to clarify and assess Hayek’s critique of legislation is an enterprise that necessarily involves bridging disciplines. In Chapter 3, I attempted to give a background to the multi-disciplinarity of Hayek’s work, arguing that some specifically German themes may help explain this aspect of his work, as well as explain the tension between unity and diversity in Hayek’s work.

In Chapter 5, I concluded that the welfare claim is true as it is Hayek’s extension of the work of Adam Smith.

As we have seen, the arguments that support the dispersal of knowledge thesis do so independently of each other. Because Hayek’s work on complexity, his identification of the category of know-how, and his critique of general equilibrium theory support the dispersal of knowledge thesis – while his philosophy of mind does not – this thesis is consequently true.

In view of this result, we attempted to challenge the dispersal of knowledge thesis through the work of Elinor Ostrom and Joshua Epstein. But, though inspiring, the attempts of (i) Elinor Ostrom to employ her syntax grammar of rules and its application to game theory for improved rule design, and (ii) Joshua Epstein to make use of iterative computer-based rule design processes in his generative social science, they do not seriously challenge the dispersal of knowledge thesis (Chapter 10).

I also attempted to bestow on Hayek’s critique a flavor of practical value, as I developed a legislative policy tool based on his understanding of coercion and the welfare claim, arguing that these form the flipside, or companion, line of argument in relation to the line of argument based on

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the dispersal of knowledge thesis. I stated the resulting legislative policy rule as follows: A rational pursuit of human welfare requires that the legislative use of coercive power in society be minimized (Chapter 11).

As the two lines of argument in support of the legislation tenet are independent of each other, and, as the dispersal of knowledge thesis is true, Hayek’s critique of legislation is true. However, I still had to investigate the second line of argument in support of the legislation tenet, namely the line of argument based on the conjunction of the cultural evolution thesis and the welfare claim.

As we remember, the cultural evolution thesis is generally supported by a many-minds argument. We understood this argument to mean that rules developed in an evolutionary process are based on more knowledge than are rules enacted by a legislature, because the evolutionary process involves more people than the legislative process. More specifically, evolutionary rules, on Hayek’s analysis, trump legislative rules with respect to the utilization of knowledge on three counts, (i) they contain ‘better’ knowledge, (ii) they are more conducive to individuals taking advantage of their unique position with regard to situation-specific information and know-how, and (iii) they are more conducive to individuals basing their actions on the knowledge of others. As we remember, (i) is independent, and we can think of (ii) in one version dependent on (i), and one version that is independent, while (iii) clearly is dependent on (i).

However, the assessment of the line of argument based on the cultural evolution thesis and the welfare claim led us further into the interdisciplinary terrain of social science of the past decades, as this line of argument is refuted by the work of Elinor Ostrom. In particular, her empirical studies show that a combination of evolutionary rules and deliberately created rules outperforms solely evolutionary rules in terms of welfare. However, her concept of polycentric government, and her idea of rule design as a process of experimentation, is also important for this understanding (Chapter 13).
Although the line of argument that is based on the cultural evolution thesis is not true, this thesis is based on challenging ideas that are of interest to jurisprudents, such as the idea that rules hold knowledge, an idea that seems ill-conceived in view of traditional thought, but which is accepted in much contemporary social science. We therefore investigated this idea – paired with Hayek’s key position that rules are instrumental for rational action and rational social order – in terms of the work of Vernon Smith and Avner Greif (Chapter 14). We concluded that the work of Smith and Greif support the idea that rules foster rational action and rational social order.

Greif supports this idea as he provides an intriguing analogy between the fully informed rational actions taken by agents in game theory, and the rule-guided actions taken by boundedly rational agents in the real-world. Rules, on Greif’s account, have the same function in real life as the assumption of fully informed rationality in game theory; in game theory fully informed rational agents act rationally to play an equilibrium outcome game (individual rational action result in rational aggregates); in real-life, not fully informed, boundedly rational agents are steered toward rational action by following rules, thereby playing a real-life equilibrium game; that is, the knowledge bearing capacity of rules allow not fully informed and boundedly rational agents to take rational action and contribute to a rational social order. Smith’s work supports the idea that rules foster rational action and rational order, as his experiments show that boundedly rational and poorly informed subjects employ rules to form rational aggregates at the same time as they meet their objectives.

Further to this, I conjectured that Hayek’s work – in conjunction with the work of Vernon Smith on the decoupling of individual and aggregate rationality – seems to have explanatory force with regard to Adam Smith’s notion of the invisible hand; it is rules that steer individuals to actions that align individual rationality with aggregate rationality. Hence the invisible hand as an explanatory device is not needed.
As we shall see (Chapter 16), I shall further argue, contrary to Hayek, that his critique of legislation is utilitarian. However, it seems that his critique of legislation, and in particular the dispersal of knowledge thesis, undermines the possibilities to perform the utilitarian calculus, as the information for such a calculus is not available on that thesis. But, if this is true, as Hayek seems to argue, we may wonder whether this critique of utilitarianism may not also undermine the utilitarian foundation of his critique of legislation. Nevertheless, I shall argue that the distinction between utilitarianism conceived as a method of deliberation, and utilitarianism conceived as a criterion of correctness, may save Hayek from this objection. Further to this, I shall argue that Hayek was very much part of the utilitarian tradition in economics, and that this explains the general angle of approach of his critique of legislation; the questions he asked, and the way in which he answered those question.

As pointed out, whatever the issues involved in assessing Hayek’s critique of legislation, my particular assessment of this critique will provide a clear target for those involved in interpreting Hayek’s work. Part of an analytical philosophical approach is to structure the material with precision. This makes such approaches very much open to criticism, if nothing else because the target is plotted with care. Apart from the assessment of Hayek’s critique, the clarification of its argumentative structure should form such a distinct mark for differing views. However, as pointed out, structuring a material with precision, even if this means being a target open to criticism, is a virtue in all academic work; not least is this true with regard to a thinker like Hayek, of whom one may have such differing assessments.
Chapter 16
Science or Politics?

82. Introduction

In this Chapter, I continue with an assessment of whether Hayek’s critique is normative (or evaluative) in some sense, arguing that Hayek’s critique is utilitarian. As we remember, I argued that the view of history as progress, a view generally shared by liberals, explains some of the normative flavor of Hayek’s work (on this, see Chapter 3). And it is clear that there are Hayek scholars who view Hayek’s project as normative, though cloaked in a veil of description. This leads us on to the question of whether Hayek’s work is normative or descriptive and to the more precise question of whether the critique of legislation is ultimately utilitarian, a question to which I now turn.

As we have seen, Hayek claims that his critique is a question of fact, not value. At the same we have at various junctures asked whether his

935 "The most serious effects of the splitting up among several specialisms of what was once a common field of inquiry, however, is that it has left a no-man’s-land, a vague subject sometimes called ‘social philosophy’. Some of the chief disputes within those special disciplines turn, in fact, on differences about questions which are not peculiar to, and are therefore also not systematically examined by, any one of them, and which are for this reason regarded as ‘philosophical’. This serves often as an excuse for taking tacitly a position which is supposed either not to require or not to be capable of rational justification. Yet these crucial issues on which not only factual interpretations but also political positions wholly depend, are questions which can and must be answered on the basis of fact and logic. They are ‘philosophical’ only in the sense that certain widely but erroneously held beliefs are due to the influence of a philosophical tradition [constructivist rationalism] which postulates a false answer to questions capable of def-
critique implies some form utilitarianism in that he seems to be concerned with satisfying as many material preferences as possible for as many as possible. However, whether Hayek’s thought on this issue is evaluative or factual, he frames his critique of legislation in value-free terms. In this section, I shall take the viewpoint of moral philosophy, specifically utilitarianism and its relation to economics and legal philosophy, in order to come to terms with this issue. I shall be concerned with the question of whether Hayek is ultimately committed to some type of normative-ethical theory, that is, a theory of how one morally ought to act.

83. Moral Philosophy
We may first take notice that the foundations of moral philosophy is in opposition to Hayek’s general outlook. Let me explain. Moral philosophy involves the idea that we are to justify our conclusions in matters moral on the basis of fact and reason, and that we undertake such justifications as autonomous moral agents.936 Traditional views about what we morally ought to do – be they based on God’s will, tradition, or something else –

have been critically examined by moral philosophers.\textsuperscript{937} As we see, this view of moral inquiries seems to be in conflict with Hayek’s idea that moral rules are the product of evolution, and not of our reason (we may wonder to what degree that this conflict involves Hayek being influenced by ideas of a natural law tradition, see next Chapter).\textsuperscript{938}

Normative ethics, then, is a philosophical discipline that studies theories on what is the morally right action in general, or in a specific situation. As we have seen, this exercise involves the application of reason and facts to a situation that involves a moral choice. However, we should note that investigations of moral philosophy are not confined to normative ethics. Such investigations may also investigate a received moral code, in the present or in history, or how positions in normative ethics may be justified. Anthropologists and sociologists, for example, mostly conduct inquiries into existing moral codes. Meta-ethics, on the other hand, asks whether and if so how we can justify positions in normative ethics. That is, meta-ethics is concerned with questions of a metaphysical, epistemological, or semantic nature, or otherwise logical issues that pertain to the justification of positions in normative ethics. However, for the purpose of this investigation we are, of course, interested in different position in normative ethics, specifically utilitarianism.

What, then, are the main positions in normative ethics? Well, there are two principal positions: deontological and teleological theories. While teleological theories determine what is morally right by appeal to the consequences of a chosen course of action, deontological theories appeal to the existence of moral rules and ask whether the action in question was required or permitted by such a rule. So, for instance, while it might be economically advantageous to refrain from adjustments of public transportation in view of access for the disabled, the deontologically minded moral philosopher may appeal to a rule that emphasizes the need of moral

\textsuperscript{937} Frankena, \textit{Ethics}, pp. 1ff.
agents, and argue that such adjustments are required by that rule. The teleologically minded moral philosopher, on the other hand, might argue that such adjustments may bring about good consequences for the few, while pointing out that the vast majority may find them irksome and may be unwilling to pay for them, and so argue that they are not morally required and perhaps not even morally permitted.

Teleological, or consequentialist, theories search for the course of action that brings about the most favorable balance of good over evil as can be conjured up, or at least rationally justified. Since we cannot determine what is morally right with reference to what is morally right, this balance of consequences must be measured in terms of a non-moral value, generally referred to as the good. However, what is good differs according to which moral philosopher you consult. So for instance Plato argued for moderation, beauty, truth, science and the arts (among other things), while Aristotle emphasized excellence. Hedonists, on the other hand, stress pleasure, while utilitarians stress happiness, or preference satisfaction, to constitute the good. Whatever the good, a consequentialist argues that the balance of good over evil be as positive as possible. A hedonist holds that the morally right action is the action that results in the most favorable balance of pleasure over pain. The ethical egoist holds that whatever non-moral value is balanced, the morally right action maximizes this balance for oneself. Other theories hold that the balance of good over evil should be measured in terms of the community. For instance, utilitarianism holds that the morally right action is the action that as a consequence brings about the greatest sum of happiness in a given population.

84. Utilitarianism and Welfare Economics

Utilitarianism holds special interest because of its dominant place in jurisprudence and economics. In part, this is due to the influence of Jeremy Bentham. As we remember, Bentham wanted to separate the question of what the law is from the question of what the law ought to be, as it had previously it been a dominant idea that a valid justification for a legal rule is that it is in use. Now, Bentham wanted to address the issue of what the law ought to be in order to advance a progressive political agenda in terms of legislation and the normative-ethical theory of utilitarianism. While Bentham is the founder of legal positivism, the enormous prestige of utilitarianism in economics stems not only from the work of Bentham, but also from the fact that all the great classical economists were utilitarians in some fashion (Hume, Smith, Mill etc.). However, the prestige of utilitarianism in economics stems also from the fact that it seemed to hold out the promise that a rational society could be specified in terms of Pareto optimality and the postulates of welfare economics, and, importantly, that this could be done without resort to value judgments, judgments economists are hesitant to employ.

