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Article — Published Version
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Review of Regional Research

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Springer Nature

Suggested Citation: Herzog, Anna (2022): Imaginaries, directionalities, agency and new path creation, Review of Regional Research, ISSN 1613-9836, Springer, Berlin, Heidelberg, Vol. 42, Iss. 3, pp. 279-307,

https://doi.org/10.1007/s10037-022-00174-1

This Version is available at: https://hdl.handle.net/10419/308167

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ORIGINAL PAPER

Imaginaries, directionalities, agency and new path creation

The potential renaissance of the textile path in Mönchengladbach

Anna Herzog¹

Accepted: 20 October 2022 / Published online: 23 November 2022 © The Author(s) 2022, corrected publication 2023

Abstract This study focuses on how imaginaries and directionalities, i.e. the interpretation of the urban economic history and the derived fundamental perceptions, conventions, mental representations and identities, influence stakeholder behaviour (agency) with regard to enabling or inhibiting new path creation. Applying concepts of evolutionary economic geography (EEG) and sociology, this paper aims to contribute to the literature on the impact of historical dependences on urban structural change processes. These theoretical reflections are applied to an empirical case study analysing the decline and renaissance of the textile industry in Mönchengladbach, Germany. The qualitative case study is based on a document-based analysis and seven guideline-based interviews with local experts from the textile and clothing industry. It concludes that imaginaries and directionalities can take effect via four mechanisms: communication and cooperation, motivation, training and employment, and research and innovation.

Keywords New path creation · Agency · History · Mönchengladbach · Evolutionary economic geography

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Imaginaries, directionalities, Akteurshandeln und Pfadkreation

Die mögliche Renaissance des Textilpfads in Mönchengladbach

Zusammenfassung Im Mittelpunkt dieser Studie steht die Frage, wie imaginaries und directionalities, d.h. die Interpretation der städtischen Wirtschaftsgeschichte und die daraus abgeleiteten grundlegenden Wahrnehmungen, Konventionen, mentalen Bilder und Identitäten das Akteursverhalten im Hinblick auf die Ermöglichung oder Verhinderung neuer Entwicklungspfade beeinflussen. Über die Anwendung von Konzepten der evolutionären Wirtschaftsgeographie (EWG) und der Soziologie leistet dieser Artikel einen Beitrag zum wissenschaftlichen Diskurs über den Einfluss historischer Abhängigkeiten auf städtische Strukturwandelprozesse. Diese theoretischen Überlegungen werden auf eine empirische Fallstudie angewandt, die den Niedergang und die Renaissance der Textil- und Bekleidungsindustrie in Mönchengladbach, Deutschland analysiert. Die qualitative Fallstudie basiert auf einer dokumentengestützte Analyse und sieben leitfadengestützte Interviews mit lokalen Experten der Textil- und Bekleidungsindustrie. Sie kommt zu dem Ergebnis, dass imaginaries und directionalities über vier Mechanismen wirksam werden können: Kommunikation und Kooperation, Motivation, Ausbildung und Beschäftigung sowie Forschung und Innovation.

1 Introduction

In the context of urban structural change processes, e.g. in former industrial cities, the delicate relationship between historical events, path dependences, lock-ins and new path creation has been the subject of intense research (Boschma and Lambooy 1999; Coenen et al. 2015; Grabher 1994b; Hu and Hassink 2015; Power et al. 2010; Stöhr 1992; Tödtling & Trippl 2004). Recently, an increasing number of publications have been geared towards place-specific historical dependences and the role of initial conditions for developing new paths as a source of urban prosperity (Grillitsch and Sotarauta 2019; Hassink and Kiese 2021; Miörner 2020). In its evolutionary turn since 2006 (Boschma and Frenken 2006; Martin and Sunley 2006), economic geography has also taken up this strain of research, especially in the research area of evolutionary economic geography (EEG). The consensus in this field is that development paths are path-dependent, but can be shaped by agency (Tödtling & Trippl 2013; Garud and Gehman 2012; Grillitsch and Sotarauta 2019). The latter is defined as "the ability of people to act, usually regarded as emerging from consciously held intentions, and as resulting in observable effects in the human world" (Gregory and Jonston 2009, p. 347). To explore the relationship between structure and agency in new path creation, the existing body of research often relates to cities or regions affected by structural change. The extent of the socio-economic upheaval to be found there is particularly suited for investigating this connection (Grillitsch and Sotarauta 2019).

Despite recognition of the significance of agency, one criticism concerns its insufficient consideration in EEG (Dawley 2014). Research related to this criticism has been conducted over the last decade (Steen 2016; Grillitsch and Sotarauta 2019).



Nonetheless, the historically shaped interplay between system-related conditions and agency has not yet been exhaustively studied (Miörner 2020).¹ For instance, Hassink et al. (2019) identify a research gap concerning the role of non-tangible factors, especially shared expectations, visions and conventions, in the development of new industrial paths, in particular questioning their ambivalent effects in terms of promoting rather than hindering new paths. Following these reflections, a basic assumption of this contribution is that the aforementioned non-tangible factors can both promote and inhibit their creation.

Miörner (2020) pursues similar questions. According to his conceptualization, shared expectations, visions and conventions can be bundled under the umbrella terms of local imaginaries and local directionalities. He argues that they are key variables influencing system selectivity. The latter describes "the tendency of the system to selectively reinforce some forms of actions and strategies and dampen others" (ebd.: p. 4). In addition to the previously mentioned research gap, Miörner (2020, p. 3) criticises that "the literature lacks convincing explanations for why and when agency can play a role and it neglects the recursive relationship between structure and agency".

Referring to the described research gaps in EEG, this paper aims to contribute to the literature by answering the following two research questions: First, how do past-related imaginaries and future-oriented directionalities—in particular fundamental perceptions, conventions, mental representations and identities—affect agency and new path creation? Second, how can they be used purposefully to shape place-specific economic development patterns? The assumption is that imaginaries and directionalities can trigger (change) agency. Agency can then lead to the adaptation of urban structures, i.e. system reconfiguration, in turn promoting new path creation.

The research questions are approached by engaging in theoretical considerations and in a further step by means of an empirical case study. The latter serves the purpose of verifying to what extent the theoretical considerations on the meaning of imaginaries and directionalities, their impact on agency and targeted application are applicable and thus speak for their greater consideration in EEG. The qualitative case study investigates the influence of the economic heritage of the local textile and clothing industry of Mönchengladbach, Germany, especially in relation to the structural change processes the city has experienced over the last decades. The elaboration of the case study is based on a document-based analysis to explore the topic and gain a better understanding of the context. Seven guideline-based interviews with relevant local experts helped gain deeper insights.

Overall, this contribution finds that interpretation of urban economic history matters. Such interpretation is reflected in the imaginaries and directionalities driving or inhibiting agency and thus new path creation. The theoretical and empirical analysis of how imaginaries and directionalities take effect indicates four major

¹ While the debate in EEG mainly refers to regional industrial paths, the case study presented is based on the assumption that the core ideas can be transferred to the urban level (Martin and Simmie 2008). Accordingly, MacKinnon et al. (2019, p. 113) refer to "a new wave of research on processes of urban and regional adaptation and change since the mid-2000" in EEG. Insights regarding system reconfigu-ration, system selectivity and the role of agency in regional innovation systems (Miörner 2020) can also be used to better understand industrial development paths at urban level.



mechanisms: communication and cooperation, motivation, training and employment, and research and innovation. Overall, the paper concludes that imaginaries and directionalities should be assigned greater attention in the study of urban structural change processes. The paper also provides some recommendations for local stakeholders regarding the conscious and purposeful handling of imaginaries and directionalities.

The remainder of this paper is structured in five chapters. Chapt. 2 presents the theoretical background for the analysis, followed by a discussion of the methodology applied (Chapt. 3). The case study analysis in Chapt. 4 illustrates the development of the textile and clothing industry in Mönchengladbach. The empirical findings are further discussed against the background of the theoretical considerations in Chapt. 5. A concluding chapter provides a brief summary, some recommendations and a brief outlook on further research questions.

2 Theoretical background

2.1 Evolutionary economic geography

Within the field of EEG, economic geographers aim at explaining "how regional industrial structures change through path creation, diversification, importation and renewal processes" (ebd.: p. 1). The EEG approach draws on insights from evolutionary economy, innovation economy and classical economic geography (Henning 2019, p. 603). In contrast to other approaches in economic geography, EEG takes a process perspective on regional economic development (Storper 2010) and includes evolutionary concepts (Nelson and Winter 2002). Accordingly, besides a basic analysis of the uneven distribution of economic activities in space, EEG focuses on historical aspects causing this distribution. In this sense, time and space are intrinsically connected in this approach (Frenken and Boschma 2007). As Dosi (1997, p. 1531) puts it: "the explanation to why something exists intimately rests on how it became what it is". As indicated by this quote, a core concept within EEG is path dependence. In this context, path dependence means "that the development trajectories of technologies, firms, industries, places and regions are conditioned (primarily in a constraining sense) by the historical processes that created them" (Steen 2016: 1605). This explanation is closely related to the understanding of system selectivity (Miörner 2020).

In the early days of EEG, Boschma and Frenken (2006) suggested that new industries emerged in so-called windows of locational opportunity. This understanding implies that the whereabouts of new industrial development paths are relatively open as long as a set of generic conditions are fulfilled. The actual creation of a new path is however attributed to historical accidents. Martin and Sunley (2010, p. 20) argue differently by pointing out that

"place-specific factors and conditions (...) are not simply 'accidental' or random but are often the product of and reflect the economic, social, cultural, and



institutional conditions inherited from the previous industrial and technological histories of a locality".

