

Organisational Creative Capital: **are we there yet?**



A Master of Science thesis for the Business Administration programme

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Summary

The objective of this thesis is to research whether the concept of creative capital theory could be transferred from the urban level to the organisational level. The concept of creative capital has been a buzzword in urban research, but not in organisational research. This led us to repeat the words of DreamWorks' famous cartoon character Donkey: 'Are we there yet?'. Our main question was 'Can creative capital actually exist in organisations?'. If creative capital can exist in organisations, we wanted to ask two additional questions: 'how can organisations acquire creative capital?' and 'Which urban level factors affect successful application of organisational creative capital?'

We tried to answer these questions by using a literature review that covered three online databases. This procedure created a sample of 93 articles that represented research on creative capital on both the urban and the organisational level.

The current literature on creative capital was found to have spurred three main lines of research. These three lines of research covered: Florida's (2002c) creative class; policies on attracting the creative class; and research that studied the effect of urban diversity and urban tolerance on urban economic performance. None of these lines of research actually involved studying creative capital. Thus, it was concluded that research on urban creative capital had developed into research on urban creative capital holders, rather than urban creative capital itself. Research on organisational creative capital was found to be almost non-existent. We also concluded that urban creative capital was sparsely defined. Theories on urban creative capital were found to be underdeveloped. Research on urban creative capital holders showed a wide variety of empirical findings on the urban level with little theoretical development. It is concluded that both creative capital theory and theory on creative capital holders are in need of further theorising.

Based on a number of implicit definitions given in the articles from our literature review sample, we defined urban level creative capital as the aggregated creative ability of an area. Using the literature from our literature review we then defined organisational creative capital as an organisation's aggregated creative ability, that is embedded in the individual employees and teams of the organisation. We then continued by providing a conceptual distinction between organisational creative capital, organisational human capital and organisational social capital. Our next step, was to present a first conceptual model that includes organisational creative capital. This model indicates how organisations can accumulate their creative capital and how the application of organisational creative capital is affected by factors that come from the organisation's urban area.

Organisations can accumulate their creative capital by conducting a make, buy or ally decision. This decision allows organisational representatives to make trade-offs between the different methods of accumulating creative capital. Organisations can buy creative capital by hiring individual employees from outside the organisation that have a proven creative ability. Organisations can make creative capital by providing creativity training or by creating jobs in which employees can interact, communicate and work in teams. Organisations can also decide to go into an alliance with other organisations to acquire their creative ability for some time in exchange for another capacity of the organisation.

Our literature review identified three urban factors that influence the successful application of organisational creative capital. These were: the spread of entrepreneurial norms and values in areas, diversity of knowledge and experience in an area and many weak ties in an area.

We have attempted to transfer creative capital into a new domain; future researchers should try to empirically validate its existence. Our answer to the question of Donkey we posed at the outset of our paper, is therefore that creative capital needs more scientific attention or to answer in the style of the movie, we recapitulate Shrek's answer to Donkey's question: 'No, we are not there yet!'



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Acknowledgements

“Change is such hard work”

Billy Crystal (American Comedian, born in 1947)

The thesis you have just started to read is not a thesis in its traditional sense. My supervisors and I have chosen to use a paper format, which greatly limits the amount of pages and words. Fortunately, changing the format from a traditional thesis to a paper does not prevent the reader to get a full understanding of the research I have done to complete my graduation. The process of writing this thesis has lasted for a period of just over one year. It has been the result of many hours of work, blood, sweat, tears, frustration, reading, writing, more reading, and eventually even more writing. I hope you will enjoy reading this thesis, as much as I have put effort in it.

“Are we there yet?”

Donkey (character from Shrek 2, 2004)

Almost, I just need to thank some people. It would not have been possible to do all this work without a number of people, who I want to thank in the remainder of this section.

First of all, the two persons who have advised me during this process: André Veenendaal and Martijn van Velzen. It is not an everyday occurrence that you get a student that says that he wants to write a thesis that can be published. I think we have seen each other more than is usual for a master thesis, but your advice has been most welcome.....and needed. I think it has been a worthwhile project in the end and I am looking forward to cooperating with you in the future. I wish you all the best.

“Are we there yet?”

Donkey (character from Shrek 2, 2004)

Not quite yet! My family has been involved with my master thesis (even though they did not participate in any of the meetings) by supporting and motivating me throughout the entire process. Your support has been invaluable and larger than you know. Just having someone listening to your experiences and stories is invaluable. So a big thanks!

“Are we there yet?”

Donkey (character from Shrek 2, 2004)

Not yet, keep quiet now Donkey! My fellow graduate students from A131a and A133 have also supported me and provided an appropriate atmosphere to work on this thesis. More importantly, they have been a source of enlightenment by being constant discussants. Although I truly stink at playing table tennis, our games have been a very good way of relaxing from a hard day's work. Thanks guys!

“Are we there yet?”

Donkey (character from Shrek 2, 2004)

Almost! Finally I would like to thank the following people who have acted as reviewers of this thesis: Michiel Wolbers, Casper van Geffen, Freek van Eijndhoven, Kirsten van der Reest, Alexander Westerduin, Gerben van der Velde and Marijn ten Thij and in an earlier stage: prof. Jan Kees Looise. A special thanks for Jill Straatman, who suggested the final linguistic changes to the thesis.

“Are we there yet?”

Donkey (character from Shrek 2, 2004)

‘Yes... we are there, let's go!’

Sean Straatman BSc (Enschede, 11 December 2011)

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Organisational Creative Capital: are we there yet?

Sean Straatman

Introduction

The term 'creative capital' has been an important discussion topic for explaining economic growth in urban literature (cf. Florida, 2004b; Glaeser, 2005; Peck, 2005; Marlet & van Woerkens, 2007; Florida, Mellander & Stolarick, 2008; Petrov, 2008; Mok, 2009; Batabyal & Nijkamp, 2010, 2011). The debate within this literature has centered on the question how this 'urban creative capital' should be measured and accumulated (e.g. Florida, 2004b; Florida et al., 2008; Asheim & Hansen, 2009; Mok, 2009; Rentfrow, Mellander & Florida, 2009). This debate pays special attention to Florida's (2002c, 2005) creative class. This creative class is a list of occupations that have and use creative capital (Florida, 2002c). However, through this focus research on urban creative capital has stopped asking fundamental questions such as: 'does urban creative capital actually exist?' and: 'how can urban creative capital itself support economic performance?'

The currently most cited idea on urban creative capital is that "regional economic growth is powered by creative people, who prefer places that are diverse, tolerant and open to new ideas" (Florida, 2002c, p. 249). This would mean that urban creative capital can be interpreted as an area's group of creative people. Areas that have more creative people could then be expected to outperform areas with fewer creative people (Florida, 2002c, 2004a; Lee, Florida & Acs, 2004; Stolarick & Florida, 2006; Florida, 2008).

We expect that organisations should play an important role in this debate. As those are places where creative people work together to create economic value for the organisation they are in. The performance of these organisations influences the area's economic performance. Thus it seems reasonable to expect that organisations in areas with more urban creative capital are more successful than organisations in areas with less urban creative capital. Moreover, those organisations themselves may have more 'organisational creative capital'.

Organisational creative capital has been defined as: "an arsenal of creative thinkers whose ideas can be turned into valuable products and services" (Florida & Goodnight, 2005, p. 125). In this form it should arouse organisational scholars' attention. But apart from this definition there has not been another published attempt of defining creative capital for the organisational level. So does this mean the definition given by Florida and Goodnight is good enough? To put it in the words of DreamWorks' famous cartoon character Donkey: 'Are we there yet?' or does it mean that organisational scholars do not see anything new in creative capital?

Our objective is to explore creative capital and see if it is conceptually possible to identify creative capital in organisations. We attempt to answer three basic questions about creative capital. To answer these questions, first we will present the results of a literature review on creative capital. This literature review also provides an introduction into creative capital research for readers that are not familiar with creative capital. We then define organisational creative capital and present a conceptual model on how organisational creative capital acts in organisations. The three questions we aim to answer serve to explore the applicability of creative capital in organisations. Our first question was: 'Can creative capital actually exist in organisations?'. If this question rendered a positive answer, we then set out to answer the second and third question. The second question is: 'How can organisations acquire creative capital?'. Our third and final question was: 'Which urban level factors affect successful application of organisational creative capital?'. By answering these questions we hope to stimulate future research on organisational creative capital.

Reviewing Creative Capital Literature: Methodology

Sample creation

We used three search engines to identify literature on creative capital: SciVers Scopus database, Thomson Reuter's Web of Science database and Google's Google Scholar.

We carried out two searches in SciVerse Scopus database and two in Thomson Reuter's Web of Science database. First, we looked for articles containing "creative capital" in the title, in its abstract or as keywords. The publication date range was limited to the period of 2002 (the year Florida coined the term creative capital) until May 2011. This search rendered fifteen articles. Three of these articles mentioned "creative capital theory" in their abstract. We also included Florida's notion of the creative



class and performed a second search. We used the same databases and time period, but changed the query into “creative class” AND “theory”. As a result, twenty-six unique articles were added to our sample.

To make sure that nothing was overlooked, we used Google’s Google Scholar. Just typing “creative capital” in Google Scholar renders over 1700 results. We thus specified the search query, limiting the publication date range between 2002 and 2011 and confining the journal of publication’s name to include one of the following keywords: ‘administrative’, ‘business’, ‘capital’, ‘creative’, ‘creativity’, ‘econometric’, ‘economic’, ‘economy’, ‘geographic’, ‘geography’, ‘innovation’, ‘innovative’, ‘management’, ‘managerial’, ‘organization’, ‘organizational’ or ‘urban’. To limit the search to sources that were related to urban and managerial science, these keywords for the journal of publication’s name were chosen; as we thought that those are most in line with studying urban creative capital and organisational creative capital. This addition generated fifty-six results. After manually scanning all these results, we excluded all results that were not published in a peer-reviewed journal or already found with the previous search queries. This resulted in forty-three articles that we added to our sample. Of these forty-three articles eighteen included the “creative capital theory” combination.

Finally, one additional search was done using SciVerse Scopus database for all relevant articles, reviews and short surveys published by Richard Florida in the period after the launch of his 2002 book. Major changes in his work signify important developments with regard to creative capital theory, for example the alteration in attention from his creativity index to his creative class measure. This final query yielded another thirteen articles to be included in the sample, bringing the amount of articles in our sample to ninety-seven.

Sample analysis procedure

We started the analysis by dividing the articles in groups based upon their journal of publication. This distinction illustrates which literature streams have contributed most to the development of creative capital theory. There were four possible categories: A) Urban and Geographical journals; B) Organisational, Managerial and Business journals; C) Economic and Econometric journals; and D) Other types of journals. The journals not familiar to us were identified using SciVers Scopus’ description of the journal to place it in one of the categories. Our analysis concentrates on the articles from the first three groups, as these groups focus on subjects that relate to either urban research or organisational research. We did not exclude findings from the final group beforehand, as this would have introduced a small bias into our analysis.

We then read the abstract, introduction and conclusion of the articles and summarised each article in two hundred words or less. If these parts were not enough to create such a summary we read the entire article. The summaries contained the shortest possible description of the articles.

The summaries would be used in a similar way as inductive content analysis with an open coding approach. They were used to create groups of different articles that had a similar aim and level of analysis. We used this procedure to distinguish between different sorts of creative capital theory development. This procedure allowed us to make distinctions, for example between empirical testing of creative capital theory and conceptual development of creative capital. We did not define the groups a priori, because earlier literature reviews on creative capital were not available. Thus, this meant that grouping prescriptions were not readily available. Additionally, our aim is to explore and develop theory, so an inductive approach towards the creation of these groups is desirable (Lynn, 1994; Kondracki, Wellman & Amundson, 2002).

If the groups we initially identified contained more than fifteen articles and covered at least two different sorts of contributions to their respective fields, we reread the summaries of the articles in that specific group, and then repeated the coding procedure. This was done to identify relevant sets of articles that could be used to formulate propositions on creative capital at the organisational level.

During the writing process of the summaries, four articles were found to not make any contribution to creative capital. We deleted these articles from our sample. Our final sample thus contained ninety-three articles.

Reviewing Creative Capital Literature: Analysis and Results

The predominant part of our sample stems from urban and geographical journals (57/93). The economic and econometric journals (10/93) as well as the organisational, managerial and business journals (11/93) were far less represented in our sample. We found eighteen articles that could be used to create a definition of urban creative capital. From these eighteen, nine came from urban and



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geographical journals and six stemmed from an organisational, managerial or business journal. The final three relevant articles came from the 'other journals' group. The reason we report this categorisation, is to illustrate the fact that very few articles actually defined creative capital and theorised about it. This finding illustrates the necessity for more conceptual work on creative capital in general. It also shows that the organisational, business and managerial literature makes a relatively larger contribution to theorising about creative capital. The explanation for this difference is that that urban literature has concentrated on Florida's creative class, which is a list of occupations that use an area's creative capital (Florida, 2002c). Organisational literature focuses on organisational creativity research, which is much closer related to creative capital. An exhaustive list of all the journals that were used is provided as appendix 1.

