

Title: Are we there yet? Human capital, creative class and regional development - critical analysis

Authors: Ing. Barbora Andor Tóthová, doc. Ing. Miriam Šebová, Phd.

Abstract:

The Paper reflects on theories of economic growth, their historical context and current situation in the academic and practical discourse, connecting growth theories, urban and regional development and wellbeing. Based on the literature review of concepts and authors from human capital in growth theory by Lucas (1988), through Florida's (2002) „creative class“ up to the four capital model by Ekins, Dresner and Dahlstrom (2007) concluding with theory of commons (Dockx and Gielen, 2018) and capabilities approach by Gross and Wilson (2018) . Critical discussion of these concepts opens up several topics that should be subject for future research. This Paper aims to point out the priorities for future research and policy making with the focus on urban and regional development and evaluate the role of arts, culture and creative industries in these discussions. Is it possible for arts, culture and creative industries to be the driver of economic growth of regions and cities? What factors play a central role for urban and regional development? This Paper raises more questions than answers, however, we believe these questions are important and essential to ask and find methodologies, most reliable answers and secure them with effective policies in the near future.

Points for practitioners:

The main points for practitioners and policy makers pointed out in the paper are trends in public policy shifting from economic growth promotion towards sustainability, theory of commons, sharing resources and focus on human capabilities and democracy in cultural policies rather than human capital and flagship investment projects in cultural policies. The paper explains contexts and evolution of this change.

Keywords: human capital, regional development, creative class, commons, sustainability

Funding

This paper was supported by the Scientific Grant Agency of the MSVVaS SR project No. VEGA 1/0806/18.

1. Introduction

The essay reflects on theories of economic growth, their historical context and current situation in both academia and global practice. In the first chapter it gives a theoretical overview of concepts and authors since the 1980s until now and in the second chapter subjects historical concepts to critical discussion and opens several topics that should be subject for future research.

2. Methodology

The essay uses critical analysis of theoretical concepts explaining urban and regional economic development.

3. Literature overview

To be able to assess the topic of the role of the human capital and its contribution to regional development and growth, we need to clarify terms and theories existing in literature in the past few decades.

3.1. Discovery of Human Capital in Economic Growth Theory

Human capital as an important factor in economic growth theory is thoroughly described by Lucas (1988), who follows the history of economic growth theories and explains the flaws and challenges of Solow-Swan neoclassical

model, the missing variable which is essential for economic growth and affects the technological progress endogenously - human capital. Lucas (1988), builds up on introduction of the term “human capital” by Schultz (1963) and Becker (1964) and derives his model from Solow-Swan equation, adding the human capital variable complementing similar research by Arrow (1965), Uzawa (1965) and his own student, one of the most notable economists, pioneer of endogenous growth theory, co-receptor of the 2018 Nobel prize, Paul Romer (1986).

Lucas (1988) in his research describes human capital as a set of skills and a person's decision how to allocate time between a set of activities, which leads to his/hers increase in productivity. Lucas distinguishes between *internal effects of human capital* - investment in education, job training, learning-by-doing, shifting of human capital between generations and return on such investment. For Lucas *the external effect of human capital* is the aggregate rise in the national production function. However, he has troubles identifying specific components of these externalities and to measure the external effects of human capital. Lucas finds help in non econometric approach by Jane Jacobs in her *The Economy of Cities* (1969) where the external effects of human capital could be represented by higher rent in the city, place where the human capital is concentrated and where individuals want to live even though the cost of life is higher and economically irrational to spend. The interactions between individuals, not only within families, but with strangers in urban agglomerations, such as cities, are essential and natural and create external effects of human capital, that could be measured by more variables, but in this research, most notably by the prices of rent. Today we call this effect knowledge spillovers, which are naturally more significant in cities with lower transaction costs of knowledge, skills and experiences.

