

11. Tolerance, heterogeneity, creativity, and economic growth

*Thomas Tiemann, Cassandra DiRienzo, and Jayoti Das,
(Economics Department, Elon University, USA)*

Abstract

The year 2009 has been declared the European Year of Creativity and Innovation by the European Union, at least in part in recognition of the growing importance of creativity in high-income, post-industrial (or at least post-Fordist) economies. Creativity is difficult to define and therefore difficult to measure, yet a two-day conference on measuring creativity has been organised. This paper will try to add to the conversation. First, we briefly place this paper into the conversation about why creativity is important and the measurement of creativity. Second, we present a simple model that shows that our approach is one valid approach to creativity measurement. Third, we briefly present results from other research. Finally, we offer suggestions for future work on measuring creativity.

Introduction

The early 21st-century economy is different from past economies, especially in high and medium-income countries. Globalisation has resulted in a different world, where goods, especially commodity goods, are inexpensive and made in low-income countries by low-wage workers. While globalisation has resulted in the movement of most low-wage, low-skill jobs from high-income places, it has also resulted in the a reduction in the real cost of the goods needed for a middle-class lifestyle. Most households in high and medium income places have good food, warm clothing and shelter, and even an automobile. Most homes have good furnishings, space for everyone, and many have a pleasant garden. While displaced manufacturing workers are often struggling, their children are attending university or learning skilled trades. More and more

workers in these countries are working with knowledge, information, and design. The rise in income and the change in how we work have also changed the goods we demand. As incomes have risen and work is changing, people have begun to demand more variety, more experience, and more self-actualisation in both their work and the goods they buy. They want to consume goods that require more creativity to produce, and they want to be more creative at work.

As stated in the introduction to this book, there are at least two broad approaches to measuring creativity: measuring individual creativity and measuring societal creativity. Our approach is a societal approach. Within the societal approach, there are at least two streams. One tries to measure creative outcomes like patents issued or entrepreneurial activity. The other approach, the one we have adopted, is to try to measure the level of social capital that supports or encourages creativity in a society.

Social capital, as used here, is an input that individuals can use in non-market settings to extract valuable products or resources. The most productive form of social capital probably varies with the level of GDP as Tiemann, Das, and DiRienzo (2006) found. Homogeneity seems to be an important source of social capital at lower levels of GDP; promoting industrialisation requires that people work together and agree on the basic rules of the economy and the workplace. At higher income levels, heterogeneity becomes important because it promotes creativity and innovation; generating new products or processes from ideas heard in non-workplace conversations or noticed while interacting with other people and products while away from work become important uses of social capital. The insights of Jane Jacobs (1961) and Richard Florida (2002) tell us that the greater the diversity of people, ideas, products and processes an individual notices, the greater his or her social capital. If high and medium-income consumers are demanding greater variety, then social capital becomes more important. While social capital is always important, it is especially important in promoting creativity and innovation.

A model

Creativity has many definitions with many subtle differences, but most of those definitions centre on newness — the creation of something new. Newness is usually not brand new; it is seldom the creation of something as transformative as the railroad network or the personal computer. Most often, newness is the combination of ideas from different fields or different places, the application of an old concept in a new place; jazz musicians borrow classical themes, three dimensional artists borrow techniques building construction, automotive engineers apply materials long used in aircraft. If this type of thinking is common, then workers are used to crossing borders

and thinking of doing things differently — being creative. The more ideas they have around them, the higher the probability that they will bring two together in new ways. Greater heterogeneity in a society will not only provide the greater variety of goods high income people want today, it will also make the economy more creative.

Social capital acts as a catalyst to this process. If there is a wider diversity of people, more tolerance for differences, more interaction among people of different occupations, different industries, and different places, there will be a greater chance that creativity will occur as two old ideas will be combined into a new product. This gives us the model presented in Figure 1.