Let us however, take a closer look at how utilitarianism was made a natural fit in welfare economics. As is clear, economics has been guided by utilitarianism – a theory in normative ethics. At the same time economics has been averse to recognize normative statements. Of course, it was recognized in economics that there are important distributive issues, for instance. However, how to reconcile these issues without resort to some form of normative ethics was a challenge. The answer came in the form of Pareto optimality and the postulates of welfare economics in which rational, utility maximizing agents produce the greatest sum of

941 Ibid., p. 28.
Part V. Taking Stock

Preference satisfaction under a condition of perfect competition. Welfare economics, then, managed to marry the value free postulates of economics with the normative ethics of utilitarianism: Strictly rational utility maximizers (agents that do not act according to some theory of normative ethics, other than perhaps some general version of ethical egoism), acting under a condition of perfect competition, contribute to making the material proceeds as large as possible; that is, make as many as happy as possible – a morally right solution on utilitarianism. This situation is referred to as Pareto optimality, in short a situation in which nobody can make a different choice without making anybody else worse off.\footnote{Kornhauser, Lewis, “The Economic Analysis of Law,” \textit{The Stanford Encyclopedia of Philosophy} (Spring 2014 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2014/entries/legal-econanalysis/>} Pareto optimality offers a theoretical justification of what the classical economists had only conjured, namely of how the price mechanism acts to make room for strictly rational self-satisfiers to engage in exchange for mutual gain.

However, the postulates of welfare economics are only valid if certain basic criteria are at hand. So, for instance, there must be (i) no economics of scale, (ii) no reciprocal relations outside the given market, and (iii) the initial distribution of assets must fit the given situation.\footnote{Sen, \textit{On Ethics and Economics}, p. 31.} But as Amartya Sen points out, if we are to emulate these conditions, these attempts will resemble a handbook of a revolutionary (surely, any redistribution to meet the conditions of the theory are hardly part of the traditional economists handbook).\footnote{Ibid., pp. 37–8.} As is evident, these conditions have scant coupling with reality. In any case, as the postulates of welfare economics show, maximizing welfare, even if only in terms of material utilities and under a condition of perfect competition, is always an issue that involves other considerations than economic efficiency.

John Rawls, of course, has offered one such theory, in which other considerations than economic efficiency, determine the lay-out of institutions. While his theory rests on a critique of utilitarianism, he recognizes
that inequality is a public good and should be made good use of, even though economic efficiency has to yield to other considerations, notably considerations of justice. However, as Thomas Piketty has recently argued, inequality, just as so many other goods, suffers from diminishing returns, meaning that as we have more of the good inequality, its effectiveness as an incentive structure diminishes.\footnote{Thomas Piketty, \textit{Capital in the Twenty-First Century} (Cambridge, Mass: The Belknap Press of Harvard University Press, 2014). Tomas Piketty has forcefully argued that inequality in wealth distribution continues to grow in a situation where the return on capital outpaces the growth of the economy as a whole, a situation prevalent at present. Piketty has also given us a host of policy recommendations to remedy this distribution. While we may take notice that Piketty is close to the German historical school of economics in that he uses empirical source material and advances policy recommendations based on the result of his research, his conclusion that the utility of inequality suffers from diminishing returns is close to one of the criteria for the postulates of welfare economics, namely that the initial distribution of utilities cannot be too skewed.}

85. Hayek and Utilitarianism

In spite of dodging normative issues, part of the \textit{raison d’etre} for the science of economics is to make the world a better place, or at least a better-off place. At any rate, Hayek is very much part of this economics tradition as it is based on utilitarianism. As we have seen, though, there is in economics a distinct distaste for normative entanglement, and it is against this background – as well as against Hayek’s Weber-influenced Austrian background – that we are to understand the claim that his critique of legislation is a question of fact and logic, and that the resolution of the issues involved does not depend on values, but on issues capable of scientific resolution.

In any case, it is clear that Hayek’s critique is critically concerned with the potential negative welfare effects of legislation, a concern that suggests utilitarian underpinnings of the critique. As we remember, Hayek’s argument in favor of freedom, his understanding of complex social orders, and his position on material distribution, center on favorable condi-
tions for preference satisfaction in material terms. He argues for freedom because it is an instrument to desirable consequences. As he sees it, a society of free men will produce more welfare than a society of men that are less free. On the topic of distribution, he argues that the prime purpose of the distribution of material goods is to ensure the function of complex orders of society, orders that enable unparalleled production of material welfare.

As Hayek is concerned with the consequences of legislation on the aggregate welfare level, it is quite clear that his critique of legislation is indeed utilitarian. As the legislation tenet makes clear, Hayek maintains that legislation that concerns complex social orders and aims at specific aggregate results will decrease the level of material welfare in society. And while the dispersal of knowledge thesis is concerned with the restraint on the knowledge of a legislature in the quest for rational legislation, the cultural evolution thesis has it that there is a regulative option to deliberate legislation that is superior in terms of material welfare, namely rules that develop in evolutionary processes. Whether we look to Hayek’s appeal that the legislature should legislate in a way that does not lower the welfare, or to his case for the positive welfare effects of evolutionary rules, it is clear that his main concern are the consequences for the greatest sum of material welfare – a characteristic utilitarian concern.

86. A Difficulty – Does Hayek’s Critique of the Utilitarian Calculus Undermine the Utilitarian Foundation of his Critique of Legislation?

As we see, then, Hayek’s critique of legislation is essentially utilitarian. However, it seems reasonable to consider the question whether the theory of utilitarianism itself might not be undermined by Hayek’s critique – in particular by the dispersal of knowledge thesis. For one might argue that the utilitarian calculus – stating the balance of pleasure minus pain – requires full knowledge of the relevant circumstances, and that this is impos-
sible in light of the dispersal of knowledge thesis. As we shall see, this amounts to a possibly serious objection to Hayek’s critique. Let me explain.

As we have seen, Hayek defends the legislation tenet, and this tenet involves utilitarian concerns. This tenet is supported by the dispersal of knowledge thesis, according to which the legislature cannot possess the requisite knowledge to legislate rationally with regard to specific aggregate results in complex social orders. However, the problem is that the dispersal of knowledge thesis also means that the knowledge required for the utilitarian calculus – computing the balance of good over evil – will not be at hand. The question, then, is whether the dispersal of knowledge thesis undermines not only the theory of utilitarianism in general, but also the legislation tenet. This, of course, would be a serious objection to Hayek’s critique. However, it appears that Hayek attempts to avoid this objection by introducing a less demanding version of utilitarianism, a version which (he argues) does not require a calculus. As I see it, though, this less demanding version of utilitarianism does not avoid this objection, because there is still need for a basis on which to argue that one situation features a higher welfare-level than some other situation. As we shall see, nonetheless, it seems that the well-known distinction between utilitarianism conceived as a criterion of correctness and utilitarianism conceived as method of deliberation might be used to save Hayek’s less demanding version of utilitarianism (and actually also the standard version of utilitarianism) from this objection.

Let us now see how this plays out.

Hayek is very critical of utilitarianism, and it is clear that he holds that utilitarianism is mistaken. With regard to act utilitarianism, he argues – in line with the dispersal of knowledge thesis – that the knowledge required to calculate a balance of pleasure over pain of a particular act cannot be gathered or held by any agency, be it an individual or, say, the government.\footnote{F. A. Hayek, \textit{Law, Legislation and Liberty: A New Statement of the Liberal Principles of Justice and Political Economy}, vol. 2, \textit{The Mirage of Social Justice} (London: Routledge, 1982 [1976]), p. 20.}
Indeed, he maintains that the fact that no one is capable of balancing the good over evil for every act is the actual reason that there are rules. If men were able to make morally correct choices of how to act for every social situation that involves such a choice, rules functioning as general guidelines applicable to innumerable situations that involve such choices would be superfluous. Of course, this position of Hayek’s harks back to his view that the reason for rules is man’s constitutional ignorance. As we remember, Hayek insists that rules are a necessary device because of our ignorance – if we could determine the consequences of our actions we would not need general guidelines on how to act. Hayek argues that in the absence of such omnipotence, we employ rules (on this, see Chapter 12).

Although Hayek argues that the conditions for the utilitarian calculus cannot be met in view of the dispersal of knowledge thesis, he never-

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949 Note that this assumes that the only function of rules is to help the agent to maximize happiness (or good consequences). But some rules are meant to prohibit people from doing what is morally wrong regardless of any calculus, say, the prohibition of murder.

950 However, Hayek is also very critical of rules utilitarianism. With regard to rule utilitarianism, Hayek is critical of the idea that the balance of good over evil could be judged in terms of one rule in isolation. Instead, he emphatically argues that rules must always be judged as part of a system of rules; it is always in relation to the system of rules, that the consequences of a rule must be judged (on this, see Chapter 12). Therefore, he argues that rule utilitarianism – in the sense that it focuses on the moral impact of one rule in isolation – is misleading (we may, however, question this view as it seems not prima facie excluded to judge in isolation the value of, say, the rule that we are not to lie). See, Hayek *Law, Legislation and Liberty*, vol. 2, *The Mirage of Social Justice*, p. 20.

951 As I understand it, the failure of utilitarianism, on Hayek’s analysis, is also due to a misunderstanding of the meaning of the word ‘utility’. Hayek argues that only if we understand utility as a common denominator related to the value of an end – and not as related to the value of a means – is it feasible to investigate, on the basis of such a common denominator (such as pleasure or happiness), the total balance of good over evil. This point is obvious because if we value the means in terms of a common denominator this tells us little in terms of the calculus that clearly has to be based on the happiness perceived in relation to the ends met; we may be very happy employing certain means, but it hard to fathom a calculus based on such a conception. However, Hayek maintains that it is a mistake to focus exclusively on ends because the term ‘utility’, on his account, should mean ‘usefulness’, referring to means, not ends. Hayek emphasizes that the term ‘utility’ should be so understood as to refer to a potential usefulness in view of the importance and likelihood of situations when this utility may come
theless goes on to espouse a less demanding version of utilitarianism. He writes:

We may of course aim at the ‘greatest happiness of the greatest number’ if we do not delude ourselves that we can determine the sum of this happiness by some calculation, or that there is a known aggregate of results at any one time. What the rules, and the order they serve, can do is no more than to increase the opportunities for unknown people. If we do the best we can to increase the opportunities for any unknown person picked at random, we will achieve the most we can, but certainly not because we have any idea of the sum of utility of pleasure which we have produced.952

As we see, in Hayek’s version of utilitarianism, it is not the sum of happiness or the preference satisfaction that is in focus, but rather the opportunities created for (unknown) persons to act so as to increase the general level of happiness or preference-satisfaction. Let us now see how we are to understand the relation between the legislation tenet and the dispersal of knowledge thesis, in view of this less demanding version utilitarianism.

As we have seen, it is clear that Hayek’s critique of legislation is utilitarian, as it is primarily concerned with the balance of good over evil in terms of the consequences for material welfare with regard to legislation in handy. So, for instance, we should value a legal rule in terms of its usefulness as a means to cope with unforeseen circumstances, and not in terms of the happiness that the rule brings about in terms of factually realized ends. As we see, this view of Hayek’s is a further frontal attack on utilitarianism as it undermines the possibility of the happiness calculus; it first removes the common denominator on which the utilitarian calculus is based, and secondly it looks only to future and unforeseen circumstances. See, Hayek, Law, Legislation and Liberty, vol. 2, The Mirage of Social Justice, p. 18. Hayek, Law, Legislation and Liberty, vol. 2, The Mirage of Social Justice, p. 23. See also the following quote: “The constructivist interpretation of rules of conduct is generally known as ‘utilitarianism’. In a wider sense the term is, however, also applied to any critical examination of such rules and of institutions with respect to the function they perform in the structure of society. In this wide sense every one who does not regard all existing values as unquestionable but is prepared to ask why they should be held would have to be described as utilitarian. Thus Aristotle, Thomas Aquinas, and David Hume, would have to be described as utilitarians, and the present discussion of the function of rules of conduct might also be so called.” See, Hayek, Law, Legislation and Liberty, vol. 2, The Mirage of Social Justice, p. 17. Reference omitted.
aiming at specific aggregate results in complex orders of society (the legislation tenet). However, as we have also seen, Hayek argues that the dispersal of knowledge thesis undermines utilitarianism by making it impossible to gather (and hold) the knowledge necessary to perform the utilitarian calculus. But, as I have said, this seems to mean that his critique of utilitarianism will also undermine the legislation tenet. However, it seems that Hayek advances his less demanding version of utilitarianism to escape this predicament.