Reviewing earlier definitions of creative capital

There are two things that stand out with regard to a definition of organisational creative capital. The first is that most papers in our sample concentrate on the holders of creative capital, rather than on creative capital itself. This is not surprising as the majority of the papers in our sample comes from urban or economic literature. Subjects in urban and economic studies often encompass large populations. Getting representative samples and measuring effects in these populations requires a lot of funding and time. As a result, urban and economic studies tend to rely on distant measures, e.g. the creative class measure, rather than more proximal measures of creative capital. Unfortunately, the use of the creative class measures in our sample prevented authors from theorising about creative capital itself. Instead, the use of the creative class measures indicates an impetus for theorising about creative capital holders. Although our sample is mostly concerned with creative capital holders, we do not see this as an immediate problem. We think that this research still contributes to our understanding of organisational creative capital. Theorising about factors that attract creative capital holders may very well turn out to be useful to explain factors that are supportive to successful application of creative capital in organisations.

The second thing that stands out regarding a definition of organisational creative capital is that the papers that did provide some sort of definition of creative capital, followed Florida's (2005) definition of urban creative capital. As a result, our sample provided almost no suggestions towards defining organisational creative capital. An exception is the article by Florida and Goodnight (2005), whose definition of organisational creative capital was presented at the start of this paper.

The articles in our sample that provided some sort of definition of creative capital usually only gave an implicit definition of creative capital, one that did not relate to the organisational level. Most of these implicit definitions of creative capital were related to the definition of creative capital used in Florida's second book: *The flight of the creative class* (i.e. Florida, 2005). He defined urban creative capital as the intrinsically human ability to create new ideas, new technologies, new business models, new cultural forms, and whole new industries that really matter. Examples of such implicit definitions include descriptions such as 'the urban area's creative capacity' (e.g. Boschma & Fritsch, 2009), 'the creative ability of the workforce' (Petrov, 2008), 'creative human capital' (e.g. Lopes, da Palma & Pina e Cunha, 2011) or as 'an area's creative talent' (Bennett, 2010).

The definitions of creative capital seem closer related to human capital. Urban human capital is seen as the amount of formally recognised education the inhabitants of an area have received (Hoyman & Faricy, 2009). Organisational human capital can be viewed as the collection of Knowledge, Skills, Abilities and Other characteristics (KSAOs) embedded in employees (Ployhart & Moliterno, 2011).

Defining creative capital at the urban level as, for example the creative ability of the workforce may be different from human capital at the urban level, because creativity is not commonly measured using formal education. However, on the organisational level a definition that refers to an ability of the workforce needs careful distinction from human capital. This raises questions whether human capital is conceptually distinct from creative capital. In addition, the definition given by Florida and Goodnight is quite close to the organisational human capital definition, as it only talks of creative individuals.

Reviewing developments in creative capital theory

Our initial coding procedure yielded four distinct groups of articles. We labelled these groups as 'Political scholars', 'Creative Class scholars', 'Urban Diversity scholars' and 'Other scholars'. The amount of articles in the sample is presented in figure 1. A full overview of the results we obtained through our literature review is provided as appendix 2. We will limit ourselves to findings that potentially relate to urban or organisational creative capital.



This first grouping procedure shows that research on creative capital has been done along three major lines of inquiry. The first follows Florida's suggestion of the creative class and is represented in the 'Creative Class scholars' group. This research concentrates on the holders of creative capital at the urban level and stems from Florida's creative class. It deals with distinguishing the creative class from urban human capital and researching whether the creative class has an independent effect on urban economic performance.

The second line of research adheres to Florida's proposition that urban amenities and bohemians can be used as quality of place indicators that attract creative capital holders to a region. It is represented in our sample by the 'Political scholars' group. This research concentrates on urban policies that aim at making areas attractive to creative capital holders or on policies supporting the development of the area's creative and cultural sector.

The third line of research has developed on the relation between urban diversity and tolerance and its effect on urban economic performance. This line comes from Florida's suggestion that areas need a certain amount of diversity, which allows successful application of creative capital. This final line of research is represented in our sample as the 'Urban Diversity scholars' group.

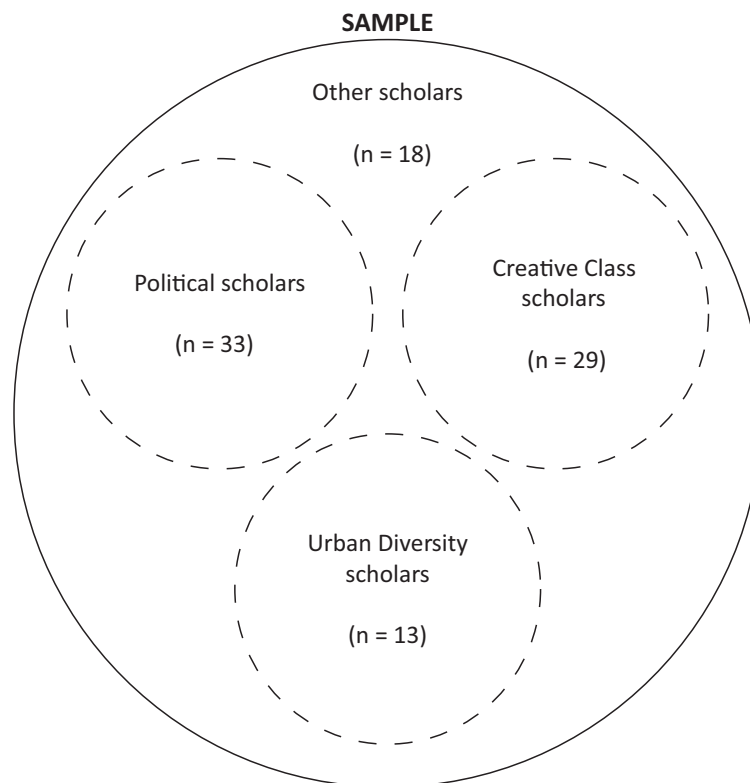


Figure 1: Overview of the different groups created from our sample

We will start our discussion with the Other scholars and Political scholars group, because it could not be related to urban creative capital, and then continue to discuss the main findings that can be related to urban creative capital. We will finish with a brief discussion of how research on urban creative capital has developed.

Relevant findings by the Other scholars

The group of articles belonging to the Other scholars was a collection of all articles that could not be placed in any of the other three groups. A number of the articles in this group contribute to understanding creative capital by discussing possible distinctions between human capital and creative capital (Florida, 2004b; Batabyal & Nijkamp, 2010, 2011). Others identified factors on the firm level that may affect organisational creative performance (Self, Bandow & Schraeder, 2010), such as leadership characteristics (Rego, Sousa, Pina e Cunha, Correia & Saur-Amaral, 2007), team trust (Barczak, Lassk & Mulki, 2010), organisational social capital (Florida, Cushing & Gates, 2002) or job characteristics (Wong & Ladkin, 2008). Some used creative capital as an important factor that allows knowledge transfer in organisations (Parent, Roy & St-Jacques, 2007; Crittenden & Crittenden, 2008).



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This group contributes a number of factors that have also been found or theorised to relate to organisational creative performance by affecting an individual's and team's creative ability (e.g. Woodman, Sawyer & Griffin, 1993; Taggar, 2002; Shalley & Gilson, 2004). Most findings do not contribute to our aim of exploring urban and organisational creative capital. That is, they either assume that creative capital is the same as human capital (e.g. Batabyal & Nijkamp, 2010) or concentrate on a different level of analysis (e.g. Barczak et al., 2010). We will therefore not discuss the findings from this group.

Relevant findings by the Political scholars

The articles in this group concentrated on what local authorities should do to attract and retain creative capital holders. These articles used Florida's 3T's of economic growth and quality of place indicators such as urban amenities as policy prescriptions for attracting creative capital holders. Following Florida's 3T's of economic development policy aims to attract creative capital holders by creating an area that has the Talent, Technology and Tolerance creative capital holders need for producing economic value. As this group was large enough the coding was repeated. Four types of articles could be distinguished based upon the way they used the 3T's of economic growth and quality of place indicators. These articles were labelled as 'followers', 'opponents', 'developers' and 'adaptors'. The followers generally tested these policies and reported successful outcomes. The opponents advised against such a policy or noted difficulties with the policy. Adaptors used Florida's prescription for quality of place indicators and tested them in other countries. These tests lead to adaption of these quality of place indicators and prescriptions. Finally, developers used Florida's suggestion to emphasise policies that were aimed at attracting creative industries and policies that aimed to promote cultural amenities in an area. Earlier research has indicated that models for public policy differ from private strategic management (Ring & Perry, 1985). In addition, part of what is found in this group supplements findings from the Floridian scholars and the Creative Class scholars. The majority of the articles in this group does not identify urban factors that may contribute to organisational level creative capital. Nor do they discuss a potential definition of creative capital at the urban or organisational level. We therefore exclude the articles from this group from further analysis.

Relevant findings by the Urban Diversity scholars

The Urban Diversity scholars described the relation between tolerance, urban diversity and urban economic performance. The connection between these findings and creative capital is Florida's original idea on the creative class. He states that the creative class prefers places that are diverse and tolerant (Florida, 2002c). On the urban level of analysis Florida uses the presence of bohemians and gays in an area to demonstrate this tolerance and urban diversity. The main argument here is that the presence of gays and bohemians signifies the existence of underlying (societal) mechanisms that allow for easier sharing of knowledge (Florida, 2002a) or the creation of knowledge spill over (Florida, 2008). The research from the authors in this group indicates that measures of diversity have a positive effect on employment growth in English cities (Lee, 2011b) and relate to concentrations of talented individuals in certain areas (Florida, 2002b). Florida's idea of concentrating on the presence of gays and bohemians does not appear to fully explain how diversity affects economic development in an area (Thomas & Darnton, 2006). Theorising about diversity should therefore not confine to only the presence of gays and bohemians in an area, when it comes to theorising about diversity. The majority of the articles in this group concentrates on theorising about tolerance using diversity as an explanation for the success of such tolerance. In contrast, our sample shows relatively little theorising about the role of urban creative capital in the relation between urban diversity and urban economic performance. We expected research that combined urban diversity with urban creative capital to explain urban economic performance, but we found the opposite. This strikes us as odd, because it is generally acknowledged that diversity of KSAOs benefits creativity in organisations (e.g. Amabile, 1997; 1998) and urban creative performance (Lorenz & Lundvall, 2011). Below we will therefore propose that urban diversity can lead to diversity of KSAOs in an organisation which positively affects organisational creative capital. Our sample does illustrate another effect of tolerance on urban economic performance. The idea underlying this effect is that urban diversity indicates societal mechanisms allowing knowledge sharing and knowledge spill over that foster economic performance (Florida, 2008). The most important illustration of tolerance as a societal mechanism that fosters urban economic performance comes from Florida, Cushing and Gates (2002) and Boschma and Fritsch (2009). Boschma and Fritsch (2009) found that the creative class concentrates in areas that have an open and tolerant climate. This indicates



that creative capital holders prefer open and tolerant areas. Florida et al. (2002) discussed how such tolerance should be interpreted in terms of the strength weak ties theory (Granovetter, 1973) at the urban level. They suggest that the strength of these ties would benefit innovation and thus the creative performance in that area (de Jong & den Hartog, 2010). Tolerance is indicated by weak tie strength in an area (Florida et al., 2002). We will follow Florida et al.'s suggestion to interpret this tolerance in terms of the strength of ties in an urban area and we will develop the idea of tolerance in an area into a proposition that combines the strength of ties in an area with successful application of organisational creative capital.

Findings from the Creative Class scholars

The Creative Class scholars group concentrated on the creative class in an area. The creative class is a list of occupations that may not relate directly to the amount of urban creative capital in an area, because the creative class cannot capture creative capital that is embedded in occupations that do not belong to the creative class. In addition, the creative class does not specify anything about the amount of creative capital embedded in the occupations in the creative class.

The findings in this group are nevertheless still valuable because they capture information on some of an area's creative capital holders. Thus, theorising about creative capital holders should not exclude the factors that attract the creative class a priori. It is for this reason that we discuss the findings from the Creative Class scholars.

Since the group of Creative Class scholars in our sample showed at least two different possible distinctions and was large enough we analysed the articles in this group again. We found that the articles had a different view of the creative class. We identified these differences along two dimensions. The first dimension distinguished between a 'static' and a 'dynamic' view of the creative class. This dimension indicates the characteristics of the creative class could change. The second dimension was the amount of variables that were studied in the article. We found a 'narrow' – 'broad' distinction for this dimension. Articles using a narrow scope were only concerned with the creative class. Articles on the broad side of this dimension considered multiple variables in their analysis.

The three boxes in figure 2, map these distinctions. The vertical side displays the narrow – broad distinction and the horizontal side represents the static – dynamic distinction. The boxes represent the three labels that are matched to these dimensions. Each label describes one of the views on the creative class.

