

Economic Studies 165

Mattias Öhman

Essays on Cognitive Development and Medical Care

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and Medical Care



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ECONOMICS AT UPPSALA UNIVERSITY

The Department of Economics at Uppsala University has a long history. The first chair in Economics in the Nordic countries was instituted at Uppsala University in 1741.

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-

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Abstract

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This thesis consists of four self-contained papers.

Essay I (with Linuz Aggeborn): Fluoridation of the drinking water is a public policy whose aim is to improve dental health. Although the evidence is clear that fluoride is good for dental health, concerns have been raised regarding potential negative effects on cognitive development. We study the effects of fluoride exposure through the drinking water in early life on cognitive and non-cognitive ability, education and labor market outcomes in a large-scale setting. We use a rich Swedish register dataset for the cohorts born 1985-1992, together with drinking water fluoride data. To estimate the effects, we exploit intra-municipality variation of fluoride, stemming from an exogenous variation in the bedrock. First, we investigate and confirm the long-established positive relationship between fluoride and dental health. Second, we find precisely estimated zero-effects on cognitive ability, non-cognitive ability and education for fluoride levels below 1.5 mg/l. Third, we find evidence that fluoride improves later labor market outcomes, which indicates that good dental health is a positive factor on the labor market.

Essay II: I study the associations between cognitive and non-cognitive abilities and mortality using a population-wide dataset of almost 700,000 Swedish men born between 1950 and 1965. The abilities were measured at the Swedish military enlistment at age 18-20. In addition, I investigate if income and education are good proxies for the abilities. The results suggest that both cognitive and non-cognitive abilities are strongly associated with mortality, but that non-cognitive ability is a stronger predictor. The associations are only partly mediated through income and education. For middle and high income earners and individuals with a college education there are no associations with mortality. However, for low income earners and individuals without a college education, both abilities are strongly associated with mortality. The associations are mainly driven by the bottom of the distributions.

Essay III (with Matz Dahlberg, Kevin Mani and Anders Wanhainen): We examine how health information affects individuals' well-being using a regression discontinuity design on data from a screening program for an asymptomatic disease, abdominal aortic aneurysm (AAA). The information provided to the individuals is guided by the measured aorta size and its relation to pre-determined levels. When comparing individuals that receive information that they are healthy with those that receive information that they are in the risk zone for AAA, we find no effects. However, when comparing those that receive information that they have a small AAA, and will be under increased surveillance, with those who receive information that they are in the risk zone, we find a weak positive effect on well-being. This indicates that the positive information about increased surveillance may outweigh the negative information about worse health.

Essay IV: I estimate the effect of SSRI antidepressants on the risk of mortality for myocardial infarction (MI) patients using Propensity Score Matching on individual health variables such as pharmaceutical drug prescription, patient history and severity of the MI. The effect of antidepressants on mortality is a heavily debated topic. MI patients have an elevated risk of developing depression, and antidepressants are among the most common treatments for depression and anxiety. However, there are indications that some classes of antidepressants may have drug-induced cardiovascular effects and could be harmful for individuals with heart problems, but there is a lack of large-scale studies using credible identification strategies. My findings indicate no increased risk of two-year mortality for MI patients using SSRI. The results are stable for several specifications and robustness checks.

Keywords: Fluoride, Cognitive ability, Non-cognitive ability, Income, Education, Employment, Dental health, Mortality, Information, Health, Screening, Abdominal aortic aneurysm, Myocardial infarction, Antidepressants, SSRI, Propensity score matching

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Dedicated to my friends and family

Acknowledgments

I was never supposed to be an economist. When I moved to Umeå to study computer engineering I thought I was going to end up as a programmer. However, I became more and more interested in social science, and decided to drop out and study sociology in Linköping. But I knew that, to become a good social scientist, you must also take at least one undergraduate course in economics. It was during that course I realized that not all economists are evil, and I learnt that economics is a lot more than interest rates and taxes. So, I switched again, and moved to Uppsala to study economics, and later apply to the PhD programme. To my surprise I was accepted.

To be accepted to the PhD programme and to present a thesis is not the same thing, however. I would not be here today if not for my main supervisor Matz Dahlberg, who has been nothing but encouraging during all these years. I have always learnt something new at our meetings and discussions, and always felt more optimistic afterwards, even when I thought that all hope was lost. Thank you!