3.2. Human Capital and Regionality

In general, in labor economics literature, human capital is best measured by average years of formal education and work experience. Moving on from Lucas, Rauch (1990) attempts to explore further the regional distribution of human capital, its effect on cost of rent and wages in Standard Metropolitan Statistical Areas (SMSAs) in the US. Rauch treats human capital as an exogenous variable, a local public good (such as climate), that could be influenced by national policy, but is not influenced by wage or rent and also is exogenous from the point of view of an individual or firm making a location decision. Rauch's findings show that areas with higher levels of human capital show more productivity (and subsequently economic growth), with average years of formal education factor being especially significant. At the same time, he claims that the individual equilibrium (wage versus rent) stays the same and any increase in wages leads to increase in rents and so the decision of an individual on where to live remains unknown.

Are there any specifics of regions with higher concentration of human capital? Rauch tried to go further and explore other exogenous variables that could correlate to higher levels of average education and thus could affect higher productivity in the area. He tested various variables such as investment in R&D centers, amount of universities, amenities such as climate (climate mildness and coastal location) and cultural facilities. The surprising results are: that the amount of investment in R&D and the number of universities in the area do not have significant correlation with average education level. For the climate variable, areas with more pleasant weather were positively correlated in the rent equation, for the wage equation it had no significance, but in coastal areas the correlation was significant in both equations. Cultural amenities (culture per capita) in fact has a correlation with average education level specifically in the wage equation. Surprisingly, in the rent equation it was insignificant. Rauch also tested the hypothesis that higher average education levels are associated with bigger unobserved abilities of workers rather than productivity. This would mean that the higher average education in the area (SMSAs) is correlated with higher return to ability of the worker and so more skilled and experienced workers migrate to areas with higher average education levels, building up on the models by Borjas et al. (1992) and Roy (1951). Unfortunately, in this case Rauch was not able to prove a significant relationship. Other key findings from this study which are similar to Lucas's are that the social return on schooling is more significant than private and Rauch concludes that his findings

support the hypothesis that areas with higher concentration of human capital have higher levels of productivity and benefit from sharing of ideas and knowledge.

Further studies on human capital and its distribution across regions and effects on regional development focus on different aspects of the issue, each partially addressed by Rauch. Glaeser et al. (2001), suggest that universities play a key role in the concentration of human capital. Another theory suggests that amenities play a key role in drawing educated people to certain regions (Glaeser et al., 2001; Clark, 2003; Shapiro, 2006). Florida (2002), sees openness and tolerance as central characteristics of economically developed areas. In his 2008 study¹ Florida finds these aspects complementary, all playing a certain role in attracting human capital and developing the region.

3.3. The Rise (and Fall?) of the “Creative Class”

The shift in human capital and regional studies comes with Florida (2002) and his introduction of “creative class” terminology. Up to this point, all authors and studies were referring to human capital as highly educated and (or) skilled and experienced workforce. However, Florida experimented with new and attractive term, suggesting that the highly developed regions do not care only about workforce with high human capital levels, but the specifics of the human capital are that it needs to be “creative” and put “creative class” in the center of the discussion, affecting academic terminology and especially political jargon and decisions for years to come.

Florida suggests that the alternative measure to human capital, the “creative class” suits better to measure high skill human capital than the traditional level of education and experience approach. According to Florida, creative class comprises the set of specific occupations including science, engineering, arts, culture, entertainment and knowledge-based professions like management, finance, law, healthcare and education. He adds that human capital operates mostly through channels of income and wealth, where the creative class has a more significant relationship with wage increase and labour productivity in the region. This could be in line with Rauch's research, even though he measured the “culture per capita”, number of cultural institutions in the area (culture as amenity), not the level of creative class concentration in the region. Another finding that Florida suggests is that certain occupations have a greater impact on regional development than others. Education and healthcare have relatively smaller relation to regional development, on the other hand, computer science, engineering, management, business and financial operations show greater levels of association. For Florida, tolerance is one of the key elements in the region associated with human capital, creative class, regional wages and income. To measure the level of tolerance, he uses the “gay index”, the size of gay community in the region (Florida et al., 2008).