The problem we address, then, is the following: If the legislation tenet is utilitarian, and if the dispersal of knowledge thesis undermines the ability of the legislature to carry out the utilitarian calculus, does it not follow that the dispersal of knowledge thesis also undermines the legislation tenet? For how are we to base the claim that legislation aiming at specific aggregate results in complex orders of society will decrease the level of welfare, if we have no tool, or method; that is, no calculus, on which to base such a claim? The question now is whether the less demanding version of utilitarianism may help Hayek avoid this problem?

I do not think so. The reason is that the less demanding version of utilitarianism will also need criteria with the help of which one can determine that some pieces of legislation, but not others, will – by creating opportunities for unknown persons – bring about a higher, or lower, level of material welfare. For how are we to determine whether the opportunities that a set of rules brings about are preferable to some other such set of opportunities that some other set of rules brings about, if we cannot determine whether the rules themselves will bring about a higher, or lower, level of welfare? I mean, it does not seem to matter whether it is the utility maximization of the consequences of the rules in question, or the utility maximization of the consequences of the opportunities that those rules create, that we have in mind – we still need some basis for the claim that one set of opportunities, or rules, is more conducive to the consequences we seek.
For instance, if we have a set of rules, such as the rules of commerce, can we claim an essential difference between an evaluation of the consequences for material welfare of that set of rules, on the one hand, and an evaluation of the consequences for material welfare of the opportunities that the set of rules gives rise to, on the other hand? And on what basis may Hayek argue that evolutionary rules lead to increased welfare because they are more favorable to the utilization of knowledge than are legislative rules, if there is no calculus to support this argument? In view of these questions, it appears to me that a necessary presupposition of this less demanding version of utilitarianism must also be some calculus, utilitarian or otherwise.

In view of the above, I am inclined to conclude that the dispersal of knowledge thesis undermines not only utilitarianism, but also the legislation tenet, even if Hayek operates with the less demanding version of utilitarianism. However, as pointed out above, it seems to me that Hayek may be able to escape this seemingly devastating objection by invoking the well-known distinction between utilitarianism conceived as a criterion of correctness and utilitarianism conceived as method of deliberation. Let me explain.

The reason why the distinction between utilitarianism conceived as a method of deliberation and utilitarianism conceived as a criterion of correctness may be important in this context is that whereas utilitarianism viewed as a method of deliberation means that the deliberating agent must perform the utilitarian calculus when he is about to act (that is, he typically has precious little time to do this), utilitarianism viewed as criterion of correctness means that the moral agent has more time on his hands to evaluate the rightness or wrongness of an action on the basis of the calculus. Whereas the former conception pertains to a decision procedure for

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actions that are about to be taken (method of deliberation), the latter pertains to a *moral standard*, or criterion, on which to evaluate an action (criterion of correctness). On this latter view, we should take note that actions that are not expressly based on the utilitarian calculus – but perhaps on some general rule, say prohibiting murder – are morally obligatory or permitted if these actions contribute to meeting the moral standard.

The thinking behind this distinction, then, is that the idea of carrying out the utilitarian calculus on the spur of the moment is unrealistic; given the amount of knowledge required for the calculus, it is hard to envision the agent to make the morally right decision. However, so the thinking goes, with more time it may be possible to gather the requisite knowledge to calculate what action is morally right. We should also take notice that while the possibility to judge the moral content of an action with hindsight is excluded on the view of utilitarianism as a method of deliberation, this is not the case on the view of utilitarianism as a criterion of correctness. While a *deliberating agent* obviously will find it very difficult when he must act to acquire knowledge of the future consequences of the relevant set of available actions, an agent who with *hindsight* seeks to determine the moral *correctness* of his actions will find it easier (though not necessarily easy) to carry out the happiness calculus.

Of course, the conception of utilitarianism as a criterion of correctness serves to meet the objection of the practical difficulties of the utilitarian calculus, and, as should be clear, the idea is that the view of utilitarianism as a criterion of correctness softens the demands made on the utilitarian calculus. As pointed out, this is further emphasized as some actions may not be performed because of any calculus at all on this view (these may be actions based on some common-sense moral rule), given that they contribute to the standard of moral rightness.

As we have seen, the legislation tenet is based on utilitarian concerns. However, this tenet is supported by the dispersal of knowledge thesis

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which seems to undermine the possibilities of the utilitarian calculus; but – importantly – it also seems to undermine the legislation tenet. As we have seen, Hayek introduces a less demanding version of utilitarianism, in order to dodge the utilitarian calculus, rendered impossible on his dispersal of knowledge thesis. However, Hayek does not seem to be successful in this, since the weaker version of utilitarianism will still be dependent on some form of calculus in order for it to claim that some situation is to be preferred to some other situation in terms of welfare. But, as we have seen, I argue that the distinction between utilitarianism conceived a method of deliberation and utilitarianism conceived as a criterion of correctness may save Hayek’s weaker version of utilitarianism and so the inconsistencies of his positions because (i) the conception of utilitarianism as a criterion of correctness softens the demand on the calculus as there is more time – sometimes even hindsight – allowed for the calculus to be performed, and (ii) because under a criterion of correctness some actions may be taken on other considerations than the utilitarian calculus.

In view of the distinction between utilitarianism conceived as a method of deliberation and utilitarianism conceived as a criterion of correctness, then, it seems that the inconsistencies of Hayek’s positions may be reconciled, or so I shall argue.

87. Interpreting the Utilitarian Foundations of Hayek’s’ Critique

Having discussed Hayek’s critique of utilitarianism and its relation to his critique of legislation; that is, I have discussed these issues in terms of whether Hayek’s positions are defensible, true or false, I now turn to the question of how the utilitarian tradition of economics, discussed in the previous sections, influences the general approach of Hayek’s critique of legislation.

As we have seen, economics is strongly influenced (or even based) on utilitarianism, a theory of normative ethics. However, there is in econom-
ics an ambivalent attitude to normative ethics. This double-edged characterization is also true of Hayek’s critique of legislation. As we have seen, this ambivalent attitude is resolved in the utilitarian calculus as presented in the equations of welfare economics – utility maximizing agents act in view to their own purposes to further the morally right consequences as they go about to produce a maximum of material welfare.

As has been made clear in this chapter, Hayek, as well as his critique of legislation, is firmly rooted in this utilitarian tradition of economics. As we have seen, though, he contests utilitarianism while committing himself to a less demanding version of that theory. However – regardless of whether Hayek’s positions are defensible, true or false – the utilitarian tradition of economics in fact determines the over-arching questions that Hayek’s critique of legislation addresses. That he is concerned with the aggregate material welfare is clearly determined by his general position in the tradition of utilitarian economics; in economics it is the aggregate maximization of preference satisfaction in terms of material goods that satisfies the moral criteria of utilitarianism. That Hayek is not concerned with other-regarding preferences, such as freedom or justice, other than as means to the aggregate welfare of society, also finds an explanation in the ambivalent attitude to normative-ethical concepts of this tradition. Ultimately, his interest in rules, law and legislation stems from economic welfare concerns. His position that the law serves to uphold – and make possible – the economic system may also be understood from this perspective, as it is the function of the rules of the law (in the normative sense) to further the economic order.

Of course, Hayek’s angle of approach is a genuine contribution that is quite different in nature from that of the tradition of law and economics that often seeks to elucidate the optimal regulation of a particular area, such as for example the airline industry, or the distribution of frequencies for radio broadcasting, or some other particular area of regulation. As I see it, though, viewing Hayek from the point of view of the utilitarian tradition of economics, as we have done in this section, allows for an
understanding of the premises of his critique of legislation; the questions he poses, but also how he attempts to answer those questions.
Chapter 17
Afterthoughts

88. Introduction

[...] it may still be one of the most important tasks of our intelligence to discover the significance of rules we never deliberately made, and the obedience to which builds more complex orders than we can understand. I have already pointed out that the pleasure which man is led to strive for is of course not the end which evolution serves but merely the signal that in primitive conditions made the individual do what was usually required for the preservation of the group, but which under present conditions may no longer do so. The constructivistic theories of utilitarianism that derive the now valid rules from their serving individual pleasure are therefore completely mistaken. The rules which contemporary man has learnt to obey indeed made possible an immense proliferation of the human race. I am not so certain that this has also increased the pleasure of the several individuals.956

Hayek

In this chapter, I offer some further reflections on topics related to this investigation. I begin by commenting on some specifically important features of Hayek’s critique that I believe make his critique particularly relevant in some areas (Section 89). I then comment on possible future areas of research, suggesting that Hayek’s critique and its relation to the natural law tradition is one such possible area, and that the works of John Rawls and its relation to Hayek’s critique is another (Section 90). I con-

tinue with some reflections on Hayek’s critique in light of the contemporary social scientists whose work has been discussed in the course of this investigation (Section 91). Finally, I offer some general afterthoughts (Section 92).

89. Some Important Features of Hayek’s Critique

The crucial part of this investigation is of course its results, as they are summarized in Chapter 15. In view of the significant role of legislation in governance, these results are of course very interesting. However, in this section I want to highlight some further important features of Hayek’s critique.

As I see it, then, there are some specific issues with regard to which Hayek’s critique is continuously interesting. The first feature is his insistence that key social science questions resides in a no-man’s land in between the established social science disciplines, and that inter-disciplinary investigations are required to answer those questions. The developments described in this investigation indeed support his view that the answers to the pivotal questions in social science are to be found at the intersection of different disciplines. As pointed out, Hayek started his career with doctorates in law and political science, but would later cover such disciplines as economics, philosophy of mind, and complexity theory. As we have seen, what specifically occupied Hayek was a description of the instrumental function of law in relation to rational action, rational social orders, and the welfare-creating economic forces of such social orders. Hayek, the legal theorist, was concerned with the question of what kinds of rule make the welfare-creating forces of social order possible. Hayek, the economist, on the other hand, was concerned with the question of how the economic forces of social order are conditioned on a set of rules that is conducive to its maintenance.

These remarks point to the second feature: His emphasis on an understanding of the role of rules in promoting the conditions for welfare-
creating social orders, a trend that is now well established in the social sciences. However, we may ask, what is the role of jurisprudence in this inter-disciplinary endeavor of understanding rules? On the topic of inter-disciplinary work on rules and institutions, Avner Greif comments:

This perspective highlights both the need and the ability to integrate various analytical frameworks. When studying the relationships among organizations and rules, for example, it allows us to take advantage of the analytics and insights developed in the study of the political economy of rule formation. In studying the relationships between organizations and internalized norms, the analytics can benefit from the analytics and insights developed in sociology and political science. As for the relationships among rules, organizations, and behavior, the analysis can benefit from the analytics and insights offered by transaction cost economics in exploring how decision makers try to lower these costs. 957

Unfortunately, this quote is representative of many such quotes about the different insights gained in the broader social sciences with regard to rules, law, and institutions, in that it does not mention legal science. And yet I find it highly unlikely that the sophisticated analysis of rules in jurisprudence, and in legal studies more generally, would have nothing to offer in this endeavor. Especially the traditions of analytical jurisprudence and deontic logic seem to me a natural fit for the deductive traditions in some of the social sciences, such as economics. As a conjecture, the reason for this state of affairs is that jurisprudents tend to view law as primarily made up of those rules that emanate from an authoritative source – such as a legislature – whereas social scientists, other than jurisprudents, tend to view any regularities of behavior as the social facts that form the object of study with regard to rules and institutions. Paradoxically, then, it seems that the attempt to place jurisprudence firmly within the bounds of science by way of the empirical foundation of a factual source, runs the risk of marginalizing it in relation to the broader social science endeavor of understanding norms.