I am also very grateful to my co-supervisor, Erik Grönqvist, whom I first met writing my bachelor thesis. Erik really thinks like an economist. While I am glad that I still sometimes can find that somewhat puzzling, I also find it highly intellectually stimulating. I have learnt much from Erik's econometric skills and his knowledge about health economics. Thank you!

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Thanks to my licentiate discussant Damon Clark, and to my final discussant Ingeborg Waernbaum. Your comments, questions and suggestions have greatly improved my essays.

When I started the PhD programme I did not know what to expect. It soon became apparent that the first-year courses were nothing like the undergraduate courses. I know that I could not have done it without the amazing PhD cohort of 2011. Anna, my fellow health economist in U-CARE, with whom I have struggled to convince psychologists and system developers that economics is not only about taxes. Eskil, without you I know that our first year would have been much harder. Jenny and Ylva, you actually dared to visit dMz. Johannes, for teaching us all about pensions. Jonas and Sebastian, for showing us that hard work pays off in the end. And last but not least, my

roommate Linuz. Without you this thesis would look a lot different – not only because you are one of my co-authors, but also because we have shared more laughs and “duh” than it is possible to remember. I think it is safe to say that we have the best decorated office in Ekonomikum. Thank you all, it would not have been the same without you!

It is not only my own PhD cohort who makes the department running smoothly. Thanks to the administration, Katarina, Stina, Ann-Sofie and Åke, for helping us with traveling expenses, computers and whatnot. All colleagues at the Department of Economics have also contributed to this experience. Thank you, Jon, Sebastian E, Linna, Jacob, Fredrik, Kristin, Lovisa, Gunnar, Dagmar, Georg, Maria, Adrian, Daniel, and everyone else for all lunches, fika, conferences and discussions. A special thanks must go to Gabriella and Evelina for their excellent choice of field, health economics.

I must also thank Per Engström, for letting me, Linuz and Ylva to hold a guest lecture on the philosophy of science, the history of economics, and modern research in economics for the undergraduate students once each semester. It has been both fun and inspiring, and I hope that it can continue.

Not everything that matters is about economics. Fortunately, I have many friends who reminds me of that by being completely uninterested when I talk about some identification issue for the fiftieth time. You are too many to mention here, so instead of thanking each and everyone of you, I dedicate this thesis to you. Perhaps I will now talk about something else. But do not count on it. I must, however, give a special thanks to Linn, who has heard about my troubles more times than anyone should have to endure.

I am very grateful to my family for all the love and support. You have always been supportive with whatever I wanted to do, regardless of it being playing video games, learn computer programming or do a PhD in economics. You have always been there for me.

One of my lecturers in Linköping, Jan Lindvall, once convinced me to keep studying economics by saying that I think more like an economist than a sociologist. It feels strange to contemplate how different my life would have been without those words.

Uppsala, October 2016
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Contents

Introduction	1
1 A (very) brief history of economics	1
2 Economics and health	4
2.1 Relationship to epidemiology	5
3 The chapters	6
4 Concluding thoughts	8
References	10
I The Effects of Fluoride in the Drinking Water	13
1 Introduction	14
2 Earlier literature	16
3 Medical background	18
4 Conceptual framework	19
5 Exogenous variation in fluoride: Geological background	21
6 Data	23
6.1 Fluoride data	25
6.2 Individual level data	26
7 Empirical strategy	28
7.1 Threats to identification	28
7.2 Econometric set-up	30
7.3 Descriptive statistics	32
8 Results	34
8.1 Effects of fluoride on dental health	35
8.2 Main results	37
8.3 Additional outcomes: Health status	44
8.4 Non-linear effects	45
8.5 Comparison with earlier studies	48
9 Robustness analysis	49
10 Conclusions	51
References	53
Appendix	60
A Exogenous variation in fluoride: Geological background	60
B Data: Individual level	61
C Data: SAMS and cohort level	62
D Empirical framework: Balance tests	62
E Results: Effects of fluoride on dental health	70