The author shares the resulting assessment that new industrial paths draw on assets of previous or present industrial paths and are thus context-specific. MacKinnon (2012) points out that new paths can also form gradually through incremental changes and adaptation processes. Similarly, Isaksen (2015) highlights that most innovations—the basis of new industrial development paths—are incrementally developed within existing paths supporting continuous renewal and reorientation. Frenken and Boschma (2007) refer to this process as evolutionary branching, where former growth paths provide relevant input for new paths.

Garud and Karnøe (2001) shifted the debate towards agency, arguing that knowledgeable stakeholders and collective agency can change existing routines and trigger new social practices and technologies, thus allowing them to lever system selectivity. Garud and Gehman (2012) highlight that strategic agency—like expectations (van Lente 2012)—is simultaneously oriented towards the past and the future, making context and changes in context decisive.

Highlighting the significance of context, Melosi (2017) discusses the connection between path dependence, urban history and evolutionary economics, pointing out that path dependence theory focused his attention

"on the means by which choices are made by decision makers, the connection of those choices to future options and sequences of events, and to outcomes. (...) Many decisions are made without the ability to predict outcomes or to appreciate potential alternatives. Context is extremely important." (ebd.: p. 171).

Grillitsch and Sotarauta (2019) further note that structural preconditions only partially explain the extent to which regions grow. Highlighting the importance of local agency, they argue that the two theoretical traditions in economic geography—evolutionary and institutional theory—provide little insight into micro-level processes and explanations regarding the emergence of new growth paths. They also have a blind spot concerning "the role of agency and its relation to structure" (ebd.: p. 2).

Further research on path renewal and change in recent years has led to a shift in perspective towards a more holistic path-as-process approach, including forces of both continuity and change (Martin 2010). That said, path creation is not limited to intentional action but "in most instances path creation will inevitably involve a complex admixture of deliberate agency and accidental and unintended emergence" (Martin and Sunley 2010, p. 79). Grillitsch et al. (2021: 306) perceptibly note the importance to distinguish between the impacts of (1) extra-regional changes in the course of time, (2) regional structural preconditions and (3) the (un)intended results of human agency in order to "understand the extent to which, and how regional stakeholders potentially contribute to shaping development trajectories" (ebd.: p. 306). This thinking emphasizes the importance of micro-level stakeholders for understanding path emergence from the bottom up.

The increasing focus on the role of agency in new path creation in EEG has led to the development of several conceptualizations of agency in recent years



(Miörner 2020, p. 2) . Amongst others, Grillitsch and Sotarauta (2019) define three types of change agency: innovative Schumpeterian entrepreneurship, institutional entrepreneurship and place-based leadership. The latter "captures actions that aim at transforming particular places by pooling competencies, powers and resources to benefit both agents' individual objectives and a region more broadly" (ebd.: p. 5). With regard to change agency, another useful concept is dedicated to exploring different promoter types in transformation processes, including professional, power, process and relationship promoters (Kristof 2010).

Altogether, new path creation can best be explained by taking a holistic approach that does justice to the structure-agency dynamics at work, in line with what Miörner (2020, p. 3) calls for: the investigation of "historically developed regional context conditions, and the role they play in shaping the scope and nature of agency". This dynamic perspective is inspired by the structure-agency debate, and especially by the strategic-relational approach formulated by Jessop (2001). He calls for a relational approach "to examine structure in relation to action and action in relation to structure, rather than bracketing one of them" (ebd.: p. 1223). Grillitsch and Sotarauta (2019, p. 10) refer to the connection between agency and structure via time as opportunity space, arguing that "not only history but also perceived futures influence agentic processes in the present and thus shape regional development paths" (ebd.: p. 1). Miörner (2020) takes up this point, arguing that stakeholders' perception and interpretation of structures gives meaning to them and influences stakeholders' perceived opportunity space.

This consideration is also reflected in the so-called Thomas theorem (Merton 1995; Thomas & Thomas 1928). In short, it reads as follows: "if men define situations as real, they are real in their consequences" (Thomas & Thomas 1928: 572). Accordingly, the interpretation of a situation, on the basis of which people act, is decisive, as the consequences of this action are real, regardless of how irrational, subjective or erroneous this interpretation turns out to be.

The significance of how a situation is interpreted is reflected in the behaviour of those concerned (agency). They may accept or reject measures, actively or passively confront structural change, become creative or persist in old patterns. Regarding the interpretation of a situation, the past is the major point of reference. Therefore, path dependences are inherent and reproduced. For instance, the socio-historical or economic imprint continues to have an effect on fundamental perceptions, conventions, mental representations, local identities and expectations regarding the future, thus imaginaries. The result is that this reference to the past unfolds its formative force by influencing—as a mortgage of the past—potential future paths or rather opportunity spaces.

However, the formation of directionalities is also impacted by future references. Referring to findings from the sociology of expectations (van Lente 2012; Borup et al. 2006), Steen (2016: 1607) highlights the temporal aspects of expectations and agency:

"seeing agency as simultaneously past- and future-oriented helps disentangle the micro-level processes underlying innovation and change, which are core to path creation and of relevance to path evolution more generally"



In the author's understanding, expectations are at the interface of the past, present and future. While clearly pointing to future developments, they can be inspired by past circumstances (history) as well as anticipated current and future developments. Steen (2016: 1610) argues that expectations have very tangible effects on decision-making and company strategies. They are thus an important "generative mechanism in contributing to resource mobilization, experimentation, knowledge generation etc. linked to new industrial development paths" (ebd.: p. 1610).

2.2 Local imaginaries, directionalities and narratives

As outlined in the introduction, local imaginaries and directionalities are essential elements of system selectivity (Miörner 2020). The first element, regional imaginaries, comprises the "fundamental perceptions, conventions, mental representations and world views" (ebd.: p. 4). They count not only within regional industrial paths but also at a fundamental system level. Those views or rather labels often describe the most basic and defining feature of a system's economic structure. They include its main industry, and describe local stakeholders' collective "perception of the region in which they are embedded, effectively shaping the point of departure in terms of their expectations about the future" (ebd.: p. 4). In connection with regional imaginaries, Miörner refers to Paasi (1991), the cultural geographer who introduced the concept of "regional identity" in his theory of the institutionalisation of regions (Paasi 1986, 2010). In the present paper, regional identity is conceived as an essential variable of system selectivity and assigned to the umbrella term of imaginaries. As Raagmaa (2002: 55) notes: "regional identity correlates with people's volition in achieving common goals, raises their personal activity and influences due to that regional development". This description perfectly captures the system-configuring features of regional identity or rather imaginaries. With reference to recent research on local identity (Kempa et al. 2020; Kempa & Krätzig 2020; Hilber and Datko 2012), the author presumes that this variable is also applicable to the urban level. Nevertheless, the distinction between local identity and local image seems important. The former is both much more profound and differentiated and strives for authenticity. By contrast, local image describes the figurehead with which a city wants to advertise itself to the outside world (Hilber and Datko 2012).

Local directionalities form the second element influencing system selectivity. In contrast to local imaginaries, directionalities include a normative dimension. In this sense, directionalities are future-oriented and linked to new path creation, and especially "to the renewal of traditional industries based on sustainable innovations" (Miörner 2020, p. 5). A term used synonymously in this article is vision. However, it is impossible to draw a clear distinction between imaginaries and directionalities, as the latter are similarly fed by what happened in the past (see also van Lente 2012). Furthermore, directionalities are discussed in connection with the public institutions often responsible for their elaboration and dissemination (Miörner 2020, p. 5). With regard to a city, van Boom and Mommaas (2009: 49) describe the balancing act required of a vision as a "desire to give the city both a focus and the quality of an open evolutionary system geared to permanent change".



Both elements—imaginaries and directionalities—are nurtured by and come to life through narratives. Recent publications, such as those of Roos and Reccius (2021) and Shiller (2020), indicate that it might be worth paying greater attention to the link between narratives and economic development. In political science, narratives are understood as meaningful stories that influence the way a situation is perceived and interpreted (Turowski & Mikfeld 2013). Narratives also convey emotions and values and can provide a means of social orientation. Furthermore, they form an important bridge between the communications of political and other elites and the everyday understanding of the general population (ebd.: p. 13–14). Referring to the latter aspect, narratives can help keep stakeholder groups together and form local identities. In this spirit, the author assumes that narratives can support the creation and continuance of alliances and cooperation projects.

Narratives also play an important role in the fields of urban development and planning. As part of scripts, they inject convincing stories into a world of sober planning that cannot do without a confidence-building vision (Buchenau and Gurr 2021). In line with this assessment, amongst others the following two success indicators for transformative narratives were identified: First, connectivity, an indicator relating to common ideas, concepts, categorizations and culturally shaped attitudes of dominant discourses and target groups. Second, historical embeddedness, an indicator referring to phrases, expressions and words showing the connection to historical events and situational circumstances (Espinosa et al. 2017: 29, 31).

