

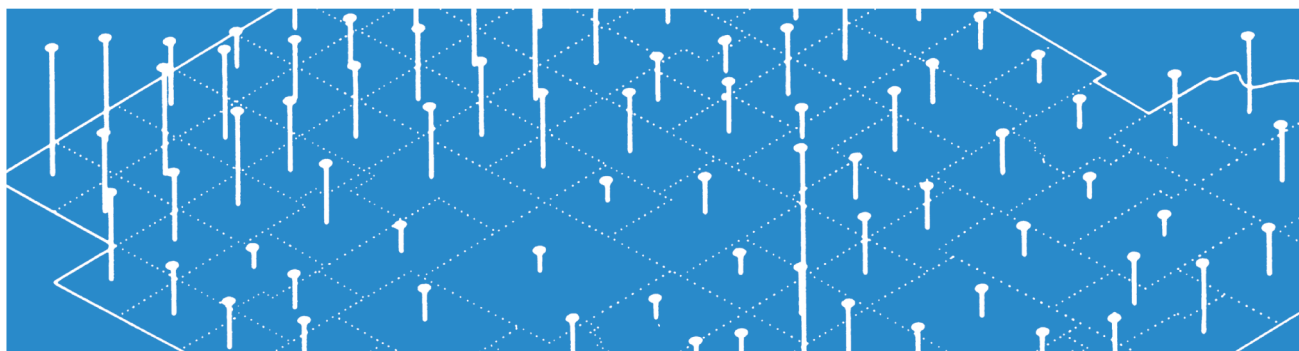
Tolerance: Impact on Regional Economic Development?

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Abstract:

The paper explores tolerance and its contextual embeddedness in urban and regional social milieus. It is currently not possible to fully explain why regions differ both in direction and dynamics of change over time. Recent research in economic geography - following the Romer-Lucas paradigm – shifted the focus towards investigating the impact of both codified and tacit knowledge on economic development. Research on creativity carries the argument a step further. Knowledge refers to a given stock; creativity, instead, is defined as exploring inventions via departing from conventional reasoning and praxis. The paper follows an evolutionary perspective and highlights to what extent tolerance may speed up both knowledge generation and knowledge absorption. To what extent is tolerance shaping urban and regional dynamics, based upon personal and institutional capabilities of venturing new ideas, technologies or organizational solutions? Local milieus that are characterized by tolerant and open attitudes shared by its residents might stimulate both economic and social change. Thus the paper allows some additional insight into the black box mechanics of why some cities grow and gain wealth, whereas others deteriorate.

Contrary to R. Florida's approach to measuring different grades of tolerance in cities and regions, the author uses data of electoral votes in Germany (disaggregated at city levels) as an independent variable. In particular, cities and regions enjoying over proportional quota of both liberal and green votes in federal elections seem to perform better in economic terms than others, as measured by regional GDP per capita and other dependent variables. Voting patterns might indicate specific profiles of the local tolerance/intolerance balance as well as characteristics of urban and regional "business climates", resulting in a complex process inducing jobs, income and wealth. Thus the author intends to contribute to a better understanding of why highly qualified creative people seem to prefer urban milieus with both a tolerant atmosphere and with positive attitudes towards openness for new ideas and start ups.

Note:

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Preface:

Tolerance is an issue that economists and geographers rarely address. Not so philosophers, novelists and historians. To them the causal link is beyond dispute: tolerance influences both social change and economic wealth in multifaceted ways. What has been elaborated on in novels and essays in various shades and seems to be an undeniable causation is unproven territory for economists and geographers, who used to ask: where is the evidence?

Budapest 1890 – 1918: Recently K. Merton reminded in her book “The Great Escape” (2006) of three exceptional decades that allowed the City of Budapest to rapidly transform into one of Europe’s most thriving metropolis and its dramatic decline thereafter. Prior to World War I, Budapest had become a hot spot stimulating the economy and quickly changing society of the late Austrian-Hungarian Empire. Budapest back then benefited from the city’s tolerant atmosphere and open minded civil society which attracted migrants from rural villages of Hungary’s provinces and other parts of the Balkan region to migrate to the city of Budapest and to accommodate to its thriving society as “freie Bürger”: residents, merchants, lawyers, doctors, musicians or scientists. At that time Budapest became the birthplace of more than two dozens of outstanding scientists, writers, artists and musicians (some of them later to be honoured as Nobel-Prize winners) such as Arthur Koestler, Robert Capa (Photographer), film maker Michael Curtiz (Casablanca), composer Béla Bartók, the musicians Eugene Ormandy, Georg Solti and George Szell as well as a couple of prominent economists, e.g. Leo Szilárd, Denis Gabor, Philip Lenard, John von Neumann, Eugene Wigner and Edward Teller. Historians, poets and novelists have described in detail how tolerance affected social dynamics and the thriving economic upswing back then. Tolerance, open mindedness and the dominant laissez faire attitude during the last stage of the feudal Habsburg regime helped to stimulate creativity and research in various disciplines. In particular Jewish families were encouraged to assimilate and to live – without fear – as accepted members of the growing city’s civil society.

It is also well documented how these few liberal decades have come to an abrupt end. With Bela Kuns’s short interregnum in 1918 that established a communist regime, and was followed by Admiral Miklòsh Horthy coming into power in 1920, Budapest changed dramatically. Horthy’s National Army executed a cruel revenge of violent repressions against Communists, Social Democrats and Jews as part of what became Europe’s first fascist government, well ahead of those led by Benito Mussolini and Adolf Hitler. By subscribing to anti-Semitic prejudice, Horthy reversed Budapest’s tolerant atmosphere into an intolerant one, creating fear among local residents and forcing the very best talents to leave the country, simply to survive Horthy’s “White Terror”. The evident result was social deterioration, an accelerating exodus and economic stalemate, lasting for about 70 years by cumulating 1944/5 and continuing throughout the communist years.

I. Introduction

This paper explores the issue of tolerance and its possible impact on the economics of cities and regions. Tolerance is conceptualized as an element embedded in regional milieus. It is assumed to be part of the regional value structure thus determining the city-region’s specific atmosphere in social-psychological terms (**social capital, Malecki, 2012**). In addition, the absence of tolerance in regional milieus is considered. Is there – ceteris paribus – any empirical evidence (or, if not, are there at least any indications) supporting the notion that there is a sort of a causal link which might explain to what extent tolerance allows cities and regions to either prosper or to default in social and economic terms? The paper starts with the following hypothesis:

The degree to which tolerance is accepted – or rejected - as a social norm rooted in the local value structure, and shared among residents, entrepreneurs, policy makers, administrations at the city-regional level, has an alleged indirect impact

on the performance of the economy in this particular city-region, as measured by GDP p.C., household income p.C., innovation, employment and/firm creation. Tolerance works through improving communication channels. It is assumed that tolerance eases both generating new internal knowledge and absorbing external ideas and innovations for new products, processes, policies and organisations, researched and developed elsewhere in the global world.

In the course of the paper, the author elaborates his hypothesis and discusses why both tolerance and intolerance may have an effect upon knowledge creation and absorption and thus on speeding up or slowing down innovation. Using the concept of firms embedded in regional milieus, tolerance/intolerance, conceptualized as an element of the regional milieu, might very well be interpreted as being one of the most essential elements, although not the only one, in the chain of intertwined causal links resulting in inducing the economic dynamics of cities and regions.

Tolerance is a factor that has received little attention in urban and regional science so far. By conceptualizing tolerance as a social norm and attitude that is shared to a more or lesser degree in local milieus, tolerance is embedded in social milieus, working in collaboration with other factors. The author intends to avoid any mono-causal approach as to explain regional change. Clearly, the value-structure of the regional milieu - tolerance is part of this milieu – is not working in isolation. Tolerance is considered as co-evolving in rather dialectic processes together and in close interaction with the regional economy, social disparities and institutional frameworks (Nelson, Winter, 1982), but also simultaneously being an indispensable element in a complex causal mechanism of social and economic change, which still is considered to be largely a black box.

Investigating the possible impact of tolerance is driven by the motivation to add a somewhat undervalued component to the existing body of research. Upon reviewing the literature one has to agree with P. Oinas' statement: Regional scientists seem still to be far from having a complete insight into the mechanics of causal interaction (Oinas, 1997). Despite tremendous achievements in theorizing and modelling economic and social developments at both national and regional levels, urban and regional researchers and policy makers seem to be less certain about answering basic questions such as: What governs urban and regional change? (Storper, 2008; 2009; Storper, Bocci, 2008; Storper, Scott, 2009). In terms of the "classic" urban theories, uncertainty prevails once it comes to answer these questions:

- Why do some cities and regions – even within the same country or state and even with identical regulatory frameworks – grow, while others shrink ?
- Why do some cities and regions gain in productivity and increase their value added, while others seem only gradually to be pulled up or continue to degenerate with little chance of a turn around?
- Why do some cities and regions succeed as forerunners in generating innovations while others only benefit from diffusion with time lag?

In the age of the Internet and the advent of the knowledge economy in the globalizing world, both scientists and practitioners **seem no longer to be certain** about what the specific dynamics are and which consequences of urban and regional policies could be anticipated. There seems to be a growing interest among urbanists, economist, social scientists, historians and geographers to answer such central questions: What is – in a given locus – the most relevant combination of factors, working together or contradicting each other and resulting in path

dependencies and shocks both determining growth or decline? Further: What is the right policy mix, grounded by a solid and reliable body of urban theories and empirical work for diagnosing and curing urban diseases? (Storper, 2009). Which theories can seriously help to explain the multifaceted interaction process of urban and regional development?

