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1. INTRODUCTION

Despite a long tradition and vast literature on regional development (cf. Cooke & Morgan, 1998; Maskell & Malmberg, 1999; Scott, 1988; Storper, 1997), few studies have focused on media as an intermediary dimension important for the construction of regional identity and its role for stimulating regional advantage and development in specific local or regional production systems. In this study events related to the dismantling of two globally connected anchor firms deeply embedded in local milieus with an industrial focus on life science-related industries and how these are portrayed in Swedish media are investigated. The first case covers the events unfolding after the merger of the largest Swedish pharmaceutical corporation Pharmacia and the US company Upjohn in 1995, where the new corporation would enter into longstanding processes of [end p. 742] restructuring and relocation that severely affected the regional presence in the city of Uppsala. The second case covers the close-down in 2010 of AstraZeneca's heavily R&D-intensive operations in Lund, in southern Sweden. In both these cases, an intensified focus on the region and the local embeddedness of the company would be played out in media.

The importance of knowledge transfer and information sharing mediated by various intermediary actors for creating and sustaining regional economic development has not least been recognized as central dimensions within spatially embedded life science production systems (see Howells, 2006; Malecki, 2010; Waxell, 2009), of which both Pharmacia and AstraZeneca for a long time have been (and to some extent still are) vital and integral parts. Less recognized is the intermediary role of news media in these processes. Here the importance of news media is foremost present in the selection process related to 'what' information that is to be shared and 'how' it is presented or portrayed (Edwards, 1999). From a geographic point of view, this would also include questions of 'where' certain events covered are taking place, as well as how they are contextualized. As Eriksson (2008) points out, regional representations in news media may also have real material consequences reflected in, for instance, employment growth, investment opportunities, inward population flows and migration, innovation policies and strategic initiatives, indicating their importance for economic development in the region.

Hence, influenced by a combined understanding related to the notion of regional industrial identity-building (see Paasi, 2002, 2009; Romanelli & Khessina, 2005) and the assertion of recognition, awareness and sense of belonging within the local industrial milieu (as outlined in Waxell & Malmberg, 2007) the above events will serve as examples of how news media act as an important intermediary of narratives portraying the development in specific regions in a positive manner and as recipients or target areas for potential investments – that is, to construct a 'perceived regional advantage' (as understood and mediated by news media) linked to a recovery or rebirth phase of the region. Accordingly, narratives and media representations are analysed (both quantitatively and qualitatively) in terms of how they are framed as a means of strengthening regional industrial identity and self-awareness during different phases of media attention. The following set of research questions is addressed: (a) How is the geography represented and geographic associations highlighted in the news media in times of crisis or economic turbulence? (b) How are the events covered and the narratives framed over a longer period of time, and can particular emerging patterns be identified? (c) How is media

representation and regional identity-building contributing to narratives stimulating the construction of a regional advantage? Do media have an intermediating role, as arena or complementary actor, in these processes?

In order to answer the research questions, this study will draw on the concept of framing and content analysis of Swedish newspaper media before, during and after the years of crisis. The media articles are sourced from a public news service database. A descriptive quantitative analysis of certain words covering the firm identity and geographic information is performed followed by an analysis of negative versus positive framings. The descriptive analyses are complemented by a qualitative analysis of the content in the articles, foremost drawing on headlines or lead-in texts. [end p. 743]

2. THEORETICAL DEPARTURE: REGIONAL INDUSTRIAL IDENTITY AND THE CONSTRUCTION OF A PERCEIVED REGIONAL ADVANTAGE IN NEWS MEDIA

Regional identity has also become a slogan for planning and regional governance and it is often used in a related sense as social capital. Identity is thus understood as a 'soft' tool, one used by authorities worldwide, in the promotion of social cohesion, regional marketing and economic development. (Paasi, 2009, p. 138)

The above quote reflects how the region and regional identity are not only essential for relations in socio-political space, but also as integral for economic development. A focus on the region is not least evident in contributions made in economic geography showing that the world economy is rooted in regional production complexes in which economic actors are economically, socially and culturally embedded in cities and in industrial systems or clusters of related actors (i.e. Hollywood, Silicon Valley, Route 128, etc.). This has also stimulated a heterogeneous economic landscape where no region is like any other, varying in scale, scope and institutional characteristics. The region has in this sense become a source of regional competitive advantage (Asheim, Coenen, Moodysson, & Vang, 2007; Cooke & Leydesdorff, 2006; Porter, 2000; Storper, 1997).

As will be argued in the paper, in regions characterized by concentrations of specific industrial activities (e.g. in local milieus with an industrial focus on life science or IT) this regional competitive advantage will also be influenced and stimulated by news media, acting as an additional intermediary actor (and/or arena) by producing and reproducing information and narratives infused with geographic representations and associations related to a shared idea of the region's industrial identity.