This brings me to the third feature of interest with regard to Hayek’s critique: His forceful advocacy of the importance of rules and law for a deeper understanding of society should be taken as a call to arms for jurisprudents to take a more active part in this inter-disciplinary task. While it is true that jurisprudents may not always be well-versed in the broader social sciences, it is also true that the analysis of rules in the broader social sciences is sometimes primitive to the eye of the jurisprudent.

Finally, the fourth feature – however trivial – is Hayek’s fair warning to legislatures not to proceed on the assumption that it is possible to think up optimal solutions to legislative issues top down. Of course, we have investigated Hayek’s critique as it is structured with regard to concerns of material welfare. However, if we want to summarize Hayek’s views on complex social orders – and the issues involved in governing such orders – we may do so in terms of the above cautioning.

90. Further Areas of Research

In this section, I shall briefly mention a few areas that I consider to be particularly suitable for future scrutiny. As pointed out, I shall focus on Hayek and the natural law tradition, and on Hayek and the work of John Rawls.

As we remember, Hayek put forward a theory of law in his books The Constitution of Liberty, and Law, Legislation, and Liberty. In particular, this theory centers on the question of the nature of law. However, he also discusses adjudication, the function of rules, legal argumentation, and legal concepts such as legal rights and justice, issues that are at the center of jurisprudence. I believe that a full-length work on Hayek’s theory of law is called for.

More specifically, I find Hayek’s view on the nature of law and its relation to the natural law tradition interesting. As Erik Angner forcefully argues, the concepts employed by Hayek, are not sui generis, nor are they, according to Angner, part of a particularly German heritage, as I
have argued in Chapter 3; instead Angner argues that they are part of the natural law tradition in which the concept of natural order is prominent, as are evolutionary explanations. In the natural law tradition, we also find the idea that nature strives towards harmony and that the way towards this harmony is preferably left to work itself out, without the intervention of human agency (which is always limited in relation to the book of nature, or God, on this view). Of course, the most poignant expression of this idea is to be found in the work of the classical economists, who argued that harmony will be established if society is left to its own devices; that is, the ideal of *laissez-faire*. It is further interesting that this essentially natural law idea holds sway to such an extent in terms of political positions (even though Ostrom criticizes the state/market dichotomy, as we have seen). That Joseph Schumpeter gave such manifest place to the natural law doctrine in his *History of Economic Analysis* – of which Hayek seems to have been an ardent student – further corroborates the influence of the natural law doctrine on economics. In any case, to trace this tradition in relation to Hayek’s legal work seems to me very promising, in particular with regard to his idea that rules are best developed in an evolutionary process.

As we have seen, Hayek’s emphasis on the importance of rules for the object of study of economics continues to be a source of inspiration for those inter-disciplinary social scientists who are interested in the role of rules. However, Hayek’s approach differs from that of the field of law and economics. Whereas law and economics primarily perceives the link between these disciplines as related to costs and incentive structures, Hayek forges the link between law and economics at the complexity level, which is one reason why his work resonates so well with the work of

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959 Joseph Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1986 [1954]), especially p. 109 on St. Thomas and the idea that the natural law is the law that fits a time and place in terms of social expediency, an idea that seems aligned with Hayek’s idea of the changing nature of evolutionary rules to fit the current state of development of human society.
the social scientists presented in this investigation. In view of this, a further part of Hayek’s work that deserves attention is his distinction between rules that function in simple orders, and rules that function in complex orders.960

Continuing on the topic further areas of research, I turn to John Rawls, whose work at first sight might seem to be far removed from that of Hayek’s – whereas John Rawls’ theory of justice is expressly a response to utilitarianism, Hayek’s writings are squarely situated in the utilitarian tradition of economics. However, Hayek declares an essential agreement with Rawls,961 and when Rawls says that he wants to, “... [a]void the question of the correctness of important social theories and rather to set out a conception of justice on the basis of which the question of private property vs. socialism in the means of production could be reasonably discussed”,962 we may suspect that their thought converges on a number of issues on closer scrutiny. This is further emphasized when Hayek says that:

Before leaving the subject I want to point out once more that the recognition that in such combinations as ‘social’, ‘economic’, ‘distributive’, or ‘retributive’ justice the term ‘justice’ is wholly empty should not lead us to throw the baby out with the bath water. Not only as the basis of the legal rules of just conduct is the justice which the courts of justice administer exceedingly important; there unquestionably also exists a genuine problem of justice in connection the deliberate design of political institutions, the problem to which Professor John Rawls has recently devoted an important book. The fact which I regret and regard as confusing is merely that in this connection he employs the term ‘social justice’. But I have no basic quarrel with an author who, before he proceeds to that problem,

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acknowledges that the task of selecting specific systems or distributions of desired things as just must be 'abandoned as mistaken in principle, and it is, in any case, not capable of a definite answer. Rather, the principles of justice define the crucial constraints which institutions and joint activities must satisfy if persons engaging in them are to have no complaints against them. If these constraints are satisfied, the resulting distribution, whatever it is, may be accepted as just (or at least not unjust).’ [John Rawls, “Constitutional Liberty and the Concept of Justice,” Nomos IV, Justice (New York, 1963), p. 102.] This is more or less what I have been trying to argue in this chapter.

Both Hayek and Rawls were polymaths; Hayek took to politics via economics, and Rawls did the same journey starting from philosophy, although his work is firmly rooted in basic economic thinking. Rawls’s book A Theory of Justice is however not a book in normative ethics, as one may think, but is an attempt at a justification of a system of institutions that is just. In this work, he combines concerns of economic efficiency with concerns of distribution. In any case, A Theory of Justice has had an enormous impact on political and philosophical thinking about how to order society.

As John Rawls claims that his work stand on the shoulders of Kant, and as Hayek expresses a similar outlook, a starting point for the convergence of the writings of Hayek and Rawls is the profound influence of Kant on both thinkers. For Rawls it is primarily Kant’s idea of equal freedom, and his work on the theory of the social contract that is in focus. Kant’s deontologically inspired idea that legal rights protect the equal freedom of all citizens in that they do not allow this freedom to be trespassed on concerns of the common good, is a natural inspiration for a theory in opposition to utilitarianism. However, whereas Kant thought of legal rights as protecting the sphere of the individual because of the in-

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trinsic value of the freedom established for all,\(^{965}\) Hayek thought of legal rights as delimiting a protected domain of the individual in which he is at liberty to utilize a maximum of knowledge for the common good. In view of Hayek’s utilitarianism, it is interesting that this part of his thinking is cloaked in terms of a rights-based philosophy: The Kantian spheres of interest, secured by the law, gives the individual a measure of freedom to dispose of himself, his knowledge, and possessions, in a way that produces the most material resources. In this manner, Hayek uses rights in an instrumental way, rather than as deontological trumps to be used against any utilitarian considerations. Further to this, it is interesting that Kant’s definition of rights involves coercion to the degree that it is necessary in order to prevent individuals from encroaching on the freedom of other individuals.\(^{966}\) It is clear that Hayek inherited the view that coercion is a necessary ingredient of freedom, however much he preferred to stress its negative welfare implications, as we have seen (see, Section 60).

However, there are further similarities between the two. So for instance, both view rules as institutions that are the basis for determining mutual expectations.\(^{967}\) It is hard to escape the similarities in view between the two when Rawls says that, “In justice as fairness society is interpreted as a cooperative venture for mutual advantage. The basic structure is a public system of rules defining a scheme of activities that leads men to act together so as to produce a greater sum of benefits and assigns to each certain recognized claims to a share in the proceeds.”\(^{968}\)

And Rawls continues, “[i]deally the rules should be so set up that men are led by their predominant interests to act in ways which further socially desirable ends. The conduct of individuals guided by their rational plans should be coordinated as far as possible to achieve results which although


not intended or perhaps even foreseen by them are nevertheless the best
ones from the standpoint of social justice.”\footnote{Rawls, \textit{A Theory of Justice}, p. 49.} In view of Karen Vaughn’s
claim that Hayek’s work on rules is his alternative to general equilibrium
theory (see, Section 68),\footnote{Karen I. Vaughn, “Hayék’s Implicit Economics: Rules and the Problem of Order,”
\textit{Review of Austrian Economics}, vol. 11 (1999), p. 135.} as rules form an equilibrium device that coordi-
brates the agents to play a game with an equilibrium outcome, I find
these similarities of interest for further scrutiny.

As we see, then, both Hayek and Rawls conceive of society as an as-
sociation for the mutual benefit of those involved, while the restrictions
on how the aggregate welfare may grow differ between the two – in
Rawls’ case, it is the well-known difference principle, and in Hayek’s
case, it is instead the idea of a safety net guaranteeing a minimum level of
support and the idea of formal equality of opportunity. However, as we
have further seen, both argue that certain inequalities are necessary for
the right incentive structure to be maintained. In a broad sense, it is the
views of Hayek and Rawls on rules, distribution, institutional arrange-
ments, and justice that should be of interest for future investigations.

91. Concluding Reflections on the Relation
between Hayek’s Critique of Legislation and
Contemporary, Inter-Disciplinary, Social
Science Focusing on Rules

In this section, I offer some general reflections on the relation between
Hayek’s critique of legislation and the work in the interdisciplinary social
sciences that I have been led to explore for the purpose of this investiga-
tion – in particular that of Ostrom, Smith, Greif, and Epstein. In the
course of this work, I have investigated the work of these scientists as it
specifically pertains to particular issues of Hayek’s critique. In this sec-
tion, though, I take the opportunity to reflect on issues that, while they
may not match specific issues of Hayek’s critique, are at least tangential to this investigation, and hopefully of some interest to the reader.

According to physicist Frank Schweitzer, “[…] [t]he emergence of complex behavior in systems consisting of interacting elements is among the most fascinating phenomena of our world”. These phenomena can be observed in a wide range of settings, and, as we have seen, social science has become concerned with the occurrence and interpretation of these complex phenomena in the setting of human society. A fundamental query of these lines of investigation is the following: Why can’t the properties on the macro level simply be inferred from the properties of the micro level? Or, put more in line with social science: Why is it that even though the individual may not understand his actions in a rational sense, the aggregate outcome in a social setting tends to equilibrate towards its forecasted rational optimum? As we have seen, questions like these have generated interdisciplinary research and an unorthodox use of methods in the social sciences.