F	Results: Non-linear effects. Dental health	74
G	Results: Non-linear effects. Additional health outcomes	75
H	Results: Non-linear effects, regression tables. Main outcomes	75
I	Robustness analysis: Analysis with adoptees only	76
J	Robustness analysis: Distance of SAMS	78
K	Robustness analysis: Area of SAMS	78
L	Robustness analysis: Confirmed water source	79
M	Robustness analysis: Only those born in 1985	80
N	Robustness analysis: Confirmed water source and only one water plant within SAMS, non-movers	80
O	Robustness analysis: Alternative income measure	82
P	Robustness analysis: Analysis with sibling fixed effects	82
Q	ATC-codes and diagnostic codes	83
II	Be Smart, Live Long: The Relationships between Cognitive and Non-Cognitive Abilities and Mortality	85
1	Introduction	86
2	Theoretical framework	89
3	Data	91
3.1	Enlistment data	92
3.2	Descriptive statistics	94
3.3	Study limitations	96
4	Results	96
4.1	Graphical analysis	97
4.2	Regression analysis	101
5	Discussion	102
6	Conclusions	103
	References	104
	Appendix	110
A	OLS results	110
B	Additional figures	110
C	Number of observations	112
III	Health Information and Well-Being: Evidence from an Asymptomatic Disease	115
1	Introduction	116
2	Background	118
2.1	AAA	118
2.2	Screening for AAA in Sweden	118
2.3	The information provided within the screening program	119

3	Theoretical framework	121
4	Data	121
5	Empirical strategy	125
6	Baseline results	129
	6.1 Graphical analyses	129
	6.2 Baseline estimations	132
7	Sensitivity analyses	133
	7.1 Estimations with covariates as outcomes	134
	7.2 Donut estimations	135
8	Discussion	136
9	Conclusions	137
	References	139
	Appendix	143
	A Other outcomes	143
	B Additional sensitivity analyses	143
IV	Myocardial Infarction, Antidepressants and Mortality	147
1	Introduction	148
2	Medical background	149
3	Data	150
4	Empirical strategy	152
5	Descriptive statistics	155
6	Results	158
7	Discussion	158
8	Conclusions	160
	References	161
	Appendix	165
	A Variable selection	165
	B Additional results	167
	C Propensity score and trimming	174
	D Diagnostics	176

Introduction

The aim of this study is to construct a model of the demand for the commodity “good health”.

— Grossman (1972)

This thesis consists of four self-contained chapters, all of which are related to empirical health economics. Some readers might be quite surprised to hear that an evaluation of the effects on well-being of a screening for the disease abdominal aortic aneurysm can be considered economics. In this introduction, I hope to be able to explain how and why. I will briefly discuss the history of economics, how economists think about health, and how health economics is related to epidemiology. The introduction also includes an overview of the four chapters. I conclude with some final thoughts about economics as a discipline.

First, what is economics? For people outside the profession, the answer to that question might feel obvious. Economics is about taxes, economic growth, interest rates, unemployment, and so forth. However, for economists, the question has become increasingly harder to answer due to the developments within the field during the recent decades. Jacob Viner (1892-1970) is famously credited with the quote “*Economics is what economists do*” (Backhouse and Medema 2009). And perhaps, if one were to describe economics today and how it has changed since Adam Smith (1723-1790) published *An Inquiry into the Nature and Causes of the Wealth of Nations* in 1776, that may be the best definition one could come up with. In the two following sections I will discuss the history of economics and health economics.

1 A (very) brief history of economics

Adam Smith is often seen as the father of economics as a discipline with the aforementioned book *The Wealth of Nations*. Economic thought, however, is much older. One of the earliest works on “economics” is the Socratic dialogue *Oeconomicus* by the Greek philosopher Xenophon (431-404 BC), in which he discusses household management and agriculture. In his work *Cyropaedia*, Xenophon discusses the division of labor and the importance of market size; in small towns, the same individual must do everything by himself, while in larger cities, it is possible with specialization (Sandelin, Trautwein, and Wundrak 2008).