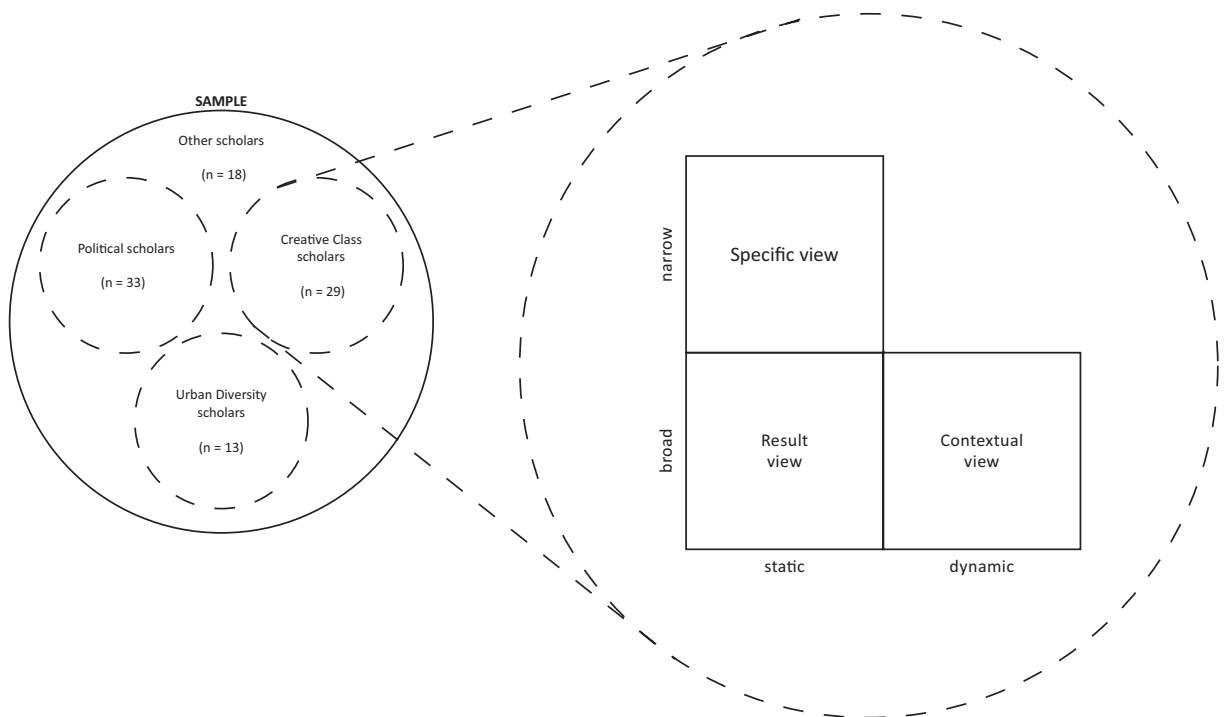


Figure 2: Map of the views on the creative class used by the Creative Class scholars

The first view on the creative class is the Specific view. The specific view had a narrow scope and a static view of the creative class. This view was used in our sample to research two things: the work ethos of

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the creative class and factors that attracted creative class members. The most important finding is that creative class members are not attracted by quality of place factors per se. Migration of creative class members was found to be more dependent on business climate than on people climate (e.g. Andersen, Bugge, Hansen, Isaksen & Raunio, 2010). Business climate factors are for instance labour protection and labour institutions. People climate includes quality of place factors such as urban amenities and societal tolerance.

The second view of the creative class is the Contextual view. Articles that used this view concentrated on the occupations in the creative class, the factors that attract the creative class to an area and the difference between the creative class and human capital. Contrary to the Specific view, this view was broader in its scope and more dynamic in its assumptions about these factors and occupations. Typically, articles assumed that the factors attracting the creative class were context specific. The reason for this context-specificity is that the creative class was developed for metropolitan areas in the United States (Petrov, 2007). In addition, the occupations in the creative class have different contributions to economic performance indicators (e.g. Krätke, 2010). The Contextual view can also be used to discuss and test the difference between human capital and creative class (e.g. Marlet & van Woerkens, 2007; Hoyman & Faricy, 2009). This has produced mixed results. Marlet and van Woerkens (2007) found that the creative class measure outperforms human capital measures to predict employment growth in a sample of Dutch cities. Hoyman and Faricy (2009) found no effect of the creative class measure in a model that uses creative class, social capital and human capital to predict wages, growth of wages and job growth in a sample of US metropolitan statistical areas (MSA). Others (e.g. Florida, Mellander & Stolarick, 2010) used structural equation modelling and path analysis techniques to find that human capital and creative class follow different paths to influence urban economic performance. The main reason for this difference is that urban human capital measures and the creative class are highly correlated (Glaeser, 2005), but follow separate paths to explain indicators of urban economic performance (Florida et al., 2010). Additionally, the occupations listed in the creative class, require more education which allows these two measures to correlate.

The final view is the Result view. Articles that used this view have a static view of the creative class and a broad scope in their research. The Result view rendered three main findings from our sample. The first finding is that the creative class has a relation to the entrepreneurial context of an area, the second finding is that a number of articles find a relation between the creative class and indicators of urban economic performance, the third finding is that some of our articles do not find a relation between the creative class and indicators of urban economic performance. The entrepreneurial context is defined as the amount of self-employment and start ups in an area (McGranahan, Wojan & Lambert, 2011). Creative class and entrepreneurial context are necessary factors for successful innovation in an area (Wojan & McGranahan, 2007). An entrepreneurial context signifies a type of business climate that can be used by the creative class to stimulate economic performance (Wojan, Lambert & McGranahan, 2007). Thus, these findings indicate that the entrepreneurial context of an area can create a business climate that influences the relation between urban creative capital and the area's economic performance. The second and third finding that can be derived through this view seem to give contradictory messages about the value of the creative class. This contradiction needs some additional explanation. Rausch and Negrey (2006) conclude that their "results raise questions whether the concentration of the creative class in an MSA acts as an economic engine" (p. 473). In the same study they do find that tolerance and diversity do have an effect on urban economic performance. Thus, it can be concluded that tolerance and diversity alone may be insufficient to predict urban economic performance. Other researchers subscribe to such an explanation, as they identified that the creative class does not have an effect on all sorts of indicators of urban economic performance, but operates through specific paths (Florida et al., 2010).

The Creative Class scholars group can be used to suggest initial evidence of a relation between urban creative capital and urban economic performance. It also identifies one additional urban factor that can be related to organisational creative capital.

The articles that use the Result view come closest to testing whether the concept of urban creative capital drives urban economic performance. Results from this group indicate the basis of a relation between an area's creative class and the area's economic performance. This finding could prove to be the first preliminary evidence of the existence of creative capital at the urban level.

Articles that used the other two views present two important issues that need consideration in relation to attracting creative capital to an area. The first issue is that researchers and practitioners have to realise that the success of attracting creative capital holders to a certain area is dependent on business

climate factors such as varieties of capitalism (as defined by Hall & Soskice, 2001), labour market and labour institutions (Asheim, 2009), quality of human capital in an area (Petrov, 2008) or national culture (Tsirogianni, 2011). This means that creative capital holders may not be attracted by the same climate factors in all countries. Therefore, attracting creative class members does not have a 'one size fits all' solution. Creative capital holders carefully consider both business and people climate factors (Hansen & Niedomysl, 2009). The second issue is that creative capital holders are attracted by the same urban factors that attract organisations to a certain area. This means that factors such as business climate have an effect on the amount of available creative capital that organisations have at their disposal. Thus, local business climate factors also affect the amount of creative capital that an organisation can attain from the area it is in. Our literature review indicates that such a business climate can be distinguished in different ways. Following the connection between creative class and entrepreneurial context (e.g. McGranahan et al., 2011) we choose to characterise a business climate in terms of its entrepreneurial context. We will elaborate on this in our propositions.

Creative capital theory: its current status

We started this literature review with the aim to review developments in creative capital literature; we will now discuss the findings with regard to creative capital theory. Our sample illustrates that research on creative capital has developed in directions that only partially relate to the original concept. As a result, there is very little known about the concept itself. This development can be explained by the observation that the majority of our articles only pay attention to creative capital holders. Theorising about urban creative capital has been transformed into theorising about creative capital holders. Even more surprising, research on organisational creative capital is almost non-existent.

Theory on urban creative capital can therefore be characterised as underdeveloped and it is in need of theoretical and empirical research. Theorising on urban creative capital could, be done on the relation between urban creative capital and urban economic performance. This relation is supported in urban literature, but only by authors who see creative capital as part of human capital (e.g. Glaeser, 2005). The necessity for theorising about the relation between urban creative capital and urban economic performance can be emphasised by some of the empirical research in our sample (e.g. Marlet & van Woerkens, 2007). As they find that the creative class can have an effect on indicators of urban economic performance.

Therefore, we suggest that research on urban creative capital is incomplete, rather than incorrect. Our main reason for suggesting this is that most research on our sample has used the creative class in stead of real creative capital measures. We have provided a number of reasons that make the creative class too distant from urban creative capital. Thus, we do not encourage future researchers to use the creative class as a measure of urban creative capital. We acknowledge that research on the creative class can still provide preliminary evidence of an effect of creative capital holders on indicators of urban economic performance (e.g. Marlet & van Woerkens, 2007; Florida et al., 2010). But, we also think that future research should verify these findings by using more proximal measures of urban creative capital.

Defining Organisational Creative Capital

Our literature review shows that there are two ways to define urban creative capital. The first possibility is to define it as a group of occupations in an area. This line of thinking stems from Florida's creative class idea, by assuming that urban creative capital is used in certain occupations. As We shall not follow this line of thinking for the reasons we gave earlier.

The second possibility to define urban creative capital is to concentrate on the aggregated creative ability of the workforce in that area. The creative ability is here defined as the ability of an entity to combine concepts, knowledge, experience or ideas that were previously unrelated into new ideas that can be translated into something of value for the area (Vartanian, Martindale, & Matthews, 2009; Baer, 2010). These new ideas can be used in the innovation process to produce new products, services and improve existing processes, practices or strategies (Crossan & Apaydin, 2010). The production of new products and services is done by an individual or a team in an organisation (e.g. Woodman et al., 1993). Thus, we define urban creative capital as an area's aggregated creative ability, which is embedded in the area's organisations.

We can now define organisational creative capital; in order to do this we first define the 'outcome' of this type of capital: organisational creativity. Organisational creativity is "the creation of a valuable, useful new product, service, idea, procedure or process by individuals working together in a complex social system" (Woodman et al., 1993, p. 293). Organisational creativity is a function of individuals and



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teams that use their creative ability and work together in a complex social environment. This definition of organisational creativity separates two key components that together cause organisational creativity. The first is the organisation's aggregated creative ability and the second is a contextual influence on this creative ability.

This brings us to the definition of organisational creative capital: *the aggregated creative ability of the organisation, embedded in the individual employees and teams of employees*. It is this creative capital that interacts with the organisation's social environment to create organisational creative performance, such as organisational creativity. This new definition of organisational creative capital differs from the attempt by Florida and Goodnight (2005), because it does not limit creative capital to individuals in an organisation.

Defining organisational creative capital as the aggregated creative ability of individuals and teams puts organisational creative capital very close to the common definition of organisational human capital. This definition is: the collection of Knowledge, Skills, Abilities and Other characteristics (KSAOs) embedded in employees (Wright, Dunford, & Snell, 2001; Ployhart & Moliterno, 2011). However, there is an important difference between human capital and creative capital in organisations. Creative capital is formed by the creative ability of individuals and teams. Team creativity is commonly considered to be more than the simple addition of the creative skills of individual team members (Taggar, 2002; Pirola-Merlo & Mann, 2004; Moultrie & Young, 2009; Bissola & Imperatori, 2011). This means that if we aggregate the creative ability of teams and individuals in an organisation we will find more than the simple summation of the creative abilities that are embedded in the individual employees.

We have now distinguished organisational creative capital from organisational human capital. But we have not yet proposed how organisational creative capital can be found or measured. Based on our definition of organisational creative capital, we propose that

Proposition 1: An organisation's creative capital can be measured by the aggregated creative ability of an organisation's employees and teams

Our definition of organisational creative capital implies that organisations can have access to creative capital through their employees and teams. This means that organisations will accumulate their creative capital in a manner that is similar to the accumulation of human capital. Human capital is commonly accumulated by making a 'make' or 'buy' decision (Miles & Snow, 1984) or through the creation of alliances specifically aimed at increasing an organisation's set of available KSAOs (Nordhaug & Gronhaug, 1994). This make, buy or ally decision¹ allows organisations to decide whether it wants to accumulate needed KSAOs by hiring employees that have new KSAOs, through training procedures that are meant to increase the KSAOs of the organisation's employees or through strategic alliances that bring together KSAOs from different organisations.

Because organisational creative capital is embedded in the employees and teams of an organisation, a similar mechanism can be expected for the accumulation of organisational creative capital. This means that we can apply the make, buy or ally decision on human capital to the accumulation of organisational creative capital.