One of the deficits in urban theory concerns what R. Boschma and R. Martin have called the evolutionary perspective in urban research, reminding the academic audience not to forget historical analysis **to be better** equipped for explaining evolutionary processes via longitudinal analysis (Boschma, Martin 2008). Another deficit concerns multi-disciplinary research designs beyond disciplinary boundaries, e.g. by including analysis of social-psychological norms in local milieus. Local milieus – including tolerance and openness – seem to contribute to the dynamics of urban and regional change and should be included, if one aims at explaining the causal dynamics of cities and regions in a comprehensive perspective beyond the limits of traditional economics and social sciences.

This paper is organized as follows. The first part of the paper is devoted to some reflections on the possible contributions of tolerance/intolerance in the wider context of the regional development literature such as the endogenous economic development paradigm, the knowledge discourse and the theory of innovative milieus; thus the author explores several hypotheses related to the intertwined mechanisms that result in observable measures of regional change. In doing so, the author outlines his argument, through which channels tolerance might spill over and impact socio-economic developments at city-regional levels. Second, a brief summary of R. Florida's often cited tolerance-hypothesis is provided, including a critique of his approach of measuring tolerance. Third, the author introduces an alternative approach to test tolerance. Fourth, drawing on data derived from electoral voting in Germany, some empirical tests, based on rather simple correlations, will be presented. Fifth, the author adds some reflections on how to interpret these findings in terms of their possible causal dimensions.

II. Historical Background

What constitutes a tolerant atmosphere at the city-regional level? How to measure the mental characteristics of city-regional milieus? What are the possible effects on social and economic developments linked to the existence of tolerance versus intolerance?

Before testing the concept of tolerance, a brief overview might be helpful sketching the philosophical background of tolerance that is deeply rooted in the history of both Europe's and North America's culture and intellectual discourse. Historically tolerance is an outcome of the upcoming civil society in the 18th and 19th centuries struggling for liberalism against persisting repressions from feudal regimes. Originally tolerance was first achieved in religion and church matters, however in later times, the concept of tolerance was extended to tolerating the working class and migrants from various ethnic backgrounds and genders. As early as 1598 the **Edict of Nantes by Henry IV**, King of France, stated the civil right to serve one's own religion. The **Tolerance Edict of Potsdam** from 1685 allowed Huguenots from France to settle in Prussia, granting them land and tax exemptions. Tolerance was originally based on the conviction that nobody should claim absolute truth, not even the king. Instead every citizen must respect and tolerate other citizen's views and convictions. This theme, applied to the assimilation and acceptance of Jews, was highlighted in Theodor Lessing's "Nathan the Wise". Demanding tolerance played an important role both in the French revolution in 1789 and in the formulation of the American Constitution in 1776. King

Frederic II (the Great) postulated tolerance in Prussia (“ein jeder möge selig werden nach seiner Façon”) and allowed e.g. Moses Mendelsohn to come to Berlin and live within the **walls of the city** raising his children and grandchildren. After the defeat of Napoleon in 1812 reforms were introduced constituting the libertarian foundation of the 19th century and allowing Jews and refugees migrating from France, Austria and the Netherlands to establish businesses and to allow their children to attend both schools and universities. Some were making a fortune in banking and entrepreneurship and some of them gradually gained reputation as respected members of the civil society (artists, musicians and scientists) (Lackmann, 2005).

Throughout the 20th century tolerance has over and over again been dismantled, undermined and erased by totalitarian regimes in Germany, Russia, Italy and Spain. Due to intolerance and anti-Semitic prejudice that was spreading throughout Germany's society most of the Jewish families had been expatriated or – if they were not able to leave – had been detained and mass-executed in NS-concentrations camps. In those endangered times, tolerant milieus had little chance to survive. Intolerance prevailed and had a strong negative impact on social and economic change.

III. Linking tolerant milieus to social and economic change

Drawing on publications such as Paul Krugman's new economic geography (1991) as well as following Paul Romer's (1990) and Robert Lucas' (1998) endogenous development theory, one has to be aware that during the last two decades the focus in regional science has pretty much shifted towards researching knowledge, innovation and technology advances as principal driving forces of city-regional change. In fact, inquiries into the globalization of markets are increasingly directed towards the firms' growing dependency upon high-end skills, information and knowledge that enables them to constantly update their products, services and processes. In order to stay ahead in the international race, forced by global competition and reinforced in the light of the product life cycle (Vernon, 1966; Duranton, Puga, 2001), businesses increasingly seem to depend on high-end knowledge. As Ash Amin and Patrick Cohendet have argued, research on the geographic dimension of both processes, knowledge generation and knowledge absorption may hold the key for understanding the spatial dynamics of the 21st century (Amin, Cohendet, 2004). In recent years research on knowledge, innovation and learning has had a tremendous impact on setting the agenda in the regional science discourse (Malecki, 2000; Glaeser, Maré, 2001; Acs, de Groot, Nijkamp, 2002; Boschma, 2005; Asheim 2009). With reference to this discourse it seems worthwhile to reflect about tolerance (or intolerance) as helping (or impeding) the speed of the process how knowledge is generated and absorbed at city-regional levels. It is not unlikely to assume that residents, firms and policy makers have a strong (or weak) association with liberal, open-minded, diverse, and tolerant values that contribute to local milieus, and that – vice versa – may result in a better performance in economic growth versus those rival city-regions that range lower in terms of their tolerance profiles.

Second, building on this body of research the concept of collective learning has been introduced (Lundvall 1992; Nonaka, I, Takeuchi, H., 1995; Asheim, 1996; Maskell, Malmberg 1999). Under the assumption that no single firm or city is able to assemble every piece of knowledge necessary for radical breakthrough-innovations, speeding up the innovation process requires not only individual capabilities, but also the ability to work in teams and networks, occasionally called regional innovations systems (Lundvall, 1992). Importing external knowledge and (re-)combining missing elements of knowledge by tapping

into the knowledge of experts or institutions located in other regions, even in distant continents is extremely relevant for successfully generating new knowledge to bundle all the components of knowledge by bringing together every single piece of both codified and tacit knowledge necessary for breakthrough- innovations becomes essential. The location might be a city-region, but could - to some extent – also be substituted via networks or temporarily get-togethers such as conferences and fairs (Boschma 2005; Bathelt, Malmberg, Maskell, 2004). Firms need locational flexibility as to where they might prefer to bring in the most needed external expertise linking it with internal experts and to figure out, whether electronic media can – at least partly - substitute for face-to-face contacts. Without going into details, large city-regions, enjoying diverse labour markets and hosting universities and research facilities, still best allow for an easy (re-)combination of the various elements of knowledge. Large city-regions with international airports are in a good position in terms of their competing advantage (Saxenian, 1994).

Because precision products and speedy implementation of new products and services determine success in global markets, it is critical to be quick enough in gaining access to those missing external elements to the knowledge bundle that cannot easily be generated in the city or region itself. External expertise that is absolutely necessary for an innovation breakthrough must be recruited from wherever it can be found worldwide, even at the most distant place globally. (v. Einem, Diller, v. Arnim, 1995, 188). The Internet may help to instantly transfer codified data, however for establishing mutual trust and for transferring highly sensitive, high-end knowledge and rather tacit knowledge, personal visits, travelling by air, conferences or workshops are indispensable (Gertler, 2006; v. Einem, 2011). The collaborative generation of new knowledge seems to work faster in cities with both diverse top-knowledge within easy reach and an open-minded, tolerant mentality. In this sense (large) city-regions hosting a wide spectrum of qualified open-minded people seem to reduce transactions costs. Personal contacts, still necessary for assessing and reflecting chances and risks in global markets could be established faster, easier and at lower costs. (Bathelt, Glückler, 2002; 2012). Also, the modes of co-operation are more feasible to be managed as long as cooperation is based pretty much on mutual trust and on unwritten rules not to be violated because of the danger of possible social sanctions. (v. Einem, Helmstädter, 1997).

Third, with reference to the absorption of knowledge, another aspect needs to be added. City-regions with a tolerant open-minded atmosphere also seem to prevail in terms of knowledge absorption. Because research and development requires drawing on findings, innovations and knowledge generated elsewhere, the time-span needed for picking up new ideas/innovation via diffusion is crucial. Thus the level of prior related knowledge is becoming important for easing this process. As W. Cohen and D. Levinthal have argued, the level of knowledge, already existing in a city-region prior to any new invention, largely determines whether external new knowledge can be absorbed quickly enough or even at all (Cohen, Levinthal, 1990; Rogers 2003):

This hypothesis is strongly supported by medical brain research into micro-processes of knowledge generation and learning (Pöppel, 2006; Roth, 1996). In analogy to medical infection theories actors within city-regions get more easily “infected” by new knowledge e.g. random contacts (v. Einem, 2009). Thus, by being located in city-regions with more tolerant milieus firms might be able to better meet the time constraints that are typical in the global competitive race, and enable them to stay ahead of other competitors.