2.1 The regional scale and sociospatial relations

In order to understand regional identity and its influences on industry we must first turn our attention to the region. Hence, in the globalizing economy characterized by intensified trade, labour, capital and knowledge flows the heterogeneous nature of regions and territories have been accentuated during the last decades leading to a surge of regional studies. However, the 'region' or related spatial 'scales' are contested concepts, often critiqued for being too elusive and fluid in its meanings and analytical uses (cf. Brenner & Broekel, 2011; Bristow, 2005; MacLeod & Jones, 2007; Phelps, 2004). Criticizing the one-dimensionality of many approaches investigating relations across spatial scales and units, Jessop, Brenner, and Jones (2008) suggests that sociospatial relations are multidimensional and can be broken down into four key dimensions: that is, territory (e.g. borders, boundaries and enclosures), place (proximity, embeddedness, areal differentiation, etc.), scale (hierarchies and vertical differentiation) and networks (interconnectivity, interdependence, etc.). Thus, social relations display historically specific geographies that in relation to these dimensions vary according to context and history. Hence, while relations between economic actors may extend and cut across several geographic scales (e.g. local, regional, national and global), scale-related units such as the region may also be viewed as 'unbounded' relational spaces (cf. Allen & Cochrane, 2007; Yeung, 2005).

In other words, the region and how it is defined or conceptualized is often related to the essence, meaning and characteristics of a geographical territory (bounded or unbounded) and its social, cultural, economic and/or policy-related relations (see Pike, 2007). [end p. 744] Moreover, this is also connected to how the region and regional identity are institutionalized, and as such manifested in processes of place-making, scaling and territorialization. According to Paasi (2002, p. 805), economic geographers have to understand regions 'as processes that are performed, limited, symbolised and institutionalized through numerous practices and discourses that are not inevitably bound to a specific scale.' The region is thus a nexus of complicated institutional structures, and as such dependent on human agreement and institutions manifested in, for example, media and by various kind of governance. It is furthermore suggested that regions (or their perceived understanding) may be understood through the process of institutionalization realized in four stages (i.e. territorial shaping, symbolic shaping, institutional shaping and establishment) whereby they become a recognizable unit for geographic identification and association or alleged/supposed 'regional identity'. The processes of regional identity-building in turn rest on the idea of a perceived cohesiveness or social integration in the region and shared understanding of it (Paasi, 2009). In these processes some individuals and organizations will put great effort into identifying themselves with the region and its future prospects and thus become important intermediary forces and actors, while others will show a more distantiated position, or even resist such spatialized narratives and practices (Paasi, 2002).

Although often used or understood in a geo-political sense (e.g. in processes of territorial legitimization), regional identity-building can also be understood as an important asset for politicians, planners, entrepreneurs and developers wanting to culturally promote or boost the economy in the region by exploiting or marketing narratives with an explicit link to a certain

geography and its characteristics (see Paasi, 2009). As will be discussed in next section, these characteristics are often associated to the industrial character of the region.

2.2 The local industrial milieu, intermediaries and regional industrial identity

Within the economic geography literature it is widely recognized that knowledge and innovation processes are resting on capabilities and capacities that are spatially embedded and geographically concentrated (foremost locally or regionally) in systems or network relations (cf. Cooke, 1992; Maskell & Malmberg, 1999; Porter, 2000) – be it in urban areas or as concentrations of related industrial activities. Concentrations of industrial activities arise from historical investments and are results of relations between firms, organizations and people located there (or that in other ways are connected to these spaces and places). Development is in other words dependent on the geographical context where decisions are made and uncertainties tackled based on sociospatial relations and collective action in an associational economy (Cooke & Morgan, 1998). Hence, there are several approaches targeting these systems where the industrial relations are at the forefront and where many have come to focus on the regional context or the local milieu they are situated in (e.g. in regional clusters, industrial districts, regional innovation systems, competence blocs etc., cf. Waxell, 2005) and in the following related to as local industrial milieus.¹ These relations have been explained as stimulated by processes of localized learning (Maskell & Malmberg, 1999) facilitated by embedded and placed based assets shaped by historical processes in the region. Accordingly, while Malmberg and Maskell (2002), Gertler (2003) and Storper and Venables (2004) maintain that advantages derived from proximity due to geographical co-location may be stimulated by a number of [end p. 745] physical and structural factors (such as reduced transaction and transportation costs, shared infrastructure and access to local and specialized labour markets), they also stress that proximity has social and cultural institutional dimensions facilitating learning and knowledge spillovers (e.g. by personal interaction, trust relations, short cognitive distances, linguistic commonalities and benchmarking).² Added to this, and according to Paasi (2009, p. 135), the development of such informal and formal institutions are central in the institutional shaping of the region, and may be understood as ‘regional ways of doing things’ or as a number of embedded formal social or political organizations (local authorities, firms, financial institutions, chambers of commerce, educational establishments, etc.) providing an ‘institutional thickness’ (see Amin & Thrift, 1995; Henry & Pinch, 2001) connecting people and networks internally and externally to the region. This has spurred an interest in the ‘regional industrial identity’ embedded in clusters or local industrial milieus (see Romanelli & Khessina, 2005), focusing on their regional and industrial characteristics, their shared understanding and how these identities influence the perceptions of the region and thus may attract investments from internal and external sources.