There are other authors concerned with the factor of openness, tolerance and gay index and their relationship with regional development. Opposed to empirical findings of Clark (2003) and Glaeser (2004), which show very limited significance of latter variables, Florida stresses the importance of interactions between various factors and points out that the general model of regional development is too crude to capture them. He suggests the “3T” model of economic development: technology, talent and tolerance and their need to act together in order to show tangible results. Furthermore, he sees the level of tolerance and gay index as proxies to measure the barriers to entry of human capital in certain locations (Florida et al., 2008).

3.4. European Context

The more recent study conducted by Nesta (Bakhsi et al., 2014) from the UK explores these relationships out of the US context and as a follow up to the boost in development of regional cultural policies and cultural flagship projects in UK since early 2000s, highly influenced by Florida's research and with strong rhetoric of “creative industries”, “creative class” and culture as leading factors in regional and urban development and revitalization. The main

¹ Inside the black box of regional development—human capital, the creative class and tolerance (Florida et al., 2008)

research question posed by Bakhsi et al. was whether the arts and cultural sector can boost productivity in other sectors of the local economy and subsequently lead to economic development in certain areas.

Through an econometric model, the study measures the impact of cultural clustering on productivity of English cities using employment, occupational and institutional factors. The results of the study suggest that Arts and Culture serve more as “urban amenity” rather than “innovation spillovers”. In the meaning that high skilled workers seem to be attracted to the areas with high arts and cultural clustering. They note that these findings seem to be in line with Richards Florida “creative city” concept, where cities with higher cultural clustering attract highly skilled workers who can boost the cities innovation potential, but it is beyond the scope of their study. Even more importantly, this study shows that arts and non-profit cultural activities and their clustering generate innovation spillovers to the commercial, creative economy, but have (yet) unknown spillovers or impacts on the wider economy. Despite that authors of this study admit limitations of the results mostly based in causality and cross-sectoral data sets, they are firm in the conclusion that there is a relationship between cultural clustering and urban development. However the effects are milder than often claimed by politicians. At the same time public investment in non-profit Arts and Culture have positive correlation with higher wages and productivity of creative professionals². Authors also suggest further research on why Arts and Culture can not capture all the innovation and knowledge spillovers they generate and why there are market failures in ecosystems of creativity (Bakhsi et al., 2014). It is important to note that authors did not follow up on their research.

Another study from 2014 from Hansen and Winther concludes that the public sector is crucial when it comes to uneven distribution of human capital across regions in Denmark while on the other hand, the private sector tends to create more inequality. At the same time, urban areas play a crucial role in human capital development and employment rates. (Hansen & Winther, 2014)

It is very interesting to see that the amount of papers on the topic of human capital and/or creative class and their relationship with economic growth and development rapidly decreases by 2014. In the face of globalization, immigration, rapid technological progress, inequality and climate change issues, the mixed results of studies (especially of the creative class relationship with economic development) we see a research shift in the topic towards economic development and its relationship to sustainability and equality.

3.5. Culture-led urban regeneration and economic development

The critique of commodification of culture and flagship projects of vast investments into cultural uniformity of cities had been present in the academic literature since the late 1980s, about the time when Lucas and Romer introduced human capital into the growth theory. Zukin (1986) explained the early gentrification of neighborhoods and “loft living” in New York reacting to the policies of urban regeneration through arts and culture happening in the USA since 1970s (Whitt, 1987). Basset (1993) described the evolution of cultural policies in the UK and the implementation of the US model during Thatcherism and addressed the need for cultural policies to be site-specific, formed according to analysis of local resources, Stevenson (2004) points out that culture in urban planning should mean something, but should not mean everything. Gibson (2005) in Australian study strongly criticizes the neoliberal policy of creative cities and metropolitan arrogance towards regions, stressing that there needs to be “creativity” in policies, because all human beings (even the working class) are biologically creative. Miles and Paddison (2005) continue in the line adding up, that the policy-makers should not be concerned so much with raw indicators but more with how local communities and cultures contribute to the urban development. Lin and Hsing (2008) also points out that the community and involvement of the local actors during the regeneration process involving investment in arts and culture is crucial for the sustainability and effectiveness of the process. Ferillia et al (2017) goes in line with critique stressing out the need of citizen participation, community involvement, bottom-up initiatives rather than flagship projects and is sceptical on whether the culture can really benefit wider economy and enhance the social and human capital of the place.