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What is referred to as the “coordination problem”\textsuperscript{974} in economics and as the “problem of social order”\textsuperscript{975} in sociology makes up the long line in social science that these questions are related to. In short the query runs as follows: How is it that societies, even though very complex, seem to be ordered? One tradition in social thought maintains that social progress is planned and that science is the tool to implement order and progress. This tradition is often associated with thinkers such as Rousseau, Bentham and Comte.\textsuperscript{976} In stark contrast another tradition maintains that order is mainly an independent outcome of human cooperation as such. This tradition, then, is often associated with thinkers like Hume, Kant and Smith.\textsuperscript{977}

The positivist program of Comte came to be associated with socialism when socialists abandoned the idea of the historical inevitability of socialism, put forward by Marx, for a positive political program following the social upheaval in the aftermath of the First World War.\textsuperscript{978} As we remember, Ludwig Mises advanced an argument in the 1920’s on the impossibility of rational economic calculation under socialism. It was a critique directed squarely at a positive political program of socialism. As pointed out, Mises argued that if the state owns the means of production, there will be no free exchange of the factors of production. Without free exchange, the knowledge of the scarcity of any given product, which translates into prices, is lost. So, on Mises’s analysis, if the knowledge of the scarcity of products disappears, it is not possible to use the means of production in a rational way. As we have seen, the socialist calculation debate of the 1930’s was triggered by Mises’s challenge of the feasibility of socialist government (see, Section 10). In addressing the Mises argument

\textsuperscript{975} Ibid., pp. 74–75.
\textsuperscript{977} Ibid., pp. 299–300.
on economic calculation under socialism, philosopher David Ramsay Steele frames an intriguing aspect of the ‘problem of social order’, when he says:

The Mises argument raises many interesting questions. To me, the most intriguing is: 'How can it conceivably be the case that humans can achieve an intricately structured and highly desirable outcome only by leaving individuals alone, within limits, to do what they like, and are bound to fail to achieve the same outcome if they try to attain it by deliberate organization or conscious planning?'\footnote{David Ramsay Steele, \textit{From Marx to Mises: Post-Capitalist Society and the Challenge of Economic Calculation} (La Salle, Illinois: Open Court, 1992), p. 3.}

Hayek’s general critique of social planning may be seen as a broadening of Mises’ critique of the possibility of a rational use of resources under the positive political program of socialism, to include a critique of the idea that man is capable to shape society in a rational process, \textit{i.e.}, constructivist rationalism. Hence we may say that Hayek belongs to the second tradition on the issue of social order, mentioned above. In line with the Mises argument, Hayek, then, states the essential features of the ‘problem of social order’ as follows:

How can the combination of fragments of knowledge existing in different minds bring about results which, if they were brought about deliberately, would require a knowledge on the part of the directing mind which no single person can possess?\footnote{F. A. Hayek, “Economics and Knowledge”, in F.A. Hayek, \textit{Individualism and Economic Order} (Chicago: University of Chicago Press, 1948), p. 54.}

As we have seen, the core of Hayek’s objection to the view that man can shape society in a rational process is that the amount of knowledge going into the social process exceeds what is possible for any political body to gather and use in a rational process of shaping society. Hayek does not deny that there is an essential coordination of human activities in society that is suggestive of something akin to a single overall plan, but he argues that this state of affairs is induced when the knowledge determining social
interaction is distributed among the agents and therefore is out of reach of the government.

For our purposes, an interesting line of inquiry, in line with the above, concerns whether jurisprudence has any answers to the question of why strictly limited cognition and information on the individual level can transform into super rational outcomes on the aggregate level. As we have seen, renowned scholars have grappled with this problem, and have drawn upon the work of Hayek, who suggests that the law provides the “magic bridge” between the micro and macro levels in society. As pointed out, Hayek thought of law as instrumental for the bridge between the micro and macro levels in society in that law embodies knowledge enabling the individual agent to act in a way that is conducive to macro level rationality, while the agent may not know what knowledge he makes use of: If the agent follows rules, he is likely to make the right decisions – for himself and for society. Hayek argues that rules with this knowledge-communicating property are not easily fabricated in a legislature, which is why he is critical of the legislative tool.

Hayek’s work – which in many cases consists of conjectures, one might say – seems to be strangely in tune with the inter-disciplinary landscape of contemporary social sciences as presented in this investigation. It seems that Hayek was right to a considerable extent, and that those later developments have given support to Hayek’s positions, while they also indicate a level of understanding and control of complex phenomena that Hayek could not envisage. It seems, then, that Hayek may have underestimated the rational capacity of man to come to terms with an understanding of phenomena with regard to which, strictly speaking, rational control is not an option. More precisely, it seems that Ostrom’s work further forces us to confront and refine our understanding of what is possible to achieve with regard to control of complex social orders.

It is clear that Ostrom has observed a number of very successful self-regulating regimes, and as we have seen, Ostrom’s empirical investigations refute Hayek’s argument in favor of the line of argument based on
the cultural evolution thesis and the welfare claim. However, Ostrom’s empirical observations are of relatively small social orders, although they are certainly complex to some degree (as we have seen, the focus on relatively small geographical areas follows from the empirical foundations of the concept of polycentric government, see Section 73). However, they are not as big or complex as a nation. Ostrom’s main point is that there are instances in which a collaboration between institutional levels in developing an institutional framework that consists of both evolutionary and deliberately designed rules, fare very well.

One way to interpret Ostrom’s work in relation to Hayek’s, then, is to conclude that she has expanded the area of what is to count as a non-complex social order. In view of this, we may say that Ostrom has pushed the borders of what we take to be a complex order. Introducing the concept of polycentric government, she has shown that regulatory frameworks can be improved in a collaborative effort with regard to regulatory landscapes that are no doubt larger than Hayek envisioned the non-complex social orders to be, but, then again, perhaps smaller than a nation. In this way, it seems that the boundary may have been pushed with regard to the level of complexity that man can engage in with a view to impose deliberately designed rules. In any case, it seems as if her work challenges us to think hard about how to understand the concept of a complex social order in Hayek’s thought. I shall further suggest that these results indicate (i) that a complex social order is not a static entity, (ii) that social orders can come in varying degrees of complexity and that this fact should influence how we may go about regulating these orders, and (iii) that the realm of complexity that can be deliberately regulated in a rational fashion is larger than Hayek’s critique seems to suggest.

As we have seen, Ostrom’s analysis of institutions and rules, and especially her empirical observations, all concentrate on social dilemmas that involve common-pool resources. The question remains how we are to interpret this work for legislation in general. In doing this, we should remember that social dilemmas of common pool resources are among the
most difficult strategic situations to solve. Further, the institutional re-
gimes Ostrom studied involve rules of a high degree of specificity. Legis-
lation in general, though, can obviously vary from the very abstract and
general to the very specific. It seems to me that the development of core
parts of private law – those parts that are admittedly very general and
abstract – from roman times to the present can be described as a version
of the kind of a process of experimentation that Ostrom advocates. On
this view, we could interpret Ostrom’s work in relation to Hayek as fol-
lows: It seem that Ostrom generally supports the legislation tenet and the
dispersal of knowledge thesis. She also agrees with Hayek that evolution-
ary rules can be rational. However, given that legislation seems to be a
necessary tool of government, she is concerned with ways to improve
legislative efforts. As we have seen, her concept of polycentric govern-
ment, her emphasis on rule design as a process of experimentation, her
syntax grammar, and her application of the syntax grammar to game theo-
ry, are examples of this.

Of course, I cannot fully account for the implications of the inter-
disciplinary work of Ostrom, Smith, Greif and Epstein. Nonetheless, I
believe that their work suggest that inroads have been made into the un-
derstanding and control of complex phenomena, and that this could be of
use to legislatures. In so far as Hayek’s position can be seen as trivial
(perhaps few legislators explicitly argue that rational legislation is a pos-
sibility), we shall remember (i) that the business of legislation is typically
undertaken on the tacit assumption that it will achieve the ends it purports
to achieve, and (ii) that what makes Hayek’s critique interesting is the
arguments he marshals in support of it – especially as these are not the
kind of arguments that normally face the jurisprudent, stemming as they
do from economics, philosophy of mind and complexity science. Howev-
er, legislation is a practical business that is not likely to cease just because
Hayek objects to it. In view of this, I suggested a legislative policy tool as
based on his critique (see, Chapter 11).
As we see, then, developments in the social sciences, while they do not warrant a claim to rationality, at least point towards an increase in the chances of a legislature to achieve its intentions. As pointed out, it seems to me that the inter-disciplinary developments plotted in this investigation suggest that the possibility to approximate legislative intent is larger than Hayek believed. It further seems to me that this process will take place in an experimental process, meaning that while it is not possible to deduce a rational rule in a multi-equilibrium setting, it is possible that actual outcome approximates legislative intent over time in a process of rule experimentation. Further, in this process Ostrom’s analytical framework and common taxonomy of rules (or some other analytical or common taxonomy) should be used, and this could perhaps also involve iterative computer simulations of the type employed in agent-based computational modeling.

That rules developed in an evolutionary process are sometimes beneficial is clear. The work of Ostrom suggests that these rules can be improved upon by rational deliberation. In view of the claim that it is logically excluded to arrive at a rational choice between several equilibria (see, Section 73), the notion we will have to give up is the one that we can by deliberate arrangement get it “right” at the first attempt. As pointed out, it seems rather that we have to view the process (with Ostrom) as one of experimentation, in which we can adjust the rules as we go along.

As we have seen, Hayek’s theory of the evolutionary development of rules fits in with Hayek’s overall system of thought. However, it still comes across as a hunch. As we have further seen, Hayek’s exclusive focus on the evolutionary development of rules does not receive support from the scientific work that I have presented, although the work of Ostrom, Epstein, Greif, and Smith does lend support to Hayek’s general conception of rules – especially his idea that rules are instrumental for rationality.

Hayek’s emphasis on rules of just conduct, as distinct from the order resulting from their observance, and his emphasis on rules as foundational
for the regularity of actions that gives rise to a complex order with a capacity to learn and change over time, is a strong parallel to the rules dictating the actions and choices of the agents in the iterative computer simulation processes of Joshua Epstein’s generative social science. In complexity science parlance, we may say that the order of actions is an emergent property of the regularity of actions of the agents, which, in turn, is induced by the rules for action. This, of course, furthers Hayek’s claim of the inter-connection between law and economics.

Hayek’s idea that rules contain and transmit knowledge is further supported by Vernon Smith’s claim that rules play an important part in the transformation from uninformed actions performed by boundedly rational individuals, to the rational outcomes observed on aggregate levels. Avner Greif’s analogy between game theory and rule-guided real-world action, adds to this conclusion.

As we see, then, the work of Vernon Smith, Joshua Epstein, Elinor Ostrom and Avner Greif lend support to Hayek’s general conception of rules, his view on the importance of rules as objects of study in the social sciences, and his idea that rules in part develop in evolutionary processes. But, importantly, Ostrom (and to some degree Greif) argues that these rules can be improved upon in a deliberate process.

92. Afterthoughts

It is clear that as it has become more difficult to finance the undertakings of the welfare state under the pressure of the recent crisis, the welfare state enterprise, as well as the primary governmental tool for implementing this enterprise – legislation – are under question. This, then, seems to be a particularly fitting time to once again discuss the proposition of rational legislation. In this investigation, we have turned to F. A. Hayek’s critique of legislation for a proper examination of argument with regard to the issue of rational legislation.
As we have seen, the crisis gives rise to a number of questions about how societies are best structured. One question is how regulation may prevent future crises; another question is to what extent regulation – or the lack of it – contributed to the crisis. In the aftermath of the crisis, legislative issues will surely continue to be hotly debated, as some will argue that regulation is the way forward, while others will argue that society to a large degree is a self-regulating mechanism that needs little regulation. Others may argue that it is not the quantity, but the quality of regulation, that needs to be improved. As pointed out, these issues raise questions about the efficacy and efficiency of the legislative tool.

It will surely be interesting to see whether regulation will be seen as a preventive measure against future crises, or as something that contributes significantly to such crises. In any case, Hayek’s critique of legislation provides its own perspective on these matters. As we have seen, this perspective is strangely in sync with contemporary social science. However, whether governments will take this perspective, or some other thought-out view, into account when making preparations for the next international turbulence, remains to be seen. It is probably a fairly accurate guess that the driving forces behind the deliberations of legislatures will be of more short-sighted nature. In the long term, though, thought-out perspectives have a tendency to become part of common knowledge. Democracy, in the perspective of ‘le longue durée’ is still in its infancy; however, if nothing else, it has proved a consistent resilience. Part of its success, and part of its innate inertia, is associated with the property of democracy as a collective learning process. Still, rational deliberation holds out great promise in the long haul. This may mean that some version of a thought-out take on the limits and possibilities of legislation finds its way into the common knowledge of the polity. If this were to happen, it would of course be a solace to writers of treatises such as this one.
Appendix A
Constructivist and Evolutionary Reason

As we have seen, the idea that man may master the development of society, viz. constructivist rationalism – was an instrumental idea when socialism abandoned the passive role of man in scientific socialism (see, Chapter 1). We have also seen that the more active role for man spelled out by constructivist rationalism, is paired with the legislative tool; it is through universal enactment that the good society is realized. In this appendix, I present Hayek’s notion of constructivist rationalism more closely and introduce his distinction between constructivist and evolutionary reason.