Following the above argument, marketing and promoting a specific industrial competence in a local milieu, or the geographic association related the region in which it is embedded in, as an attractive base for investments, is thus an essential dimension of creating regional advantage or sustaining regional development. However, in order to make this happen there must exist an idea of a common vision or goal set up by relevant regional actors within the local milieu: that is, a strive to build upon and sell the idea of a shared regional identity, as for instance a thriving or

competitive local industrial milieu within life science, such as in Lund or Uppsala. Thus, as proposed in Waxell and Malmberg (2007) a geographically embedded industrial milieu is composed of spatial concentrations of similar and/or related economic activity not encompassing only core industrial actors (e.g. life science firms), but also private and public research organizations, financing organizations and not least complementary and/or intermediary actors (i.e. specialized service providers, trade and industry associations, marketing organizations and platforms) involved in various kind of knowledge transfer (e.g. gatekeepers, knowledge brokers, knowledge-intensive business services, complementary agents, etc. see Waxell, 2009; or Howells, 2006 and Malecki, 2010 for an extensive overview).³

In other words, a thriving local industrial milieu often harnesses a notion of unity, belonging or cohesiveness rooted in self-awareness or regional identity, manifested in, for example, combined marketing efforts or other joint initiatives (e.g. policy programmes, cluster initiatives and coordinators, regional industry associations, marketing organizations and branding associations, see Waxell & Malmberg, 2007). Added to this, social networks, public interest and not least amount and frequency of journalistic attention help to spread information and bring attention to the region or its industrial activities, both within and outside, that may attract investments, capital, labour and knowledge (Romanelli & Khessina, 2005). It is thus argued that a local industrial milieu is defined by its relations as well as a shared understanding of its industrial character (competences, strengths, etc.). This understanding is not least produced and reproduced in news media, where they as such should be viewed as additional important intermediary actors and arenas. [end p. 746]

2.3 Media and the constructed regional advantage

Accordingly, media representation of regions and the processes related to regional identity-building are powerful tools (cf. Jansson, 2003) that could be used to mobilize and gather local or regional actors to take collective actions for turning around negative developments or to boost or push regional initiatives, to shift into a higher gear or to market the region in order to attract competences or capital (Eriksson, 2008; see also Collins & Grimes, 2011). Hence, the region and its industrial identity may be important for mobilizing economic interests, where the identity is understood as a social code originating from a shared understanding among people residing in or outside the region of how the region should be perceived in order to attract particular kinds of business activities or investments (see Romanelli & Khessina, 2005). The image of a certain place is important for economic development, and accordingly local and regional decisionmakers often employ a number of media strategies in order to improve an unfavourable place or city image, such as engaging spokespersons or public relations advisors as intermediaries to implement positive images and to favour certain stories or to turn a negative image into a more positive (Avraham, 2004). Thus, news media embodies discursive practices that contribute to how we understand and perceive the world, and where representations, often based on spatial characteristics, come to struggle with each other (Eriksson, 2008). In this struggle some representations will be favoured at the expense of others. Hence, media have the potential to influence political agendas and practices by controlling what and how certain events are portrayed. News media and the journalists portraying the events have become political

institutions in themselves, influencing and determining power relations and political agendas (Cook, 1998). Moreover, as Edwards (1999) argues, the public sphere (encompassing the forums and spaces where public matters are freely communicated, such as parts of the media) has taken an intermediary role between scientific expertise and policy-making. In this sense the intermediary role of media could also be interpreted as that of a ‘curator’ (see Balzer, 2014), navigating and linking actors within and across different spaces by promoting, writing up or marketing investment opportunities in the region, and as such be an active part of the process of creating value(s).

As discussed in relation to geographically embedded production systems and local milieus, regional development facilitated by processes of regional industry identity-building is also dependent on less tangible assets (such as related to local knowledge, business climate and the accessibility to and quality of social relations, see Paasi, 2002). Thus, a constructed regional advantage here is something perceived and transmitted through different channels to different audiences, with different purposes (much depending on the transmitter and receiver). In this sense, the ‘perceived constructed regional advantage’ may become a potential marketing tool for various actors. Hence, how the region or its firms are perceived by the surrounding world may have crucial importance for attracting outside investments to the region (see Avraham, 2004; Romanelli & Khessina, 2005). Here media are essential channels for putting the region and its actors on the map (Collins & Grimes, 2011).

In synthesizing the theoretical discussion we end up with a three-step analytical framework (see Figure 1). From a spatial point of view, the analysis will draw on the dimensions of sociospatial relations as discussed by Jessop et al. (2008) and the institutionalization of [end p. 747] the region as portrayed by Paasi (2009), where first the geographical representation is analysed, leaning on the notion of ‘territory’ and ‘place’ or ‘territorial shape’ as something functional, fixed or named and connected to representation, situated narratives and tangible assets (e.g. facts and figures). In the second step focus is directed to regional industrial identity-building, analysing, for example, less tangible assets and how media strategies are applied in order to gather local/regional interests to take collective action. Here ‘scale’, ‘place’ and ‘networks’ are crucial in creating a cohesive understanding of the unit the interests are operating in, which also could be related to ‘symbolic shaping’ as proposed by Paasi. In the third step regional development is discussed in relation to proximity and spatial assets. This is also understood from a ‘network’ dimension where processes of ‘institutional shaping’ are vital elements. Ultimately this would lead to the ‘establishment’ of the industrial region and its constructed regional advantage, as perceived and mediated by news media.