In a case study comparing twelve European textile cities, van Boom and Mommaas (2009) investigate how development strategies are rooted in the local history of a city and what factors for success and failure can be determined. One of the five success factors for comeback strategies refers to the "role of leading urban attractors and the associated urban narrative" (ebd.: p. 53–54):

"[Cities] profile themselves with distinctive narratives. (...) ideally the narrative gives direction to development opportunities, seeking parties in the city and contributing to their joint mobilization. Solid narratives are stories which are supported by a range of urban parties, the products of studying individual development opportunities and of connecting the past with a search for potential futures. (...) cities should invest more forcefully in self-reflection and learning capacity"

2.3 Consolidation of the theoretical considerations

The theoretical explanations given so far speak for the significance for new path creation of interpreting urban economic history. The discussion of the theoretical background supports two assumptions. First, new urban economic development paths do not arise by chance but feed on the local context, including structural and agency-related features as well as external changes. In this respect, the dynamic interaction of structure and agency is important for new path creation. Second, local imaginaries and directionalities reflect the urban economic heritage. Affecting local agency, they play a key role in reconfiguring existing structures in order to promote or inhibit new path creation.



Furthermore, the theoretical discussion provides some indications regarding the impact mechanisms of imaginaries and directionalities on agency and thus new path creation. First, local imaginaries and directionalities are nurtured by and come to life through narratives. Second, they help communicate ideas between different stakeholders, potentially supporting the creation and continuance of alliances and cooperation projects (impact mechanism: communication and cooperation). Third, they contribute to identity-building, thus creating motivation to impact on local settings, i.e. to drive system reconfiguration (impact mechanism: motivation). Fourth, directionalities feed on the past, present and future. A strong reference to the past can act like a mortgage on possible development paths, limiting the perceived opportunity space. Thus, the more future-oriented directionalities are, the greater the perceived opportunity space and thus the opportunity for creating a new path.

Furthermore, the theoretical discussion supports the idea that imaginaries and directionalities can be used purposefully to shape place-specific economic development patterns. The Thomas theorem describes the mechanism of how an interpretation of a situation leads to agency, regardless of actual facts (Thomas & Thomas 1928), i.e. both imaginaries and directionalities can be powerful tools to trigger agency and system reconfiguration. Directionalities in particular are already used in urban planning to build confidence in intended changes (Buchenau and Gurr 2021). Van Boom and Mommaas (2009) find that urban narratives, as vehicles of imaginaries and directionalities, are important success factors for comeback strategies, i.e. new path creation. Espinosa et al. (2017) describe how rooting transformational narratives in the local economic history instead of creating them in a vacuum without historical references makes them more fruitful (connectivity and historical embeddedness).

Therefore, the author suggests that both the reinterpretation of hindering imaginaries and the formulation of new directionalities can be used to level out system selectivity and trigger change agency.

3 Methodology

3.1 Background of the case study city

The empirical case study seeks answers to the research questions by analysing the development of the textile and clothing industry in Mönchengladbach, a city in the German Federal State of North Rhine-Westphalia (NRW) with approximately 260,000 inhabitants (IT.NRW 2021). For more than five centuries, its economy was closely linked to the development of the textile and clothing industry (Quack 1963; Rouette 1996). The textile industry was the origin and motor of the city's industrialisation, spawning the development of other industrial and economic sectors (Ostendorf 2011), in particular the manufacture of textile machinery. The textile and clothing industry reached its peak in the years 1900 to 1910. At that time, Mönchengladbach was even described as the "Rhenish Manchester" (Hamm and Wienert 1990, p. 239). It was a veritable textile stronghold, marking the peak of the city's economic prosperity (Quack 1963).



3.2 Qualitative case study approach

A qualitative case study approach (Yin 2018) was chosen to examine the development of the textile and clothing industry in Mönchengladbach both in depth and in a historically informed manner. The process-oriented approach allowed us to capture the context relevant to new path creation. This also supported a better understanding of the interdependences between historic events, imaginaries, directionalities, agency and structures (MacKinnon et al. 2019; Jolly et al. 2020).

The selection of the city was based on the close interconnection between the city's development and one dominant economic sector: the textile and clothing industry² with its great importance for the structural change processes. This facilitates a comparatively clear understanding and investigation of the aforementioned local imaginaries and directionalities and their impact on the city's economic development. In the analysis, the city's economic development and especially that of the textile and clothing industry is documented based on key events. The latter can be understood as expressions or manifestations of agency which were always the consequence or cause of specific imaginaries or directionalities.

The qualitative case study is based on two pillars. First, a document-based analysis provided important information and thus helped contextualize and verify findings. It was also used to create an initial overview of key events, dominant imaginaries and directionalities at the respective time. The analysis led to the three phases explained in the empirical part. The document-based analysis also served to identify relevant stakeholders to be approached for interviews. The secondary material included reports, strategic documents, newspaper articles, digital material such as websites and press releases, and secondary statistical data referring to the development of the textile and clothing industry in Mönchengladbach and the city's economic development since the 1960s. Second, seven guideline-based interviews were conducted with local stakeholders, as described in Table 1.

Interviewees were selected according to the following three criteria. First, to capture key events and related imaginaries and directionalities as comprehensively as possible, at least one interviewee was chosen from each major city stakeholder group (Seebacher et al. 2018: 156; Reuter 2020). Second, interviewees should have at least double-digit years of experience in the textile industry and/or the economic development of Mönchengladbach. The idea behind this was to ensure that interviewees had relevant knowledge of the development of the textile and clothing industry in Mönchengladbach, of the city's economic development as a whole, and of imaginaries and directionalities and potential changes. Third, in all stakeholder groups except the media and civil society, executives were specifically approached since they were expected to have the most comprehensive understanding of the context and the highest level of expertise. In the civil society and media groups, hierarchy seemed to be less important for a close connection to society and on-site develop-

³ A complete overview of the material used in the document-based analysis can be provided on request.



² The close linkage between the textile and clothing industry and the city's development is described by Rouette (1996). He explains how the textile entrepreneurs were also the city's political elite steering the city's fortunes.

10/05/17 24/05/17 31/05/17 01/06/17 07/06/17 7/05/21 18/05/21 Date Approx. 15 years of years of experience in economic Moved to MG at the age of six, approx. 30 years of experience in economic development of MG and its Approx. 40 years of experience in textile and clothing industry; approx. 10 years of experience in eco-Approx. 20 years of experience in economic devel-Born in MG and approx. 50 years of experience in opment of MG and its textile and clothing industry Approx. 20 years of experience in textile industry, and approx. 5 years of experience in economic de-Mönchengladbach (MG) and textile and clothing economic development of MG and its textile and in economic development of MG and textile and Born in MG and approx. 50 years of experience development of MG and its textile and clothing Experience in economic development of textile and clothing industry nomic development of MG velopment of MG clothing industry clothing industry industry industry egional textile association and several other leading cation institution for textiles and clothing, managing Director of the local textile museum Schloss Rheydt Managing director of local training and further edu-Head of the general planning department of the city of MG and deputy head of the department of urban agency and chairman of the management board of City guide of the city of MG with strong historical and interactive exhibition of old textile machines Entrepreneur in the textile industry, chair of the Managing director of the business development 3ditor responsible for MG business magazine he development company of the city of MG director of ZiTex—Textil & Mode NRW levelopment and planning "TextilTechnikum" references ositions Position
 Table 1
 Overview of interviewees, own representation
 Education and Science Education and Culture olitics and Adminis-Politics and Adminis-Stakeholder Group Civil Society Economy, Economy ration Media ration Interview # Int. 5 Int. 6 Int. 3 Int. 4 Int. 7 a Int. Int.



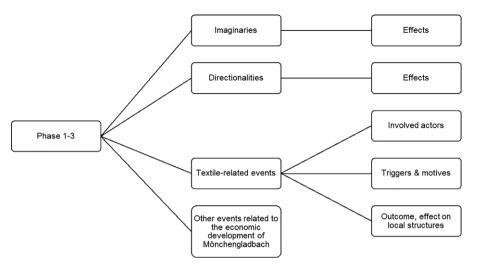


Fig. 1 Code tree for the qualitative content analysis of the interviews, own representation

ments. Therefore, the selection was based on the interviewees' everyday experience with the relevant topics. Five of the interviews were conducted between May and June 2017. Two supplementary interviews took place in May 2021 to reflect recent developments, especially the foundation of the Textilakademie NRW and the project Textilfabrik 7.0.4

The interview guide covered the following topics: a brief self-introduction of the interviewees including their professional connections to the textile and clothing industry and the city of Mönchengladbach. A further batch of questions regarded the upswing and heyday of the textile and clothing industry and its development since the beginning of the textile crisis of the 1960s. Questions referred to concrete measures taken to cope with structural change and its effects in the industry as well as to the founding stories of the institutions that have shaped the textile and clothing industry in Mönchengladbach in recent years. Finally, a few supplementary questions helped capture the overall context of the city's economic development. During the interviews, interviewees were repeatedly asked about the stakeholders and alliances involved, triggers and motives, historic outcomes and effects on local structures, and formative thought patterns, expectations and visions for the future.

The interviews were examined within the framework of a qualitative content analysis in accordance with Mayring (2015). The code tree shown in Fig. 1 was applied for each of the three time periods (see Fig. 2).

The resulting overview was compared and complemented with the results of the document-based analysis. This approach enabled a structured tracing of the key events and the development of the local imaginaries and directionalities. It also served for the comparison with the theoretical reflections presented in Chap. 2.

The analysis is subject to the typical limitations of a single case study. Though a limited number, the seven interviews were conducted in a very specific context,

⁴ A complete overview of the interviewees can be provided on request.