Neuro-psychology science has demonstrated how the synapses of the brain actually work and why these processes are essential to understand personal learning and how cognition is gained

and stored in human brains. To understand and fully grasp the essence of any new idea, concept, or technology, human brains depend on lessons that had successfully been learned before and stored in human brains or in organisations. New knowledge often cannot be fully learned just by listening or reading research papers, books or e-mails, but must be absorbed and trained through repetition and thus been put into context with already existing knowledge. This is a process Nonaka occasionally referred to as “ba” (Nonaka, Takeuchi, 1995).

The consequence is that cities and regions can only hook up to international knowledge discourses, if residents (and organisations) have stored vast amounts of prior knowledge that is related to understanding upcoming new ideas. Cities have to invest in human capital in advance and keep channels for transferring and absorbing external knowledge open. This is supported via schools, education, learning and open-minded milieus. Otherwise, as W. Cohen and D. Levinthal (1990) have pointed out, upcoming new ideas simply pass by and cannot be absorbed at all. The diffusion of new ideas depends on prior related knowledge, enabling locally based firms to swiftly understand and to instantly judge the potential of any new concept, technology or idea, that might be added to and recombined with the existing regional knowledge base (v. Einem, 2011). Even contracting and learning from other scientists via conferences, short meetings and electronic information channels seems to work faster in city-regions that benefit from being curious, liberal and tolerant thus enjoying a strong pre-existing human capital base. A broad spectrum of pre-existing high-end skills together with modes of liberal and tolerant communication helps individuals and businesses to compete, especially if the regional social milieu is dominated by an open-minded mentality and oriented towards quickly absorbing new knowledge. Both the level of prior related knowledge and the openness for external new ideas result in instantly absorbing new knowledge.

Forth, starting from the notion of the embedded firm, it is widely acknowledged that firms are still geographically bound to certain locations and labour markets (Oinas, 1997). By now, it is beyond dissent that firms still need a regional base for localizing their headquarter, their research and development departments, their final assembly lines and quality control facilities, as well as their marketing, distribution and service branches. Each of these facilities usually has its own profile as to where the optimal location might be (v. Einem, Diller, v. Arnim, 1995). Also, for the purpose of recruiting personal for both management and executing staff firms depend on local/regional job markets. One powerful transmission mechanism is the ping-pong effect of the local labour market. Switching jobs either within city-regions or across boundaries works *de facto* as an effective transfer-channel of helping new knowledge to get diffused. Tolerant city-regions allowing for changing jobs induce swift adjustments in terms of recombining new and old knowledge. M. Granovetter (1985) in drawing on K. Polanyi's (1944) theory of “embeddedness” has introduced this thesis into regional science (Grabher, 1993), triggering further research to be conceptualized along this line in urban and regional sciences.

Fifth, following the Italian – French school of thought, regional scientists adopted the concept of the innovative milieu and applied it to the analysis of networks of the Third Italy as well as to those in Baden-Württemberg, the British M4 corridor, Denmark and regions such as Grenoble, Barcelona and others. (Aydalot, 1986; Aydalot, Keeble, 1988; Beccantini, 1990, Camagni, 1995 a; 1995 b; Camagni, Capello, 2002). Camagni characterized the learning effects of the milieu by pointing to imitation at reduced search costs due to inter-firm cooperation with little or no coordination (Schamp, 2000). In their view the various actors of a regional milieu are to some extent bound to follow the norms of the milieu regulated via social sanctions and constituting a kind of social “glue” (Camagni, Capello, 2002, 18). Both managers and employees do not act independently from local conditions of the milieu when

planning and reflecting future strategies. In addition the jointly used technical infrastructure, the mix of skills in local labour markets and local governance structures reinforces exchange of ideas, skills, and know how via jointly shared perceptions, even unintended behind the back of actors. In a sense actors that belong to a specific regional milieu depend on the norms and values shared by most regional residents. In many cases they even tend to “obediently” follow the specific norms and values that somehow dominate at city-regional levels. The notion of embeddedness in such regional milieus also refers to the cognitive horizon of what is collectively considered to be on the agenda and which themes might be neglected, overlooked or even avoided. The perception of both problems and what could be done about solving those problems might be stimulated or restrained according to the normative value structure of city-regional milieus. Research in specific local milieus seems to be in nascent stadium, however, there is some evidence that the selection of issues worth to be considered might be predetermined by the norms of the local milieu (Camagni, Capello, 2002), thus shaping the dynamics of regional change. Innovations have a socio – anthropological dimension and tolerance is one element in this.

In its elementary meaning, the concept of the innovative milieu reminds the reader of Alfred Marshall’s observation of something “being in the air” (Marshall, 1920; Bathelt, Malmberg, Maskell, 2004). Through its tolerant mentality collective learning might be eased in metropolitan agglomerations (Maillat, 1998; Storper, Manville, 2006). Both firms and employees seem to unintentionally co-evolve even without formal networking by being embedded in same regional milieus, if this milieu is characterized by its open atmosphere, shared norms, values, and general patterns of reasoning. Through harmonizing individual modes of thinking, every single actor seems to be a “victim” – unintentionally – of specific city-regional mentalities.

Sixth: In distinguishing information from knowledge, any creative process requires per se in its very earliest stage some kind of deviant thinking/acting that departs from conventional norms, reasoning or praxis. Creativity, defined as venturing a new mode of thinking or acting, usually needs to overcome existing barriers that might limit brain storming in social-psychological terms, either in teams or professional networks. From the very beginning experimenting with new ideas needs a tolerant environment, if not outright acceptance from other team members, even if speculative reasoning finally may end up in the garbage can. Creative inventions often follow a try and error approach. However, even unsuccessfully venturing new grounds in teams may help other group members to come up with another variant of the same basic idea that eventually may prove to be fruitful, especially if micro milieus are dominated by tolerance, learning and mutual curiosity.

In other words: Collective learning and innovation processes, both individual and in teams, may gain from tolerance. Stimulating creativity demands tolerant acceptance by others to avoid deadlocks and early discouragement of stalemate. Tolerance stimulates experimental attitudes and helps to avoid time-consuming detours in innovation processes. In this sense, innovative milieus may act as incubators through synergetic stimulation and induced competition resulting in constantly generating new knowledge (Camagni, Capello, 2002). Because advances could hardly be kept secret in local labour markets or professional networks for a longer time diffusion is gradually spreading out.

Summing up, after reviewing existing research the notion that innovations in global markets critically depend on speeding up the process of knowledge generation and knowledge absorption, encourages the author to design research that takes a closer look into the black box of both tolerant and intolerant regional milieus.

IV. Testing tolerance – hypothesis drawn from US data

Richard Florida's widely cited book "The Rise of the Creative Class" (2002) along with his subsequent publications (2005a, 2005b) have opened up a new paradigm of urban and regional dynamics. On the one hand his book proved to venture rather unconventionally into which urban conditions might help to improve creativity; on the other hand, he triggered a controversial debate among urban and regional scientists. His book has both been widely applauded and criticised. A number of scholars disagree by pointing to numerous inconsistencies in his analysis of regional data (Glaeser, 2004; Peck, 2005; Storper, 2008, Asheim, 2009). Others – using data from the EU - confirmed at least part of his findings (Rudder, Gillezen, 2008; Boschma, Fritsch, 2009). In reviewing R. Florida's arguments one has to say in all academic fairness, that although not all of his arguments are new, by referring to social sciences and research on value changes, R. Florida's thoughts are clearly beyond the more traditional disciplinary boundaries of economic geography, which per se is a step forward. However, because of using questionable data and limited empirical evidence, his publications seem to be more hypothetical reasoning. He is creative by coming up with a number of new hypotheses. Even if he still misses empirical evidence, his **work proves** to stimulate an ongoing debate among scholars on both sides of the Atlantic.

Although Florida is by far not the first economic geographer who claims that technical innovations, talent and knowledge are central for competitiveness of both high wage city-regions and low wage MegaCities that compete in global markets, he is probably the first scholar explicitly emphasizing that **tolerance** might – along with other factors - be an essential element in the mix of independent variables that contribute to the dynamics of city and regional change. In his view, tolerance helps the process of generating technical innovation, thus indirectly inducing wealth, income, and job creation. Florida started experimenting to test his tolerance concept empirically, coming up with constructing a so far unknown creativity index that allows testing. His results seem to support his view. Although plausible at first sight, at second sight, his concept of evaluating tolerance seems to create misunderstandings.

Clearly, one has to admit, testing tolerance is a difficult task. Additional research is needed to further test his hypotheses. One main problem is how to operationalise tolerance and how to calculate its possible impact at the city-regional level. This is definitely a complicated issue because tolerance relates to various aspects of a city-region's milieu and thus it must be assumed that tolerance might not be really independent: there is an interplay with social norms, ecological conditions, technical advances, cultural and political issues and – more generally speaking – business climate towards entrepreneurship, innovations and even failure. To capture all these various dimensions of tolerance in a single indicator is probably demanding too much.

To be more precise: R. Florida does not subscribe to tolerance in its philosophical definition, as briefly sketched out above. Instead he refers to tolerance in a rather wide and loose meaning. He is borrowing from both Karl Popper's open society, a concept Ralf Dahrendorf defined as a trial and error approach (Dahrendorf, 2004, 177) and Josef Schumpeter's thesis of creative destruction that works through falsification in the market place (Dahrendorf, 2004, 178), Florida seems to refer to both, open and diverse markets and to liberal laissez faire policies opening up various options for regional growth. Instead of postulating one single solution to foster regional growth Florida opts for a more tolerant concept that allows for a

pluralistic variety of factor combinations. Thus in his publications he usually uses the expression “tolerance and openness for diversity” emphasizing the combination of both elements. He follows – although this is nowhere in his publications explicitly defined – a bi-polar concept (Florida, 2002, 249 ff).