Intermediary actor	Intermediating role	Regional (or other spatial) strategies	Output
News media (as actor/arena)	Geographic representation	Promote geographic and firm/brand associations	Visibility and place/firm/brand recognition
		Create and spread narratives	Negative framing (e.g. crisis, disaster stories) and/or positive framing (e.g. success stories)
		Present tangible assets (e.g. resources as facts and figures)	Indicators and reports (e.g. economic data, employment opportunities, lay-offs, etc.)
	Regional (industrial) identity-building	Initiate processes of self-identification and organisation	Collective action
		Distinguish institutional structures (rules, norms, conventions, trust relations, etc.)	
		Make use of proximity (social, cultural, spatial)	
		Identify and highlight less tangible assets (local knowledge and capabilities, business climate, accessibility and quality of social relations, etc.)	
	Regional development	Invest in shared infrastructure	Perceived constructed regional advantage (i.e. perceived and mediated image of economic development in a specific geographic setting)
		Attract flows of capital, investments and knowledge (e.g. in labour)	
		Facilitate promotion and marketing channels	

Figure 1. Framework for analysing the intermediary role of media in the construction of a perceived regional advantage [on p. 748]

3. METHOD AND MATERIAL

By analysing a large sample of articles in Swedish local, national and daily print media, this study draws on the concepts of framing and content analysis. Framing is generally used in media studies as a conceptual tool for understanding theoretical structures and discourses, but also as a practical tool for identifying, sorting and understanding a range of topics in a [end p. 748] vast sea of media information (see Cawley, 2012). For Entman (1993, 2007) communication of information, in news reports, for example, is about highlighting certain elements of a perceived reality. This framing is thus about selection and salience, a communication of information embedded and manifested in texts that in turn influence thinking and may, as such, be used as a tool of power. In this study and in relation to printed media and how they cover certain events, this is manifested through the use, repetition and placement of particular words or phrases (in, for example, headlines, lead-ins or the text body) which would affect the understanding of the text and the event. Hence, the concept of framing is in this study used to examine printed news media and its subjective (and biased) representations when covering and reporting about news events related to

economic crisis in a geographical context. A frame is understood as a recognizable and repeated pattern of certain text elements such as wordings or phrasings that represent an objective or emotive description of an event. It is assumed that some of these text elements will co-occur and group together forming identifiable patterns across a larger text sample (see for instance Kohring & Matthes, 2002). Here they will serve as a basis of a descriptive quantitative and qualitative content analysis.

The framing and content analysis are based on a substantial number of news articles retrieved from the news media database provided by AffärsData, which contains searchable and downloadable articles from allegedly over 1100 national and international sources.⁴ However, the search within the database primarily generated articles from local and national media, covering both online and printed versions, which together function as the main empirical source in the paper. The sample was gathered by using a word-search within the database for articles containing a set of geographical and firm-specific words during a defined time period covering the years before, during and after the reported events.⁵ In total, the word-search generated 1147 articles of varying length (ranging from brief notices and press releases to longer stories) of which 642 after manual inspection were removed from the population on the basis of their either being too far from the topic or in other ways not relevant for the analysis. The final population comprised a total of 505 articles. These were saved as unformatted text files and recoded into a larger data sheet where each word represented a unique cell in an extensive database. These data were used to analyse the frequency of how often geographical and firm-specific connotations were made explicit, providing a quantitative measure indicating the directionality within the sample.

To further refine the analysis, and drawing on the idea that framing often tends to depict conflict or binary opposites, for example, 'for' and 'against', the articles were moreover coded into 'negative', 'positive' and 'neutral' coverage by analysing the content of the headlines or initial paragraph.⁶ Headlines are often formulated to make the content or message more noticeable, memorable or meaningful for a potential reader or news consumer (see Eriksson, 2008). Initially, both geographic representation and framing (negative and/or positive) were quantitatively measured in terms of frequency. However, quantitative representation, based merely on frequencies, did not provide a satisfactory picture of either the framing or the developments represented. Thus, a qualitative content analysis of the headlines and other text parts was used in order to complement and enrich the analysis, represented as quotes in the paper (translated from Swedish by the author). [end p. 749]

4. ANCHORING THE LIFE SCIENCE FIRM IN A REGIONAL CONTEXT

Since the mid-1990s and onwards, the life science sector in general, and the biotech firm in particular, has been viewed as an important source of scientific advances and product innovation stimulating economic growth. This is also frequently reflected in both national and international media. Although highly globalized, it is also evident that the life science industry predominantly is concentrated in space to local or regional milieus resting upon both industrial and academic excellence (cf. Bagchi-Sen, 2007; Cooke, 2005; Waxell, 2011; Waxell & Malmberg, 2007).