In spite of limited informational and computational capacities, man is obviously endowed with a capacity to economize his means to optimize his realization of ends in the physical and social worlds in which he lives. This rational capacity of man is commonly misunderstood in the social sciences, according to Hayek. On his analysis, this is due to a failure to distinguish between two different conceptions of rationalism, namely, constructivist and evolutionary rationalism. And, as we have seen, Hayek holds that constructivist rationalism is mistaken. The basic difference between the two conceptions is that whereas constructivist rationalism understands social order as a result of human design, evolutionary rationalism understands social order as a result of human construction as well.

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982 Ibid., pp. 5–6.
as of the process known as evolution, which is free of deliberate purposeful constructs.

But what is constructivist rationalism? As we have seen, it is the idea that institutions, and even society as a whole, are, and should be, the result of human design, and that human reason has the capacity to determine the proper means to a desired societal end. Hayek does not deny human reason this capacity with regard to simple phenomena. However, he argues that the basic mistake of constructivist rationalists is to assume that rationality can be attained in the same manner in extended orders as in organizations. More specifically, Hayek argues that the basic assumption underlying the idea of constructivist rationalism is that rational action is attained by deduction from explicit premises.\textsuperscript{983} Rational action in this sense implies having complete knowledge of the relevant facts.\textsuperscript{984} Carried over to the societal level, Hayek attributes to constructivist rationalists the views (i) that it is possible for some mind to hold all the relevant knowledge from which it is possible to construct a rational social order,\textsuperscript{985} (ii) that society should be designed so as to serve only known purposes,\textsuperscript{986} (iii) that society will serve human purposes only if created by deliberate design for these purposes,\textsuperscript{987} and (iv) that in this process the human mind is capable of an external position in relation to society.\textsuperscript{988} But, Hayek objects, man’s successful actions in a social context are not the result of deductions from explicit premises.\textsuperscript{989} Instead, he maintains, successful action in a social context is to a large extent the result of following rules and acting on subjective perceptions,\textsuperscript{990} neither of which can be explicitly stated in words.\textsuperscript{991} And if the basis for rational action is not possible to

\textsuperscript{984} Ibid., p. 12.
\textsuperscript{985} Ibid., p. 14.
\textsuperscript{986} Ibid., pp. 8–9.
\textsuperscript{987} Ibid., p. 8.
\textsuperscript{988} Ibid., p. 5.
\textsuperscript{989} Ibid., p. 11.
\textsuperscript{990} Ibid., p. 11.
state, it is not possible to deduce from this basis the course of rational action.

Hayek argues that his rejection of constructivist rationalism as a fallacy has implications for dominant views in political philosophy that are tacitly based on it.\textsuperscript{992} Further, he argues that his rejection of constructivist rationalism is not based on values, or political ideology, but is instead a matter of “fact and logic”.\textsuperscript{993} He puts it as follows:

I have been led to the conviction that not only some of the scientific but also the most important political (or ‘ideological’) differences of our time rest ultimately on certain basic philosophical differences between two schools of thought, one of which can be shown to be mistaken. They are both commonly referred to as rationalism, but I shall have to distinguish between them as the evolutionary (or, as Sir Karl Popper calls it, ‘critical’) rationalism on the one hand, and the erroneous constructivist (Popper’s ‘naïve’) rationalism on the other. If the constructivist rationalism can be shown to be based on factually false assumptions, a whole family of schools of scientific as well as political thought will also be proved erroneous. [...] All the totalitarian doctrines, of which socialism is merely the noblest and most influential, indeed belong here. They are false, not because of the values on which they are based, but because of a misconception of the forces which have made the Great Society and civilization possible. The demonstration that the differences between socialists and non-socialists ultimately rest on purely intellectual issues capable of scientific resolution and not on different judgments of value appears to me one of the most important outcomes of the train of thought pursued in this book [\textit{Law, Legislation and Liberty}].\textsuperscript{994}

Hayek introduces the idea of \textit{evolutionary rationalism} in order to explain rational action in the absence of logical deduction from explicit premises.\textsuperscript{995} On this view, reason consists in the mind’s adaptation to the physi-

\textsuperscript{993} Ibid., p. 5.
\textsuperscript{994} Ibid., pp. 5–6.
\textsuperscript{995} Ibid., p. 22.
cal and social orders for increased likelihood of subsistence.\textsuperscript{996} The part of evolutionary reason that concerns the social sphere, then, did not exist before society, but reason and society evolved concurrently.\textsuperscript{997} This social aspect of reason is the result of the mind’s adaptation to cooperation in society. According to Hayek, reason in this fashion is about not acting on instinct, instincts that may be anti-social.\textsuperscript{998} Instead, reason is about acting partly on insights into the causal connection between some known means and desired ends,\textsuperscript{999} and partly to follow rules which are conducive to these ends and to social cooperation,\textsuperscript{1000} rules which man nevertheless may not be able to state.\textsuperscript{1001} However much we may want to steal, kill or break promises man has increasingly honored rules that prohibit him from performing such actions. These rules promote social cooperation and hence survival, according to Hayek. He further argues that society and reason are intertwined in these rules.\textsuperscript{1002} As we see, then, reason, on Hayek’s account, consists to a certain extent of rules that are the result of a gradual adaptation of the mind to the physical world and society.\textsuperscript{1003} Hayek writes:

\begin{quote}
Yet the basic assumption underlying the belief that man has achieved mastery of his surroundings mainly through his capacity for logical deduction from explicit premises is factually false, and any attempt to confine his actions to what could thus be justified would deprive him of many of the most effective means to success that have been available to him. It is simply not true that our actions owe their effectiveness solely or chiefly to knowledge we can state in words and which can therefore constitute the explicit premises of a syllogism. Many of the institutions of a society
\end{quote}

\textsuperscript{1000} Ibid., pp. 6–7.
\textsuperscript{1002} Ibid., p. 17.
\textsuperscript{1003} Ibid., p. 18.
which are indispensable conditions for the successful pursuit of our conscious aims are in fact the result of customs, habits or practices which have been neither invented nor are observed with any such purpose in view. We live in a society in which we can successfully orientate ourselves, and in which our actions have a good chance of achieving their aims, nor only because our fellows are governed by known aims or known connections between means and ends, but because they are also confined by rules whose purpose or origin we often do not know and of whose very existence we are often not aware.\footnote{Hayek, \textit{Law, Legislation and Liberty}, vol. 1, \textit{Rules and Order}, p. 11. Footnote omitted.}

As we have seen, the dividing line between rationality in action and society that is possible to attain, and rationality that is not, follows, according to Hayek, along the lines of his distinction between evolutionary and constructivist rationalism.\footnote{Ibid., 8–9; and Bruce Caldwell, “Hayek and Socialism,” \textit{Journal of Economic Literature}, vol. 35, no. 4 (December 1997), pp. 1871–1873.} So, even though Hayek rejects constructivist rationalism, he does not reject the notion that there can be rationality in social matters. By delimiting the range of reason by a rational investigation of its properties, he argues that it is possible to achieve rational institutions and a rational social order.\footnote{Hayek, \textit{Law, Legislation and Liberty}, vol. 1, \textit{Rules and Order}, p. 9.} What he rejects is the idea that man by reason alone can design a desired society. Civilization, on Hayek’s analysis, is an adaptation to the limits of human reason, whereby the complexity of the social becomes the tool by which a degree of rationality in outcome is made possible by the use of many minds, a degree of rationality that would not be possible were the process limited to only one mind, or the not so many minds. A rational institution, on this analysis, is an institution that leaves room for outcomes that involves the collective rationality of many agents engaged in a social process.

Rounding off this section, we may summarize Hayek’s critique of constructivist rationalism in the following propositions derived from Hayek’s work.


On the Human Mind
- The human mind developed concurrently with man and society as it adapted to the natural and social surroundings of man.1007
- There are cognitive limitations on what the human mind can master.1009

On Welfare
- In any given society, there is a positive correlation between the amount of knowledge utilized in social cooperation and the welfare level, such that an increase in the utilization of knowledge will increase the level of welfare.1010

Corollaries
a) On negative welfare effects: Measures that decrease man’s utilization of knowledge in the disposition of means and ends will decrease the welfare in any given society.1011
b) On the extension of cognition and welfare: The welfare in a society increases as man’s cognitive limitations are overcome by means for him to base social action on his own knowledge as well as that of others.1012

1008 Ibid., p. 17.
1011 Ibid., p. 14; and p. 15.
1012 Hayek, The Constitution of Liberty, p. 42
On Knowledge

- The sum total of the knowledge determining social cooperation is dispersed among the members in a society of any degree of complexity.\(^{1013}\)

Corollaries

c) *On the relation between aggregate knowledge and individual ignorance:* As the sum total of the knowledge determining social cooperation increases, the individual’s relative ignorance of this knowledge will decrease.

d) *On the limits to the collection of knowledge determining social cooperation:* The knowledge determining social cooperation is not available in its entirety to any one mind or organization in a society characterized by complexity.\(^{1014}\)

e) *On institutions as instruments of extension of cognitive capacity and welfare:* Institutions such as law, markets, prices and money enable man to base social cooperation and society on more knowledge than his cognitive faculties would allow, and hence to increase welfare.\(^{1015}\)

Conclusion 1: On the Properties and Development of Institutions

The properties of institutions are due to the dispersal of knowledge in society. They are remedies for the cognitive limitations of man and they develop in an evolutionary process in which the experience of cumulative generations is sifted and condensed.\(^{1016}\)

\(^{1014}\) Ibid., p. 12; and pp. 41–42.
\(^{1015}\) Ibid., 11–12; p. 14.
\(^{1016}\) Ibid., p. 13; p. 5; and p. 11.
Conclusion 2: On the Limits of Determining the Properties of Society.

A consequence of the extension of social cooperation and society to a degree of complexity beyond the cognitive faculties of the human mind is a corresponding loss of the power to determine the properties of social cooperation and society.1017

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Appendix B
Hayek’s argument on Cognitive Closure


We shall attempt such a demonstration at first for the simple process of classification of individual elements and later apply the same reasoning to those processes of joint classification which we have called model-building. Our first task must be to make clear what we mean when we speak of the ‘degree of complexity’ of the objects of classification and of the classifying apparatus. What we require is a measure of this degree of complexity which can be expressed in numerical terms.

So far as the objects of classification are concerned, it is necessary in the first instance to remember that for our purposes we are not interested in all the properties which a physical object may possess in an objective sense, but only in those ‘properties’ according to which these objects are to be classified. For our purposes the complete classification of the object is its complete definition, containing all that with which we are concerned in respect to it.

The degree of complexity of the objects of classification may be measured by the number of the different classes under which it is subsumed, or the number of different ‘heads’ under which it is classified. This number expresses the maximum number of points with regard to which the response of the classifying apparatus to this object may differ.
from its responses to any one other object which it is also capable of classifying. If the object in question is classified under n heads, it can evidently differ from any other object that is classified by the same apparatus in n different ways.

In order that the classifying apparatus should be able to respond differently to any two objects which are classified differently under any one of these n heads, this apparatus will clearly have to be capable of distinguishing between a number of classes much larger than n. If any individual object may or may not belong to any one of the n classes A, B, C, ...N, and if all individual objects differing from each other in their membership of any one of these classes are to be treated as members of separate classes, then the number of different classes of objects to which the classifying apparatus will have to be able to respond differently will, according to a simple theorem of combinatorial analysis, have to be 2n+1. The number of different responses (or groups of responses), of which the classifying apparatus is capable, or the number of different classes it is able to form, will thus have to be of a definitely higher order of magnitude than the number of classes to which any individual object of classification can belong. This remains true when many of the individual classes to which a particular object belongs are mutually exclusive or disjunct, so that it can belong to either A1 or A2 or A3 ... and to either B1, or B2, or B3 ...etc. If in such a case the number of variable attributes which distinguish elements of A1 from elements of A2 and of A3, and elements of B1 from those of B2 and B3, etc., is m and each of these m different variables may assume n different `values`, although any one element will belong to at most m different classes, the number of distinct combinations of attributes to which the classifying apparatus will have to respond will still be equal to nm.