² Yet without empirical evidence about impacts on wages and productivity in the wider economy.

Apart from that, there are authors who are somewhere in the middle “between Zukin and Florida” such as Scott (1997) who pointed out the accelerating consumption of cultural products of all kinds especially evident in “the emergence of giant cities, flagships of new global capitalist culture”. Scott does not say, that the combination of culture and economic growth is bad per se, if the specifics of the place are highlighted in the global economy and stresses the need of cultural policies. Or Momaas (2004) who understands the concerns about gentrification and social exclusion of big flagship projects but based on the four case studies also sees the potential in carefully managed cultural investment projects. Bailey et al. (2004) find compromise in developing the “world-class” people climate with incorporating local identities.

The critical opposition to creative cities and creative class theory is proposed by Florida himself in his most recent book of 2017, “The New Urban Crisis”. After long years of research and focus on the “creative class” and highly skilled professionals and economic growth, Florida realises the one dimension omitted by economic growth theories and his own research - the social dimension. The need to empower communities, use participatory and place-based policies. Issues his opponents addressed more than a decade ago³. He does not offer solutions or neglect his previous studies, but addresses the deepening issues of “superhero” cities, deepening wage gap, poverty and inequality of the suburbs (Jacobin, 2017).

The global “urban crisis” can not be solved if policymakers do not change their perspective and move from popular to functional and evidence based solutions adapted to their local context. It will be always easier to fundraise and revitalize abandoned industrial districts and turn them into art galleries than solve complex social issues in marginalised communities which are as important and equal inhabitants of the city (and region) as the “creative class”.

On the other hand, the UK research of Bakhsi et al. 2014, showed the transactions and effects of the non-profit Arts and Cultural sector, something Florida did not address. The important finding is the relevance of public investment into these, in order to develop the more popular creative sectors. If the cultural strategies are properly developed, they undoubtedly could contribute to the development of cities and communities. However, they are just one variable of a complex ecosystem.

4. Are we there yet? - From growth theories towards sustainability

In recent years, the discourse has shifted more towards new models of economic development, using rather “economic sustainability” and evading the need for the use of term “growth” (as expressed by the growth in the GDP) (Throsby, 2017). Human and social capital play key roles in these concepts.

The “four capital model” described by Ekins, Dresner and Dählstrom (2007) to evaluate the sustainability of human ecosystems brings the hollistic approach as opposed to theories centered on one indicator (such as culture and/or technology, cultural heritage, etc..) The model suggests that the four capitals are – built, environmental, economic and social as crucial in assessing the sustainability. Combination of the four capitals forms the objective criteria of ecosystem, the interactions and relationships in the city (or area) and these can be combined by the qualitative criteria such as cultural amenities, symbolic value and quality of public spaces (Weijs-Perrée et al. 2019).

Theory of commons also contributes to the topic of sustainability of ecosystems with constant free flow of resources between population and focusing on urban development rather through sharing the resources and supporting creative individuals than focusing on neoliberal precariousness of creative work. (Dockx and Gielen 2018)

³ See Bailey et al., 2004; Miles and Paddison, 2005; Pratt, 2009; García, 2004 ; Lin and Hsing, 2009, and older contributions on the topic by Zukin (1982, 1991, 1992).