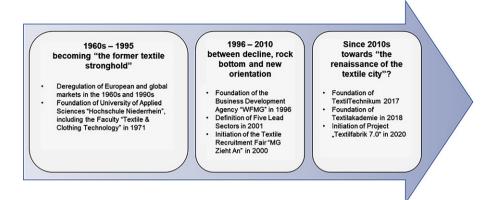


Fig. 2 Timeline with key events that have shaped the imaginaries and directionalities in the textile and clothing industry in Mönchengladbach, own representation

with the consistency between the statements of the interviewees suggesting that the research questions for this specific case study could be sufficiently clarified. When considering transferability, the specific economic, social and spatial context should be taken into account. Nevertheless, the analysis reveals fundamental mechanisms that are critically discussed in Chap. 5, acknowledging and extending existing theoretical approaches presented in Chap. 2.

4 From "becoming the former textile stronghold" to "the renaissance of the textile city"?

For many decades, the local imaginaries and directionalities in Mönchengladbach were based on the narrative of "the Rhenish Manchester" (Hamm and Wienert 1990, p. 239). The following analysis focuses on the city's decline and renaissance over the past sixty years. It is divided into three periods, starting with the onset of the textile crisis in the 1960s, as shown in Fig. 2. In each phase, key events—without any claim to completeness—are used to illustrate the evolution of local imaginaries and directionalities and their effects on agency with reference to the textile and clothing industry in Mönchengladbach.

4.1 Becoming "The former textile stronghold" (1960s–1995)

This period is characterised by the onset of the textile crisis and its massive socioeconomic impact in the first years of structural change. This period also includes the foundation of the University of Applied Sciences in Mönchengladbach, a decisive factor for the further course of events.



4.1.1 Trigger of the crisis and effects

At the latest from the 1960s onwards, globalisation and the accompanying increase in competition between production locations marked the beginning of a massive structural upheaval in the textile and clothing industry. This applied not only to Mönchengladbach but to the whole of Germany and other industrialized nations. European markets were deregulated by the European Economic Community (EEC) treaties in the 1960s, with deregulation at a global level following in the 1990s. German labour costs could no longer compete on the world market and Germany lost its attractiveness as a production site for the textile and clothing industry (Rouette 1996).

In Mönchengladbach, the crisis in the textile and clothing industry was reflected *inter alia* in population decline, high unemployment rates and declining numbers of employees in the industry. The following tables from Hamm and Wienert (1990, p. 242–244) give an impression of the decline:

It can be seen that the population of Mönchengladbach is largely stable during the given period although the declining trend from 1970 onwards is emerging (see Table 2). This finding is in contrast with both the county's and the national trend where we see substantial population increases of 4.8% (NRW) and 8.6% (Germany) respectively⁵.

As with population development, the city's employment development also compared unfavourably with that of NRW and Germany. Table 3 reveals that Mönchengladbach experienced the sharpest decline in employment in the 1960s, when almost one in ten jobs were lost, while the rate of decline was considerably lower in NRW and employment increased slightly in Germany. From 1970 to 1987, the decline was lower than in the preceding period (1961–1970), though continued to compare unfavourably with NRW and Germany. In Mönchengladbach, the number of employees in the textile and clothing industry dropped substantially from 30,072 employees in 1964 to 6344 in 1987 (ebd.)—that is by as much as nearly 80%. Moreover, this trend did not stop in the late 1980s but kept going. In line with this decline and during the crisis-ridden 1970s and 1980s, the unemployment rate

Table 2 Population figures in Mönchengladbach, North Rhine-Westphalia and Germany in selected years (in thousand), own representation based on Hamm and Wienert (1990, p. 242)

Year	Mönchengladbach	NRW	Germany
1961	258	15,912	56,175
1970	264	16,914	60,651
1980	258	17,058	61,658
1985	255	16,674	61,020

Table 3 Long-term employment trends in MG, NRW, Germany, own representation based on Hamm and Wienert (1990, p. 243)

Years	Mönchengladbach	NRW	Germany
1961–197	70 -8.8	-2.9	0.8
1970–198	37 –6.6	-0.3	1.6

⁵ The figures refer to the Federal Republic of Germany before reunification.



Table 4 Unemployment rates in Mönchengladbach and Germany (in %), own representation based on Hamm and Wienert (1990, p. 244)

Year	Mönchengladbach	Germany
1970	0.8	0.7
1975	6.5	4.7
1980	5.4	3.8
1983	13.0	9.1
1985	12.2	9.3

peaked at 13.0% in 1983, a figure more than 40% higher than the national average (see Table 4).

4.1.2 Crisis perception and clinging to old imaginaries

Compared to the concurrent structural change in the Ruhr region, the decline of the textile industry went relatively unnoticed. It was during this time that the phrase was coined: "The textile industry dies quietly" (int. 4). While in the Ruhr region, the workforces of large companies protested for public attention and subsidies, the small and medium-sized enterprises in Mönchengladbach disappeared one after the other without a lobby and without external support (Friedrichs 2004). The difference in wages in a globalised economy was so high that neither rationalisation in the textile companies nor process and product innovations could make the companies of the textile and clothing industry sufficiently competitive in the long term. The price competition encouraged by the EEC treaties was ruinous and led to one plant closure after the other (Friedrichs 2004).

With regard to Mönchengladbach, Hamm and Wienert (1990) conclude that three aspects drove the crisis and turned sectoral problems into regional ones, preventing speedy adaptation: (1) the dominance of the textile industry or rather the lack of economic diversity, (2) deficits in the regional infrastructure and (3) misjudgements of the extent of the crisis by local companies and the city government. While the first two explanations refer to structural issues, the third one points to agency-related deficits. Friedrichs (2004) also takes up this last aspect, illustrating how the influential textile entrepreneurs actively hindered the settlement of new companies and other industries, fearing a bottleneck on the labour market. He also discusses the time lag in recognising the real magnitude of the textile crisis. Several interviewees suggested misjudgements at company level. The following quote illustrates how faulty expectations and clinging to old imaginaries inhibited path adjustments or renewal:

"But it was also the task of the companies to position themselves properly in the seventies and eighties, to understand the market. That the labour cost advantages abroad were much higher and that one needed to react. And it was also a business decision not to do it, for example. Not to go abroad was a misjudgement on the part of the companies, which at the time said: 'No, no, that will work out somehow. And once the neighbours are gone, I'll still be there.'" (int. 2, author's translation)



However, the city government in particular had limited room for manoeuvre despite acknowledging the crisis as, due to the economic downturn, it lacked financial resources (ebd.).

4.1.3 Foundation of the University of Applied Sciences "Hochschule Niederrhein" and its "Textile & Clothing Technology" Faculty in 1971

Following Mayring's (2015) evaluation technique, one identified key event to counteract the crisis-induced downward spiral in Mönchengladbach was the foundation of the University of Applied Sciences in 1971. It happened in the course of implementing a new law on the establishment of Universities of Applied Sciences in Germany (Die Landesregierung des Landes Nordrhein-Westfalen 1971). In the course of the foundation of the University of Applied Sciences several predecessor institutions from other NRW cities, including Krefeld, Cologne, Bielefeld, Aachen and Wuppertal, were merged in Mönchengladbach. The bundling of the region's know-how led to the creation of the faculty "Textile and Clothing Technology", a faculty with a supra-regional and international reputation and unique in NRW and Germany (Ostendorf 2011). The decision as to where to locate the faculty was negotiated intensely between Krefeld and Mönchengladbach and the outcome was extremely tight (Friedrichs 2004). Apparently the close stakeholder relations between the textile engineering school in Mönchengladbach and the textile and clothing industry and allied associations tipped the scales in favour of Mönchengladbach (Ostendorf 2011), hinting at the importance of networks and strategic alliances.

Summing up, the interplay between external, structural and agency-related aspects is reflected in the identified causes for the city's economic downturn. The initial period of the crisis was marked by many challenges leading to a rather negative interpretation of the socio-economic situation in Mönchengladbach. Thus, the local imaginaries, especially in relation to the textile and clothing industry, could no longer uphold the glorious image of old times (textile stronghold), instead worsening significantly. However, the textile-related imaginaries were still so strong that the textile and clothing faculty was located in Mönchengladbach, creating the structural nucleus for a potential renaissance of the textile industry.

4.2 Between decline, rock-bottom and new orientation (1996–2010)

In the following, three historical events are presented to illustrate the change of perspective from rather negative local imaginaries to new directionalities. The events include the foundation of the business development agency, the definition of five lead sectors and the initiation of a textile recruitment fair.

4.2.1 Foundation of the business development agency "WFMG" in 1996

Dissatisfaction with the city's overall situation and especially the lack of business development activities led to an important step to counteract the continuous decline of the textile and clothing industry and of the city's economy as a whole. In August 1996, representatives of the local business community held a meeting



(Krickenberger Gespräche), inviting representatives from politics and administration as listeners (Friedrichs 2004). This voluntary meeting led to the creation of the Wirtschaftsförderung Mönchengladbach (WFMG), a business development agency with the then novel concept of 51% ownership by the city and 49% ownership by 35 local companies, the Chamber of Industry and Commerce, and the Skilled Crafts Association (WFMG 2021). This new structure allowed the business community to represent its interests and to strengthen promotion of Mönchengladbach as a business location.