The first mechanism to increase organisational creative capital is to buy additional creative capital. This buying process is straightforward. An urban area has its own stock of creative capital. Organisations can attract creative capital from their area by adapting the recruitment and selection process. The creative ability can be used during the recruitment process as one of the desired abilities that applicants will need in their future jobs. When an appropriate applicant is hired, the organisation's creative capital is enlarged. Alternatively, organisations may also attempt to hire creative capital from other areas. This does not only increase the organisation's creative capital, but also the urban creative capital of the area the organisation is in.

Organisations will consider making creative capital by providing training to individual employees or teams of employees (Perry-Smith, 2006). Research on the effect of creativity training has identified different ways where through creativity training can affect creativity. Training can increase intrinsic motivation through for example creative self-efficacy (e.g. Mathisen & Bronnick, 2009; Yang & Cheng, 2009) or by training supervisors and group members to be mutually supportive (Diliello, Houghton & Dawley, 2011). Other researchers find that creativity training increases expertise and knowledge (Yang & Cheng, 2009) and promotes creative problem solving skills and divergent thinking abilities (Wang & Horng, 2002; Sternberg, 2006). Thus, training practices can have a positive impact on all three the parts that make up creativity (e.g. Amabile, 1988; Amabile, Conti, Coon, Lazenby & Herron, 1996).

Organisations have another method which can make organisational creative capital: job design. Job design is a practice that can increase motivation of employees (Humprey, Nahrgang & Morgeson, 2007; Oldham & Hackman, 2010), for example by providing an appropriate amount of task autonomy (Parker, Williams & Turner, 2006). Job design can also prescribe social support and task interdependence, which facilitate interaction among tasks and workers (Morgeson & Humprey, 2006; Humprey et al., 2007). It is this interaction that allows employees to exchange expertise (Amabile, 1998; Paulus, 2000). The interaction component of job design can also create jobs that require team work. The interaction in such team work has been shown to increase the team's creative ability (Paulus, 2000; Lim & Choi, 2009). Thus, we expect that the creative ability of an organisation increases if jobs are designed in such a way that employees cooperate and interact to produce creative outcomes.

Finally, organisations can decide to increase their creative capital by going into alliances. Alliances create benefits that are greater than the sum of all benefits the involved individual firms can achieve (Nordhaug & Gronhaug, 1994). This means that the organisational creative capital that is derived through an alliance between two or more firms should be a greater amount of creative capital than the firms can achieve individually. Alliances can also create benefits that organisations cannot achieve by themselves. An illustration of this is the alliance between large firms and small entrepreneurial firms (Alvarez & Barney, 2001). Large firms go into strategic alliances to accumulate innovative ideas from entrepreneurial firms. Entrepreneurial firms go into strategic alliances with these large firms as they have large scale production possibilities and distribution networks. The entrepreneurial firm needs these resources to decrease its own production and distribution costs. Looking at these alliances through the lens of creative capital it can be said that the large firm increases its creative capital through the alliance, whereas the smaller firm increases supportive contextual factors for its own creative capital. An organisation's make, buy or ally decision on creative capital will depend on the costs and future consequences of each option (e.g. Williamson, 1975; Geyskens, Steenkamp & Kumar, 2006). Differences in these costs can then determine which option or combination of options an organisation may choose (Williamson, 1975; Geyskens et al., 2006). Such differences may occur as a result of specific characteristics of the accumulation mechanism or uncertainty resulting from the accumulation mechanism (Williamson, 1975).

We will provide an illustration of these differences. A specific characteristic of allying creative capital, is that the alliance creates creative capital that has not been available to the organisation beforehand. In turn, the organisation encounters costs that it has not incurred earlier, because it needs to invest extra time to coordinate the interactions that result from the alliance. These costs may not occur if the organisation had chooses to buy or make its creative capital.

The decision on how to accumulate organisational creative capital differs from the decision on the accumulation of human capital. Human capital theory assumes that not all sorts of human capital are valuable to the organisation and unique by their nature (Lepak & Snell, 1999). The creative ability itself is unique by its very nature, because it is meant to produce new ideas (Vartanian, Martindale & Matthews, 2009) another person or organisation will have to use the exact same ability to produce a similar idea. Creativity is also clearly something of value for organisations, because it can be used during the innovation process (e.g. Crossan & Apaydin, 2010). Consequently, organisations do not have to make a trade-off between these dimensions to decide how to accumulate organisational creative capital. Thus, we propose that

Proposition 2a: Organisational creative capital can be bought through recruitment practices

Proposition 2b: Organisational creative capital can be made through training practices

Proposition 2c: Organisational creative capital can be made through job design practices

Proposition 2d: Organisational creative capital can be accumulated through alliances

Proposition 2e: Organisations face trade-offs between buying, making or allying organisational creative capital

A First Conceptual Model of Organisational Creative Capital: Organisational Creative Capital and the Urban Context

There remains one question that we need to answer and that is how organisational creative capital can benefit from its urban context. We expect urban economic performance and organisational economic performance to be related, because the aggregation of the performance of individual organisations in an area forms the area's economic performance.

Organisational creativity theory proposes that the creative ability of individuals and teams in an organisation interact with the organisation's complex social environment to produce creative outcomes



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(Woodman et al., 1993). If we extrapolate this idea it seems reasonable to expect that urban context interacts with urban creative capital to create urban economic performance. This urban context also influences the relation between organisational creative capital and organisational creativity (Woodman et al., 1993). Thus, we expect that organisations are places that bring urban creative capital and supportive urban context together to create their own economic performance. More specifically, urban climate represents a number of factors that allow successful organisational creative performance. Therefore, we suggest that urban context can affect the relation between organisational creative capital and organisational creative performance. Research on organisational creative performance is only starting to acknowledge the influence of urban factors, it has concentrated on factors such as labour market mobility, unemployment security or national systems of education and training (e.g. Lorenz & Lundvall, 2011).

We propose that organisational creative capital and urban science can contribute to research on organisational creative performance. To do so we use the three urban context factors that we have found in our literature review. These factors were: tolerance, urban diversity and an area's entrepreneurial context. To stimulate research on the relation between organisational creative capital and its urban context we will explore these three factors in relation to organisational creative capital and organisational creativity. At the end of this section we will combine these three urban factors with organisational creative capital and an organisation's creative performance to present the first conceptual model that includes organisational creative capital.

One set of articles from our literature review (Lee et al., 2004; Wojan et al., 2007; McGranahan et al., 2011; Piergiovanni, Carree & Santarelli, forthcoming) studied the effect of the entrepreneurial context of an area on the area's creative capital holders and the area's economic performance. Entrepreneurial context is the number of start-ups and the percentage of self-employment in a given area. It was found to be an antecedent of urban economic performance. Entrepreneurial context was also found to interact with the percentage of an area's workforce that uses its creative ability (Wojan & McGranahan, 2007). A combination of entrepreneurial context and creative workers fosters growth in the number of establishments and employment and urban economic performance (McGranahan et al., 2011).

We proposed that an entrepreneurial context signifies whether an area has a business climate that is favourable for entrepreneurs. With favourable we mean an entrepreneurial business climate that contains resources and social infrastructures that are beneficial for start-ups and self-employed (Lee et al., 2004). These resources may come in the form of sufficient creative capital, but also in the form of financial capital, adequate tax rates, human capital or entrepreneurial zones (Lee et al., 2004). According to Lee et al. (2004) the social infrastructures that allow for entrepreneurial activity are creativity and diversity. Diversity because it signifies that an area has entry barriers that are lower than neighbouring areas, thus allowing the entry of more knowledge and experience. To prevent circular reasoning, we choose not to follow Lee, et al. in defining creativity as a social infrastructure that benefits the entrepreneurial context.

Instead, we will use another form of social infrastructure that also allows for a favourable entrepreneurial context. An area's set of norms and values is such a societal mechanism that benefits organisational creative capital. If an area has a good entrepreneurial context, it means that the area will also have a set of entrepreneurial norms and values that allows for these self-employed and start-ups to be successful. These entrepreneurial norms and values affect the norms and values of organisations in an area, because they signify that an area has an entrepreneurial attitude that is reflected in the employees of the organisations in the area (Beugelsdijk & Noorderhaven, 2004). These organisational norms and values are then transferred to new employees that are brought into the organisation, through the organisational socialisation process (Fang, Duffy & Shaw, 2011). These organisational norms and values can then support the creative ability of a teams and individual workers, by creating trust (Westlund & Adam, 2010).

Research on entrepreneurial activity supports our choice for entrepreneurial norms and values (e.g. Lumpkin & Dess, 1996; Beugelsdijk & Noorderhaven, 2004). It has shown that a favourable entrepreneurial attitude in an area increases the area's economic performance, because the "value patterns conducive to entrepreneurship may increase the start-up rate of new firms [and] intrapreneurial activities may yield efficiency advantages within existing firms" (Beugelsdijk & Noorderhaven, 2004, p. 202). Risk taking is an important part of this entrepreneurial attitude (e.g. Lumpkin & Dess, 1996; Beugelsdijk & Noorderhaven, 2004) and thus part of the value patterns in an area that has much entrepreneurial activity.

Areas with a favourable entrepreneurial climate will also have many inhabitants that have a favourable



entrepreneurial attitude. Thus, we can expect the value patterns of the majority of inhabitants in the area to allow for risk taking and entrepreneurial activity. Creative capital holders will benefit from these value patterns, as they will have more colleagues that allow them to take risk and propose ideas with uncertain value.

In addition, the positive attitudes towards risk and uncertainty can foster mutual trust, because when the team includes many team members that have appropriate sets of norms and values, mutual trust is fostered as the norms and values of the organisation create team norms and values that organisational creative capital holders find important. It is this mutual trust that positively influences successful usage of creative capital in organisations, as it affects the organisational climate and motivation needed for individuals to use their creative abilities (Ekvall, 1996; Amabile, 1997). Trust also stimulates the interaction among individuals, and it is this interaction that stimulates successful creative outcomes (Stolarick & Florida, 2006).

We expect that the value of this entrepreneurial attitude increases if it is found in many of the individual inhabitants' sets of norms and values. Therefore, we propose that areas with many individual inhabitants with an entrepreneurial attitude and corresponding sets of norms and values will provide an impetus to organisational creative capital.

Our literature review sample also associated the entrepreneurial context with the average size of organisations in an area, as some propose that a high entrepreneurial context has more smaller sized firms that allow for more interaction among people (Wojan et al., 2007; McGranahan et al., 2011). The main argument is that smaller firm-size is associated with of the creation of a social milieu that fosters mutual trust (Wojan et al., 2007). However, the effect of an area's set of entrepreneurial norms and values that stimulate mutual trust should not be limited to small organisations alone. Larger organisations can also create social settings that can foster mutual trust, such as the use of job design practices to create small teams to conduct creative tasks.

If entrepreneurial norms and values are available in many inhabitants' sets of norms and values in area, the chances of it being aligned with organisational creative capital will increase. This, in turn, benefits organisational creative performance of the organisation, as the entrepreneurial attitude stimulates creative capital holders in an organisation. Conversely, if the area's set of norms and values rejects risk taking and uncertainty, it is very probable that interaction with creative capital holders will be much more difficult. Thus we propose that

Proposition 3a: Successful application of organisational creative capital benefits from urban areas that are characterised by many inhabitants with entrepreneurial norms and values

Proposition 3b: Successful application of organisational creative capital suffers from urban areas that are characterised as having only a few inhabitants with entrepreneurial norms and values

The second urban is urban diversity and low entry barriers for KSAOs. Urban diversity was found to be a driver of urban economic performance (Thomas & Darnton, 2006; Chen, 2011), it was also found to coincide with a creative climate in an area (Lee et al., 2004). The main reason for these findings is that urban diversity signifies a diversity of people in an area. We suggest that this urban diversity may be caused by entry barriers that are lower in the area when these barriers are compared to barriers of other areas. These lower entry barriers will allow different people to enter the area, these people can then bring diversity of knowledge and experience into the area.

This argument stems with research on urban human capital and with research on creativity. Human capital theorists propose that areas with a high diversity of KSAOs will prosper (e.g. Glaeser, 2005). Research that uses Amabile's definition of creativity proposes that diversity of knowledge is used in combination with employee motivation and creative ability (e.g. Amabile, 1988; Amabile, 1998). Organisational scholars (e.g. Woodman et al., 1993; Shalley & Gilson, 2004) also proposed that diversity can benefit group creative performance, which in turn affects organisational creativity (Woodman et al., 1993). Diversity in this respect refers to diversity of group composition. The basic premise is that "increasing diversity should increase the range of knowledge, skills, and perspectives available within a group that should positively impact creativity [and] stimulate the consideration of nonobvious alternatives" (Shalley & Gilson, 2004, p. 43).