- On the one hand he seems to have some sort of open society in mind. Drawing on social scientists such as Lloyd and Clark (2001) he wants to include the variety of urban subcultures and scenes that distinguish themselves from traditional norms by claiming to be “open-minded, diversified, and stemming from different cultural, social milieus” (Florida, Mellander, 2006, 11). He subscribes to a concept of tolerance that includes acceptance of citizens of different nationality, race, religion or ethnic background, homosexuals and gender. For him tolerance is manifested by modern post-1968 society with a strong emphasis on residents respectfully co-existing side by side, even if neighbours do not share the same views, but, to the contrary, explicitly do express different values, living-habits and green norms. In fact, his first pole is dominated by what R. Inglehart describes as post-industrial value-changes (Inglehart, 1997; Inglehart, Wetzels, 2005). Florida uses the term tolerance as a chiffrage for distinguishing modern lifestyles favouring green technology, acceptance both racial and of gender diversity, and values of self-expression typical of the post-materialized era from the older more utilitarian thinking that is typical in the industrialized Fordist world. 1)
- On the other hand, the second pole of Florida’s concept of tolerance refers to a more favourable business climate. He claims that cities and regions are more tolerant if they direct their policies towards deregulating both over-regulated administrative codes and complicated decision making procedures, improve easy access to venture capital and lower entrance barriers for start ups (Kenney, Florida, 2000, 98 ff). This is an entrepreneurial approach that refers to an atmosphere supporting both technical and business innovations as well as a general openness for experiments, science and its transfer into new products and processes. He characterizes a tolerant milieu as expressing support for being curious in a technical and business sense, quickly responding to external challenges, applying unconventionally new ideas and exploring organisational change and experimenting with new cultural dimensions. In general, for him tolerance and openness for diversity seem to indicate a regional milieu without discrimination of information technologies, entrepreneurship, environmental protection, healthy food and innovations in social and political affairs. He claims that an open and favourable regional business climate results in innovative milieus, boosting start ups, and creating new jobs including the acceptance of business failures (Florida, 2002, 250, 52).

V. Testing tolerance with German data

In carrying the discourse a step further, it seems to be promising to take Florida’s bi-polar concept of tolerance seriously and to test it against a different set of data. Based on data from Germany’s statistical office, the author presents some preliminary results.

As criticized by several authors, the indicators Florida used to operationalize his creativity index are far from being ideal. In absence of any better indicator measuring tolerance and diversity at the regional level, his research must be appreciated as being the first attempt of

searching for new data sources. Given the practical constraints it is fair to acknowledge that R. Florida had to break new ground by using data sources that had never been investigated before. In attempting to evaluate tolerance and creativity Florida had to compromise. In order to carry out his research, he had to experiment. However, upon reviewing his analysis it soon becomes obvious: Florida's creativity index is far from being the best solution. Neither the bohemian index, nor the gay index nor the melting pot index fully capture all the aspects of what constitutes tolerance as an element of city-regional milieu. It is therefore necessary to test other data sources in search for a somewhat more adequate data base that might better capture the full meaning of all the bi-polar elements making up a tolerant and open city-regional atmosphere in the said sense.

One such alternative possibility is using disaggregated voting data at the city and regional level (independent variable) and analysing those data against indicators of regional economic performance (dependent variable). This approach may be fruitful, starting from the assumption that voting patterns mirror to some extent regional value and mental profiles. Testing regional tolerance via the electorate seems promising since political scientists have occasionally used these data for mapping regional milieu profiles. Political scientists, e.g. those at the Mannheim Institute "Forschungsgruppe Wahlen" keep on pointing to the notion that elections can be interpreted as voting for or against certain values, declared goals and programs a political party has claimed to stand for in both federal and state elections (Forschungsgruppe Wahlen, 2008/2009). The analysis of votes is based on the observation that residents not only vote for or against certain candidates, but that their votes are also meant to express support for or against certain goals declared in party programs to be essential to its wider constituencies.

Contrary to only two parties – Democrats and Republicans - in the US, the spectrum of political parties in the German Bundestag is wider and more differentiated. All of the six parties in the Bundestag (CDU, CSU, SPD, FDP, Grüne, Linke) have rather clear profiles as to their core constituencies, despite some overlap. This allows researching the profiles of political parties, which they have been expressing prior to elections, in more details. Programs of political parties in Germany differ considerably as to their stated priorities, including how they value elements such as tolerance and openness. On the one hand there are parties that openly favour anti-liberal security standards, thus openly restricting other views and stating intolerant attitudes against immigrants from Islamic, Asian or African countries. On the other hand there are two parties openly supporting policies for liberalizing immigration in particular for the highly educated. In addition, party policy programs are quite different in terms of creating conditions that either support or restrict businesses.

In addition there are several small parties competing for votes both on the extreme right and on the extreme left side of the political spectrum. None of these extremist parties made it ever into the Bundestag and only a few have ever succeed in gaining more than 5% in state elections. This is the constitutional threshold parties have to meet, making them eligible to parliamentary seats in the Landtag (state-parliaments). However, as they get at least some votes from protest voters on both sides of the political spectrum, election results demonstrate that there is some kind of intolerant mentality locally. Even as an extreme minority they do influence city-regional milieu. Therefore it makes sense to add the votes of all the extremist parties, for the purpose of this investigation. The sum of all extremist votes gives at least an image of local anti-tolerant resentments still persisting in some cities and regions.

By analysing regional voting patterns either in favour of tolerance or objecting to tolerance it is assumed that ranking cities and regions as to their grade, tolerance is accepted or rejected at

city-regional level, provides reasonable insight into city-regional milieu-profiles. The author uses voting data as an indicator for assessing the degree of openness and tolerance embedded in regional milieus. In doing so, the author argues that it is a feasible approach, to draw from regional voting patterns some valid conclusion as to which views people share in cities and regions.

For the purpose of this investigation, it is not necessary to rely on indicators such as the gay index, the bohemian index and the melting-pot indicator, because the Federal Statistical Office of Germany provides scientists with two sets of disaggregated data. In fact, the data available in Germany allows the author to avoid constructing a somewhat obscure creativity index. Basically there are two data files, allowing for detailed analysis at the level of cities and regions (counties, Kreise, kreisfreie Städte).

Coordinated by the Federal Statistical Office (Wiesbaden) the states (Länder) have compiled disaggregated data at county levels, resulting in a bi-annual publication. (Statistische Ämter des Bundes und der Länder 2006, 2008). The Federal Ministry of Transport, Construction and Urban Affairs provides through its office BBR (Bundesamt für Bauwesen und Raumordnung) in Bonn a bi-annual CD ROM called "INKAR" with a wide spectrum of regional data that allows for disaggregated analysis. The CD ROM includes indicators on items such as population, economic performance, business development, labour market, taxes, income, housing, education, health and social services. (BBR, INKAR, Bonn, 2006, 2009)

For the purpose of this investigation both sets of data had to be combined. With respect to operationalizing both independent and dependent variables, the two datasets were merged thus providing a full range of information at the city-regional levels, such as demographic characteristics, migration, ethnic background, voting in federal and state elections, GDP per Capita, value added, household income per Capita, employment, unemployment and firm creation. A selection of these indicators has been used in the following analysis. In total the author compared 20 metropolitan areas (by aggregating city and regional data in the geographical definition of the Federal Office of Regional Research) for metropolitan regions, including at least one core city with 250.000 residents (or more). Small and medium sized cities as well as rural areas are excluded from the analysis. The author focuses on cross regional comparison of the performance of the largest city-regions (metropolitan areas) exclusively. 2)

According to the author's research design the degree of tolerance to be accepted or rejected at the city-regional level is conceptualized as an independent variable. The author uses data stemming from the federal election in 2005 (Bundestagswahl 2005) and correlates these data against dependent variables, such as GDP per capita, household income per capita and start ups of new enterprises per 10,000 residents all at the city-regional levels.