4.2.2 Definition of five lead sectors in 2001

Following a change in leadership, the WFMG started actively elaborating a new directionality for the city's economic future in 2001. Based on an in-depth analysis conducted by representatives of the University of Applied Sciences (Hamm & Wenke 2002), it formulated a cluster approach focusing on five lead sectors. Due to the negative experience of having previously focused on a single sector, a broader strategy was chosen to promote a more diverse and resilient city economy. The new directionality stated five primary industries to develop further: (1) the textile industry, (2) (textile) mechanical engineering, (3) logistics, (4) health, and (5) the creative and IT economy. The first three were associated with expectations of creating a locational advantage and a unique selling proposition for the city. The other two were seen rather as general growth branches without any specific momentum or differentiation possibility for the city's economic development (int. 4).

Considering the negative development of the textile and clothing industry up to that point, its choice as one of five future development fields may seem puzzling. However, in comparison to NRW the textile sector was still strong in Mönchengladbach (ebd.). Despite being in decline for over 30 years, it was still the city's most unique and specialised industry compared to the rest of NRW. The interviews provided further explanations for its choice, including structural and agency-related aspects. First, the deep-rooted meaning of the textile and clothing industry for the city's self-conception in the spirit of local imaginaries: as a major aspect of the urban cultural and economic heritage, the textile and clothing development path was wired into the city's DNA. It therefore seemed almost impossible to be abandoned entirely. Second, a significant and influential number of companies of the textile and clothing industry were still located in and around the city. Third, the textile and clothing faculty at the local University of Applied Sciences was an important structural asset, constituting a constant source of qualified workers and innovation in this area.

The analysis indicates that the definition of the five leading sectors as a directionality for the city's economic development went beyond mere economic reflections within the business development agency. It was embraced as a starting point for a more holistic approach, encouraged and supported by a plethora of stakeholders. As the leader of the business development agency explained:

"The image of the city was terrible, people said 'for God's sake, I (...) put on a hood and sneak around the city and say 'excuse me, I'm a Gladbacher". That



was this perceived image, the self-confidence. And when you asked people what Mönchengladbach stands for, they told me 'Mönchengladbach was a former textile stronghold'. Okay, we said at the time, 'was'. When you define yourself as something former, there's something morbid about it. Yes, yes, something like the end of time. 'Yes, we used to be something good. Today we are nothing.' And then we started to say that we had to look ahead again and what do we want to stand for in the future? What are the key sectors that we want to stand up for?" (int. 4, author's translation)

This quote illustrates how the economic downturn in the textile and clothing industry had negatively transformed local imaginaries. The structural change was interpreted as a collective trauma, infecting local identity. The conscious break with this narrative and the development of a new directionality aimed at a broader change, rather than the simple promotion of the five leading branches. Before the crisis in the textile and clothing industry, the local imaginaries in Mönchengladbach referred to the city's heyday around 1910. After the crisis hit, that imaginary no longer fitted. In the same vein, this quote demonstrates how the urban imaginaries around the turn of the millennium were a lot more about what Mönchengladbach no longer was—indicating some kind of void—, rather than about what it actually was at that point in time or what it could be in the future.

Friedrichs (2004) also comments on local imaginaries and their relation to the textile industry, highlighting the challenge to purposefully influence them. According to him, the decline of the textile industry also to a large extent constituted a decline of the city's self- and external image. Although several expert reports indicated that the city's image had deteriorated, they did not provide solutions for the city council on how to develop a new image, and thus also a new self-image. Friedrichs (2004) argues that a new image would inevitably have to break with the city's tradition, implying that the city council would have to take away a piece of identity from Mönchengladbach citizens.

4.2.3 The textile recruitment fair "MG Zieht An"

Another example how being aware of local imaginaries and purposefully changing them could support at least path survival, was the initiation of the textile recruitment fair "MG Zieht An" in 2000 as a cooperation project of the local business community, the WFMG and the University of Applied Sciences. Initially created to counteract the negative narrative and therefore negative job expectations related to the textile and clothing industry at the time, the fair soon became the biggest textile innovation and recruitment fair in Europe, as indicated in several interviews:

"We did it because at that time [2000] the companies also approached me and said, 'Our image is so bad, nobody wants to work for us anymore, we can't get any more [young] people. Why? Because everyone in the family tells them: 'Listen, you'd better not do your training there. Because you know ... Uncle

⁶ A play on words. The German phrase has two meanings: MG clothes (the world); and MG is accelerating.



Jupp, who also worked for company XY back then, he's now on the dole. You can't work in that sector [textile and clothing] any more, find yourself something decent, son.' That was the core problem.'" (int. 4, author's translation)

It seems that the business community understood the problem of negative imaginaries related to their industry, reacting by establishing new structural settings promoting a new growth path.

Another important step—only slightly related to the textile and clothing industry, but with a big impact on the urban directionality—was taken in 2008 with the initiation of the MG 3.0 masterplan (Herzog and Hamm 2020). Driven by the business community and civil society, it worked with the narrative of a "third foundation" (Kreuder and Otten 2013) of the city. While the city's first foundation was initiated by monks, its second phase of prosperity was related to the textile and clothing industry. According to the MG 3.0 narrative, the third impetus would have to come from civil society (ebd.). This highlights on the one hand the orientation towards endogenous potential in terms of new path creation, and on the other hand the stakeholders' self-empowering attitude and confidence in their ability to shape the future.

Summing up, the creation of the business development agency, the definition of the five lead sectors and the initiation of the textile recruitment fair introduced a change of perspective shifting the focus from the past (somewhat negative imaginaries) to the future (somewhat positive directionalities). At least two of the events emphasize not only the driving role of the business community as change agents, but also the importance of using place-based leadership to bring different stakeholders together. The events also show how the directionalities took effect through communication and cooperation, a positive identification with the textile and clothing industry and thus motivation to move it forward, as well as promotion of training and employment.

4.3 Towards "the renaissance of the textile city"? (since the 2010s)

This chapter examines the development of the textile and clothing industry in Mönchengladbach since the 2010s. The industry's current position in Mönchengladbach is briefly described, followed by explanations regarding the emergence of a new directionality. Subsequently, the expectations and activities related to the new directionality are described by means of three key events.

4.3.1 The current position of the textile and clothing industry in the city's sectoral portfolio

The 2019 figure for employment in the textile and clothing industry in Mönchenglad-bach was 1408, accounting for an employment share of 1.4 per cent (Bundesagentur für Arbeit 2020). According to the author's own calculations based on this data from 2019, the industry's location coefficient—comparing Mönchengladbach with the whole of NRW is 3.61—(ebd.), indicating a slight upward trend compared to the previous calculation in 2017 (3.17) (Industrie- und Handelskammer Mittlerer



Niederrhein 2018). Adding textile-related sectors such as textile machine engineering, textile logistics and textile processing, the city currently hosts around 80 companies with approximately 3200 employees (WFMG 2020). These figures show that the textile-related industry constitutes just one of several sectors in a broader mix. While its significance for the city's economy has clearly declined, the city still hosts headquarters and design departments of well-known clothing companies such as Cinque, Alberto, Van Laack, Zerres, Fynch-Hatton and Gardeur, even if production has been fully offshored. In contrast to the clothing companies, companies supplying textile products to the automotive sector, such as AUNDE and Schmitz, as well as the textile machine manufacturer Trützschler, still have production facilities in the city. One possible explanation for this is that textile production is more capital- than labour-intensive compared to clothing production.

In terms of education, research and development, several institutions constitute a structural asset for the local textile and clothing industry. The ensemble is headed by the textile and clothing faculty of the University of Applied Sciences, now the largest academic educational institution for the textile and clothing industry in Europe, with over 2000 students, over 30 professors, approx. 25 lecturers and over 60 staff members (Hochschule Niederrhein 2021). Other research institute for textiles and clothing include the centre of textile logistics (Fraunhofer-Institute for Material Flow and Logistics 2021), the TextilTechnikum (Stadt Mönchengladbach 2021a) and the Textilakademie NRW (Textilakademie NRW gGmbH 2021).

4.3.2 Emergence of a new directionality related to the textile and clothing industry

In the 2010s, a new directionality for the textile and clothing industry was gradually established, built around the narrative of "the renaissance of the textile city". This directionality is based on innovative and creative textiles or "technical textiles", putting the industry in Mönchengladbach back on a new growth path. These new textiles are used inter alia in agriculture, construction, clothing, geology, home, industry, ecology, packaging, medicine, mobility, protection and sports, i.e. with very little in common with previous uses. Technical textiles are harder to copy and therefore suitable for achieving market dominance (int. 2). The directionality includes the creation of new jobs in the German textile and clothing industry. This expectation is based on the reduced relevance of lower labour costs abroad, due to the high level of automation and the capital-intense character of the modern textile industry, as mentioned in several interviews. The new directionality of the renaissance of the textile city was first promoted by an influential local stakeholder holding multiple leadership positions. The analysis suggests that he was involved in every major textilerelated event in Mönchengladbach over the past 25 years (Steinbach 09.05.2018), working to promote the local and regional textile and clothing industry.

The new directionality was also partially incorporated in the official city development strategy "MG+ Wachstum in Qualität" [MG+ growth in quality, author's translation] (Stadt Mönchengladbach 2016). Under the category "location factors", this strategy lists "sharpening Mönchengladbach's profile as a textile city" as one of five measures. Under the slogan "high-tech meets history", the "Profil Textil" project aims at increasing the utilisation of Mönchengladbach's textile heritage for



developing the city's profile. The idea is to achieve synergies by bundling textile-related facilities in the areas of historic education, training, teaching and research, creating a so-called textile city (Stadt Mönchengladbach 2021b).