Much of the early economic thought was normative. The scholastic school, which flourished in Europe around the 11th century, for example, was interested in the “just price” and condemned the practice of charging interest. The focus changed somewhat with the mercantilists, which dominated the economic thought in Europe during the 15th to the 18th century. For the mercantilists, it was important to maximize the national wealth by accumulating precious metals. One of the ways to do so was to subsidize exports and have high tariffs on imports (Sandelin, Trautwein, and Wundrak 2008). The physiocratic school, which was developed around the 18th century, criticized the mercantilists’ focus on the rulers’ wealth. The physiocrats were perhaps the first school to see labor as the source of value, but according to them, that applied only to agricultural labor. With Adam Smith, all of this changed.

One of the revolutionary thoughts that Adam Smith had was that the welfare of the society can be maximized if individuals’ are allowed to pursue their own interests, through the *Invisible hand* (Evensky 1993).¹ In contrast to the physiocrats, it was not only agricultural labor that created value. Instead of the mercantilists’ focus on collecting gold and silver, individuals had a role to play.

With the turn to neoclassical economic thought, at the end of the 19th century, the individual was suddenly the *only* actor. The society consists of individuals and is a mere aggregate of the behaviors of these agents (Sandelin, Trautwein, and Wundrak 2008).² The neoclassical economists were pure “microeconomists”, as compared with the earlier “macroeconomic” focus. Joseph Schumpeter (1883-1950), invented the term *methodological individualism* to describe this methodological view (Hodgson 2007). Further, individuals were assumed to be *rational* in the sense that they act to maximize their own utility or happiness. The break from the classical economics, developed by Smith, to the neoclassical economic theory is often called *the marginal revolution*. Marginalism allowed economic analysis, among other things, to be based on more sophisticated mathematical ground.

During the 20th century, much of the economic theory has been founded on neoclassical thought, with its marginalistic approach and rational utility maximizing individuals. The analysis became even more mathematical. This has sometimes been criticized, but has also allowed formulation of clear hypotheses which can be empirically tested.

Around 1960, economists began to study topics traditionally belonging to sociology using economic theory. Gary Becker (1930-2014) was one of the first to do so. Becker and Jacob Mincer (1922-2006) studied what they called “human capital”, a term to describe an individuals’ knowledge, skills, and

¹As discussed in Evensky (1993), Smith did not believe that this would happen automatically. The success of creating a liberal society depended on the individuals’ adherence to a common social ethics.

²This is not to say that the state does not exist, or that it could not have some role to play, but that the analysis must start with individuals.

health as a kind of capital.³ According to the theory of human capital, individuals invest in, for example, education, to receive higher wages. If it would not be profitable in a life-cycle perspective, individuals would not invest. Becker applied this thinking not only to education, but to questions such as crime and drug addiction. Using the theory of human capital, economists began to invade other fields. Since the Chicago economist Edward P. Lazear⁴ (1948-) invented the term it has become common to call this *economic imperialism* (Lazear 2000).

Simultaneously with the evolution of economics, statistical tools to test economic theories against empirical data were developed. A new field called econometrics, closely related to both economics and statistics, emerged (Boumans and Davis 2010). While the goal in statistics typically is prediction, econometricians test causal claims.⁵ For example, fundamental in economic theory is the well-known laws of supply and demand, but it is a non-trivial task to estimate these functions. This is because they generally depend on common variables. In econometrics, this is the so-called *identification problem*. The same problem arises every time individuals can choose what to do (self-selection). Econometricians began to develop methods that allowed causal inference to address this problem. This development of the econometric thinking is sometimes called the “credibility revolution”.⁶

My view of this development is that since economists assume that agents are rational and utility maximizing, the focus on the problem of self-selection – which is one of the biggest threat to any causal claim – comes naturally. When an economist want to understand the effects of, for example, a health insurance program, the first question that arises is not what is done in the program, but why an individual takes part of that program. The methodological individualism and rational choice view begs the question of *why* this is “utility maximizing” for the individual. This is not to say that we are free to choose our destiny (on the contrary, budget restrictions – not only monetary – are an important part of economic theory), but it raises legitimate questions on the possibility of heterogeneous effects, self-selection and moral hazard. The later occurs when an individual takes more risk because the cost is taken by someone else, such as in an insurance program.

³Even though Becker and Mincer may have been the most successful popularizers of the term, I have found that it has been used since 1916, at least, but with a different meaning (Boag 1916).