In terms of tolerance two parties seem to be of particular interest. Both stand for change, although pulling in different directions. The two parties are the Liberals (Freie Demokraten, FDP) and the Greens (Grüne). This is in line with Florida's bi-polar concept of tolerance. In a nutshell, they represent two different poles of tolerance. On the one hand there is the liberal-business friendly approach (neo-liberalism); on the other hand there are those constituencies of the Greens that tend to favour human rights and environmental protection. These two parties advocate clearly distinguishable policies, corresponding with the two poles of tolerance mentioned above 3). For the purpose of investigating the impact of the bi-polar profile of tolerance, it is legitimate to select and add the votes of these two parties in federal

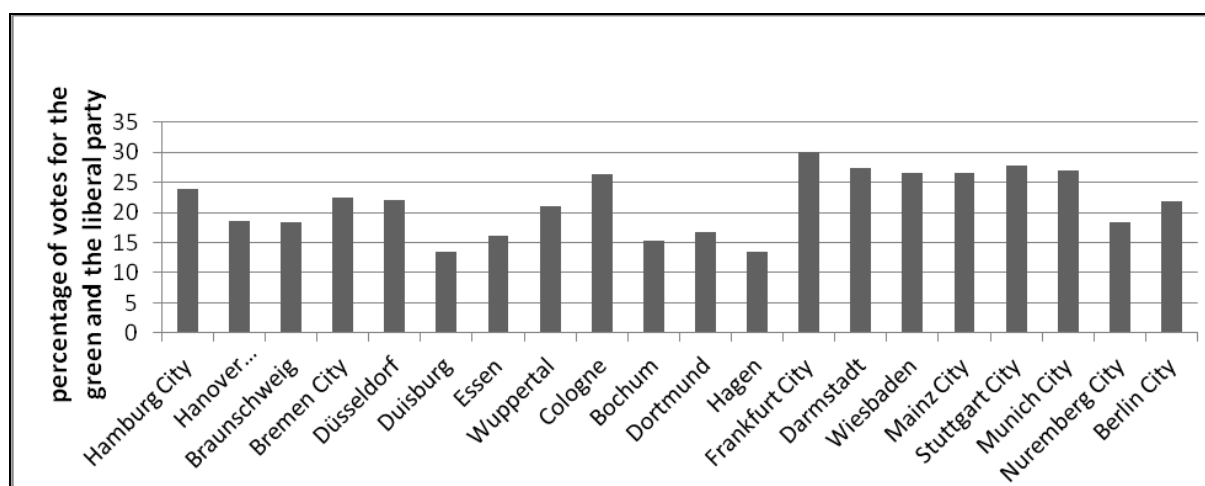
elections 2005. In search for an appropriate indicator measuring the degree of tolerance, the author claims that the added votes both the Liberals and the Greens gained in federal elections, disaggregated at city-regional levels, may serve as a valid indicator for liberal and tolerant values to be accepted or rejected in local milieus. It is plausible to assume that the sum of the percentages of votes best captures their profiles as to the extent of how much tolerance is accepted locally.

VI. Findings

The findings are presented in the following graphs. The data stem from plotting the regional percentage of liberal plus green votes in the Federal Bundestag elections 2005 against economic performance indicators.

Impact of tolerant milieus: There are considerable differences in terms of city-regional tolerance-profiles (Graph A.1) ranging from 13 to 30 percent of the total vote for the added liberal-green vote. The sum of both votes indicates the degree to which both the liberal business friendly concept of tolerance in terms of self-reliance, deregulation and supporting entrepreneurs and the green concept of tolerance in terms of civic and human rights is rooted in the social fabric of every city-region. Adding the votes for these two parties in the federal elections 2005 at the regional level can be evaluated as voting for or against tolerance and openness in local milieus.

Graph A.1: Degree of Tolerance measured via Percentage of Green and Liberal Votes in the Bundestag Election 2005 at City-Levels



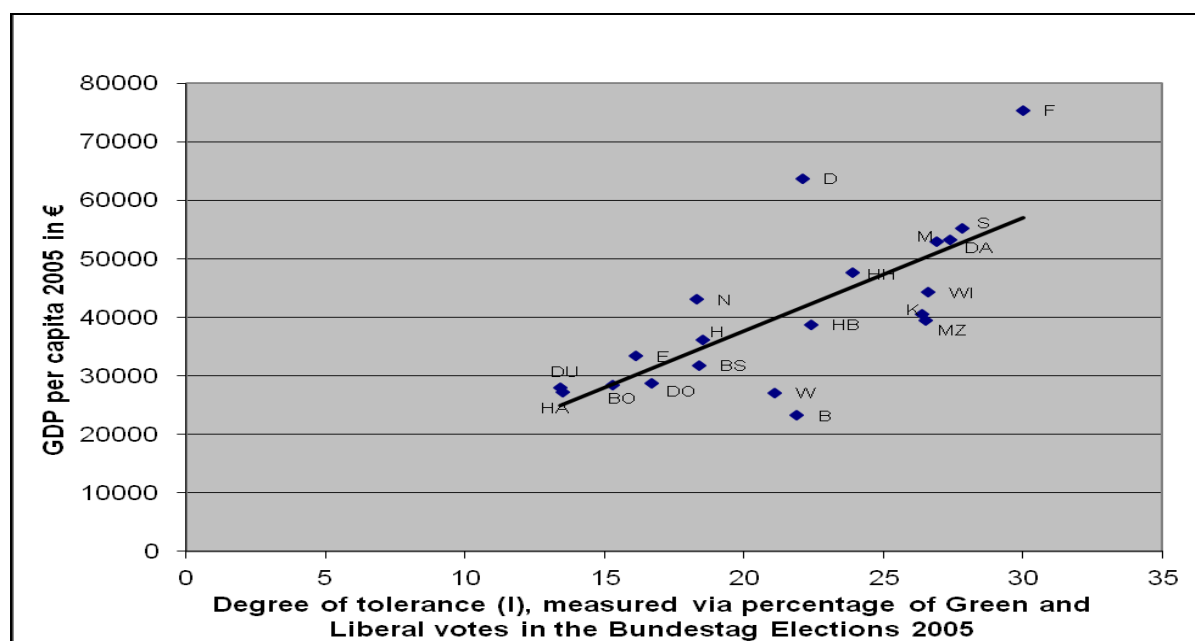
What is the message these correlations can tell? Graphs A.2 to A.5 evidently reveal correlations (at statistically significant levels: $R^2 = 0,53 - 0,67$) and provide evidence that economic performance at the local level might very well correlate with tolerance and open minded milieus of local residents - although these observations need further testing, before any causal conclusion can be confirmed. If these results underwent further analysis, its implications would be far reaching for the understanding of urban und regional change. In particular, they would shade further light onto the innovative milieu debate as the author has outlined earlier.

In order to gain a better understanding of the mechanism at work, it is necessary to add another aspect, because a closer look at the independent variable “tolerance” raises the

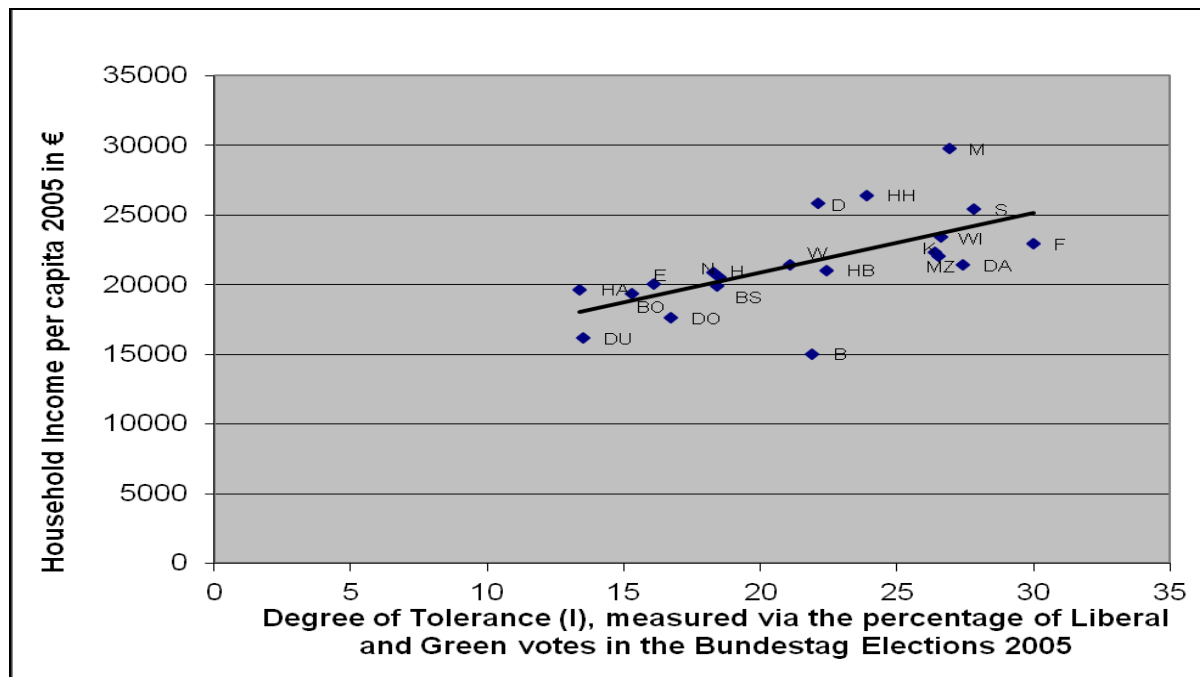
question of whether the measured degree of tolerance is really independent from any other intermediate variable. Evidently it is not, because there seems to be an overlap with the city-regional level of skills expressed by education, schooling and university attendance. This limitation becomes obvious when looking into the demographic and socio-economic details of the constituencies of both the FDP and Green voters. Election analysis show that the constituencies of both parties enjoy over-proportional acceptance among the highly educated, that have graduated from colleges and university. In addition both parties succeeded in gaining an over-proportional share of the votes among younger residents 4).

These estimates shed some light on possible causes and consequences as well as on the assessment of the impact tolerance might have on economic dynamics. Because the level of education is higher among the constituencies of both parties, the correlations presented above must be interpreted in the light of the human capital theory. Tolerance and education are not independent one from another. To the contrary, one cannot escape the notion that the correlation of the city-regional level of tolerance might be overshadowed by different levels of school attendance, illustrating diverse qualification profiles at city-regional levels.