The term diversity does not necessarily mean the same thing on the urban level and on the organisational level. Diversity on the urban level of analysis is mostly operationalised in terms of diversity in ethnicity (melting pot index), diversity in terms of sexual orientation (gay index) or diversity in terms of the amount of bohemians in a region (bohemian index) (Thomas & Darnton, 2006; Lee, 2011b). Diversity on the organisational level may refer to differences in ethnic background, the differences in creative



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abilities between team members (Bissola & Imperatori, 2011) or the differences in creative ability per team (Pirola-Merlo & Mann, 2004). These operationalisations, suggest a commonality between urban and organisational diversity. Urban diversity in terms of country of birth can result in diversity in terms of knowledge and experience, as countries have different systems of education and training (Lee, 2011b; Lorenz & Lundvall, 2011). When organisations hire people from their respective areas they have an increased chance of hiring different knowledge and experience when the area is characterised by diversity of ethnicity. As a result, the workforce of organisations will reflect this urban diversity of knowledge and experience.

This allows organisational creative capital holders to be exposed to a greater diversity of knowledge and experience. In turn, the diversity in knowledge and experience increase the amount of available expertise that organisational creative capital holders can draw upon. As a result the performance of these organisational creative capital holders should increase, because the increase in knowledge and experience increases the amount of views that organisational creative capital can use to generate new ideas (Amabile, 1988).

The reverse may also occur. Consider an area that has a relatively homogeneous set of knowledge and experience. This limits the available expertise that organisational creative capital can draw upon to be successful. As a result, organisational creative capital will not achieve its full potential. Following these ideas we propose that

Proposition 4a: Successful application of organisational creative capital benefits from an urban area that is characterised by a high amount of diversity in knowledge and experience

Proposition 4b: Successful application of organisational creative capital suffers from an urban area that is characterised by a low amount of diversity in knowledge and experience

The third urban contextual factor we discuss is urban tolerance. The idea to concentrate on tolerance as an urban contextual factor comes from Florida's (2002c) idea on urban diversity in sexual orientation and bohemianism. He states that if an urban area is more diverse in terms of sexual orientation and bohemians it becomes more tolerant towards new ideas and thus favourable for creative capital. Following Florida et al. (2002), we suggest the strength of weak ties theory (Granovetter, 1973; Perry-Smith, 2006) to be a possibility to describe tolerance in an area. A tie is a connection through which two actors can interact. More specifically, we follow Baer (2010) by distinguishing two components of these ties: their strength and the amount of these ties in an actor's network. Tie strength refers to the nature of a relational contact that is a combination of the amount of time, emotional intensity, intimacy and reciprocal services associated with the tie (Granovetter, 1973). The amount of ties in actor's network refers to the number of connections between the actor and other actors in his network. Research on the strength of weak ties theory has mostly been done at the organisational level of analysis. Tie strength and the amount of ties in a network are part of a research stream that studies social capital as predictor of organisational innovation (e.g. Florida et al., 2002; Zheng, 2010). We here confine innovation to be: "production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres" (Crossan & Apaydin, 2010, p. 1155). Although this is only part of Crossan and Apaydin's (2010) definition of innovation we limit ourselves to this part, because the 'value-added novelty' part overlaps with our suggestion of organisational creativity as outcome for organisational creative capital. Social capital is: "the sum of the actual and potential resources embedded within, available through, and derived from the network of relations possessed by an individual or social unit" (Nahapiet & Ghoshal, 1998, p. 243). The strength of ties and amount of ties in a network are two descriptor of the structural composition of social capital (Nahapiet & Ghoshal, 1998; Zheng, 2010).

Organisational social capital and organisational creative capital differ from each other. Organisational social capital is embedded in the network of relations possessed by the organisation. Organisational creative capital is embedded within individual employees and teams of an organisation. This means that the two forms of capital are embedded in different parts of the organisation. To the best of our knowledge, research on the relation between urban level strength of ties and creative capital has not been attempted. Therefore, we see a necessity to sketch the line of thinking that leads from urban tolerance in terms of amount and strength of ties in area to its influence on the relation between organisational creative capital and organisational creative performance.

Research on the organisational level indicates that the effect of the strength of social ties on organisational innovation differs in the different phases of the innovation process (Perry-Smith, 2006; Zheng, 2010). The start of the innovation process is sometimes called: the creative stage of the innovation process

(e.g. de Jong & den Hartog, 2010). During this first stage, employees draw on weak ties to successfully identify problems and generate new ideas. Weak ties support the creative stage of the innovation process, because weak ties take fewer resources to maintain. As a result actors can also have more ties. These weak ties expose the actor to different social circles that provide new and nonredundant information to the actor (Perry-Smith, 2006). More ties enable the individual actor to be exposed to new thought worlds (Granovetter, 1973), these new thought worlds can be used to create new ideas (Baer, 2010; Zheng, 2010).

We confine our analysis and suggestions to this first phase of the innovation process, because this is the phase of the innovation process that is most likely to involve organisational creative capital. An urban area that is characterised by weak ties is likely to provide the different thought worlds and nonredundant information organisational creative capital needs to produce creative output. If this area is also characterised as having many ties, the chances of an individual being exposed to different thought worlds and social circles also increase. Thus, we propose that

Proposition 5a: Successful application of organisational creative capital benefits from an area that is characterised by weak ties

Proposition 5b: Successful application of organisational creative capital benefits from an area that is characterised by many weak ties

We aimed to explore if creative capital could be found in organisations, we tried to identify how organisational creative capital can be accumulated and we researched how it is affected by its urban context. This led us to combine all these propositions into a conceptual model of how organisational creative capital relates to organisational creativity. This model is presented in figure 3. And can be used as a guideline for future research on organisational creative capital.

Limitations

Naturally, our work is subject to a number of limitations. The sample that we used for the literature review was acquired using three databases and specific queries. Although the queries were meant to maximise the amount of articles initially included in the sample, it may be possible that other databases could have provided additional articles for our sample. By including Google Scholar we tried to maximise the number of articles that could be allowed to enter the sample. We choose Google Scholar, because it generates much more hits than the other two databases. Thus, we expect that our sample would not change significantly when other databases would be used.

In addition, our literature review was only done with primary source data. By only studying peer reviewed journals from urban and organisational literature, we may have overlooked developments that are described in books or conference papers. We therefore invite future researchers to study these sources and compare their results to our results. It would be very interesting to see whether our results still hold when they are compared to other sources.

The majority of the articles in our sample came from economic, urban or organisational journals. As a result, important developments in other sorts of journals may have been overlooked. We do not expect that this would have altered our review of the creative capital literature. Especially since the search queries in the Web of Science and Scopus database were not limited to any specific domains.

The coding of the articles was done using a single coder; this may have introduced a bias in the grouping procedure. To suppress this mono-coder bias, detailed prescriptions of the sample creation and analysis procedure were presented. Future researchers are invited to use the approach and verify whether the identified distinction holds. In addition, the matrix on creative class views has been shown and discussed with academic staff members and graduate students to see if the dimensions and labels from the matrix were clear.

Finally, our work is based on the analysis of existing research, without empirical tests of our own. Although this method suits our aim to explore creative capital, we emphasise that empirical research is needed to test and validate our definition, its proposed measurement and our other propositions. To stimulate future research on organisational creative capital we will present a few research possibilities.

Discussion

Our work can be used to suggest future research on creative capital on both the urban and the organisational level. We will start by discussing some of the future research possibilities for organisational creative capital.

Key is to search for empirical evidence of the existence of organisational creative capital. This empirical



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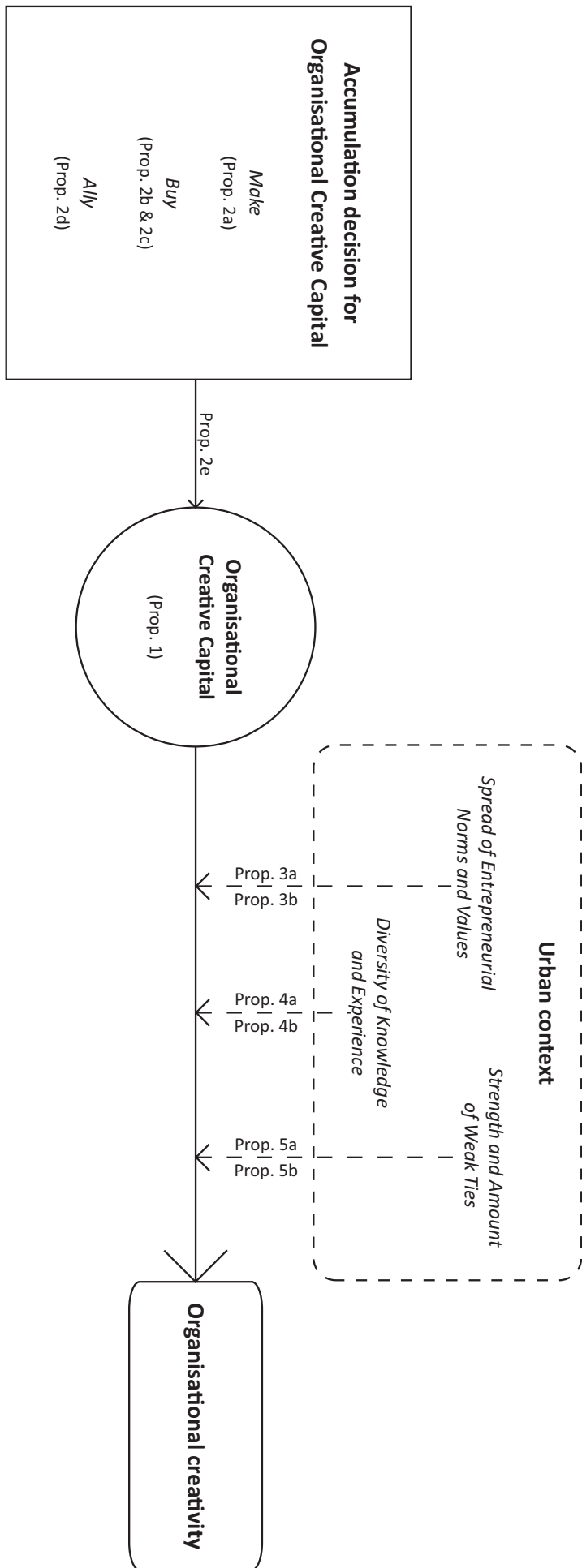


Figure 3: Suggestion for a conceptual model on organisational creative capital

research can be done using the different views that were also used on the creative class.

Future researchers could adopt a Specific view towards organisational creative capital to capture and test the existence of creative capital in organisations. Researchers could also use a Result view on organisational creative capital, to verify that organisational creative capital affects organisational creative performance. Such research would deviate from existing research on organisational creativity, because organisational creativity research concentrates on creativity as an outcome (e.g. Pirola-Merlo & Mann, 2004; Moultrie & Young, 2009), whereas we suggest to study creative ability. This would not exclude organisational creativity as an outcome. Rather, we suggest that researchers also consider studying the effect of organisational creative capital on other organisational creative performance indicators such as collective behaviour.

Finally, research on organisational creative capital could also use a Contextual view. This view could be used in attempts to validate the existence of organisational creative capital. External validity could be tested by research designs that span different types of countries and organisations.

Important empirical distinctions will have to be made between organisational creative capital, organisational human capital and organisational social capital. Future researchers should study the differences between organisational creative capital and organisational human capital resource emergence (e.g. Ployhart & Moliterno, 2011) as well as, organisational creative capital and multilevel social capital (e.g. Payne, Moore, Griffis & Autry, 2011). These two constructs are only theoretical suggestions at the time of writing. But they present new interpretations of respectively organisational human capital and organisational social capital that may prove to complement research on organisational creative capital.

Our conceptual model needs empirical testing as well. The accumulation of organisational creative capital deserves special attention in this respect, because we expect that the accumulation of an organisation's creative ability is a selling point of the organisational creative capital theory to organisations. The accumulation of organisational creative capital provides suggestions that organisations can use to increase their creativity; this should make it easier to convince organisations to participate in research on organisational creative capital.

Future researchers should also consider the effect of urban contextual factors on the relation between organisational creative capital and organisational creative performance. Research on factors that stimulate organisational creative performance has primarily included organisational factors (e.g. Shalley & Gilson, 2004; Perry-Smith, 2006; Rego et al., 2007; Barczak et al., 2010). Our propositions broaden the scope of such research to include urban context.

Finally, future research on organisational creative performance should also investigate the simultaneous effect of organisational and urban factors. This last suggestion is made to ascertain that the effect of the urban context is not overestimated during empirical testing.

Future research also concerns urban creative capital. Currently, most research on the urban level of analysis uses the creative class. Whereas we suggest that scholars should not resort to the creative class measure too fast. We find it important that researchers that want to use the creative class measure first ask themselves whether they really need it or whether they can do with a more proximal measure of urban creative capital.

Our main reason is that the creative class measure seems to be something that is too distant from urban creative capital. The creative class measure only concentrates on occupations that are expected to use urban creative capital. One of the strong points of this interpretation, i.e. that it captures "what people *do*, rather than just what their training may say about them" (Florida, 2004b, p. 3), may very well turn out to be its undoing. We agree that the creative class measure captures what people may do at their work, but this does not capture creative capital or creative capital holders themselves. This point is also captured in our literature review, which has demonstrated that the occupational groups in the creative class measure do not all relate to indicators of an area's economic performance (e.g. Krätke, 2010).