⁴Now at Stanford Graduate School of Business.

⁵This is perhaps to give the statistics literature to little credit. In fact, it was statisticians that analyzed randomized experiments and formulated the now dominant view in econometrics, the potential outcomes framework (Imbens and Wooldridge 2009). There are also many statisticians today that are interested in causality, such as Donald B. Rubin, Paul R. Rosenbaum and Tyler VanderWeele. However, while causality is the focus for *some* statisticians, it is the focus for *all* econometricians.

⁶The term “credibility revolution” is used by Angrist and Pischke (2010) in a comment to the critique by Leamer (1983) against the empirical work of that time. They argue that the methods of causal inference today are so developed that the “con” is taken out.

As the economic imperialism met the credibility revolution, we had economists who were not afraid of stepping into other fields, equipped with a toolbox of well-developed econometric methods. These economists claimed to be able to give causal answers to questions that they argued that others had not been able to give. Today, much of the empirical economics published explicitly or implicitly builds on the potential outcomes framework and the experimentalist approach (Angrist and Pischke 2009).

2 Economics and health

Since health is such an important part of the human capital, economists need to understand how an individuals' demand for health looks like, and how the health care market functions.

Health care is an interesting market for economists in itself.⁷ There is a large literature on cost-benefit analysis, aimed at evaluating the best choice of medical treatments when there are at least two options to choose from and no strictly preferred option. However, a seminal article by Grossman (1972) had a different focus. Grossman claimed that "health" was an investment, in principle not different from other goods, and developed a model for the demand of health capital.⁸ Health depreciates over time, so to stay healthy, an individual must keep investing in health. The efficiency of the production of health depends on variables that modify the price of health capital. For example, investments are more effective for highly educated people. The so-called Grossman model is still today the workhorse model for health economists.

Health investment models and empirical findings indicating that early life health is important for later labor market outcomes, have drawn economists' attention to "fundamental" factors such as cognitive and non-cognitive skill. Cognitive skill is what we usually call IQ, or intelligence, while non-cognitive skill refers to personality and emotional traits (Cunha, Heckman, and Schennach 2010).⁹ The first two chapters in this thesis focus on these skills, either as outcomes or as explanatory variables, which explains the first part of the thesis title. There is a large and growing literature in economics studying these skills. One of the main findings is that non-cognitive skill is, at least, as important as cognitive skill. Both skills have been shown to be important predictors of future outcomes (see references in related chapters).

⁷See for example Arrow (1963), in which Kenneth Arrow (1921-) studied the role of asymmetric information in medical care, which has been cited over 7,000 times!

⁸As should be clear from the earlier discussion, Michael Grossman (1942-) was not the first to see health as human capital, see for example Mushkin (1962). He was, however, the first to construct an investment model of health.

⁹Non-cognitive skill is sometimes called "socioemotional skills". "Skills" and "abilities" are used interchangeably in the literature, but conceptually, "ability" refers to an innate capacity, while "skill" is something that can be trained.

Sometimes it is not ethically possible to conduct a randomized controlled trial to estimate the effect of a medical treatment. Here, the economists' knowledge of causal inference with observational data comes in handy. To study questions on, for example, well-being, economic theory is not always necessary. In fact, the evaluation instruments used are primarily from psychology and other disciplines. The identification problem is, however, the same. The last two chapters in this thesis concerns medical care, and these two chapters explain the second part of the title. Even if the two chapters do not build on economic theory, the two different methods that I use are common in economics to solve the identification problem.

2.1 Relationship to epidemiology

If economists sometimes leave economic theory and only use the econometric tools to answer questions on health with observational data, what is the difference between health economists and epidemiologists?

In a sense, empirical health economics is relatively close to epidemiology, at least the part of the literature that study mortality and outcomes of that sort. My view is that, indeed, health economists could very well be mistaken for epidemiologists if one only look at the questions studied. However, epidemiologists and economists do not use the same tools, and have different languages.