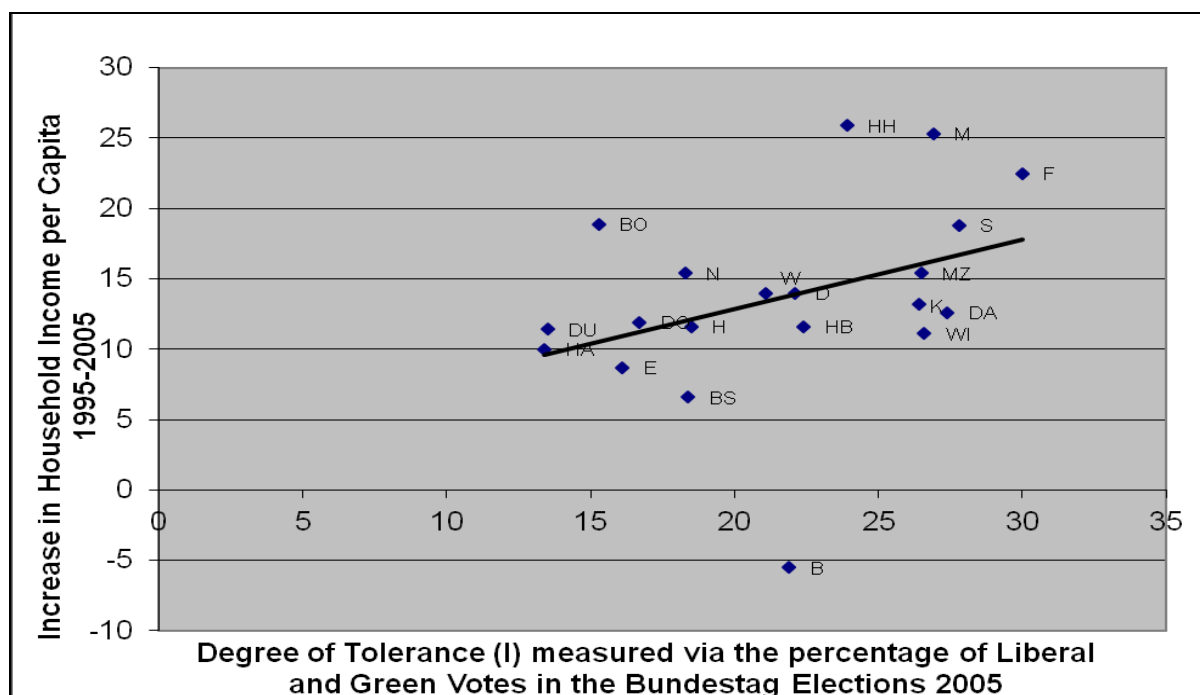
Graph A.2: GDP per Capita 2005 ./ Tolerance measured via Green and Liberal Votes in the Bundestag Election 2005 at City-Levels



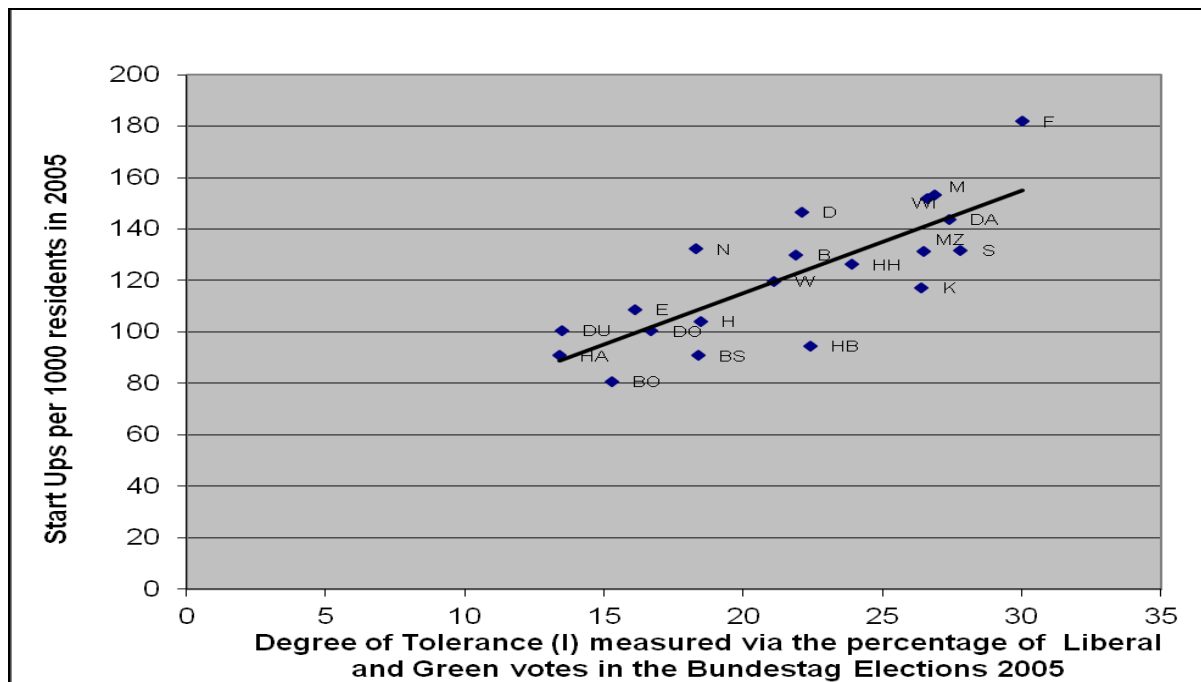
Graph A.3: Household Income per Capita 2005 ./ Tolerance measured via Share of Green and Liberal Votes in the Bundestag Election 2005 at City-Levels



Graph A.4: Increase of Household Income per Capita 1995 – 2005 ./.
Tolerance measured via Share of Green and Liberal Votes in the Bundestag Election 2005 at City-Levels



Graph A.5: Start Ups per 10000 Residents 2006 ./. Tolerance measured via Share of Green and Liberal Votes in the Bundestag Election 2005 at City-Levels



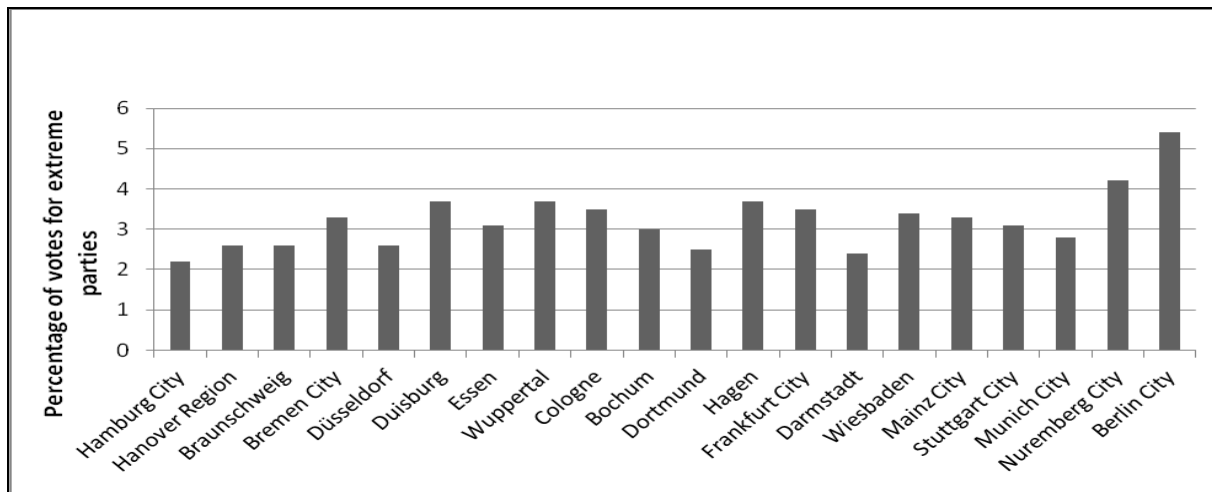
Graph A.5 is of particular interest as it focuses on another aspect of innovation. This graph demonstrates that even the percentages of start-ups are correlated to city-regional milieus with a strong emphasis on tolerance. This result is important because start-ups indicate structural industrial change in the sense of innovation. In many cases entrepreneurs wishing to build a business upon new concepts, products and services enter markets by starting as spin offs - thus rather setting up a new business instead of reinventing old (parent) firms. In addition research has revealed that start up firms once they survive their first volatile years in the market generate an over-proportional share of the newly created job, thus adding to the workforce (v. Einem, 1991; Storey, Greene, 2010; Acs, Armington, 2006) and contributing to both innovation and industrial change.

Impact of anti-tolerant milieus: The second test is upon turning to the flip side and to investigate if there is any negative correlation. The question is: To what extent is it realistic to assume that anti-liberal and anti-tolerant attitudes hamper economic change and possibly restrict wealth at the city-regional level? By adding electoral votes for both right- and left-winged extremists, the author claims to make anti-tolerance visible at the local level. (Graph B.1) 5)

Among metropolitan areas there are considerable differences in terms of local acceptance of extreme left- and right-wing values, ranging from 2 % up to more than 5 %.