4.3.3 From appreciative remembrance and modern textile education institutions to new economic perspectives

Developments in recent years include the establishment of the interactive exhibition of former textile machines "TextilTechnikum" in an old textile machine factory as a form of materialised textile-related history of the city. Motives for its establishment included the desire to preserve and positively promote the cultural heritage and to make it accessible to the public at large (Stadt Mönchengladbach 2021a). Furthermore, a modern nationally oriented training and education academy for textile professions, the "Textilakademie NRW" started operating in 2019. Its unique concept provides a range of offerings including all textile-related training courses (Textilakademie NRW gGmbH 2021). The key motivation for its establishment was to counteract the continuing deterioration in training conditions in the textile and clothing industry in Germany. Based on the directionality of "a renaissance of the textile industry" and in preparation for its realization, future generations of employees were to receive the best possible training (int. 2, 6). The decisive factors for the location decision—especially in competition with the city and University of Aachen—were (1) the spatial proximity to the University of Applied Sciences and its textile and clothing faculty and (2) the greater proximity in mind-set between the students in Mönchengladbach and the potential vocational students (int. 6).

Triggered by considerations on how to best address the upcoming structural change in the surrounding area in the wake of the phasing-out of lignite in Germany (Innovations region Rheinisches Revier GmbH 2021), a new flagship project has been emerging for the textile and clothing industry in Mönchengladbach since 2020: the model project Textilfabrik 7.0 (Rheinische Post Online 04.09.2020; nextMG 2021). The idea behind the project is to build a model factory with adjoining business park showcasing how sustainable industrial production can work in Germany. The project consortium consists of representatives of the two regional textile associations, the University of Aachen (textile institute), the University of Applied Sciences Hochschule Niederrhein, the TextilAkademie NRW and the business development agency WFMG. All stakeholders are united by the strong directionality of a sustainable textile campus. The location decision was justified by its geographical position in Germany, the local textile and clothing industry and the close relations between companies, academia, educational and higher education institutions, guaranteeing a steady supply of qualified staff in the future (Rabe 11.05.2021). The targeted job creation effects of this project envisage 50 new jobs in the immediate vicinity of the model factory by 2030. In addition, up to 2500 new jobs are to be created in the associated industrial park, and for every job created, one additional indirect job in Germany (supply industry, etc.) until 2035 (ebd.).

Summing up, the new directionality "renaissance of the textile city" constitutes the impetus for new cooperation projects and a variety of new development activities focusing on training and education, research and development and increasingly



on employment goals. The aspired path is very much future-oriented and based on technological innovations. It is given additional impetus by the vision development process for the structural change in the lignite mining area close to Mönchengladbach. In the course of promoting the new directionality, textile-related imaginaries were purposefully revalued and are now marketed as Mönchengladbach's proud heritage. Again, the motives behind the different location decisions highlight the significance of context, including structural, agency-related and external aspects.

5 Discussion

The case study illustrates that the intimate relationship between sector development (textiles and clothing) and urban development has been jettisoned over the several decades of structural change, with the function of the textile industry shifting from being the business driver to being one element of the city's sectoral mix. The findings regarding the research questions associated with EEG are discussed in the following.

5.1 Impact mechanisms of imaginaries and directionalities on agency

The case study provides evidence of the lines of thought deriving from the theoretical discussion on the way the city's economic history, manifested in imaginaries and directionalities, still affects agency. Fig. 3 shows how these factors take effect in the case study.

As indicated in the theoretical discussion, imaginaries and directionalities, transferred via narratives, help communicate ideas and concepts between different stakeholder groups, promoting the formation of networks and alliances and unifying otherwise disparate players under a shared belief, value, or vision. The case study suggests that directionalities in particular unfold their power and potential through stakeholder networks and strategic alliances of the willing, as illustrated by every event presented in the case study, all of which were realized by several groups working together. This illustrates that no stakeholder alone could have implemented

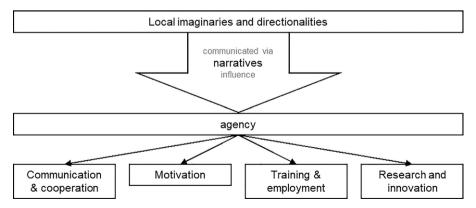


Fig. 3 Impact mechanisms of imaginaries and directionalities on agency, own representation



the steps towards realizing the desired directionality, supporting the significance of place-based leadership. Moreover, the case study provides evidence of the "role of leading urban attractors and the associated urban narrative" described by van Boom and Mommaas (2009: 53–54). It also provides examples of all three types of change agency championed by Grillitsch and Sotarauta (2019). However, in almost all the described events, the driving force for change was the business community. Referring to Grillitsch and Sotarauta (2019), this finding underlines the innovative qualities of Schumpeterian entrepreneurship. However, the case study also shows how public-private-partnership (business development agency) was used to build a bridge to politics and administration. The business development agency in particular has taken on place-based leadership and was involved in almost all events (e.g. textile recruitment fair "MG Zieht An", project "Textilfabrik 7.0"). Furthermore, Miörner's (2020) argument that directionalities are developed and disseminated by public stakeholders can be retraced in the case study (e.g. the definition of 5 lead sectors, MG 3.0, the integration of the textile heritage into the official city development strategy MG+). Furthermore, the analysis shows that individual stakeholders often took on multiple roles, serving the different aspects of professional, power, process and relationship promotion (Kristof 2010).

Furthermore, the case study provides evidence of the motivating/demotivating effect of imaginaries and directionalities discussed in the theoretical chapter (Raagmaa 2002). While a troubled identification with one's own city can be a hindrance, a positive identification can have a motivating effect on actively changing outdated structures and promoting new path creation. For example, in the case of the establishment of the textile recruitment fair, widespread belief in the decline of the textile industry had led to demotivation and a slump in applicant numbers.

In addition to the mechanisms derived from the theoretical discussion, the case study revealed two others. First, imaginaries and directionalities related to training and employment aspects can have an impact on agency. The case study provides at least three examples: the foundation of the University of Applied Sciences, the establishment of the textile recruitment fair and the foundation of the training and further education academy for textile (training) professions. The aforementioned example of the establishment of the textile recruitment fair shows how textile entrepreneurs were prompted to actively counteract a negative imaginary regarding poor job prospects in the textile and clothing industry. To prevent it becoming a self-fulfilling prophecy, they had to highlight future prospects and invest in young talents. In this sense, addressing the issue of talent has driven agency and led to new impetus for the textile and clothing industry. Second, the imaginaries and directionalities related to Mönchengladbach being a hotspot for textile and clothing knowhow were also helpful in promoting agency with regard to research and innovation, e.g. the project Textilfabrik 7.0. The narrative of being the largest academic institution for the textile and clothing industry in Europe has contributed to gaining more students and boosting reputation and funding over the years.



5.2 Reinterpretation of imaginaries and the purposeful utilization of directionalities

The case study's empirical chapter provides evidence that the theoretically derived assumption that both the reinterpretation of hindering imaginaries and the formulation of new directionalities can be used to balance system selectivity and trigger change agency. The case study illustrates how local stakeholders understood the negative effects of deficit-oriented local imaginaries and chose to counteract them. A reinterpretation of the economic history occurred, moving away from deficit-oriented imaginaries towards more appreciative imaginaries. The latter highlight pride in the city's economic heritage and interpret it as a valuable asset. This reframing of the past supports the emergence of positive new directionalities, promoting new path creation. In this regard, the analysis suggests that a process perspective is needed (Martin 2010) when it comes to imaginaries and directionalities. If the latter are handled without reflection and continuous review, they can soon become outdated imaginaries, in turn hindering new path creation. This finding supports van Boom and Mommaas' (2009) statement on the balancing act between focusing and promoting an open evolutionary system.

Moreover, the analysis suggests that expectations are key elements of directionalities. It illustrates how expectations and thus directionalities can have an inhibiting effect when over-relying on past experiences. As shown in the analysis, this was the case at the beginning of the textile crisis when adherence to obsolete imaginaries prevented textile entrepreneurs from implementing adjustments. One positive example of the integration of future-oriented expectations is the definition and promotion of the five lead sectors in 2001. This decision upheld the economic heritage of the textile and clothing industry, while taking up new elements, such as expansion of the logistics sector. This approach made it possible to break path dependence and open the door to new path creation. In particular, the effect of directionalities on agency seems to depend strongly on how much new impetus they allow and absorb. This finding shows parallels with the considerations of the absorptive capacity explained by Martin and Simmie (2008). The case study illustrates how past-oriented imaginaries needed to be supplemented by new impulses to expand the perceived opportunity space (Grillitsch and Sotarauta 2019).

The case study provides evidence for imaginaries and directionalities being important success factors for revitalization strategies (van Boom & Mommaas 2009). Nonetheless, it should be critically noted that the application of this knowledge is complex, as noted by Friedrichs (2004: 33). The fine line between discarding, reinterpreting and integrating ideas and values constitutes a challenge when attempting to disseminate them in the urban community.