We will close in the manner that we started with. By, again quoting DreamWorks' character Donkey asking the question: 'Are we there yet?'. Most readers that have seen the movie will probably know the context surrounding this question. Donkey is a long ride away from his destination: Far Far Away. One of his companions on this travel, we all know him as Shrek, answers his question with: 'No!'. What follows is an endless repetition of the same question that always receives the same answer. Until, at



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some point Shrek says: 'Yes!'. The response by Donkey comes in the form of a critical question: 'Really?'. Shrek's answer then turns into its old form: 'No!'. This continues until some moments later we see the companions arrive in Far Far Away.

We find an interesting parallel here with our own research. We started out by asking whether organisational creative capital was there yet. At the end the answer given by Shrek can be repeated for organisational creative capital: 'No!'. Hopefully research on creative capital is about to embark on a journey towards an understanding of organisational creative capital, that will be accompanied by many 'Are we there yet?'s.

Appendix 1: Grouping of the journals that were used in the literature review

The numbers in the brackets indicate the amount of relevant/irrelevant articles in the category

Group A: Urban and Geographical journals	(9/48)		
<i>Urban Studies</i>	9	Group C: Economic and Econometric journals	(0/10)
<i>Journal of Economic Geography</i>	8	<i>Agricultural and Resource Economics Review</i>	2
<i>Urban Affairs Review</i>	5	<i>Economic Development Quarterly</i>	2
<i>International Journal of Urban and Regional Research</i>	4	<i>Atlantic Economic Journal</i>	1
<i>Economic Geography</i>	3	<i>Kyklos</i>	1
<i>Annals of the Association of American Geographer</i>	2	<i>Planning Theory and Practice</i>	1
<i>Canadian Journal of Regional Science</i>	2	<i>Social History</i>	1
<i>Cities</i>	2	<i>Small Business Economics</i>	1
<i>Journal of Planning Literature</i>	2	<i>Spatial Economic Analysis</i>	1
<i>Journal of Urban Affairs</i>	2	Group D: Other types of journals	(3/12)
<i>Political Geography</i>	2	<i>Higher Education</i>	2
<i>Regional Studies</i>	2	<i>Creativity research journal</i>	1
<i>Annals of Regional Science</i>	1	<i>Critique: Studies in Contemporary Fiction</i>	1
<i>Artic</i>	1	<i>Development and Learning in Organisations</i>	1
<i>Australian Geographer</i>	1	<i>European journal of Cultural Studies</i>	1
<i>City & Community</i>	1	<i>International Journal of Cultural Policy</i>	1
<i>Environment and Planning A</i>	1	<i>Journal of Homosexuality</i>	1
<i>European Planning Studies</i>	1	<i>Journal of Planning Education and Research</i>	1
<i>European Urban and Regional Studies</i>	1	<i>Journal of Research in Personality</i>	1
<i>Geografiska Annaler, Series B: Human Geography</i>	1	<i>Social Indicators research</i>	1
<i>Geographical analysis</i>	1	<i>Social Science Quarterly</i>	1
<i>GeoJournal</i>	1	<i>Sociological forum</i>	1
<i>Irish Geography</i>	1	<i>The Information Society</i>	1
<i>Review or urban & regional development studies</i>	1	<i>World Futures: Journal of General Evolution</i>	1
<i>The Canadian Geographer</i>	1		
<i>The open Urban Studies Journal</i>	1		
Group B: Organisational, Managerial and Business journals	(6/5)		
<i>Harvard Business Review</i>	4		
<i>Creativity and Innovation Management</i>	2		
<i>Journal of Knowledge Management</i>	2		
<i>Business Horizons</i>	1		
<i>International Journal of Hospitality Management</i>	1		
<i>Tourism Management</i>	1		

Appendix 2: Overview of articles and findings per group

Group	Type	Description of findings
Creative class scholars (n = 29)	Specialist view of creative class (n = 8)	<p><i>Articles that investigated characteristics of the creative class.</i></p> <ul style="list-style-type: none"> • Find that the US creative class' work ethos does not match other countries (e.g. Tsirogianni, 2011) • Find that creative work environment benefits from sexual orientation diversity and an organisation's commitment towards sexual diversity (Cunningham, 2011) • Find that, contrary to Florida's prediction, people climate is not the primary climate attracting creative class members (e.g. Asheim & Hansen, 2009)
	Contextual view of creative class (n = 9)	<p><i>Articles in this category describe whether there is a difference between human capital and creative capital and suggest improvements for the creative class measure</i></p> <p>Findings illustrate that the creative capital measure:</p> <ul style="list-style-type: none"> • outperforms the human capital measure in predicting Dutch urban employment growth (Marlet & van Woerkens, 2007) • does not outperform when modelled together with social capital and human capital to predict absolute level of wages, growth in wages and job growth in American Metropolitan Statistical Areas (Hoyman & Faricy, 2009) • follows a different path than human capital towards explaining regional development in terms of wages, income, labour productivity and wealth in MSAs (Florida et al., 2008); in terms of income and changes in income in Canadian regions (Florida et al., 2010); and gross regional product, average income levels and median housing value in the US (Rentfrow et al., 2009) <p>The improvements are needed as:</p> <p>The creative class measure is developed in a country that has high labour mobility and not all countries are characterised by such high mobility (Asheim, 2009)</p> <ul style="list-style-type: none"> • Creative professionals do not have a positive effect on sustainable economic policies (Krätke, 2010) • the creative class measure is developed for metropolitan areas and is hard to apply for non-metropolitan areas (Petrov, 2007) <p>Suggested improvements are:</p> <ul style="list-style-type: none"> • creating new occupational groups within the creative class and testing which do affect urban creative performance (e.g. Petrov, 2008). • that the creative class performance is partly dependent on the quality of the human resources in an area, thus areas need to increase the quality of their human capital to attract creative class members (Petrov, 2008).
Results view of creative class (n = 12)		<p><i>Articles that analyse the effects of creative class on urban performance</i></p> <p>Positive findings include an effect of creative class on:</p> <ul style="list-style-type: none"> • a region's entrepreneurial context (e.g. Wojan & McGranahan, 2007) • county-level earnings (Gabe, Colby & Bell, 2007) • wages (Knudsen, Florida, Stolarick & Gates, 2008) • innovative activity within organisations (Stolarick & Florida, 2006)



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Appendix 2 (continued)

	<ul style="list-style-type: none"> • the creation of a milieu that fostered innovation or innovative outcomes (e.g. Lawson & Katz, 2006) Others do not find such an effect <ul style="list-style-type: none"> • as they conclude that it is not the size of the creative class that predicts change in GMP per capita in American MSAs in the period 1990-2000, but the factors that are thought to attract it (Rausch & Negrey, 2006) • as a political culture aimed at attracting creative capital does not predict urban sustainability policies (Budd, Lovrich Jr, Pierce & Chamberlain, 2008) – sustainability is here: the manner in which the physical, social, economic, and environmental needs of a community are met without compromising the ability of future generations to meet their own needs” (p. 258)
<p>Urban Diversity scholars (n = 13)</p>	<p><i>Articles that concentrated on diversity and tolerance as predictors of urban economic performance.</i></p> <p>Composes three main findings on diversity:</p> <ul style="list-style-type: none"> • Diversity has a positive effect on economic performance, for example on <ul style="list-style-type: none"> ○ new firm formation and entrepreneurship (S. Y. Lee et al., 2004) ○ the attraction of talented individuals to an area (e.g. Florida, 2002b) ○ employment growth in English cities (N. Lee, 2011b) ○ regional housing values (e.g. Florida & Mellander, 2010) • The effect of diversity on urban tolerance does not have to follow Florida’s suggested measurement method (e.g. Thomas & Darnton, 2006) • Measures of diversity have no effect on neighbourhood level residential patterns of gays and lesbians (Haystlett & Kane, 2011) <p>Composes findings on tolerance</p> <ul style="list-style-type: none"> • Tolerance by itself is not sufficient as predictor of economic performance. (e.g. Lopes et al., 2011) • Regional opportunity structure has a stronger effect on an entrepreneurial climate for blacks, Hispanics and woman as business owners than tolerance. (Hackler & Mayer, 2008) • Tolerance stimulates innovation, too much tolerance stifles innovation (Florida et al., 2002) • Tolerance creates knowledge spill over (Florida, 2008) • A regional climate that can be characterised as tolerant and open has a strong and positive effect on a region’s share of the creative class (Boschma & Fritsch, 2009)
<p>Political scholars (n = 33)</p>	<p>Followers (n = 15)</p> <p><i>Articles that contribute or argue in favour of Florida’s approach of attracting migrants, bohemians and cultural amenities to make a city more attractive to creative talent</i></p> <p>Research outcomes in this group tend to support Florida’s approach, for example</p> <ul style="list-style-type: none"> • location choices of Dutch fashion designers are better explained by urban amenities than by clustering theory (Wenting, Atzema & Frenken, 2011) • migrants are used to fill hard to fill vacancies in North England (Stenning & Dawley, 2009)

Appendix 2 (continued)

	<ul style="list-style-type: none"> urban amenities such as a museum can play an important role in local economic development (e.g. Bryan, Munday & Bevins, in press) they simply test and find evidence for the hypothesis that urban amenities and bohemians have a favourable effect on local economic performance (e.g. Mellander, Florida & Stolarick, 2011) <p>Additionally some take Florida's approach as suggestions for the creation of a city with a strong knowledge base (e.g. Yigitcanlar, Baum & Horton, 2007)</p> <p><i>Articles that note difficulties with Florida's approach or advise against it</i></p> <p>There are a number of main arguments that are made against Florida's approach, e.g.</p> <ul style="list-style-type: none"> the approach is aimed at large metropolitan areas and not on small cities. These small cities do not have to become diverse, high-tech and amenity-rich as they have other strong characteristics that attract creative capital holders (Lewis & Donald, 2010) clustering of creative organisations also explains the effects of quality of place indicators (e.g. Poon & Lai, 2008) policies aimed at attracting creative capital holders create economic inequality between different groups that live in the same area (e.g. Peck, 2005) <p><i>Articles that take Florida's approach and develop it further into policies that are aimed at creating creative cities or economies that have a thriving cultural sector</i></p> <p>Findings illustrate policies that</p> <ul style="list-style-type: none"> can be used for creative industries as a means of city regeneration and economic performance (e.g. Liu, Kolenda, Fitzpatrick & Todd, 2010) argue for a creative approach towards tourism to set an area apart from its neighbouring areas (Richards & Wilson, 2006) support development of local film industry that can stimulate urban economic performance (Durmaz, Yigitcanlar & Velibeyoglu, 2008) <p><i>Articles that take Florida's approach and test and adapt his ideas for certain countries, i.e. the ideas are adapted to stem within a certain country.</i></p> <p>For example in:</p> <ul style="list-style-type: none"> Osaka, Kanazawa and Yokohama in Japan (Sasaki, 2010) Shanghai, Singapore and Honk Kong (Kong, 2007) <p><i>Articles that did not fit in any of the other groups</i></p> <p>Some of the articles had some relevant findings for organisational level creative capital as they</p> <ul style="list-style-type: none"> suggested possible distinctions between creative capital and human capital (e.g. Batabyal & Nijkamp, 2010)
Opponents (n = 12)	
Developers (n = 4)	
Adaptors (n = 2)	
Other scholars (n = 18)	



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Appendix 2 (continued)

		<ul style="list-style-type: none"> • identified firm level factors that may affect successful application of organisational creative capital, e.g. <ul style="list-style-type: none"> ○ leadership characteristics (Rego et al., 2007) ○ higher management practices (Self et al., 2010) ○ team trust (Barczak et al., 2010) ○ job characteristics (Wong & Ladkin, 2008) • suggested that creative capital is one of the factors that allows knowledge transfer in organisations (e.g. Parent et al., 2007) <p>A small group did not make any relevant use or reference towards creative capital and was therefore not considered in further analysis, this could be for different reasons</p> <ul style="list-style-type: none"> • a small group presented book reviews that only described the contents of books (e.g. Bhagat, 2004) • formed introductions to special issues of a journal on creative capital related subjects, by focusing on creative clustering of organisations, rather than creative capital itself (e.g. Gabe, 2007) • or because the article concentrated on higher education in stead of creative capital (e.g. McWilliam & Dawson, 2008)
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References

References marked with an * were included in the literature review

References marked with an ‡ were initially included in the literature review, but excluded after writing the summaries.