Graph B.1: Degree of Intolerance measured via Percentage of Radical Right- and Left wing Votes in the Federal Bundestag

Election 2005 at City-Levels

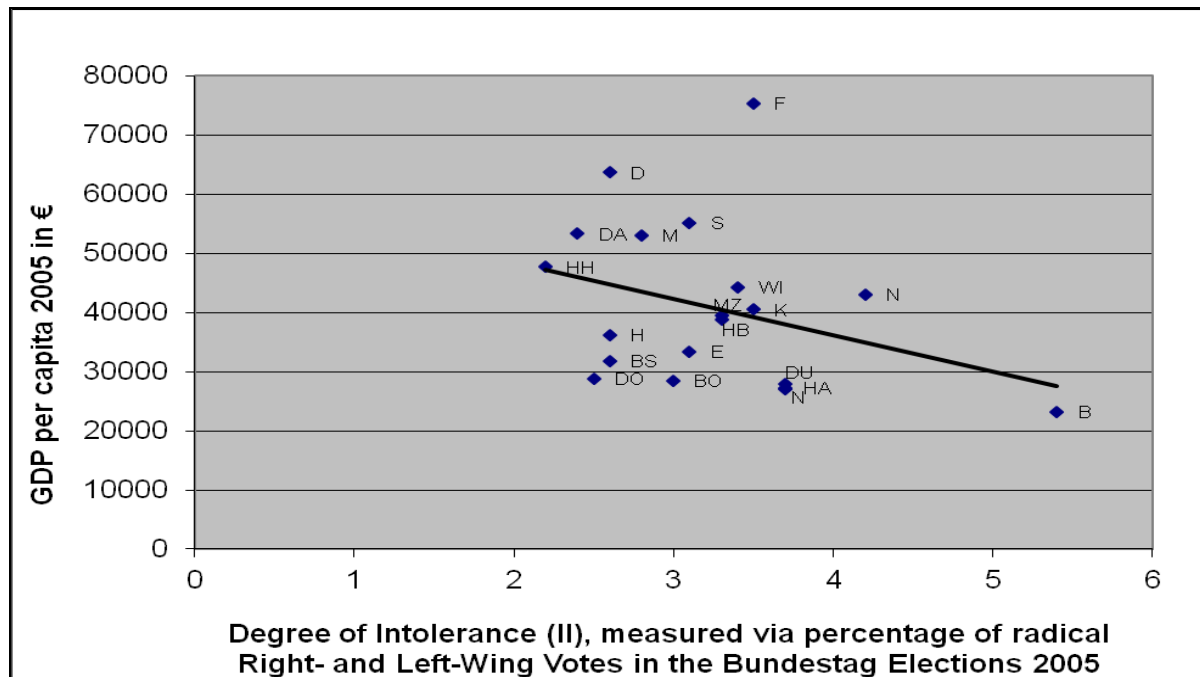


The following graphs B.2 – B.4 may indicate that there seems indeed – as expected – to be a correlation between a regional extremist expressing anti-tolerant mentality and a rather negative performance of GDP per Capita and household income per Capita.

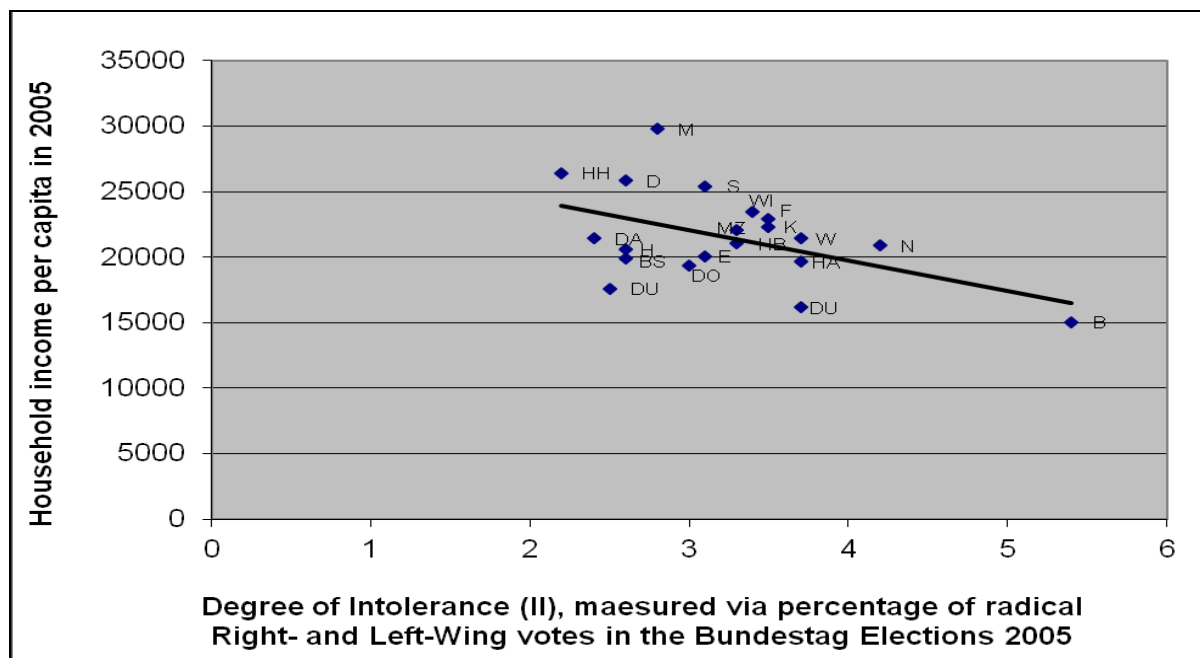
The added percentage of all extremist votes, anti-liberal parties gained in federal elections 2005 is plotted against selected indicators of city-regional level of GDP per Capita, household income per Capita, indicating city-regional performance. Analysing the electoral voting patterns allows the author to measure the city-regional share of residents that somehow follow values supported by either the far right or the far left. Adding the percentage seems to be a valid indicator for the degree of anti-tolerant attitudes and racial resentments that are still alive locally and present in local milieus.

What can be learned from the graphs B.2 – B.4? Although being on an insignificant statistical level ($R^2 = 0,18 - 0,32$) the findings indicate that there is a loose correlation. In fact, intolerance seems to be a handicap for the local economy and may impede firms to some extent from further investing. Any careful interpretation of these figures is, however, constrained by the low percentage under investigation. With percentages in the range of 2 - 5% of the total regional vote, any causal analysis has to consider other intermediate variables that might exert an influence: insufficient education, schooling, unemployment and economic specialization might have an additional negative influence on the dynamics of economic performance and must be considered. The quotas in support for both left- and right-winged parties on the extreme sides of the political spectrum, although small, seem to have some (insignificant) influence of poisoning the atmosphere at the local level and impeding GDP p.C. and household income p.C.. Indeed intolerance and anti-liberalism are prevailing in some cities and regions. The findings could in fact be interpreted as downgrading local milieus.

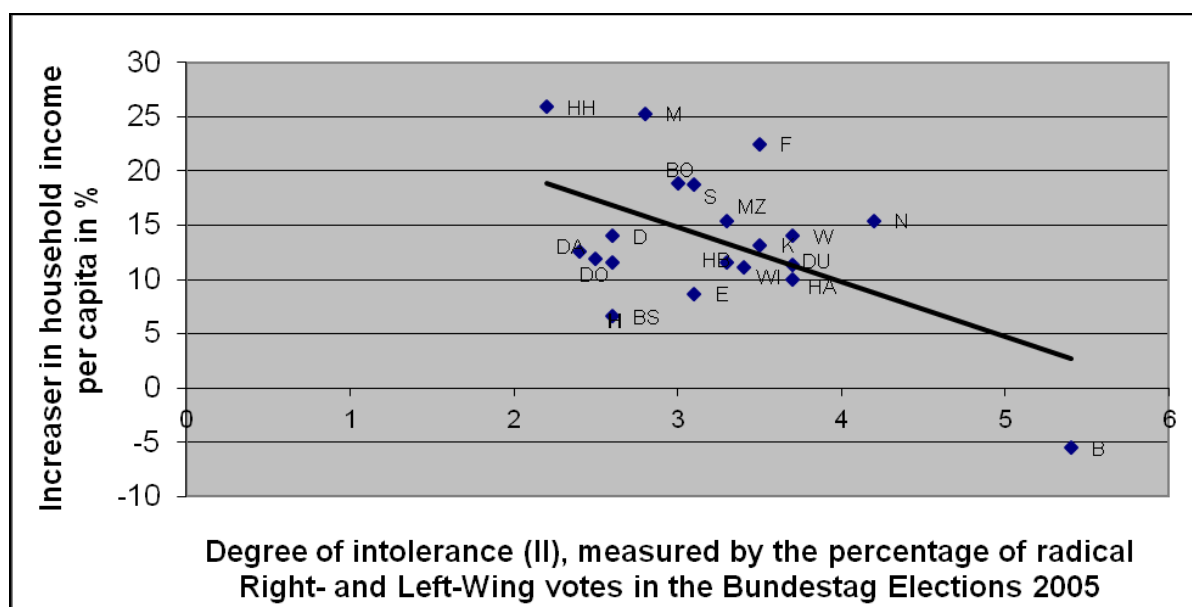
Graph B.2: GDP per Capita 2005 ./ Degree of Intolerance measured via Percentage of Radical Right- and Left-wing Votes in the Federal Bundestag Election 2005 at City-Levels



Graph B.3: Household Income per Capita 2005 ./ Degree of Intolerance measured via Percentage of Radical Right- and Left-wing Votes in the Federal Bundestag Election 2005 at City-Levels



Graph B.4: Increase in Household Income per Capita 1995 - 2005 ./ Degree of Intolerance measured via Percentage of Radical Right- and Left-wing Votes in the Federal Bundestag Election 2005 at City-Levels



VII. Conclusions

Contrary to research done by historians and contrary to the literature published by novelists on the disastrous political and social conditions in cities such as Budapest after 1918, Berlin after 1933, Madrid 1936 or Moscow after 1937, economists and geographers have to ask for the evidence and to argue carefully, when it comes to prove any causation.