5.3 Significance of context

In addition to the two core elements of the research questions, both the theoretical discussion in the research field of EEG and the case study highlight another important aspect: the significance of context. For instance, the analysis shows that other vision development processes can have an impact on the emergence of new directionalities,



cross-fertilising each other to a certain extent. In the case study, for example, this applies to the process of developing the city's vision MG 3.0 and to that for the surrounding lignite mining area. In this regard, changes in the surrounding context can broaden the perceived opportunity space and support new path creation. Another example is the role of the University of Applied Sciences with its textile and clothing faculty, which turned out to be the most important structural element in the case study. Its foundation and development over time illustrate the persistent yet flexible role educational institutions can play in an urban system and how closely they are interconnected with agency. Over the years, the university and faculty have become an important anchor for the city's textile and clothing heritage and industry, providing continuity, new impetus from research and development and significantly influencing the location decisions of later institutions, such as the Textilakademie (int. 6). Without the University of Applied Sciences in Mönchengladbach, hence without local, research-inspired impetus, the latest signs of "the renaissance of the textile city" seem rather unlikely. Indeed, it can be assumed that the imaginaries and directionalities might have otherwise evolved differently.

6 Conclusion

Referring to the identified EEG research gaps, this contribution argues why it matters to reflect on local imaginaries and directionalities and how they drive or inhibit agency and thus new path creation. The theoretical reflections were applied to an empirical case study illustrating the development of the textile and clothing industry in Mönchengladbach from becoming a former textile stronghold in the 1960s through challenging times of structural change towards the new perspective of a renaissance of the textile city in the 2010s. Alongside this development, readers can review the theoretical reflections on the impact of imaginary and directionality mechanisms on agency, the purposeful utilization of the latter as well as the importance of context.

The analysis of how imaginaries and directionalities take effect indicates four major mechanisms: communication and cooperation, motivation, training and employment as well as research and innovation. Regarding the purposeful handling of imaginaries and directionalities, the case study provides evidence that change agents can shape relevant narratives that are used to disseminate certain ideas to a certain extent. But imaginaries and directionalities are not the only determinants for new path creation or the overall course of structural change processes. Many other external, structural and agency-related factors have an impact. Given the dynamic relationship between structure and agency, this contribution concludes that imaginaries and directionalities should be assigned greater attention in the study of urban structural change processes, as they can be used purposefully to drive agency and promote new path creation.

These analytical considerations also provide indications for the operational application. The analysis suggests the following recommendations for local stakeholders regarding the conscious and purposeful handling of imaginaries and directionalities: First, counteract or reinterpret harmful imaginaries and directionalities wherever possible. Second, focus on positive narratives in imaginaries and directionalities,



concentrating on the potential positive contribution the urban economic heritage offers instead of clinging to the past. Third, try to carefully adapt imaginaries and directionalities to current circumstances to support new path creation. Fourth, look for ways to keep the perceived opportunity space wide and flexible. Fifth, support the formation of (strategic) alliances in order to develop and implement new directionalities.

The overarching question of the present Special Issue revolves around the impact of history on local and regional development and how cities or regions can profitably leverage their economic heritage for future prosperity. Referring to this, this contribution concludes that a better understanding of the relationships between economic heritage, imaginaries, directionalities and agency is important. As described at the beginning, the interpretation of the urban economic heritage is reflected in its imaginaries and directionalities. These in turn can hamper or promote change agency towards new path creation. This contribution supports the assumption that cities can specifically valorise local imaginaries and directionalities, harnessing them to drive their economic development and future prosperity.

Looking at future research, two issues seem relevant. First, this contribution indirectly touches on the question of how imaginaries and directionalities can be used to increase urban economic adaptability. The latter is a current research topic within urban resilience research (Hassink and Gong 2020; Jakubowski et al. 2018). Accordingly, an examination of this question from the perspective of urban resilience research could provide further valuable insights. Second, a link with research on entrepreneurial ecosystems could be an enrichment, as talent and networks are considered relevant variables influencing entrepreneurial activity and thus potential new path creation at local level (Stam & van de Ven 2021; Pugh et al. 2021).

Funding Open Access funding enabled and organized by Projekt DEAL.

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References

van Boom N, Mommaas H (eds) (2009) Comeback cities: Transformation strategies for former industrial cities. NAi Publ, Rotterdam

Borup M, Brown N, Konrad K, van Lente H (2006) The sociology of expectations in science and technology. Technol Anal Strateg Manag 18:285–298

Boschma R, Frenken K (2006) Why is economic geography not an evolutionary science?: Towards an evolutionary economic geography. J Econ Geogr 6(3):273–302

Boschma R, Lambooy J (1999) The prospects of an adjustment policy based on collective learning in old industrial regions. GeoJournal 49:391–399



- Buchenau B, Gurr JM (2021) 'Scripts' in urban development: procedural knowledge, self-description and persuasive blueprint for the future. In: Gurr JM (ed) Charting literary urban studies: texts as models of and for the city. Routledge, New York, pp 141–163
- Bundesagentur für Arbeit (2020) Statistik der Bundesagentur für Arbeit Auftragsnummer 23354: Sozialversicherungspflichtig Beschäftigte (SvB) am Arbeitsort (AO)
- Coenen L, Moodysson J, Martin H (2015) Path renewal in old industrial regions: possibilities and limitations for regional innovation policy. Reg Stud 49:850–865
- Dawley S (2014) Creating new paths? Offshore wind, policy activism, and peripheral region development. Econ Geog 90:91–112
- Die Landesregierung des Landes Nordrhein-Westfalen (1971) Nordrhein-Westfalen Gesetz- und Verordnungsblatt 1971
- Dosi G (1997) Opportunities, incentives and the collective patterns of technological change. Econ J 107:1530–1547
- Espinosa C, Pregernig M, Fischer C (2017) Narrative und Diskurse in der Umweltpolitik: Möglichkeiten und Grenzen ihrer strategischen Nutzung: Zwischenbericht, Dessau-Roßlau
- Fraunhofer-Institute for Material Flow and Logistics (2021) Center Textillogistik. https://www.iml. fraunhofer.de/de/abteilungen/initiativen/center-textillogistik-.html. Accessed 24 Feb 2022
- Frenken K, Boschma R (2007) A theoretical framework for evolutionary economic geography: industrial dynamics and urban growth as a branching process. J Econ Geogr 7:635–649
- Friedrichs J (2004) Die sozio-ökonomische Entwicklung von Mönchengladbach 1955–2002: "Mönchengladbach auf dem Weg zur aktivierenden Stadt" im Rahmen des Programms "Stadt 2030", Köln
- Garud R, Gehman J (2012) Metatheoretical perspectives on sustainability journeys: evolutionary, relational and durational. Res Policy 41:980–995
- Garud R, Karnøe P (eds) (2001) Path dependence and creation. Lawrence Erlbaum, London
- Grabher G (1994) The weakness of strong ties: the lock-in of regional development in the Ruhr area. In: Grabher G (ed) The embedded firm: on the socioeconomics of industrial networks. Routledge, London, pp 255–277
- Gregory D, Johnston R (eds) (2009) The dictionary of human geography, 5th edn. Blackwell, Malden
- Grillitsch M, Sotarauta M (2019) Trinity of change agency, regional development paths and opportunity spaces. Prog Hum Geogr 9:1–20. https://doi.org/10.1177/0309132519853870
- Grillitsch M, Rekers J, Sotarauta M (2021) Investigating agency: methodological and empirical challenges.
 In: Sotarauta M, Beer A (eds) Handbook on city and regional leadership. Edward Elgar Publishing, Northampton, pp 302-323
- Hamm R, Wenke M (2002) Bedingungen und Chancen für eine Ansiedelung zukunftsfähiger Branchen am Standort Mönchengladbach, Mönchengladbach
- Hamm R, Wienert H (1990) Strukturelle Anpassung altindustrieller Regionen im internationalen Vergleich. Schriftenreihe des Rheinisch-Westfälischen Instituts für Wirtschaftsforschung Essen, N. F., 48. Duncker & Humblot, Berlin
- Hassink R, Gong H (2020) Regional Resilience. In: Kobayashi A (ed) International Encyclopedia of Human Geography, 49th edn. Elsevier, pp 351–355
- Hassink R, Kiese M (2021) Solving the restructuring problems of (former) old industrial regions with smart specialization? Conceptual thoughts and evidence from the Ruhr. Rev Reg Res 41:131–155
- Hassink R, Isaksen A, Trippl M (2019) Towards a comprehensive understanding of new regional industrial path development. Reg Stud 4:1–10
- Henning M (2019) Time should tell (more): evolutionary economic geography and the challenge of history. Reg Stud 53:602–613
- Herzog A, Hamm R (2020) A masterplan for urban resurgence. The case of Mönchengladbach, Germany (2008–2019). Reg Sci Policy Pract. https://doi.org/10.1111/rsp3.12332
- Hilber ML, Datko G (eds) (2012) Stadtidentität der Zukunft: Wie uns Städte glücklich machen. Jovis,
- Hochschule Niederrhein (2021) Textil- und Bekleidungstechnik Fachbereich 07: Zahlen und Fakten. https://www.hs-niederrhein.de/textil-bekleidungstechnik/fachbereich/#c11137. Accessed 24 Feb 2022
- Hu X, Hassink R (2015) Explaining differences in the adaptability of old industrial areas. In: Hilpert U (ed) 2015—Routledge Handbook of Politics & Technology. Routledge, Abington, Oxon, New York, pp 162–172
- Industrie- und Handelskammer Mittlerer Niederrhein (2018) Mönchengladbach. Wirtschaftliche Strukturen und Standortqualität: IHK Schriftenreihe Ausgabe 164, Mönchengladbach



Innovationsregion Rheinisches Revier (2021) Rheinisches review. https://www.rheinisches-revier.de. Accessed 24 Feb 2022