From a historical point of view, the industrial competencies in biotech or other related life science activities in the Swedish city of Uppsala, just 70 kilometres north of Stockholm, has grown out of longstanding relations between Pharmacia and Uppsala University. During the most frantic media hype covering biotech issues in the early 2000s, Uppsala in relative terms (i.e. firms in relation to population) was popularly depicted as one of the most biotech-dense cities in the world, and, alongside Cambridge in the UK, pointed out as a ‘me-too clusterette’ in Europe, following the path of prominent cluster developments in San Francisco (Silicon Valley), Boston (Route 128) and in San Diego (see *The Economist*, 2003). The life science industry in Uppsala in 2009 comprised 85 life science firms employing 4500 persons (Sandström, Dolk, & Dolk, 2011). Many of the firms in the local milieu have a history in Pharmacia (now part of Pfizer); from the start a pharmaceutical firm relocating from Stockholm to Uppsala in the 1950s. As Pharmacia grew during the following decades, it also came to incorporate a number of workplaces and subsidiaries in several locations in Sweden (Dahlgren & Valentin, 2009; Waxell, 2005).

In the southern part of Sweden, the city of Lund is an important node in the so-called Medicon Valley, covering life science firms in the larger Öresund region (crossing national borders and stretching from Southern Sweden to Eastern Denmark). In 2009, the Swedish part of Medicon Valley employed more than 6000 persons in 135 life science firms. The industrial competence is to a large extent specialized in medical technology, while drug discovery and development, pharmaceuticals, bio-production and *in vitro* diagnostics also are vital components of the production system in the region. The region also has longstanding traditions in agricultural and food biotechnology (Sandström et al., 2011). Although the history of Lund as a life science hot bed is also very much connected to the history of the company Astra (today AstraZeneca, 1 of the 10 largest pharmaceutical firms in the world), the company also had strong ties to the sites in Södertälje (where the company was founded and also headquartered for many years) as well as to Mölndal in the Gothenburg region.

5. EMPIRICAL ANALYSIS

In the following sections the empirical findings will be presented and analysed in accordance with the analytical framework as previously accounted for in the theoretical section and summarized in Figure 1.

5.1 Media representation and geographic association

Starting in the late 1980s and through the 1990s, Pharmacia underwent turbulent times due to mergers, acquisitions, divestments, reorganizations and the set-up of several [end p. 750] independent business units (Andersson, 1996; Dahlgren & Valentin, 2009; Waxell, 2005). These strategies continued during the 1990s and in 1993 Pharmacia had become one of the largest pharmaceutical companies in Europe. However, the start of the most profound reorganizations would come with the merger of Pharmacia and the US company Upjohn in 1995.

In terms of media representation and visibility, the interest in reporting about the company rose dramatically in 1995 when the merger between Pharmacia and Upjohn was announced (see Figure 2). The first few years of the merger process did not cause any great media attention. The representation in media the first years focused more on the firm rather than the geography it was situated in. However, as the news articles become more infused with positive and negative reports about the reorganization of the company this image is altered. The media representation was now beginning to use geographic associations to distinguish the Uppsala site from other locations in Sweden where Pharmacia also was located, as for instance in nearby Stockholm, in order to assess possible outcomes and how they would affect people and industry in the region.⁷ Here associations related to the dimensions of ‘territory’ (here linked to national boundaries, regulation and interests) and ‘place’ (i.e. spatial embedding, see Jessop et al., 2008) would develop into an initial phase in the build-up of a regional industrial identity (intentional or not).

At first the merger was not viewed as a major issue in the news, stating that Pharmacia had been in a similar situation before. However, shortly after the merger the negative framing of the events would form a more obvious pattern. Here both ‘place’ and ‘scale’ (e.g. hierarchical differences) become central to the events portrayed in media where investor relations and managerial decisions affect varying operations differently depending on location and place in the organizational hierarchy. With the news in 1996 that Pharmacia would lay off 900 employees in Uppsala and Stockholm, the pessimistic voices grew louder and the negative articles more frequent (see Figure 3).

Figure 2. Geographic representation derived from the search terms “Pharmacia” and “Uppsala” coinciding in printed news media. Source: AffärsData [on p. 751]

Figure 3. Types of news covering Pharmacia in Swedish news media 1994 to 2002. Source: AffärsData.[on p. 752]

With time the future plans of Pharmacia & Upjohn are now depicted as a major problem for Sweden and the region. It was now feared in media that this would amount to a disaster for Uppsala, and industry-wise, an enormous destruction of capital. Moreover, the problems highlighted in the media were to a large extent resting on the idea of different managerial cultures between the two parent companies and as a [end p. 751] power struggle over different locational options. Implementing a new organizational structure proved to be difficult. Pharmacia was now losing valuable market shares, which led to even further restructuring. The organizational structure became more hierarchical according to a more Americanized business model, while management, marketing and R&D were to be concentrated in New Jersey. Meanwhile, the expansion wave continued, and in 2000 Pharmacia & Upjohn merged with Monsanto, retaking the name Pharmacia. Pharmacia was now the eleventh largest pharmaceutical corporation in the world. However, by the end of year 2000 nearly all central managerial positions had moved to the USA. Locally in Uppsala, there was still some mistrust, not least in the media, of the company and its strategies. Thus, in media the differences of the ‘network’ relations (see Jessop et al., 2008) within and between different operations and locations of the company were highlighted and would noticeably come to intersect the fields of ‘territory’, ‘place’ as well as ‘scale’.