At the core, there is a fundamental difference; while the economists have an experimentalist approach to questions, epidemiologists are "model builders". My view of the differences is that, in practice, economists search for exogenous variation. If such can be found, he or she carries on and use this variation to answer the question at hand. The mechanisms at work are, somewhat, a black box. Epidemiologists search for credible mechanisms, but are not as concerned as the economist of finding exogenous variation. If there is a plausible mechanism, the epidemiologist tries to answer the question at hand. This is reflected in the Hill's criteria for causation (Hill 1965), published by epidemiologist Bradford Hill (1897–1991).

My understanding of these two different approaches is that they seem to originate from the two different traditions that we come from. Economists are worried about rational utility maximizing individuals who self-selects into treatment – which is why we need exogenous variation so that we can control how individuals choose – while the epidemiologist has a background in medical science, and is more concerned of the mechanisms at hand. The economist often lacks deep knowledge of the variables included in the regressions, but has a good knowledge on how to measure a causal effect. The epidemiologist has the medical knowledge, but in practice often settles with studying associations.

3 The chapters

By now, the reader should have the necessary background to understand how and why the chapters in this thesis are economics. In this section I give a short overview of each chapter.

The Effects of Fluoride in The Drinking Water

The thesis begins with studying a topic that has received a lot of attention in recent years: The effects of fluoride in the drinking water on cognitive ability.

There has been an intense public debate on the effects of fluoride in the water since many countries, such as the United Kingdom and the United States, fluoridate their water. There is an enormous amount of evidence that fluoride improves the dental health, speaking in favor of fluoridation, even if some argue that it is an involuntary treatment of the population.¹⁰ However, a meta-study published in 2012 found that higher fluoride levels in the water is associated with lower cognitive ability, which sparked a new round of debate regarding fluoridation (Choi et al. 2012).

From an economist point of view, the studies reviewed all had very small samples, and lacked credible identification strategies. In this chapter, my co-author and I use the rich population-wide registers in Sweden combined with data on the fluoride levels in the Swedish drinking water to study the effects on health and labor market outcomes. Since many municipalities use more than one water source, the fluoride level differs randomly between relatively small geographical areas. This allows us to interpret our results causally.

We do not find any evidence of negative effects on cognitive or non-cognitive ability for the fluoride levels in the Swedish drinking water. We find *positive* effects on dental health, income and employment. Possibly, the effects on income and employment can be explained by the positive effects on dental health, in line with what has been suggested in earlier literature (Glieb and Neidell 2010).

Be Smart, Live Long: The Relationships between Cognitive and Non-Cognitive Abilities and Mortality

In this chapter, I study the associations between cognitive and non-cognitive abilities and mortality. Economists have become increasingly more interested in early life health capital accumulation, as it has been shown to have large effects later in life, for educational attainment, labor market outcomes, criminal behavior, and so forth (Cunha, Heckman, and Schennach 2010; Lindqvist and Vestman 2011). The motivation behind this study is to see if these abilities are related with a severe outcome such as mortality. I also look at how good income and education capture these underlying skill measures. This is interesting as it is common in economics to use income and education as proxy measures for these skills.

¹⁰This is why fluoridation of the water has not been allowed in Sweden since the 70's.

The Swedish military enlistment (abolished 2009) measured the cognitive and non-cognitive skills of all enlisted. Enlistment was mandatory for all Swedish men at age 18-20.¹¹ Using register data, I have a population-wide dataset of about 700,000 men born between 1950 and 1965. I follow these individuals up till year 2009 and measure all-cause mortality, with and without controlling for income and education.

I find that both skills indeed are strongly associated with mortality. The earlier epidemiological literature has focused only on cognitive ability, and has therefore lacked an important skill dimension. However, the associations for both abilities are heterogeneous. I find no associations with mortality for individuals with college education or for those being at least a middle-income earner. For non-college educated and low-income earners, on the other hand, the associations are strong. The results suggest that income and education are inadequate as proxy measures for individuals in the lower part of the distributions.

Health Information and Well-Being: Evidence from an Asymptomatic Disease

The two earlier chapters revolved around cognitive development. The second part of this thesis turns to the medical care. In this essay, we examine how unexpected information about the health affect the well-being. How individuals react to health information (whether it may be positive or negative) is a highly debated topic, especially regarding screening-programs. Is it worth the cost, considering the potentially negative effects on well-being for individuals who receive information that they have a disease they did not know about before?