- Isaksen A (2015) Industrial development in thin regions: trapped in path extension? J Econ Geogr 15:585–600
- Jakubowski P, Kötter T, Weiß D (eds) (2018) Stresstest Stadt wie resilient sind unsere Städte?: Unsicherheiten der Stadtentwicklung identifizieren, analysieren und bewerten. Bundesinstitut für Bau- Stadt und Raumforschung (BBSR) im Bundesamt für Bauwesen und Raumordnung (BBR), Bonn
- Jessop B (2001) Institutional re(turns) and the strategic—relational approach. Environ Plan A 33: 1213–1235
- Jolly S, Grillitsch M, Hansen T (2020) Agency and actors in regional industrial path development. A framework and longitudinal analysis. Geoforum 111:176–188
- Kempa D, Krätzig S (2020) Ziele, Herausforderungen und Ansätze für eine Verknüpfung von Identitätsbildung und Regionalisierung, Hannover
- Kempa D, Krätzig S, Warner B (2020) Regionen zukunftsfähig machen: Identifikation als Baustein zur nachhaltigen Entwicklung, Hannover
- Kreuder E, Otten F (eds) (2013) MG3.0 Die dritte Gründung: Ein städtebaulicher Masterplan für Mönchengladbach (MG3.0 Masterplan Mönchengladbach)
- Kristof K (2010) Models of change: Einführung und Verbreitung sozialer Innovationen und gesellschaftlicher Veränderungen in transdisziplinärer Perspektive
- Landesbetrieb Information und Technik Nordrhein-Westfalen (IT.NRW) (2021) Bevölkerung der Gemeinden Nordrhein-Westfalens am 31. Dezember 2020 Fortschreibung des Bevölkerungsstandes auf Basis des Zensus vom 9. Mai 2011. https://www.landesdatenbank.nrw.de/ldbnrw/online?operation=result&code=12411-01i&leerzeilen=false&language=de&startjahr=2011#abreadcrumb. Accessed 17 June 2022
- van Lente H (2012) Navigating foresight in a sea of expectations: lessons from the sociology of expectations. Technol Anal Strateg Manage 24(8):769–782. https://doi.org/10.1080/09537325.2012.715478
- MacKinnon D (2012) Beyond strategic coupling: reassessing the firm-region nexus in global production networks. J Econ Geogr 12:227–245
- MacKinnon D, Dawley S, Pike A, Cumbers A (2019) Rethinking path creation: a geographical political economy approach. Econ Geog 95:113–135
- Martin R (2010) Roepke lecture in economic geography-rethinking regional path dependence: beyond lock-in to evolution. Econ Geog 86:1–27
- Martin R, Simmie J (2008) Path dependence and local innovation systems in city-regions. Innovation 10:183–196
- Martin R, Sunley P (2006) Path dependence and regional economic evolution. J Econ Geogr 6:395-437
- Martin R, Sunley P (2010) The place of path dependence in an evolutionary perspective on the economic landscape. In: Boschma R, Martin R (eds) The handbook of evolutionary economic geography. Elgar, Cheltenham, pp 62–92
- Mayring P (2015) Qualitative Inhaltsanalyse: Grundlagen und Techniken, 12th edn. Beltz, Weinheim
- Melosi MV (2017) Path dependence and urban history: is a marriage possible? In: Schott D, Luckin B, Massard-Guilbaud G (eds) Resources of the city: contributions to an environmental history of modern Europe. Taylor and Francis, pp 262–275
- Merton RK (1995) Soziologische Theorie und soziale Struktur. De Gruyter
- Miörner J (2020) Contextualizing agency in new path development: how system selectivity shapes regional reconfiguration capacity. Reg Stud 1:1–13
- Nelson RR, Winter SG (2002) Evolutionary theorizing in economics. J Econ Perspect 16:23-46
- nextMG (2021) #DigitalLounge #3: Das Projekt T7 Textilfabrik 7.0: Virtuelle Reise durch die Textilfabrik 7.0 (T7). https://www.youtube.com/watch?v=v_ERemCoUv4. Accessed 24 Feb 2022
- Ostendorf H (2011) Aus der Region gewachsen: 40 Jahre Hochschule Niederrhein. Präsidium der Hochschule Niederrhein, Krefeld
- Paasi A (1986) The institutionalization of regions: a theoretical framework for understanding the emergence of regions and the constitution of regional identity. Fennia Int J Geogr 164(1):105–146. https://doi.org/10.11143/9052
- Paasi A (1991) Deconstructing regions: notes on the scales of spatial life. Environ Plan A: Econ Space 23(2):239–256. https://doi.org/10.1068/a230239
- Paasi A (2010) Commentary. Environ Plan A: Econ Space 42(10):2296–2301. https://doi.org/10.1068/a42232
- Power A, Plöger J, Winkler A (2010) Phoenix cities: The fall and rise of great industrial cities. Bristol University Press, Policy Press, Bristol



- Pugh R, Soetanto D, Jack SL, Hamilton E (2021) Developing local entrepreneurial ecosystems through integrated learning initiatives: the Lancaster case. Small Business Econ 56(2):833–847. https://doi. org/10.1007/s11187-019-00271-5
- Quack P (1963) Wandernde Akzente Das Textilschaffen im Mönchengladbacher Kammerbezirk. In: Industrie- und Handelskammer zu Mönchengladbach (ed) Lebendige Wirtschaft im Wandel zum Morgen: 125 Jahre Industrie- und Handelskammer zu Mönchengladbach. Heinrich Lapp, Mönchengladbach
- Raagmaa G (2002) Regional identity in regional development and planning 1. Eur Plan Stud 10(1):55–76. https://doi.org/10.1080/09654310120099263
- Reuter B (ed) (2020) Transparenz öffentlicher Einkaufsdaten in Deutschland. Dissertation. Research. Springer Fachmedien Wiesbaden, Wiesbaden
- Roos MWM, Reccius M (2021) Narratives in economics. Ruhr economic papers, no. 922. Ruhr-Universität Bochum (RUB) Department of Economics, Bochum
- Rouette HK (1996) Textilbarone: Industrielle (R)Evolution in der Mönchengladbacher Textil-, und Bekleidungsgeschichte. Laumann Druck und Verlag, Dülmen
- Seebacher A, Alcántara S, Quint A (2018) Akteure in Reallaboren Reallabore als Akteure. In: Di Giulio A, Defila R (eds) Transdisziplinär und transformativ forschen. Springer Fachmedien Wiesbaden, Wiesbaden, pp 155-159
- Shiller RJ (2020) Narrative Economics. Princeton University Press, Princeton, N.J.
- Stadt Mönchengladbach (2016) mg+ Wachsende Stadt: Strategiebuch, Mönchengladbach
- Stadt Mönchengladbach (2021a) Textiltechnikum: Textile Vergangenheit. https://textiltechnikum.de/ textile-vergangenheit. Accessed 24 Feb 2022
- Stadt Mönchengladbach (2021b) Standortfaktoren: Kultur, Sport, Wissenschaft, Bildung und Infrastruktur. https://www.moenchengladbach.de/de/aktuell-aktiv/mg-wachsende-stadt/unsere-stadtentwicklungs strategie/standortfaktoren. Accessed 24 Feb 2022
- Stam E, van de Ven A (2021) Entrepreneurial ecosystem elements. Small Business Econ 56(2):809–832. https://doi.org/10.1007/s11187-019-00270-6
- Steen M (2016) Reconsidering path creation in economic geography: aspects of agency temporality and methods. Eur Plan Stud 24(9):1605–1622. https://doi.org/10.1080/09654313.2016.1204427
- Stöhr WB (ed) (1992) Global challenge and local response: Initiatives for economic regeneration in contemporary Europe. Cooperation for development series European perspectives, vol 2. Mansell, London
- Storper M (2010) The regional world: Territorial development in a global economy, 2nd edn. Perspectives on economic change. Guilford Press, New York
- Textilakademie NRW gGmbH (2021) Textilakademie NRW. https://www.textilakademie.de/startseite. html. Accessed 24 Feb 2022
- Thomas WI, Thomas DS (1928) The Child in America: Behavior Problems and Programs. Knopf, Oxfort Tödtling F, Trippl M (2004) Like Phoenix from the Ashes? The Renewal of Clusters in Old Industrial Areas. Urban Stud 41(5–6):1175–1195. https://doi.org/10.1080/00420980410001675788
- Tödtling F, Trippl M (2013) Transformation of regional innovation systems: from old legacies to new development paths. In: Cooke P (ed) Re-framing regional development: Evolution, innovation, and transition. Routledge, London, New York, pp 297-317
- Turowski J, Mikfeld B (2013) Gesellschaftlicher Wandel und politische Diskurse: Überlegungen für eine strategieorientierte Diskursanalyse. Werkbericht Nr. 3, Berlin. https://www.denkwerk-demokratie.de/ wp-content/uploads/2013/10/DD_Werkbericht_3.pdf. Accessed 17 June 2022
- WFMG (2020) Textil & Mode. https://www.wfmg.de/fuer-unternehmer/leitbranchen/textil-mode/. Accessed 24 Feb 2022
- WFMG (2021) Struktur. https://www.wfmg.de/ueber-uns/struktur-historie/. Accessed 24 Feb 2022
- Yin RK (2018) Case study research and applications: Design and methods, 6th edn. SAGE, Los Angeles, London, New Dehli, Singapore, Washington DC, Melbourne

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