In the same way as we have used the number of different classes to which any one element can be assigned as the measure of its degree of complexity, we can use the number of different classes to which the classifying apparatus will have to respond differently as the measure of com-
plexity of that apparatus. It is evidently this number which indicates the variety of ways in which any one scheme of classification for a given set of elements may differ from any other scheme of classification for the different schemes of classification which can be applied to the given set of elements. Such a scheme for classifying the different possible schemes of classification would in turn have to possess a degree of complexity as much greater than that of any of the latter as their degree of complexity exceeds the complexity of any one of the elements.

What is true of the relationship between the degree of complexity of the different elements to be classified and that of the apparatus which can perform such classification, is, of course, equally true of that kind of joint or simultaneous classification which we have called ‘model-building’. It differs from the classification of individual elements merely by the fact that the range of possible differences between different constellations of such elements is already of a higher order of magnitude than the range of possible differences between the individual elements, and that in consequence any apparatus capable of building model of all the different possible constellations of such elements must be of an even higher order of complexity.

An apparatus capable of building within itself models of different constellations of elements must be more complex, in our sense, that any particular constellation of such elements of which it can form a model, because, in addition to showing how any one of these elements will behave in a particular situation, it must be capable also of representing how any one of these elements would behave in any one of a large number of situations. The ‘new’ result of the particular combination of elements which it is capable of predicting is derived from its capacity of predicting the behavior of each element under varying conditions. The significance of these abstract considerations will become clearer if we consider as illustrations some instances in which this or similar a principle applies. The simplest illustration of the kind is probably provided by a machine designed to sort out certain objects according to some variable property.
Such a machine will clearly have to be capable of indicating (or of differentially responding to) a greater number of different properties than any one of the objects to be sorted will possess. If, i.e., it is designed to sort out objects according to their length, while the machine must be capable of a different response to many different lengths.

An analogous relationship, which makes it impossible to work out on any calculating machine the (finite) number of distinct operations which can be performed with it, exists between that number and the highest result which the machine can show. If that number were, e.g., 999,999,999, there will already be 500,000,000 additions of two different figures giving 999,999,999 as a result, 499,999,999 pairs of different figures the addition which gives 999,999,998 as a result, etc. etc., and therefore a very much larger number of different additions of pairs of figures only than the machine can show. To this would have to be added all additions of more than two figures and all the different instances of the other operations which the machine can perform. The number of distinct calculations it can perform therefore will be clearly of a higher order of magnitude than the highest figure it can enumerate.

Applying the same general principle to the human brain as an apparatus of classification it would appear to mean that, even though we may understand its modus operandi in general terms, or, in other words, possess an explanation of the principle on which it operates, we shall never, by means of the same brain, be able to arrive at a detailed explanation of its working in particular circumstances, or be able to predict what the results of its operations will be. To achieve this would require a brain of a higher order of complexity, though it might be built on the same general principles. Such a brain might be able to explain what happens in our brain, but it would in turn still be unable fully to explain its own operations, and so on.
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Sammanfattning på svenska

Den senaste finansiella krisen reser en rad frågor om lagstiftnings verkan och verkningsgrad. Bidrog bristande regleringar till krisens uppkomst och förlopp? Eller var det istället så att en övervåldigande mängd lagstiftning medverkade till krisen? Och kan förbättrad lagstiftning göra att vi undvi-

ker framtida kriser, eller minskar dess effekter? Man kan ha olika upp-
fattningar i dessa frågor, men helt klart är att i efterdyningarna av krisen
har frågan om god lagstiftning förnyad aktualitet. Föreliggande arbete tar
sin utgångspunkt i F. A. Hayeks kritik av lagstiftning för att bidra till
denna viktiga diskussion.

Traditionellt har man inom den allmänna rättsläran fokuserat på doma-
ren som den centrala juridiska aktören. Man har fokuserat på frågor som
t.ex. hur en domare tolkar lag, vilka begrepp domare använder, och hur
domare rättfärdigar domslut. Lagstiftningsprocessen har betraktats som
hörande till den politiska sfären. Dock har man under de senaste decenni-
erna börjat intressera sig för lagstiftning från en mer rättsteoretisk ut-
gångspunkt. Föreliggande arbete ligger i linje med denna inriktning. Det
är dock klart att detta arbete också befinner sig inom ramen för den all-
männa rättsläran eftersom det är en filosofisk undersökning som befattar
sig med en företeelse som är gemensam för alla – eller i alla fall nästan
alla – rättsliga discipliner, nämligen lagstiftning.

I de västerländska samhällena råder idag en förhållandevis bred kon-
sensus rörande de grundläggande målen för välfärdsstaten. Dessa mål
motsvarar en uppfattning de flesta har, nämligen att livets ibland hårda
villkor inte skall falla alltför tungt på vissa, och att det är samhällets sky-
lighet att ombesörja ett skydd för de mindre lyckligt lottade. Det står dock

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klart att det under de senaste decennierna, och inte minst under den senaste krisen, har blivit allt svårare att finansiera välfärdsstatens åtaganden. Detta har lett till att välfärdsstatens utformning och funktion har ifrågasatts. Inte minst gäller detta det huvudsakliga instrumentet för implementeringen av välfärdsstaten, nämligen lagstiftning.


Syftet med den här undersökningen är att klargöra och utvärdera Hayeks kritik av lagstiftning. Denna uppgift involverar en rad olika discipliner varur Hayek hämtar argument till stöd för sin kritik, såväl som arbeten av samtida samhällsvetare som statsvetaren Elinor Ostrom, den experimentellt inriktade nationalekonomen Vernon Smith, ekonomihistorikern Avner Greif och matematikern/samhällsvetaren Joshua Epstein.


Det första steget i att klargöra Hayeks kritik är att förklara förhållandet mellan denna kritik och hans välkända kritik av möjligheterna till samhällelig planering. Under senare delen av sin vetenskapliga gärning omarbetade Hayek sin samhällsteori utifrån rätten och regler. Till den del

![Diagram](image.png)

Som vi ser är Hayeks kritik av lagstiftning relaterad till, men distinkt från hans generella kritik av möjligheterna till samhällelig planering. Vidare att hans teori om evolutionärt utvecklade regler är kopplad till kritiken av lagstiftning, medan hans rättsteori inte är det.

sådan förståelse av begreppet välfärd, men det är så Hayek användet välfärdsbegreppet i sin kritik. Det är vidare så att i den utsträckning jag diskuterar begreppet rationalitet i förhållande till Hayeks kritik, så gör jag det utifrån uppfattningen att det är fråga om så kallad instrumentell rationalitet. Mer precis innebär detta att Hayek menar att lagstiften inte kan ha den nödvändig kunskapen för att avgöra vilken specifik lagstiftningsakt som är det mest effektiva medlet för att nå det uppställda målet. Det står också klart att Hayeks lagstiftningsgrundsats endast omfattar komplexa sociala ordningar och alltså inte icke-komplexa sociala ordningar som t.ex. en myndighet, eller en bostadsrättsförening. Vidare begränsas lagstiftningsgrundsatsen av att den endast gäller lagstiftning som syftar till vad Hayek kallar ”specifika aggregerade resultat”. Med detta menas t.ex. att lagstiftning som syftar till att upprätta en specifik institution, eller som syftar till att samhället skall ha en specifik egenskap, kommer att sänka välfärdsnivån. Om vi förstår ”specifika aggregerade resultat” i termer av en specifik distribution av nytta mellan olika grupper i ett samhälle så begränsas lagstiftningsgrundsatsens användningsområde på så sätt att den inte träffar idén om ett grundläggande socialt skyddsnät, eller idén om formellt lika möjligheter. Det innebär alltså att det enligt Hayeks kritik av lagstiftning är möjligt att lagstifta i enlighet med dessa idéer utan att därmed sänka välfärdsnivån i samhället. Detta är dock inte möjligt vad beträffar idén om substantiellt lika möjligheter (substantive equality of opportunity) eller idén om lika resultat (equality of result); enligt Hayeks kritik kommer lagstiftning som utformas i enlighet med dessa idéer att sänka välfärdsnivån.

För att fortsätta klargörandet av Hayeks kritik av lagstiftning är det förstås viktigt att utreda hur Hayek stödjer sin lagstiftningsgrundsats, d.v.s. vi vill blottlägga den argumentstruktur som stödjer denna. Lagstiftningsgrundsatsen stöds av välfärdspåståendet – att det finns en positiv korrelation mellan kunskapsutnyttjandet i ett samhälle, och dess välfärdsnivå, på så sätt att ett högre kunskapsutnyttjande leder till en högre välfärdsnivå, medan omvänt ett lägre kunskapsutnyttjande leder till en lägre


Den argumentationslinje som baserar sig på välfärdspåståendet och tesen om spridd kunskap går i korthet ut på att lagstiftaren inte kan ha den kunskap som krävs för att avgöra vilken lagstiftningsakt som är det bästa medlet till det uppställda målet. Med utgångspunkt i begreppet instrumentell rationalitet kan lagstiftaren alltså inte lagstifta rationellt om denna lagstiftning avser att nå ett specifikt aggregerat resultat i en komplex
social ordning. Om lagstiftaren trots detta väljer att lagstifta kommer detta, enligt Hayeks analys, att leda till en sänkt välfärdsnivå.

Den andra argumentationslinjen grundar sig på att evolutionärt utvecklade regler är mer gynnsamma för kunskapsanvändande än lagstiftrade regler (tesen om kulturell evolution) och därmed leder till en högre välfärdsnivå än dessa (välfärdspåståendet).

Efter att ha klargjort hur den argumentationsstruktur ser ut som stödjer lagstiftningsgrundsatsen är det viktigt att veta hur Hayek stödjer de olika delarna i denna struktur, d.v.s. hur han stöder välfärdspåståendet, tesen om spridd kunskap respektive tesen om kulturell evolution. Detta har naturligtvis att göra med hur vi ska utvärdera Hayeks kritik, d.v.s. om den är sann eller falsk.

Vad gäller välfärdspåståenden menar jag att den är sann eftersom den bygger på en inom nationalekonomin accepterad utveckling av Adam Smiths idé att välstånd genereras genom arbetsfördelning. Hayek ersätter arbetsfördelning med kunskapsanvändning eftersom han menar att detta är en mer generell aspekt av arbetsfördelning.

Till stöd för tesen om spridd kunskap anför Hayek (i) sin medvetandefilosofi, (ii) sitt arbete som rör idén om komplexitet, (iii) sitt urskiljande av en kunskapskategori som han kallar know-how, samt (iv) sin kritik av jämviktsteorin inom nationalekonomin. Dessa stödjer tesen om spridd kunskap oberoende av varandra, precis som de två argumentationslinjerna är oberoende i sitt stöd för lagstiftningsgrundsatsen. Det innebär alltså att det räcker med att en av dessa stödjer tesen om spridd kunskap för att denna skall vara sann.

Hayeks medvetandefilosofi stödjer tesen om spridd kunskap framförallt genom två idéer; dels idén att kunskap uteslutande består av mentala konstruktioner, och dels idén om kognitiv tillslutning (cognitive closure). Den första av dessa idéer innebär att kunskap om världen utanför vår kognitionsapparat helt undandrar sig den mänskliga fattningsförmågan. Denna idé stödjer tesen om spridd kunskap på det sättet att kunskapen helt enkelt kommer att vara spridd i alla individers medvetande. Eftersom
idén utgör ett så brett påstående med så vittgående konsekvenser avfärder jag dess stöd för tesen om spridd kunskap.


Hayeks arbeten som rör idén om komplexitet stödjer tesen om spridd kunskap genom att komplexa fenomen, som t.ex. samhällen, per definition är sådana att de är komplexa till den grad att kunskapen om dem inte går att samla i en funktion, den är alltså spridd. Jag hävdar att Hayeks arbeten som rör idén om komplexitet framgångsrikt stödjer tesen om spridd kunskap, och jag gör detta eftersom vetenskapen har utvecklats på ett sådant sätt att den stödjer det sätt som Hayek argumenterar för denna tes.