We study a specific screening-program for an asymptomatic disease, Abdominal Aortic Aneurysm (AAA), to which all 65-year-old men in Sweden are invited. There is an ongoing debate whether this screening-program should continue or not. The prevalence of the disease is, compared to the number of invited individuals, low, and even for those who have an aneurysm, the probability of dying of other causes is high (Johansson, Hansson, and Brodersen 2015). On the other hand, since AAA is asymptomatic you are not aware of it, and if the aorta ruptures you are likely to die within a few minutes. However, surgery is only conducted on large AAAs. So what are the effects on well-being by being informed of that you are in the risk of having an aneurysm, but that you will not be treated?

Using the regression discontinuity (RD) design, we can estimate the causal effects on well-being of receiving this information. We find only very small and statistically insignificant effects on well-being. For the individuals who have a small aneurysm, we find *positive* effects on well-being. Why? These individuals will be under increased surveillance, and one possible explanation is that this has a calming effect. In a cost-benefit analysis of the screening-

¹¹However, this practice was not enforced the end years of the enlistment.

program, the effects on well-being would therefore rather be on the benefit side than the cost side.

Myocardial Infarction, Antidepressants and Mortality

In the last chapter, I study another highly debated topic, the effects of antidepressants on mortality.

Depression has become a common illness in the western world the last decades. One consequence of this is that antidepressant medications have become among the most commonly used drugs in the world. In Sweden, almost 10 percent of the population use antidepressants. But do they have negative, potentially dangerous, side effects?

Depression is common among individuals who have experienced a myocardial infarction (MI), commonly known as heart attack (National Institutes of Health 2015). The most common treatment today is antidepressants. However, it has been established in the literature that the old tricyclic antidepressants (TCA) have cardiac effects and is contraindicated for MI patients. The newer SSRI antidepressants is considered to be more safe. But even so, some studies find that SSRI antidepressants may increase the risk of mortality (e.g. Tata et al. 2005). Most studies on this subject are either relatively small randomized trials, or large observational studies that only study associations. There is therefore a need for large-scale studies using methods that allow for a causal interpretation.

I use a matching technique.¹² The aim is to find a “statistical twin” for individuals in the treated group (individuals who receive SSRI antidepressants) in the untreated group. If there are no important unobserved characteristics, the difference between the treated and untreated groups can be interpreted as the causal effect of antidepressants on mortality. The Swedish health care quality registers are very rich on health variables, which allow for a credible use of a matching method strategy.

After analyzing several different matching specifications, I find no statistically significant effects on mortality of antidepressants, which suggest that SSRI antidepressants are, in this respect, safe to use for MI patients.

4 Concluding thoughts

Almost two decades ago, Lazear claimed that “[b]y almost any market test, economics is the premier social science” (Lazear 2000). Is he correct?

As a graduate student in economics, I may not be in the position to give an unbiased answer to this question. If we are to trust the revealed preference

¹²The method I use is called Propensity Score Matching. Rosenbaum and Rubin (1983) show that we can reduce the dimensionality problem of many variables down to a one-dimensional problem by using the likelihood of treatment instead of exact matching.

theory, this seems to be a common view amongst economists (Fourcade, Orlion, and Algan 2015). I will conclude this introduction with some thoughts on this question.

As I have shown, economics has evolved quite a bit since the days of Adam Smith. Today, economists do not only study questions related to the national (or individual) economy; economics is a broad social science. It is true that economics and economists receive a lot of attention. Some positive, some negative. In that sense, economics is certainly the winner of the market test. Economic theory and methods are sophisticated tools to study a long range of questions. Empirical economists today are as much econometricians as economists, and we can formalize clear hypotheses and test them using methods that allow causal inference.

However, this does not necessarily mean that the answers from economic theory is always true, or that we blindly should trust our estimates. Deep institutional knowledge of the questions are needed for trustworthy answers. The economic imperialism, promoted by Lazear, cannot be without consideration of what is already known in other fields, and economists should not disregard the theories and methods of other disciplines without careful examination of the evidence. My feeling is that this is not always done.

In my studies, I have benefited – and depended – a lot from researchers in other fields. If not for them, I would not be as confident of the results as I am today.

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