

# Creativity & The Economic System

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Creativity and its counterpart innovation are the root of progress and thus fundamental to the dynamics of economic systems. In this entry I discuss different facets of the relationship between creativity and economic systems. I also discuss how creativity is thought about in economic thought, as well as how it is not thought about: For it continues to be the case, unfortunately, that creativity is left out of account of many economic models.

## Creativity & The Liberal Tradition

The links between creativity, freedom, and economic thought run deep both historically and philosophically. Historically, individual liberties have grown and been extended to more and more people at the same time that modern economies have formed and grown. Intellectually, there is an important strand of thought in which creativity and individualism are seen as bedrocks of economic progress. This line of scholarship extends back to John Stuart Mill's famous essay *On Liberty*, through Alfred Marshall's *Industry and Trade*, to Friedrich Hayek's *The Constitution of Liberty*. Mill champions individualism and the importance of giving individuals the opportunity to present and openly discuss ideas of all kinds. Marshall traces chains of innovations, made by many individuals, in the development of new industries. Hayek views the market as a zone of experimentation, in which individuals (under ideal conditions) freely form and pursue plans and ideas of their own devising, generating a plethora of alternatives. Then the market decides which are viable and which are not, and through this process outstanding innovations are uncovered and developed, producing economic and social progress.

In the liberal view individual creativity is an important motivation for arranging society so as to provide individuals as much freedom as possible, including in matters of economics. Tied to this is a humility that recognizes that we cannot predict what another person will invent or create, nor can we necessarily correctly predict which innovations and ideas will bear fruit. It is better to allow individuals to pursue their own, unique paths of development, providing society the broadest array of alternative ideas and possibilities.

With the formal development of neoclassical economics (and more recently behavioral economics), the main focus in the study of economic systems has been on static efficiency – the efficiency of resource allocation – not the dynamic possibilities generated through

freedom and creativity. Thus there is a difference in perspective between the classical liberal view and the research focus of most economists working in the field today. In the models that have been developed, under certain conditions the price established in a free market will be “efficient” in that it equates the social marginal cost of producing the good being sold with the social marginal value associated with consuming that good. Under other conditions, such as when there are externalities like pollution, informational asymmetries, or biases in judgment, the free market price may not be efficient. Either way, creativity & innovation take a backseat, and the importance of generating new ideas and products is under-emphasized. This disconnect poses important issues for economic policy and debates about economic institutions: To what degree should these institutions focus on developing and championing individual freedom and creativity, versus regulating and correcting various market imperfections? Ultimately most of the work done by economists addresses the second factor, correcting imperfections, and creativity is relegated to the side. Even when innovation is studied, it is done through very simple models – see below. An important reason for the way the field has developed has been the drive in economics in the past sixty years to develop formal, mathematical models, leaving the richness of individual paths of development to one side, hence making it difficult to incorporate creativity and individuality. Indeed my own work is motivated by a desire to fill this gap – see the discussion in the Epilogue of *The Nature of Creative Development*.

## **Economic Growth & Innovation**

Innovation is widely recognized to be the source of much, if not most economic growth. In modern times this insight goes back to Robert Solow’s original empirical work on economic growth, published in 1957, in which he attributed the majority of growth to the “residual” in his regressions - meaning that increases of capital stock and labor explain only a minority share of growth of output, leaving him to conclude that the majority share was generated by improvements in techniques of production. Marshall recognized the enormous importance of innovation to economic development, as have economic historians since, such as Joel Mokyr and David Landes. In the “new” economic growth theory of the 1980’s and 90’s, especially “endogenous growth” theory, innovation continues to be recognized as the basis for much economic growth.

A developing literature focuses on institutions that promote creativity and inventive activity, notably property rights for inventors (intellectual property) and institutions that support knowledge production and dissemination. Here the need for creativity and innovation is seen as an important driver of the design of economic institutions.

### *Models of Research & Development*

Creativity is at the heart of the research enterprise and therefore of research & development activities leading to innovations. Understanding why some researchers and some research groups are more creative and productive than others is important as a basis for understanding competitive advantage and why innovations emerge in some places and organizations and not others. The role of creativity in this process can be studied at many levels and in many ways: personality, creative interests and projects, collaborative creativity, organizational structure & processes, and reward systems.

Despite how rich the potential for linkages with the study of creativity is, however, there remains a large chasm between creativity, as it is studied in psychology and allied fields, and economic models of the research and development process. Economic models of innovation typically have a simple structure: the more resources are invested in the innovative activity (R& D) the higher is the probability of an innovation being produced. This basic structure lies behind macroeconomic models of growth such as Paul Romer's model, as well as microeconomic models of firm research and development. The actual conceptual steps involved in the process – the creative process – are omitted. Further, the nature of the framework, in which agents are simply described, leaves little room for modeling individual differences, including personality structure, or the role of emotions.