A Model

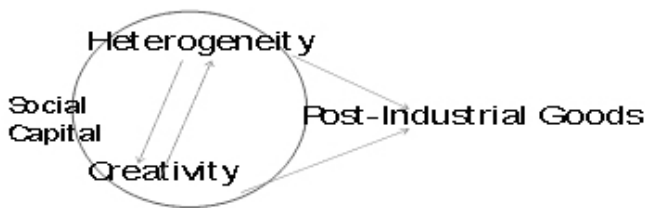


Figure 1: A model of modern creativity

Looking at Figure 1, heterogeneity both directly produces post-industrial goods by providing a wide variety of things to consume. Heterogeneity in another guise also supports creativity by providing a wide variety of ideas for creative people to combine in new ways. Creativity directly produces new goods, but also adds to the heterogeneity of the place. Social capital is a catalyst, possibly increasing heterogeneity if there is more tolerance of outsiders and new ways of doing things. Social capital also may increase creativity by resulting in more interaction among people in different occupations or from different ethnic groups with different ways of thinking and doing things.

Food can be used to illustrate how this all works. People in high-income places have had variety on their menus for many decades, but recently they often want their meals to add surprise or excitement to their lives. Twenty or 30 years ago, restaurant chefs would perfect the menu they offered, carefully executing recipes so that the dishes they served were consistently the same, no matter the season. The same was true of people cooking at home where frozen fish and vegetables, and tomatoes and

peppers grown in a greenhouse or thousands of miles away made preparing the same dishes possible winter and summer. Today, top restaurant chefs no longer carefully execute the same recipes day after day, but as Tom Colicchio, a famous American chef said recently in an interview, “recipes tell you nothing ... I’ll walk through a market and see something and an idea will occur to me.” Like the customers at Colicchio’s and thousands of other restaurants, people now want a surprise at dinner. They want constantly changing experiences and providing that requires constant creativity.

Past research supporting this model

The positive effect of heterogeneity on high income economies has been forcefully argued by Richard Florida (2002), elaborating on the ideas of Jane Jacobs (1969). Empirically, the importance of heterogeneity was shown by Tiemann, Das and DiRienzo (2006), who found a non-linear relationship between ethnic heterogeneity and GDP/per capita. At the lowest levels of income, there might be high or low heterogeneity, but as income increases, at first heterogeneity decreases. Then at high incomes, heterogeneity increases. They conclude that heterogeneity may be bad for industrialisation, but good for high income, creativity-based economies.

Similarly, Richard Florida (2002) shows broad relationships between his measure of social capital, his ‘creativity index’ and economic growth, both across cities in the US and with Tingali (Florida and Tinagli, 2004), across European countries. Das, DiRienzo and Tiemann (2006) created a ‘global tolerance index’ for 62 countries by using responses on the World Values Survey. Their findings support and extend those of Florida (2002) and Florida and Tingali (2004) as they find that more tolerant countries have greater net immigration, adding more heterogeneity. They also find that more tolerant countries have higher GDP per capita, and score higher on the Human Development Index and the Global Competitiveness Index. Lewis Dijkstra, Philip Kern, and Pascal Cools, in this volume, all argue that social capital is important in promoting creative economic activity. Together, these studies support the idea that social capital, especially tolerance, is a catalyst for greater heterogeneity, greater creativity, and a better life for the people living in a country.

Future ideas for measurement

Like the work presented here, most of the work that tries to measure creativity, actually measures attributes in society that are thought to promote creativity. There is good evidence that when a society is more open to difference and has more differ-

ence that here is greater economic growth, an outcome often attributed to greater creativity. The measures of tolerance and heterogeneity used until now have largely been measures of ethnic difference or acceptance of major differences in ethnicity, religion, or lifestyle. A next step could be to try to measure heterogeneity of skills or occupations at a regional level. If there are machinists and accountants and chefs and longshoremen all thrown together, will a place be more creative than a place that is dominated by bankers? This is a logical step from current practice and could support the ideas presented here and elsewhere.

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