As regards the Lund case, the Astra presence in Lund can be traced to the acquisition of Lunds Kemiska Fabriks AB in 1955, which became a subsidiary with the name Draco. In 1999 the parent company Astra merged with the British company Zeneca; a world leader in heart and cardiovascular diseases and oncology. The merger was perceived as successful, and went about without any major obstacles, as opposed to and in comparison with the merger of Pharmacia & Upjohn, which had started four years earlier and where the restructuring was still ongoing. In the coming few years, AstraZeneca would invest in the Swedish R&D operations by, for example, expanding the facilities in Mölndal and building a new biotech laboratory in Södertälje. Overall, the merger made AstraZeneca the third largest pharmaceutical company in the world.

Almost ten years later, in 2008, the press was still optimistic, not least regarding the operations in Lund. A local newspaper stated:

Unlike the crisis in the textile and clothing and shipbuilding industries as in Malmö, Lund's major industries have survived the hardships and continued to grow. Since 1980, the largest [end p. 752] industrial corporations and Ideon Science Park have created 10,000 new jobs in Lund. (Sydsvenskan, 2008)

In media AstraZeneca was viewed as an integral part of the local industrial milieu in Lund, and as the company expanded worldwide, the importance of the regional and Swedish presence was also highlighted, stating that a third of Astra's total R&D operations were concentrated in the Swedish facilities in Södertälje, Mölndal and Lund.

Nevertheless, under the surface AstraZeneca was struggling with a number of difficulties. In 2007 and due to diminishing returns, AstraZeneca was forced to streamline their operations around the world. Three years later, in 2010, it was Sweden's turn. By the end of January the local newspapers picked up on this and feared that an upcoming downsizing would affect Lund very hard.

Only about a month later a press release on 2 March announced the dire news that the research unit in Lund was to be closed down, affecting about 900 researchers. This press release was echoed throughout the country, which also is reflected in Figure 4. The decision to close down the Lund operations was depicted as a 'deathblow' for the region and as a 'shock' for the employees. The unfolding developments were moreover regarded as a major crisis for the greater Medicon Valley region. What was first recognized as a problem on an overall abstract global level was now trickling down to the local site and diffusing throughout the greater region. The decision made on a higher 'scale' thus became interconnected with 'place'; a notion that would come to mobilize several local/regional stakeholders.

Figure 4. Geographic representation derived from the search terms "Astra" and "Lund" coinciding in printed news media. Source: AffärsData [on p. 753]

5.2 Turning it around – phases of media representation and the idea of regional industrial identity

By the end of 1998 the more positive side of the restructurings regarding Pharmacia was also starting to surface in the media (see Figure 3). Following a news piece in *Ny Teknik* (1998) the initial negative stories were now spun into positive narratives: ‘Laid-off researchers in Uppsala turned local developments around.’ This message was repeated in several articles where, for example, Pharmacia is described as a ‘nursery’ or ‘incubator’ for local biotech business and that the relocation processes liberated and made available a [end p. 753] lot of local resources and previously unexploited potential. In these narratives processes of ‘symbolic shaping’ (Paasi, 2009) could now be identified. That is, by an active placing of optimistic narratives, a positive framing of related events would now take root. These frames were built on a collective and shared understanding of the region as connected to its regional industrial identity, here associated with biotech activities. The industrial history was repeatedly narrated and visualized in media stressing the association to ‘place’ and the sociospatial relations of ‘networks’ of actors embedded in the region. In an interview with a number of people in the now perceived expanding and flourishing local industrial milieu based on biotech activities, it is, for example, stated that Pharmacia relocating was the best thing that could have happened to Uppsala. According to the media, the crisis awoke the community who pulled together and started collaborating, pointing to the importance of a shared understanding of the region and its ‘institutional shaping’. The expanding biotech sector in Uppsala was now a hot topic all over the national media.

The growth of the industry was also paralleled by an inflow of capital to the region creating a great number of new employment opportunities. Much of this capital was sourced from venture capital firms and foundations in the greater Stockholm region (Waxell, 2005) as well as from stakeholders outside the nation (cf. Eliasson & Eliasson, 2006). How regional economies are perceived is in other words influencing regional development (see Romanelli & Khessina, 2005). Moreover, attention was to a greater extent directed to the local industrial milieu and firms other than Pharmacia (although many of them were rooted in Pharmacia), pointing to regional spillover effects affecting a growing number of actors in the milieu.

As a part or result of the regional industrial identity-building processes, news media would now (following the perceived progress in Uppsala) also focus on the region per se, a region thriving on its knowledge in biotech and life sciences.