Economic models focus on the incentives firms have to engage in research and development, and the way the structure of rewards – for example a tournament or the advantage of being first-to-market – influences investment in research and development. The focus is thus mainly on extrinsic motivators of creativity, leaving intrinsic motivations aside. There is also a developing literature on intellectual property protection and its impact on the research and development process. For example, both the breadth and time-length of patents can be expected to influence R&D activity in a field, and there are relatively subtle issues around how patents granted to first generation inventors influence the incentives of next generation inventors.

Enriching the economic models with insights from the psychological literature can help generate richer models with more predictive power. For example, personality structure may be related to ability to adapt to certain work environments, and the way individuals respond to differing mixes of intrinsic and extrinsic motivators might be explored. Richer models might predict outcomes and inform discussion about a range of policy issues. For example, in the field of industrial organization, a question like this might be posed: When is it likely to be the case that highly creative individuals will work in small, independent boutiques, or as independent contractors, and when will they work in large integrated firms? The answer may depend on the structure of the industry, the kinds of individuals attracted to work in the field, the nature of the creative process used to create new products, for example how long it takes and how large a team is involved, the nature of intellectual property protection, where the industry is located, and so forth.

The chasm of course extends in both directions. Psychological models of creativity could benefit from a deeper connection with and understanding of how economic incentives and conditions influence the creative process.

The growing organizational behavior literature on creativity, in which organizational structures and processes are related to the creativity of an organization, also has much to offer the study of economics as it relates to organizations. Whereas the economics of organization has tended to focus on incentives as the force driving creativity, the organizational behavior literature points to the importance of culture and values as equally important in sustaining creativity.

### *Entrepreneurship*

Joseph Schumpeter stated famously that competition unleashes a “gale of creative destruction” in which innovations and new firms that create them are continuously emerging in markets, disrupting the existing order and overthrowing established firms. Creative destruction continues to be recognized as an important force in economic systems.

Much creative destruction, and the bringing of new ideas into the economic system, is driven by entrepreneurs, and the study of entrepreneurship has emerged as a major area of scholarly work in the last 20 years. Entrepreneurial activity begins with a creative idea or, in many cases, the recognition of opportunity – which is itself a creative insight. Thus creativity is inherent to entrepreneurship and understanding the creative process and creative development of entrepreneurs is important. This link is recognized to some degree, for example in the discussion and framework outlined by Scott Shane and S. Venkataraman, but ties to the creativity literature are not as strong as they could be. There is need for the development of conceptual frameworks to help understand how individuals develop creative interests and through pursuing those interests put themselves in a position to have creative insights and recognize opportunities. More work is also needed studying the career paths and roots of creativity of entrepreneurs.

### **Creative Industries**

Another place of intersection of creativity with economics is creative industries and markets for creative products. The most studied point of intersection of creative products and economics is the art market. Much art is sold at auction, and for some works of art, for example paintings, there are series of prices for the resale of the work over the years, making it possible to study the determinants of prices for art and movements in these prices over time. David Galenson for example has used this data to develop an interesting theory of two kinds of careers and forms of creativity generation.

In the last ten years or so the field of economics of creative industries has grown beyond this initial area of interest. A new journal has been started, *Cultural Economics*, and there is a developing literature not only on the price of art, but also the careers of artists and others engaged in creative industries, such as movie producers and musicians, and there is an incipient literature on the determination of industry structure in these fields. The recently published *Handbook of the Economics of Art and Culture* reviews developments in this burgeoning field.

A related sociologic literature explores why some places and cultures flower creatively. Richard Florida has documented the importance of place for creative workers, arguing that certain urban centers attract highly creative people and industries. As of yet, however, there is surprisingly little research on why, historically, certain cities, states, and cultures have been extraordinarily creative. One example of a study of this kind is Allan Janik and Stephen Toulmin's study of turn-of-the-century Vienna.

## Conclusion

Creativity is ultimately the basis for human cultural development and as such a deep root of the dynamism of economic systems. While many points of connection between creative processes and economics have been explored, many interconnections have scarcely begun to be addressed. This is an area of interdisciplinary scholarship where there is much open territory and much to be done.

**See Also:** Competitions, Creativity in the workplace, Entrepreneurial ability, Innovation, Policy, Socioeconomic Status, Technology.

## Further Reading

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