As in most areas of social science, correlations must be interpreted with caution, as they do not provide any direct evidence as of what causes what. Aside from that, the graphs presented above provide some insight into which variable correlates to which, both at significant and insignificant statistical levels. The author argues that these figures, although based on rather simple two-dimensional correlations, bear some insight, when seen in the light of the literature. In a strict sense, however, as these findings intend to be a feasibility test, they do not represent a causal proof as to any direct and indirect effects of tolerance.

- On the one hand the graphs illustrate to what extent tolerance has diffused into local milieus. In addition the graphs also illustrate the opposite: intolerance still **prevails as a norm** in some city-regional milieus. Cities and regions clearly differ in terms of the percentage of how much support tolerant/intolerant attitudes enjoy in local milieus.
- On the other hand, the extent to which tolerance is helping to induce (resp. intolerance is impeding) regional GDP per capita, household income per Capita and start ups remains unproved territory. It might be too early to draw any final conclusion with regard to causal links.

In fact, only a few conclusions seem to be legitimate from the data, as the findings do allow only a glimpse into the black box. The exact causal mechanism – analysing the mix of interlinked factors actually at work - remains in darkness. The figures presented must be read

as an explorative exercise. Disentangling causes and consequences is a difficult task that needs further research.

In doing so, investigating the causal link may result in a “classic” deadlock situation where it is impossible to figure out in which direction any causation works. To quote M. Storper (1995): “Innovation occurs because of a milieu or a milieu is what exists in regions where there is innovation?” One has to be aware of perhaps unintentionally being trapped into any kind of circular reasoning. However, the debate should not stop here. In many cases, although the chicken-and-egg syndrome cannot be solved, the causality dilemma can very well be conceptualized as a dialectic relation of the variables investigated: this means the mechanics of causes and effects may be working hand in hand in both directions pushing up vice versa. In the authors view, this seems not to be unrealistic. He rather refers to the lines of reflexive thinking, presented in the third paragraph of this paper. Although final evidence is still missing, one could very well argue about possible indirect effects tolerant/intolerant regional attitudes might have.

In addition, analysing the contribution of tolerant (intolerant) regional milieus versus demographic factors, education, institutional change and capital is an exercise worth to be considered. The results indicate, that a tolerant atmosphere, embedded in local milieus at city-regional levels seem – among others – to be a favourable precondition to speeding up innovation processes, knowledge generation, knowledge absorption and the induction of creativity.

Much remains to be done. As a next step further research into the mechanics working within the black box might be on the agenda. Since researchers are still far from fully understanding the complex and multi-dimensional patterns of interacting causes and regional consequences (clearly distinguishing independent from dependent variables) the exploration of possible causal links in a longitudinal perspective seems an appropriate next step (Boschma, Martin, 2008; Martin, Sunley, 2007). Also, at this stage, in-depth case studies might best be feasible, because any investigation into specific regional levels of tolerance and their possible causal links to regional economic dynamics and performance still requires an experimental approach, venturing into unknown territories in order to uncover so far unknown interrelations. Quantitative follow-ups and modelling will be needed at a later stage.

In terms of analysing the direction into which the causal “mechanism” works and how these factors really interact, a heuristic approach is needed. With the help of case studies that facilitate an in-depth lens of how these factors act in collaboration either inducing or hindering the dynamics of regional change, further insight might be gained. It is recommended to design research along an evolutionary array (Nelson, Winter, 1982), because this approach best enhances our understanding of why city regional dynamics often seem path dependent. In doing so, evolutionary research seems to have succeeded in overcoming the problem of not knowing how any development process initially got started in the first place and what shocks might have distorted it. Historic research on how businesses, governance, technology and the milieu co-evolve and contribute to city-region performances is crucial for understanding the full picture: which of the various factors interact when, how and why? In this respect the paradigm of co-evolution seems to of helpful guidance. (Murmman, 2003) In designing such research, historic case studies (Schamp, 2009; Boschma, Martin, 2008) might also be recommended. Such an approach is required to simultaneously investigate causal relations in terms of a longitudinal perspective to not only capture the interaction of both firm performances and technical innovations but also the institutional and governance arrangements and changes in the value structure of the dominant regional milieus.

Acknowledgments:

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Footnotes:

1) Rejecting the stereotypes of the Sixties legacy, R. Florida argues that in his view, the “great divide” started from the counter-culture in Haight Ashbury (San Francisco) and the bohemians of Greenwich Village (New York) as well as from the Free Speech Movement in Berkeley, but resulted in Silicon Valley and Boston’s Route 128, which for him are the “proving ground” of the new ethos of creativity (Florida, 2002, 193 ff): Silicon Valley allowed departing from the conventional work ethos and integrating post-materialistic values into experimental and useful computer work and then into business start-ups (p 202 ff). Tolerance is meant to include low entrance barriers for both business and people that is “to be a place where newcomers are accepted quickly into all sorts of social and economic arrangements” (Ibid, 250) and venture capital is freely available (Ibid, 52). Prior to his book on the “creative class”, R. Florida along with his colleague M. Kenney had conducted research for some years on car manufacturing at the Honda factory in Columbus, Ohio and of the electronic businesses in Silicon Valley, thus it is understandable that his concept of tolerance is influenced by what he investigated there (Kenney, Florida, 2000).

2) Due to the data-distortions stemming from tax-transfer payments to East Germany in the years following unification, Leipzig and Dresden were excluded from the analysis

3) The profiles of Die Grünen and the FDP are summarised in both parties electoral party programs; they present cornerstones, the two parties stand for. (Die Grünen, 2009; FDP, 2009)

- The Greens (Grüne) grew in the seventies out of the protest against environmental hazards and damages as well as against nuclear power plants. Both the 2009 Green program called “The Future is Green” and the party’s 2009 “Green New Social Contract” clearly demonstrate that the Greens pragmatically advocate ecological reforms and protecting civil rights in the light of what they claim is a current anti-terrorist security paranoia. The Greens push for tolerance in multi-cultural ethnic programs, gender and anti-discrimination policies as well as for improving fairness against Immigrants and Non-Germans through actively integrating foreign-born residents. They also stand for respecting human rights, self-reliance and strict controls against abuse of personal data in the Internet. They advocate climate change control, renewable energy and modernizing society under the guiding principal of sustainability. With respect to science, the Greens focus on open source and free availability of scientific results, financed by taxes.
- The liberal party FDP (Freie Demokraten) is quite differently pushing pro-business policies, self-employment, entrepreneurship, deregulating over-regulated markets and advocating tax reduction. The FDP follows the principles of an open anti-etatism and has a concept of modernity in mind, based on cutting back the social welfare state. The FDP explicitly wants to gradually shift responsibilities from federal and state bureaucracies to the local institutions and the private sector. The FDP advocates better education and - as a second strand of policies - engages in protecting constitutional rights and liberal civic values. In doing so, the FDP brought several cases successfully before the federal constitutional court, thus forcing both Conservatives (CDU/CSU) and Social Democrats (SPD) to reverse unconstitutional laws, that both parties had enacted aiming at restricted civil rights via enhanced controls over data-transmissions on the Internet.

4) Demographic characteristics of both the Greens and the FDP (Forschungsgruppe Wahlen, 2009):

- **Greens:** Compared to an average of 10.7% in the Federal election 2009, the Greens got 18% of the votes in the category residents holding an university degree und 14% of the votes of residents aged 18 - 29 years. In state elections (Hessen 2009) the Greens averaged 13.7%, however among residents holding a university degree, their share was 25%.

- **FDP:** Compared to an average of 14.5% in the Federal election 2009, the FDP got 16% of the votes of the residents holding a university degree and 17% of the votes of residents aged 18 – 29 years. In state elections (Hessen 2009) the FDP averaged 16.2%; however among residents holding a university degree, the share was 22% (Ibid).

5) Before so doing, it might be appropriate to cite a most interesting panel study based on interviews that attempt to measure anti-liberal, intolerant and even discriminating attitudes among residents against foreigners. In fact, it might be tempting to think of the annual panel interviews with residents in a cross-regional perspective asking for attitudes and value changes, so to speak the other side of the coin. In Germany, this approach has been followed by Wilhelm Heitmeyer (University of Bielefeld), who interviewed a panel of 2000 residents annually. He investigates the shares of ethnic and racial discrimination, prejudice or anti-tolerant behaviour against immigrants and foreign-born residents. In fact, both racial and ethnic discrimination has been a persisting fact in Germany, predominantly in rural areas, thus severely discouraging investment into the local economy. Heitmeyer specialized in the field of social discrimination studies and gained access to detailed information on changes of values and attitudes, enabling him to draw up a pattern of intolerance and discrimination. Through his publications the audience learned a lot about persisting anti-liberal resentments and intolerant prejudices in the country, in particular discriminating against foreign-born residents. Unfortunately, the work he has been doing does not allow for any regional disaggregation. His data are available at the national level only, but not at the regional level. (Heitmeyer, 2005, 2009)

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