Going back to cultural policy, creative industries, human capital and reformulation of neoliberal approach towards economic development, Gross and Wilson (2018) introduce three dimensions for research to help reassess UK cultural policy – cultural opportunity, ecology of cultural opportunity and capabilities approach. In the line of critique of commodification of culture, neoliberal cultural policies in UK inspired by works of Florida (and others) Gross and Wilson (2018) introduce the capabilities approach – focusing on maximising people’s freedoms – what they can be, what they can do and that they have reason to value. They call it “account for human flourishing”, and is strongly opposed to the “creative class” approach.

Going back to Lucas (1988) in the beginning of this paper, citing Jane Jacobs:

“But, as Jacobs has rightly emphasized and illustrated with hundreds of concrete examples, much of economic life is 'creative' in much the same way as is 'art' and 'science'. New York City's garment district, financial district, diamond district, advertising district and many more are as much intellectual centers as is Columbia or New York University. The specific ideas exchanged in these centers differ, of course, from those exchanged in academic circles, but the process is much the same. To an outsider, it even looks the same: A collection of people doing pretty much the same thing, each emphasizing his own originality and uniqueness.” (Lucas, 1988)

Gross and Wilson (2018), however, go beyond the economic potential of creativity proposed by Jacobs and Lucas, and raise the question of democratic knowledge production, learning which cultural capabilities are present and which need to be developed. They introduce cultural democracy as a pluralist process of co-produced knowledge and shared decision making, in other words, cultural democracy is characterized by the cultural capability of actors and processes, the ecosystem and interactions inside of it.

5. Conclusions

It is impossible to draw conclusions on any ongoing process, the fact that all the authors and studies on economic development have proven. The rapid change in society brings different priorities and different variables that enter the equation. All the variables are complementary in the process and prioritizing one above others (technological development, creativity, etc.) have proven to be incorrect. Different factors such as technology, high skilled services, policymakers, arts and culture, and creative industries are complementary in the process of regional, national and global economic development, with strong focus on environmental and social issues of different communities.

In conclusion, economic growth theories change with the context of the society and the time in history when they evolve. Regional development goes hand in hand with this ever changing process and adds up variables, factors and place related characteristics. Since Lucas and Romer, we went from the human capital oriented era focused on individual formation, through creative class theory of Richard Florida focused on the high skilled professionals and came back to the baseline - social wellbeing, equality and sustainability with focus on cautious environmental policies. Nevertheless, the research can build up on previous findings and the ultimate challenge is the knowledge sharing on vertical level, from the high skilled, high wage occupations towards the lowest paid occupations and marginalised communities.

6. References

Bailey, Christopher., Miles, Steven, Stark, Peter. 2004. Culture-led urban regeneration and the revitalisation of identities in Newcastle, Gateshead and the Northeast of England. *International Journal of Cultural Policy*, vol. 10:1, 47-65

Bakhsi, Hasan, Lee, Neil, Mateos-García, Juan. 2014. Capital of culture? An econometric analysis of the relationship between arts and cultural clusters, wages and the creative economy in English cities, Nesta Working Paper No. 14/06