- Alvarez, S. A., & Barney, J. B. (2001). How entrepreneurial firms can benefit from alliances with large partners. *Academy of Management Executive*, 15(1), 139-148.
- Amabile, T. M. (1988). A Model of Creativity and Innovation in Organizations. *Research in Organizational Behavior*, 10, 123-167.
- Amabile, T. M. (1997). Motivating creativity in organizations: On doing what you love and loving what you do. *California Management Review*, 40(1), 39-58.
- Amabile, T. M. (1998). How to kill creativity. *Harvard Business Review*, 76(5), 76-87.
- Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154-1184.
- *Andersen, K. V., Bugge, M. M., Hansen, H. K., Isaksen, A., & Raunio, M. (2010). One size fits all? Applying the creative class thesis onto a Nordic context. *European Planning Studies*, 18(10), 1591-1609.
- *Asheim, B. (2009). Guest editorial: Introduction to the creative class in European city regions. *Economic Geography*, 85(4), 355-362.
- *Asheim, B., & Hansen, H. K. (2009). Knowledge bases, talents, and contexts: On the usefulness of the creative class approach in Sweden. *Economic Geography*, 85(4), 425-442.
- Baer, M. (2010). The Strength-of-Weak-Ties Perspective on Creativity: A Comprehensive Examination and Extension. *Journal of Applied Psychology*, 95(3), 592-601.
- *Barczak, G., Lassk, F., & Mulki, J. (2010). Antecedents of Team Creativity: An Examination of Team Emotional Intelligence, Team Trust and Collaborative Culture. *Creativity and Innovation Management*, 19(4), 332-345.
- *Batabyal, A. A., & Nijkamp, P. (2010). Richard Florida's creative capital in a trading regional economy: a theoretical investigation. *The Annals of Regional Science*, 44(2), 241-250.
- *Batabyal, A. A., & Nijkamp, P. (2011). The Impact of Neutral and Nonneutral Productivity Growth on Creative Capital in a Trading Regional Economy. *Geographical Analysis*, 43(1), 61-77.
- *Bennett, D. (2010). Creative migration: A Western Australian case study of creative artists. *Australian Geographer*, 41(1), 117-128.
- Beugelsdijk, S., & Noorderhaven, N. (2004). Entrepreneurial attitude and economic growth: A cross-section of 54 regions. *The Annals of Regional Science*, 38(2), 199-218.
- ‡Bhagat, R. S. (2004). Book reviews: The rise of the creative class: And how It's transforming work, leisure, community, and everyday life. *Administrative Science Quarterly*, 49(2), 321-325.
- *Bille, T. (2010). Cool, funky and creative? The creative class and preferences for leisure and culture. *International Journal of Cultural Policy*, 16(4), 466-496.
- Bissola, R., & Imperatori, B. (2011). Organizing Individual and Collective Creativity: Flying in the Face of Creativity Clichés. *Creativity and Innovation Management*, 20(2), 77-89.
- *Boschma, R. A., & Fritsch, M. (2009). Creative Class and Regional Growth: Empirical Evidence from Seven European Countries. *Economic Geography*, 85(4), 391-423.
- *Bottà, G. (2009). The city that was creative and did not know: Manchester and popular music, 1976-97. *European Journal of Cultural Studies*, 12(3), 349-365.
- *Boyle, M. (2006). Culture in the rise of Tiger economies: Scottish expatriates in Dublin and the 'creative class' thesis. *International Journal of Urban and Regional Research*, 30(2), 403-426.
- *Brouillette, S. (2010). The creative class and gautam malkani's Londonstani. *Critique - Studies in Contemporary Fiction*, 51(1), 1-17.
- *Brown, M. G. (2010). The owl, the city and the creative class. *Planning Theory and Practice*, 11(1),



Organisational Creative Capital: are we there yet?

117-127.

- *Bryan, J., Munday, M., & Bevins, R. (in press). The Regional Value of the 'Flexible Museum' Developing a Framework for Assessing the Socioeconomic Impacts of Museums. *Urban Studies*, xx(xx), xxx-xxx.
- *Budd, W., Lovrich Jr, N., Pierce, J. C., & Chamberlain, B. (2008). Cultural sources of variations in US urban sustainability attributes. *Cities*, 25(5), 257-267.
- *Cameron, S. (2008). Willingness to Pay for Local Public Goods: Some Evidence from the Nonprofit Theatre Sector. *Creativity Research Journal*, 20(2), 243-250.
- *Chen, L.-H. (2007). Choosing Canadian graduate schools from afar: East Asian students' perspectives. *Higher Education*, 54(5), 759-780.
- *Chen, X. (2011). Tolerance and economic performance in American metropolitan Areas: An empirical investigation. *Sociological Forum*, 26(1), 71-97.
- *Clifton, N. (2008). The "creative class" in the UK: An initial analysis. *Geografiska Annaler, Series B: Human Geography*, 90(1), 63-82.
- *Crittenden, V. L., & Crittenden, W. F. (2008). Building a capable organization: The eight levers of strategy implementation. *Business Horizons*, 51(4), 301-309.
- Crossan, M. M., & Apaydin, M. (2010). A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature. *Journal of Management Studies*, 47(6), 1154-1191.
- *Cunningham, G. B. (2011). Creative Work Environments in Sport Organizations: The Influence of Sexual Orientation Diversity and Commitment to Diversity. *Journal of Homosexuality*, 58(8), 1041-1057.
- de Jong, J., & den Hartog, D. (2010). Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, 19(1), 23-36.
- *DeLeon, R. E., & Naff, K. C. (2004). Identity politics and local political culture: Some comparative results from the social capital benchmark survey. *Urban Affairs Review*, 39(6), 689-719.
- Diliello, T. C., Houghton, J. D., & Dawley, D. (2011). Narrowing the Creativity Gap: The Moderating Effects of Perceived Support for Creativity. *Journal of Psychology*, 145(3), 151-172.
- *Donegan, M., & Lowe, N. (2008). Inequality in the creative City: Is there still a place for "Old-fashioned" institutions? *Economic Development Quarterly*, 22(1), 46-62.
- *Durmaz, B., Yigitcanlar, T., & Velibeyoglu, K. (2008). Creative Cities and the Film Industry: Antalya's Transition to a Eurasian Film Centre. *The Open Urban Studies Journal*, 1, 1-10.
- Ekvall, G. (1996). Organizational Climate for Creativity and Innovation. *European Journal of Work & Organizational Psychology*, 5(1), 105.
- *El Harbi, S., & Grolleau, G. (2008). Profiting from being pirated by 'Pirating' the Pirates. *Kyklos*, 61(3), 385-390.
- *Elliott, P. (2003). The origins of the 'creative class': Provincial urban society, scientific culture and socio-political marginality in Britain in the eighteenth and nineteenth centuries. *Social History*, 28(3), 361-387.
- Fang, R., Duffy, M. K., & Shaw, J. D. (2011). The Organizational Socialization Process: Review and Development of a Social Capital Model. *Journal of Management*, 37(1), 127-152.
- *Flew, T. (2010). Toward a cultural economic geography of creative industries and urban development: Introduction to the special issue on creative industries and urban development. *Information Society*, 26(2), 85-91.
- *Florida, R. L. (2002a). Bohemia and economic geography. *Journal of Economic Geography*, 2(1), 55-71.
- *Florida, R. L. (2002b). The economic geography of talent. *Annals of the Association of American Geographers*, 92(4), 743-755.
- Florida, R. L. (2002c). *The rise of the creative class and how it's transforming work, leisure, community*

- and everyday life*. New York, NY: Basic Books.
- *Florida, R. L. (2004a). America's Looming Creativity Crisis. *Harvard Business Review*, 82(10), 122-136.
- Florida, R. L. (2004b). Response to Edward Glaeser's review of The rise of the creative class. Retrieved from <http://creativeclass.com/rfcgdb/articles/ResponsetoGlaeser.pdf>
- Florida, R. L. (2005). *The flight of the creative class*. New York: Harper Business.
- *Florida, R. L. (2008). Megaregions: The importance of place. *Harvard Business Review*, 86(3), 18-19.
- *Florida, R. L., Cushing, R., & Gates, G. (2002). When social capital stifles innovation. *Harvard Business Review*, 80(8), 20-20.
- *Florida, R. L., & Goodnight, J. (2005). Managing for Creativity. *Harvard Business Review*, 83(7/8), 124-131.
- *Florida, R. L., & Jackson, S. (2010). Sonic City: The Evolving Economic Geography of the Music Industry. *Journal of Planning Education and Research*, 29(3), 310-321.
- *Florida, R. L., & Mellander, C. (2010). There goes the metro: how and why bohemians, artists and gays affect regional housing value. *Journal of Economic Geography*, 10(2), 167-188.
- *Florida, R. L., Mellander, C., & Stolarick, K. (2008). Inside the black box of regional development - human capital, the creative class and tolerance. *Journal of Economic Geography*, 8(5), 615-649.
- *Florida, R. L., Mellander, C., & Stolarick, K. (2010). Talent, technology and tolerance in Canadian regional development. *The Canadian Geographer*, 54(3), 277-304.
- *Florida, R. L., Mellander, C., & Stolarick, K. (2011). Beautiful Places: The Role of Perceived Aesthetic Beauty in Community Satisfaction. *Regional Studies*, 45(1), 33-48.
- ‡Gabe, T. M. (2007). Creative industries & Innovation policy. *Agricultural and Resource Economics Review*, 36(1), iii-iv.
- *Gabe, T. M., Colby, C., & Bell, K. P. (2007). The Effects of Workforce Creativity on Earnings in U.S. Counties. *Agricultural and Resource Economics Review*, 36(1), 71-83.
- Geyskens, I., Steenkamp, J. E. M., & Kumar, N. (2006). Make, Buy, or Ally: A Transaction cost theory Meta-Analysis. *Academy of Management Journal*, 49(3), 519-543.
- Glaeser, E. L. (2005). Review of Richard Florida's The Rise of the Creative Class. *Regional Science and Urban Economics*, 35(5), 593-596.
- Granovetter, M. S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78(6), 1360-1380.
- *Hackler, D., & Mayer, H. (2008). Diversity, entrepreneurship, and the urban environment. *Journal of Urban Affairs*, 30(3), 273-307.
- Hall, P. A., & Soskice, D. W. (2001). *Varieties of capitalism: the institutional foundations of comparative advantage*. Oxford England ; New York: Oxford University Press.
- *Hansen, H. K., & Niedomysl, T. (2009). Migration of the creative class: evidence from Sweden. *Journal of Economic Geography*, 9(2), 191-206.
- *Hayslett, K. L., & Kane, M. D. (2011). "Out" in Columbus: A Geospatial Analysis of the Neighborhood-Level Distribution of Gay and Lesbian Households. *City and Community*, 10(2), 131-156.
- *Hoyman, M., & Faricy, C. (2009). It takes a village: A test of the creative class, social capital, and human capital theories. *Urban Affairs Review*, 44(3), 311-333.
- Humprey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating Motivational, Social and Contextual Work Design Features: A Meta-Analytic Summary and Theoretical Extension of the Work Design literature. *Journal of Applied Psychology*, 92(5), 1332-1356.
- *Indergaard, M. (2009). What to Make of New York's New Economy? The Politics of the Creative Field. *Urban Studies*, 56(5&6), 1063-1093.
- ‡Jayne, M. (2010). Creative economies, creative cities: Asian-European perspectives. *Journal of Economic Geography*, 10(5), 791-792.



Organisational Creative Capital: are we there yet?

- *Knudsen, B., Florida, R. L., Stolarick, K., & Gates, G. (2008). Density and Creativity in U.S. Regions. *Annals of the Association of American Geographers*, 98(2), 461-478.
- Kondracki, N. L., Wellman, N. S., & Amundson, D. R. (2002). Content Analysis: Review of Methods and Their Applications in Nutrition Education. *Journal of Nutrition Education and Behavior*, 34(4), 224-230.
- *Kong, L. (2007). Cultural icons and urban development in Asia: Economic imperative, national identity, and global city status. *Political Geography*, 26(4), 383-404.
- *Krätke, S. (2010). 'Creative cities' and the rise of the dealer class: A critique of Richard Florida's approach to urban theory. *International Journal of Urban and Regional Research*, 34(4), 835-853.
- *Lawson, C. L., & Katz, J. (2006). Urban economic development and restorative justice: Exploring the relationship between creativity and crime control. *Atlantic Economic Journal*, 34(3), 303-312.
- *Lee, C. B. (2011a). Book review: Creative economies, creative cities. *International Journal of Cultural Policy*, 17(3), 356-357.
- *Lee, N. (2011b). Ethnic diversity and employment growth in English cities. *Urban Studies*, 48(2), 407-425.
- *Lee, S. Y., Florida, R. L., & Acs, Z. J. (2004). Creativity and Entrepreneurship: A Regional Analysis of New Firm Formation. *Regional Studies*, 38(8), 879-891.
- Lepak, D. P., & Snell, S. A. (1999). The human resource architecture: Toward a theory of human capital allocation and development. *Academy of Management Review*, 24(1), 31-48.
- *Lewis, N. M., & Donald, B. (2010). A new rubric for 'creative city' potential in Canada's smaller cities. *Urban Studies*, 47(1), 29-54.
- Lim, H. S., & Choi, J. N. (2009). Testing an alternative relationship between individual and contextual predictors of creative performance. *Social Behavior and Personality: an international journal*, 37(1), 117-135.
- *Liu, C. Y., Kolenda, R., Fitzpatrick, G., & Todd, T. N. (2010). Re-creating New Orleans: Driving development through creativity. *Economic Development Quarterly*, 24(3), 261-275.
- *Lopes, M. P., da Palma, P. J., & Pina e Cunha, M. (2011). Tolerance is Not Enough: The Moderating Role of Optimism on Perceptions of Regional Economic Performance. *Social Indicators Research*, 102(2), 333-350.
- Lorenz, E., & Lundvall, B.-Å. (2011). Accounting for Creativity in the European Union: A multi-level analysis of individual competence, labour market structure, and systems of education and training. *Cambridge Journal of Economics*, 35(2), 269-294.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135-172.
- Lynn, W. (1994). Qualitative research methods: A review of major stages, data analysis techniques, and quality controls. *Library & Information Science Research*, 16(3), 241-254.
- *Marlet, G., & van Woerkens, C. (2007). The Dutch creative class and how it fosters urban employment growth. *Urban Studies*, 44(13), 2605-2626.
- Mathisen, G. E., & Bronnick, K. S. (2009). Creative self-efficacy: An intervention study. *International Journal of Educational Research*, 48(1), 21-29.
- *McGovern, S. J. (2009). Mobilization on the waterfront: The ideological/cultural roots of potential regime change in Philadelphia. *Urban Affairs Review*, 44(5), 663-694.
- *McGranahan, D. A., Wojan, T. R., & Lambert, D. M. (2011). The rural growth trifecta: outdoor amenities, creative class and entrepreneurial context. *Journal of Economic Geography*, 11(3), 529-557.
- *McWilliam, E., & Dawson, S. (2008). Teaching for creativity: Towards sustainable and replicable pedagogical practice. *Higher Education*, 56(6), 633-643.