With a solid base in world-leading biomedical research, built on longstanding traditions in science and technology, the Stockholm-Uppsala region is becoming a globally important player in biotech. [...] The region has attracted a respectable amount of venture capital. (DN, 2002)

For AstraZeneca and the Lund case, the events in media would be played out at a much faster pace than in the Pharmacia and Uppsala case. Moreover, in the wake of the bad news some positive voices were also raised early on in the process, comparing the events with the restructuring of Pharmacia & Upjohn in Uppsala as an ‘adrenaline injection’ and as a start of something new, but also that it would require hard work from all parties involved (see Sydsvenskan, 2010a). The closedown did in this sense function as a wake-up call for many

regional policy-makers, where ‘symbolic shaping’ of the industrial roots in the region also strengthened the idea of a shared regional identity, which in turn was used as a means of ‘institutional shaping’ by formal and informal networking:

Innovation and growth issues have not been at the top of the agenda among Scania politicians. At least not until AstraZeneca decided to close down in Lund. Now the politicians are instead fighting about who is doing the most. Today there are 51 organisations aiming to help innovators and entrepreneurs to become more successful. (Sydsvenskan, 2010b) [end p. 754]

In the Lund case it is also more evident that the regional industrial identity-building was more explicit and resting on an already strong regional identity built up over time (also based on a ‘territorial’ discussion related to the history of the region and the proximity to Denmark). The attention in media was to a large extent focusing on the collective action of regional actors and the sourcing of regional capital to alleviate the situation and to make use of the facilities left behind. In early 2011, several newspapers report that a local entrepreneur donated a large amount of capital to a newly set up foundation, the Ideon Life Science Village, procuring the AstraZeneca facilities.

Figure 5. Types of news covering Astra in Swedish news media 2008 to 2012. Source: AffärsData. [on p. 755]

Hence, the geographic representations and associations in media are intensified in both times of ‘crisis’ and ‘triumph’. This enables and motivates actors to engage in processes of ‘symbolic shaping’ stimulating regional identity-building, where these processes in both the Uppsala and Lund cases are related to the industrial character of the region. The examples also show that associating to the geography of the specific places where the events are taking place is an essential part of the narrative process communicated in the media.

5.3 Mediating and constructing a perceived regional advantage?

An important part of constructing a regional advantage is to find, harness and strengthen both potential and existing localized capacities in a region or local milieu that not only stimulates economic development but also sets it apart from other regions or milieus (see Cooke & Leydesdorff, 2006; Maskell & Malmberg, 1999). In relation to media as an intermediary actor and platform, the construction of regional advantage has come to deal with how this advantage is perceived, and following this how it is narrated, transmitted and received.

In the Uppsala case, by and large, the media coverage in the period between 2001 and 2002 is persuasively further directing attention to the positive sides of the restructuring and previous downsizing, stimulating a local entrepreneurial boom in biotech with a clear focus on Uppsala as a flourishing hotbed for life science activities.⁸ However, this view did not go uncontested. Waluszewski (2003), for instance, claims that the attention contributed to a skewed, exaggerated and even mythical image of the effects of the [end p. 755] downsizing. Allegedly, intermediaries such as the local chamber of commerce and STUNS (the Foundation for Collaboration between the Universities in Uppsala, Business and the Public Sector)⁹ had actively worked to better the image and the marketing of Uppsala in media by engaging a number of freelance journalists to write about the Uppsala biotech story (see Waluszewski, 2003). However, in a debate article in the local newspaper the, at the time, interim managing director of STUNS defends the narrative:

It is my opinion that Uppsala in the winter of 1999 needed a good story. In the image that was created, a story was told that was needed to raise our heads up high and fix our gaze forward into the future and seize existing opportunities. (UNT, 2003)

Thus, the more positive events unfolding after the merger between Pharmacia and Upjohn was used as a powerful marketing tool, depicting the region from its good side. This image was grounded in the institutional thickness (see Henry & Pinch, 2001) of the actors in the region, where media provided the channels necessary to promote investment opportunities and attract new capital. Moreover, exaggerated or not, the number firms and employees within the life science sector in the region did for a fact increase during the period (Fridh, 2003; Waxell, 2005).

In the AstraZeneca case, the news media had by the end of 2011 and the first months of 2012 continued to cover the story with a positive angle, depicting the event as a fresh start and that most of the people affected by the lay-offs had gotten new jobs elsewhere and that the new facilities would have great potential to attract new business ventures. However, for AstraZeneca and Lund the creation of regional advantage is not as outspoken and perhaps not as controlled or ‘concerted’ as in the Uppsala case, although showing signs of ‘symbolic’ and ‘institutional shaping’, not least in the set-up of a foundation trying to resuscitate regional assets.

The framing and subsequent content analysis shows that the narratives told, especially when turning around to be more optimistic, are closely linked to the construction of a perceived regional advantage that both influence and are influenced by the inflow of capital, the attraction of new investments and the creation of employment opportunities in the region, which ultimately would lead to regional development. Here the notion of proximity (spatial, social and cultural) is highlighted in media as a condition for collecting actors and identifying strategic interests paving a certain way for development in the region. The geographic associations made in the narratives also show that the construction of regional advantage is related to regional industrial identity-building, and that this is not only affecting actors in the local industrial milieu, but also the local community in a broader sense. This may also ‘establish’ the view of the region as defined by its industrial identity or character and as such legitimize it and its actors as important for the development of the region. Consequently, this may also affect policy strategies and local

government decision of how to use and invest public funds and assets. However, on the downside, this could cause regional and industrial lock-in effects while at the same time other prominent sectors in the region may not get the attention they might deserve.