- Becker, Gary S. 1964. *Human Capital Theory*. Columbia University Press
- Borjas, George.J., Bronars, Stephen .G., Trejo, Stephen J. 1992. Self-selection and internal migration in the United States, *Journal of Urban Economics* 32: 159-185
- Clark, Terry N. (2003) Urban amenities: lakes, opera and juice bars do they drive development? Vol. 9., 103–140. In *The City as an Entertainment Machine Research in Urban Policy*. Edited by Terry N. Clark . Oxford: Elsevier Ltd
- Dockx, Nico, Gielen, Pascal. 2018. *Exploring Commonism: A New Aesthetics of the Real*. Amsterdam: Valiz/Antennae Series
- Ferilli, Guido, Sacco, Pier Luigi, Tavano, Giorgio, Forbici, Blessi & Stefano.2017. Power to the people: when culture works as a social catalyst in urban regeneration processes (and when it does not), *European Planning Studies*, 25:2, 241-258
- Florida, Richard. 2002. *The Rise of the Creative Class*. New York: Basic Books.
- Florida, Richard., Mellander, Charlotta., Stolarick, Kevin. 2008. Inside the black box of regional development - human capital, the creative class and tolerance. *Journal of Economic Geography* 8: 615-649
- Gibson, Chris, Klocker Natasha. 2005. The ‘Cultural Turn’ in Australian Regional Economic Development Discourse: Neoliberalising Creativity?. *Geographical Research* 43:1, 93–102
- Glaeser, Edward L., Kolko, Jed., Saiz, Albert. 2001. Consumer city. *Journal of Economic Geography*, 1: 27–50
- Glaeser, Edward L. 2004. Book review of Richard Florida’s ‘The Rise of the Creative Class’. Available online at: http://post.economics.harvard.edu/faculty/glaeser/papers/Review_Florida.pdf
- Gross, Jonathan, Wilson, Nick. 2018. Cultural democracy: an ecological and capabilities approach, *International Journal of Cultural Policy*. 26:3, 328-343
- Hansen, Høgni Kalsø., Winther, Lars. 2014. Regional development and the impact of the public sector in Denmark: employment growth and human capital, *Geografisk Tidsskrift-Danish Journal of Geography*, 114:2, 156-168
- Jacobin .2017. Richard Florida Is Sorry by Sam Wetherell. Available at: <https://jacobinmag.com/2017/08/new-urban-crisis-review-richard-florida>, cited on 14.9.2020
- Jacobs, Jane. 1969. *The Economies of Cities*. New York: Random House.
- Lin, Cheng-Yi., Hsing, Woan-Chiau. 2009. Culture-led Urban Regeneration and Community Mobilisation: The Case of the Taipei Bao-an Temple Area, Taiwan. *Urban Studies*, 46:7, 1317-1342
- Lucas, Robert. 1988. On the mechanics of economic development. *Journal of Monetary Economics*, 22: 3–42.
- Miles, Steven, Paddison, Ronan. 2005. Introduction: The Rise and Rise of Culture-led Urban Regeneration. *Urban Studies*. 42:5/6, 833–839

Momaas, Hans. (2004) Cultural Clusters and the Post-industrial City: Towards the Remapping of Urban Cultural Policy, *Urban Studies*, 41:3, 507–53

Rauch, James. 1993. Productivity gains from geographic concentration of human capital: evidence from the cities. *Journal of Urban Economics*, 34: 380–400

Romer, Paul. M. 1986. Increasing returns and long-run growth. *Journal of Political Economy*, 90: 1002–1037

Roy, A.D. 1951. Some thoughts on the distribution of earnings, *Oxford Economic Papers* 3: 135-146

Scott, A.J. 1997. The Cultural Economy of Cities. *International Journal of Urban and Regional Research*, 21: 323-339

Shapiro, J. M. (2006) Smart cities: quality of life, productivity, and the growth effects of human capital. *The Review of Economics and Statistics*, 88(2): 324–335.

Schultz, Theodore W. 1963. *The Economic Value of Education*. Columbia University Press, New York.

Stevenson, Deborah. 2004. “Civic Gold” Rush, *International Journal of Cultural Policy*, 10:1, 119-131

Throsby, David. 2017. Culturally Sustainable Development: Theoretical Concept or Practical Policy Instrument?” *International Journal of Cultural Policy* 23:2,133–47

Uzawa, Hirofumi. 1965. Optimum technical change in aggregative model of economic growth. *International Economic Review* 6: 18-31

Weijts-Perrée Minou, Gamze, Dane, van den Berg, Pauline, van Dorst, Machiel. (2019). A Multi-Level Path Analysis of the Relationships between the Momentary Experience Characteristics, Satisfaction with Urban Public Spaces, and Momentary- and Long-Term Subjective Wellbeing. *International Journal of Environmental Research and Public Health* 16:19, 3621

Zukin, Sharon. (1989). *Loft Living: Culture and Capital in Urban Change*. Reprint Edition. New Brunswick, N.J: Rutgers University Press