Som vi har sett urskiljer Hayek en kategori av kunskap som han kallar know-how. Denna kategori omfattar kunskap som har med färdigheter att göra, t.ex. hur man cyklar eller hur man spelar fiol. Hayek menar att denna kategori av kunskap är central. Kategorin know-how stödjer tesen om spridd kunskap på det sättet att denna typ av kunskap inte är kommunericbar. Det innebär alltså att denna kunskap förblir förborgad hos innehavaren. Det innebär fortsättningsvis att know-how förblir spridd på individerna i ett samhälle. Jag menar att identifieringen av kunskapskategoriin know-how stödjer tesen om spridd kunskap framgångsrikt dels därför att
know-how stämmer överens med de flestas sunda förnuftserfarenheter, och dels därför att Gilbert Ryle och Michael Polanyis arbeten har gjort denna kunskapskategori accepterad inom vetenskapen.


Trots denna slutsats försöker jag utmana tesen om spridd kunskap genom att undersöka om det finns ansatser till lagstiftningssteknik som kan kringgå denna tes utan att för den skull sänka välfärdsnivån, d.v.s. finns det verktyg för att lagstifta rationellt med avseende på specifika aggregerade resultat i komplexa sociala ordningar utan att besitta den kunskap som tesen om spridd kunskap tycks förutsätta, men som enligt denna tes
är utom räckhåll för lagstiftaren. För detta ändamål undersöker jag bidrag av Elinor Ostrom och Joshua Epstein.

Ostrom uppställer en regeltaxonomi som hon sedan använder för att utveckla regler med hjälp av spelteori. Eftersom Ostrom är en auktoritet inom institutionell forskning är denna ansats väl värd att undersöka. Jag kommer dock fram till att hennes arbete i detta avseende behöver ytterligare utvecklas för att på allvar utmana tesen om spridd kunskap.

Epstein har utvecklat en metod för agentbaserad datorsimulering (computer modelling). Denna metod innebär att man i en datorsimulering låter en mängd agenter samverka enligt bestämda regler. Genom att ändra på dessa regler, eller andra förutsättning för interaktionen mellan agenterna, kan man studera hur utfallen varierar. Även om denna metod tycks ha stora förutsättningar för att bli framgångsrik, menar jag att den i dess nuvarande form inte på allvar hotar tesen om spridd kunskap, d.v.s. den tycks inte kunna utforma rationella regler som syftar till specifika aggregerade resultat i komplexa sociala ordningar i frånvaro av den därför nödvändiga kunskapen.

Efter att ha slagit fast att välfärdsståendet, tesen om spridd kunskap och lagstiftningsgrundsatsen är sanna, samt efter att ha försökt utmana tesen om spridd kunskap genom Ostroms och Epsteins ansatser, går jag över till att extrahera praktiskt relevanta slutsatser utifrån Hayeks ganska abstrakta kritik; lagstiftning är ju till syvende og sidst en i högsta grad praktisk verksamhet. För detta ändamål utgår jag från välfärdsståendet samt Hayeks uppfattning om tvångsmakt. Jag hävdar härvidlag att tvångsmakt ska uppfattas som en pendang till tesen om spridd kunskap. Hitintills har jag diskuterat tesen om spridd kunskap utifrån premissen att människor lyder lagen och att det minskade kunskapsutnyttjandet kommer av defekt lagstiftning. I verkligheten är det dock legal tvångsmakt som hindrar kunskapsutnyttjande eftersom sådan hindrar människor att fullt ut utnyttja sin egen kunskapsbas. Jag utarbetar ett argument på basis av välfärdsståendet och Hayeks uppfattning om tvångsmakt och uppställer sedan på grundval av detta argument följande policyregel för lag-
Sammanfattning på svenska

stiftning: Ett rationellt eftersträvande av mänsklig välfärd kräver att legal tvångsmakt minimeras.

Efter att ha behandlat den ena av de två argumentationslinjer som stödjer lagstiftningsgrundsatsen, konstaterat att den är sann, och därtill – dock utan att lyckas – utmanat tesen om spridd kunskap genom Ostroms och Epstein bidrag, är nu frågan hur den andra argumentationslinjen till stöd för lagstiftningsgrundsatsen klarar en närmare granskning. Eftersom vi har konstaterat att välfärdsståndet är sant, handlar utvärderingen av denna argumentationslinje om att undersöka tesen om kulturell evolution.

Hayek stödjer generellt tesen om kulturell evolution med ett så kallat many-minds argument. Huvudidén vad gäller denna typ av argument är att flera individer lämnar ett större bidrag till en verksamhet än färre eftersom den samlade kunskapen och förmågan hos dessa individers medvetande helt enkelt är större än den samlade kunskapen och förmågan hos färre individers medvetande. Vad gäller utvecklingen av regler tänker sig Hayek, i enlighet med many minds-tanken, att i en evolutionär process kommer kunskapen och erfarenheterna från fler individer att bidra till utvecklingen av en regel än i en lagstiftningsprocess; därför kommer också evolutionärt utvecklade regler att vara bättre anpassade till den fysiska och sociala verkligheten. Kort och gott menar Hayek att de evolutionärt utvecklade reglerna innehåller ”bättre” kunskap än lagstiftade regler. Detta argument är självständigt.

Dock kan vi notera att Hayeks argument bygger på idén att regler kan innehålla, eller bära kunskap, som kan användas eller omsättas då någon agerar i enlighet med en regel. Denna idé står dock dock i strid med den traditionella uppfattningen om kunskap, nämligen att kunskap är något som en enskild människa, eller möjligtvis ett djur, innehar. Under det att idén att regler kan ”bära” kunskap alltså står i strid med en traditionell uppfattning om vad kunskap är, tycks den dock vara accepterad inom stora delar av den samtida samhällsvetenskapen som sysselsätter sig just med regler. Längre fram i sammanfattningen kommer jag att återkomma till denna idé.
Utöver det självständiga many minds-argumentet, anför Hayek ytterligare två argument till stöd för tesen om kulturell evolution. Enligt det första av dessa argument är det så att evolutionära regler, förutom att de är baserade på ”bättre” kunskap, är mer gynnsamma för individens användning av sin egen kunskapsbank. Detta argument sammanhänger med att de evolutionärt utvecklade reglerna ju inte i sista hand upprätthålls genom tvångsmakt. I den mån tvångsmakt dikterar hur en individ agerar kan denne hindras i användningen av sin egen kunskapsbas som kanske hade gett vid handen ett annat agerande än de som den lagstiftade regeln förelägger. Vi kan notera att vi kan tänka oss detta argument både som fristående från many minds-argumentet och som beroende av detta, d.v.s. man kan antingen tänka sig argumentet enbart i termerna av frånvaron av tvångsmakt, eller på så sätt att frånvaron av tvångsmakt är ett resultat av den evolutionära reglerna.

Det sista argumentet som Hayek anför till stöd för tesen om kulturell evolution är att evolutionärt utvecklade regler är mer gynnsamma för individens användande av ”andras” kunskap. Bakom detta argument ligger dels tanken att regler kan bära eller innehålla kunskap, och dels tanken att genom den evolutionära many minds-processen läggs andras kunskap ned i reglerna och blir på så sätt tillgängliga för dem som följer dessa. I samband med detta argument kan vi notera att det inte är självständigt, utan tvärtom är beroende av many minds-argumentet, eftersom det är p.g.a. detta argument som ”andras” kunskap nedläggs i de evolutionära reglerna.

Sammanfattningsvis bedömer jag dessa argument till stöd för tesen om kulturell evolution som framgångsrika, särskilt huvudargumentet i termer av many minds. Däremot spelar detta mindre roll i ljuset av de empiriska undersökningar som Elinor Ostrom har genomfört och som motbevisar den argumentationslinje som bygger på välfärdspåståendet och tesen om kulturell evolution.

Elinor Ostrom vann först större uppmärksamhet genom visa att det finns faktiska exempel på rationell självreglering av gemensamma nyttig-
Kort sagt verkar det som om hon visar att dessa möjligheter är större än Hayek tror, men mindre än vad många andra tror. Så även om hon vederlägger Hayeks argumentationslinje, så stödjer hon Hayeks position att möjligheten av rationell lagstiftning är illusorisk. Dock har hon ett konstruktivt förhållningssätt till dessa frågor, och som vi har sett engagerar hon sig med full kraft i frågan om hur vi kan åstadkomma regler som är så bra som möjligt, givet att dessa trots allt inte kan vara rationella.


Greif utvecklar en tankeväckande analogi mellan å ena sidan fullt informerade, rationella handlingar i spelteori, och å andra sidan bundet rationella, regelstyrda handlingar i verkligheten. Enligt Greif har regler samma funktion i verkligheten som antagandena om rationalitet och full information i spelteori, d.v.s. i verkligheten är det regelföljande som ger förutsättningarna för individuell och aggregerad rationalitet. I spelteori är det antagandena om agenternas fulla information och rationalitet som gör att de spelar med jämvikt, eller rationalitet, som resultat. I verkligheten handlar bundet rationella, inte fullt informerade individer utifrån regler och uppnår ofta samma resultat som i spelteori: ett aggregerat jämviktsresultat. Kontentan av Greifs analogi är att förekomsten av regler får individer att handla på ett sådant sätt att de bidrar till samhällsnyttan,
men även att regler bidrar till att individer uppnår sina personliga målsättningar.

I Smiths experiment har man sett att undermåligt informerade och bundet rationella individer ändå fattar beslut som tycks vara rationella, både från ett individuellt och från ett aggregerat perspektiv. För det första visar Smith att individuell rationalitet inte tycks vara nödvändig för aggregerad rationalitet; den aggregerade rationaliteten är alltså inte ett kumulativt resultat av den individuella rationaliteten. Frågan uppkommer då hur individer som inte tycks ha tillräcklig information, och som inte tycks handla på rationella grunder, ändå lyckas agera på ett sådant sätt att de individuella utfallen såväl som de aggregerade utfallen ligger nära de förutsägelser som man kan göra utifrån en beräkning av optimala utfall. Smiths svar är att regler tycks ha en viktig funktion i detta sammanhang – hans experiment stödjer alltså Hayeks idé.


Slutligen hävdar jag, i motsats till vad Hayek själv hävdar, att hans kritik av lagstiftning i grunden är utilitaristisk i den meningen att den är inriktad på frågan om konsekvenserna av lagstiftning för aggregerad välfärd. Man måste dock ställa sig frågan om inte hans kritik av lagstiftning, och närmare bestämt tesen om spridd kunskap, underminerar möjligheterna för den utilitaristiska kalkylen eftersom den tycks undandra den
därför nödvändiga kunskapen. Men om detta är sant, vilket Hayek också hävdar, så måste vi ju också ställa oss frågan om inte hans kritik av utilitarismen i sin tur underminerar den utilitaristiska grunden för hans kritik av lagstiftning. Det är en allvarlig invändning mot hans kritik om så är fallet. Hayek anför en mindre krävande variant av utilitarismen, enligt vilken ingen kalkyl behövs, för att undkomma denna invändning. Jag menar att han inte är framgångsrik i detta, eftersom även hans mindre krävande variant av utilitarismen ytterst tycks kräva en kalkyl av något slag. Däremot menar jag att distinktionen mellan utilitarismen uppfattad som en deliberationsmetod, och utilitarismen uppfattad som ett korrektstålskriterium, möjligtvis räddar hans mindre krävande variant av utilitarismen från denna invändning på så sätt att utilitarismen uppfattad som ett korrektstålskriterium kan fungera trots att kunskapen är spridd. Tanken är här att den som (eventuellt i efterhand) har att bedöma huruvida en viss handling är (eller var) nytomaximerande och därför är (eller var) den rätta handlingen i situationen har större möjligheter att göra denna bedömning än den som i en viss situation står i begrepp att handla. Men oavsett hur det är med frågan om Hayek har rätt i sin kritik av utilitarismen, så hävdar jag att han själv tycks befinna sig inom ramen för den utilitaristiska traditionen i nationalekonomi, och att detta har påverkat utformningen av hans kritik av lagstiftning; både vad gäller de frågor han ställer, och det sätt varpå han försöker besvara dem.
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