6. CONCLUDING DISCUSSION

In this study the intermediary role of media is investigated in relation to how the events unfolding after the merger of Pharmacia and Upjohn in 1995 and the close-down of [end p. 756] AstraZeneca's operations in Lund in 2010 are covered in Swedish news media and how this is perceived to affect the region in which these events have been taking place. Departing from an assumption that media is a complementary and intermediary part of a local milieu, it is furthermore suggested that media, and in particular news media, partake in the build-up of a regional industrial identity based on the industrial competencies and characteristics of the region and as such contributes to the creation and diffusion of a perceived regional advantage (i.e. as narrated and presented in various media channels).

Accordingly, the analysis of the Uppsala/Pharmacia and the Lund/Astra cases indicate three major findings and patterns emerging from the empirical material. Firstly, both the quantitative and the qualitative analysis indicate that the attention to geography, in terms of geographic representation and associations (e.g. to the place and place-name), is accentuated and more frequent in times of both 'crisis' and 'accomplishment' than in more non-turbulent times. Thus, news pieces are oftentimes centred around emotive narratives that build on events taking place in a certain geographic context or location where sociospatial relations associated with the local or regional scales are nuanced.

Secondly, the study also shows that media attention follows certain and distinct phases or stages. What initially was framed as negative phase described as a regional crisis was to be followed by an optimistic phase spurred by processes of symbolic and institutional shaping. These phases have clear links to local and regional associations and connotations, where a focus on negative effects and outcomes for concerned parties (e.g. the individual or the firm in the region) first are accentuated and where media (as actors or platforms used by other regional intermediaries) is used to inform and broadcast the problematic circumstances to a wider audience in an attempt to gather and collect regional (and in the best of cases even national or international) resources to remedy the situation. This also encourages processes of regional industrial identity-building where a shared understanding of how to promote the region is envisaged by networks of institutionalized actors. The following phase comprises narratives where the negative focus has been turned around to include a more positive picture, also used to further mobilize regional capabilities and attract investments. Thus, the region and other geographical associations become common denominators and containers for framing for instance stories of rebirth, recovery, rejuvenation and success (and the opposite in times of crisis or turbulence).

Thirdly, the analysis based on the framing and subsequent content analysis shows that the narratives are closely linked to the construction of a perceived regional advantage where news

media participate in shaping and spreading the idea of a region and its actors as competitive, both within the region and outside. Moreover, the analysis also reveals that events covered by news media that are connected to a major regional actor often stress the impact of the events on the local community and its firms and people residing therein, thus implicitly embracing a holistic understanding of the different interconnected dimensions of embedded production systems. Within this process the 'region' is also constantly constructed and (re)defined by actors working toward a common goal sharing a collective understanding (both inclusive and exclusive) of the region and its identity. In the paper it is thus argued that the intermediary role of media is that of a complementary actor and collective agent bringing relevant actors and interests together constructing a real or perceived regional advantage. It is also suggested that news media, as an intermediary, in this sense also may have a curating role in selecting and presenting [end p. 757] information that stimulate regional development (and as such may possess a value-creating function).

However, in order to fully understand and investigate the role of media in a regional context, or as curators, further studies are needed where different empirical material such as news media coverage and economic data on firm and different geographical contexts could be compared side by side.

NOTES

1. However, the cluster and related concepts have also been criticised as being elusive, at times confusing and open to multiple interpretations and understandings (cf. Markusen, 1999; Martin & Sunley, 2003; Malmberg & Power, 2006).
2. These processes do, however, not have to be spatially confined within the region, but can cross several scales and boundaries in, for instance, global knowledge pipelines (see Bathelt et al., 2004).
3. These intermediaries are often exemplified as technology transfer offices, university holding companies, science parks, business incubators, research and business consultants, institutions for collaboration to name a few.
4. See AffärsData, Retrieved March 6, 2014, <http://www.ad.se/info/kallor.php>
5. In the Pharmacia case the search was delimited to 'Pharmacia' and the place-name 'Uppsala' in articles published over a time period stretching from 1994 to 2002. As for the case covering AstraZeneca, articles printed during the period 2008–2012 were used where the search words were limited to 'Astra' and 'Lund'.
6. An example of a positive headline would, for example, read: 'Here 10 000 jobs have been created: Packaging, pharmaceuticals and artificial kidneys are some examples of Lund's successful products', and a negative: 'The deathblow against Lund' (translated by author).
7. Although the search words did not include Stockholm, it was nevertheless also counted as a 'control variable' to compare the occurrence of place names (as Pharmacia also had operations in Stockholm) (see Figure 2).
8. As pointed out by Paasi (2002) and Eriksson (2008) regional identity also involves a struggle between stakeholders and over meaning. In the Uppsala case the dominant view of the industrial identity as connected to biotech activities was not embraced by everyone, especially those working in or promoting the regional IT sector.
9. The Governing Board consists of leading representatives of Uppsala University, the Swedish University of Agricultural Sciences (SLU), Chamber of Commerce Uppsala County, Uppsala County Administrative Board, Uppsala County Council, Uppsala Regional Council and the City of Uppsala.

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