- *Mellander, C., Florida, R. L., & Stolarick, K. (2011). Here to Stay - The Effects of Community Satisfaction on the Decision to Stay. *Spatial Economics Analysis*, 6(1), 5-24.
- Miles, R. E., & Snow, C. C. (1984). Designing Strategic Human-Resources Systems. *Organizational Dynamics*, 13(1), 36-52.
- *Mizzau, L., & Montanari, F. (2008). Cultural districts and the challenge of authenticity: the case of Piedmont, Italy. *Journal of Economic Geography*, 8(5), 651-673.
- Mok, P. (2009). Asian Cities and Limits to Creative Capital Theory. In L. Kong & J. O'Connor (Eds.), *Creative Economies, Creative Cities* (Vol. 98, pp. 135-150): Springer Netherlands.
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of Work. *Journal of Applied Psychology*, 91(6), 1321-1339.
- Moultrie, J., & Young, A. (2009). Exploratory Study of Organizational Creativity in Creative Organizations. *Creativity and Innovation Management*, 18(4), 299-314.
- Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *The Academy of Management Review*, 23(2), 242-266.
- Nordhaug, O., & Gronhaug, K. (1994). Competences as resources in firms. *International Journal of Human Resource Management*, 5(1), 89-106.
- *Novakowski, N. (2010). Ottawa: the knowledge city and a labyrinth of obstacles. *GeoJournal*, 75, 553-565.
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, 31(2-3), 463-479.
- *Parent, R., Roy, M., & St-Jacques, D. (2007). A systems-based dynamic knowledge transfer capacity model. *Journal of Knowledge Management*, 11(6), 81-93.
- Parker, S. K., Williams, H. M., & Turner, N. (2006). Modelling the Antecedents of Proactive Behaviour at Work. *Journal of Applied Psychology*, 91(3), 636-652.
- Paulus, P. (2000). Groups, Teams, and Creativity: The Creative Potential of Idea-generating Groups. *Applied Psychology*, 49(2), 237-262.
- Payne, G. T., Moore, C. B., Griffis, S. E., & Autry, C. W. (2011). Multilevel Challenges and Opportunities in Social Capital Research. *Journal of Management*, 37(2), 491-520.
- *Peck, J. (2005). Struggling with the Creative Class. *International Journal of Urban and Regional Research*, 29(4), 740-770.
- Perry-Smith, J. E. (2006). Social yet creative: The role of social relationships in facilitating individual creativity. *Academy of Management Journal*, 49(1), 85-101.
- *Petrov, A. N. (2007). A Look beyond Metropolis: Exploring Creative Class in the Canadian Periphery. *Canadian Journal of Regional Science*, 30(3), 451-474.
- *Petrov, A. N. (2008). Talent in the cold? Creative capital and the economic future of the Canadian north. *Arctic*, 61(2), 162-176.
- *Piergiovanni, R., Carree, M. A., & Santarelli, E. (forthcoming). Creative industries, new business formation, and regional economic growth. *Small Business Economics*, xx(xx), xx-xx.
- Pirola-Merlo, A., & Mann, L. (2004). The Relationship between individual Creativity and Team Creativity: Aggregating across People and Time. *Journal of Organizational Behavior*, 25(2), 235-257.
- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: a multilevel model. *Academy of Management Review*, 36(1), 127-150.
- *Ponzini, D., & Rossi, U. (2010). Becoming a creative city: The entrepreneurial mayor, network politics and the promise of an urban renaissance. *Urban Studies*, 47(5), 1037-1057.
- *Poon, J. P. H., & Lai, C. A. (2008). Why are non-profit performing arts organisations successful in mid-sized US cities? *Urban Studies*, 45(11), 2273-2289.



Organisational Creative Capital: are we there yet?

- ‡Potts, J. (2009). Introduction: creative industries & innovation policy. *Innovation: management, policy & practice*, 11(2), 138-147.
- *Rausch, S., & Negrey, C. (2006). Does the creative engine run? A consideration of the effect of creative class on economic strength and growth. *Journal of Urban Affairs*, 28(5), 473-489.
- *Rego, A., Sousa, F., Pina e Cunha, M., Correira, A., & Saur-Amaral, I. (2007). Leader Self-Reported Emotional Intelligence and Perceived Employee Creativity: An Exploratory Study. *Creativity and Innovation Management*, 16(3), 250-264.
- *Rentfrow, P. J., Mellander, C., & Florida, R. L. (2009). Happy States of America: A state-level analysis of psychological, economic, and social well-being. *Journal of Research in Personality*, 43(6), 1073-1082.
- *Richards, G., & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture? *Tourism Management*, 27, 1209-1223.
- Ring, P. S., & Perry, J. L. (1985). Strategic Management in Public and Private Organizations - Implications of Distinctive Contexts and Constraints. *Academy of Management Review*, 10(2), 276-286.
- *Robinson, T., & Noriega, S. (2010). Voter migration as a source of electoral change in the Rocky Mountain West. *Political Geography*, 29(1), 28-39.
- *Rousseau, M. (2009). Re-imagining the City Centre for the Middle Classes: Regeneration, Gentrification and Symbolic Policies in 'Loser Cities'. *International Journal of Urban and Regional Research*, 33(3), 770-788.
- *Sasaki, M. (2010). Urban regeneration through cultural creativity and social inclusion: Rethinking creative city theory through a Japanese case study. *Cities*, 27(1), S3-S9.
- *Self, D. R., Bandow, D., & Schraeder, M. (2010). Fostering employee innovation: Leveraging your "ground level" creative capital. *Development and Learning in Organisations*, 24(4), 17-19.
- Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, 15(1), 33-53.
- *Sharp, E. B. (2005). Cities and subcultures: Exploring validity and predicting connections. *Urban Affairs Review*, 41(2), 132-156.
- *Sharp, E. B. (2007). Revitalizing Urban Research: Can Cultural Explanation Bring Us Back from the Periphery? *Urban Affairs Review*, 43(1), 55-75.
- *Sharp, E. B., & Joslyn, M. R. (2008). Culture, segregation, and tolerance in urban America. *Social Science Quarterly*, 89(3), 573-591.
- *Stenning, A., & Dawley, S. (2009). Poles to Newcastle: Grounding new migrant flows in peripheral regions. *European Urban and Regional Studies*, 16(3), 273-294.
- Sternberg, R. J. (2006). The nature of creativity. *Creativity Research Journal*, 18(1), 87-98.
- *Stolarick, K., & Florida, R. L. (2006). Creativity, connections and innovation: a study of linkages in the Montréal Region. *Environment and Planning A*, 38, 1799-1817.
- Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: a multilevel model. *The Academy of Management Journal*, 45(2), 315-330.
- *Talen, E. (2006). Design that enables diversity: the complications of a planning ideal. *Journal of Planning Literature*, 20(3), 233-249.
- *Thomas, M. J., & Darnton, J. (2006). Social diversity and economic development in the metropolis. *Journal of Planning Literature*, 21(2), 153-168.
- *Tremblay, D.-G., & Pilati, T. (2007). Tohu and Artist-run Centres in Montreal: Contributions to the creative city? *Canadian Journal of Regional Science*, 2, 337-356.
- *Tsirogiani, S. (2011). Social values and the creative ethos in the Greek knowledge society: A phenomenological analysis. *World Futures: Journal of General Evolution*, 67(3), 155-181.
- *van Heur, B. (2009). The Clustering of Creative Networks: Between Myth and Reality. *Urban Studies*,

46(8), 1531-1552.

- Vartanian, O., Martindale, C., & Matthews, J. (2009). Divergent thinking ability is related to faster relatedness judgments. *Psychology of Aesthetics, Creativity, and the Arts*, 3(2), 99-103.
- Wang, C. W., & Horng, R. Y. (2002). The effects of creative problem solving training on creativity, cognitive type and R&D performance. *R&D Management*, 32(1), 35.
- *Wenting, R., Atzema, O., & Frenken, K. (2011). Urban amenities and agglomeration economies? The locational behaviour and economic success of Dutch fashion design entrepreneurs. *Urban Studies*, 48(7), 1333-1352.
- Westlund, H., & Adam, F. (2010). Social Capital and Economic Performance: A Meta-Analysis of 65 studies. *European Planning Studies*, 18(6), 893-919.
- *Westlund, H., & Calidoni, F. (2010). The creative class, social capital and regional development in Japan. *Review of urban & regional development studies*, 22(2/3), 89-108.
- Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free press.
- *Wojan, T. R., Lambert, D. M., & McGranahan, D. A. (2007). Emoting with their feet: Bohemian attraction to creative milieu. *Journal of Economic Geography*, 7(6), 711-736.
- *Wojan, T. R., & McGranahan, D. A. (2007). Ambient returns: Creative capital's contribution to local manufacturing competitiveness. *Agricultural and Resource Economics Review*, 36(1), 133-148.
- Wong, S. C.-k., & Ladkin, A. (2008). Exploring the relationship between employee creativity and job-related motivators in the Hong Kong hotel industry. *International Journal of Hospitality Management*, 27(3), 426-437.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a Theory of Organizational Creativity. *Academy of Management Review*, 18(2), 293-321.
- Yang, H.-L., & Cheng, H.-H. (2009). Creative self-efficacy and its factors: An empirical study of information system analysts and programmers. *Computers in Human Behavior*, 25(2), 429-438.
- *Yigitcanlar, T., Baum, S., & Horton, S. (2007). Attracting and retaining knowledge workers in knowledge cities. *Journal of Knowledge Management*, 11(5), 6-17.
- Zheng, W. (2010). A Social Capital Perspective of Innovation from Individuals to Nations: Where is Empirical Literature Directing Us? *International Journal of Management Reviews*, 12(2), 151-183.

(Footnotes)

¹ We borrowed this term from a conference paper by J.C. Looise, M. van Velzen & A.A.R. Veenendaal called *Seeing is believing: visualising the relationship between forms of capital and innovation*. It was presented at the 5th EIASM Workshop on Visualising, Measuring and Managing Intangibles and Intellectual Capital in Dresden (Germany), on October 7-8, 2009. My gratitude goes out to them for letting me borrow this term.

Organisational Creative Capital:

are we there yet?

Organisational Creative Capital: are we there yet? is a graduation thesis by Sean Straatman. It is meant to complete his graduation of the Business Administration programme at the University of Twente. The creation process of this thesis was supervised by ir. A.A.R. Veenendaal and dr. M.J.T. van Velzen, they are both members of the staff of the University of Twente's school of Management and Governance.

The thesis presents conceptual research on creative capital. The concept is taken from Richard Florida's popular *The rise of the creative class: and how it's transforming work, leisure, community, & everyday life* book. The term creative capital is popular in urban science, but not as much in organisational science. It has been found to relate to urban economic performance. This combination lead us to ask the question: "Why is creative capital not popular in organisational science?". Organisations are places that bring creative people together to create economic performance, so why is creative capital not popular in organisational science? Is the concept something new? Or is the idea underlying creative capital nothing new for organisational scholars. To put it in the words of DreamWorks' famous cartoon character Donkey: 'Are we there yet?'

The research that has been the basis for this thesis attempted to transfer creative capital from the urban level to the organisational level. It has done this by presenting the results of a literature review on creative capital. The literature review lead us to conclude that creative capital has not been studied in organisational science. We then used the literature review to present a definition of 'organisational creative capital'.

This definition of organisational creative capital was combined with a number of propositions to present a conceptual model. This conceptual model presents three key components of organisational creative capital: how it could be measured, how it can be accumulated and how it is influenced by factors that are found in the urban context of organisations.

We hope that this thesis will provide an impetus for research on organisational creative capital, and wish for many 'Are we there yet's'.



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