

CREATIVITY AND THE ECONOMICS OF THE COPYRIGHT CONTROVERSY

HAROLD DEMSETZ

ABSTRACT. The debate about copyright law centers on the apparent tradeoff between the creation of new works and the extent to which these works are used once they are created. Economics has been employed explicitly and implicitly to bolster positions taken by those involved in this debate. I do not directly join this debate here, but what I will say is relevant to it. My objectives are different, to draw attention to the neglect of creativity by economists and to describe some of the unique problems this neglect poses for those who use traditional economic models to explain and support the positions they take in this debate. It is no intent of mine to discourage the use of traditional economic models but, rather, to urge greater care in their use.

1. THE NEGLECT OF CREATIVITY BY ECONOMISTS

Creativity, of course, has not been completely neglected by economists; nothing has. But such attention as it has received has been sporadic and has not brought forth anything close to a subfield of economics. As an example of sporadic interest in creativity, consider an article George J. Stigler published in the 1955 issue of *Economica* titled “The Nature and Role of Originality in Scientific Progress.” Unlike many of Stigler’s papers, which usually report statistical evidence in support or in rejection of a theory, this article gives his considered judgments about originality, the judgments of an insightful master of the history of economic thought. He first demonstrates just how difficult it is to mark the emergence of a truly original idea. Each major idea he examines seems to have been preceded by at least the suggestion of it. He then argues and strives to demonstrate from his knowledge of scientific progress that the ideas we had identified as original upon their appearance, have contributed little to the progress of their respective sciences. Referring especially to economics, he argues that progress came only after these ideas had been reworked and improved, step-by-step through time until they became clear enough to be applied unambiguously by others. He concludes with the following evaluation:

[W]e commonly exaggerate the merits of originality in economics
[and] are unjust in conferring immortality upon authors of absurd

theories while we forget the fine, if not particularly original, work of others.

Lest you think this an obviously incorrect evaluation, please note that this century marks the 400th since Galileo's great discoveries, most of which were an outcome of using a telescope. The telescope, however, was not invented by Galileo. Its ancestry traces to the spy glass, which had been in use by ships for many years. The spy glass evolved into a primitive telescope. Galileo, among others, further improved the telescope, bringing it to a performance capability that made it useful in the study of the heavens. The spy glass itself made little, if any, contribution to the study of the heavens. Transforming improvements were needed before the invention was capable of helping Galileo give birth to scientific astronomy.

Stigler's investigation is not irrelevant to the copyright debate. The original idea is the equivalent of a new work, and the reworking of the original by others is mainly accomplished when others have sought to use it for their own purposes. His evaluation, therefore, should cheer those who favor the weakening of copyright restrictions. But wait! He did not, to my knowledge, repeat this judgment after 1982. Could it be that his head was turned by the honors bestowed on him when he was selected as the 1982 recipient of the Nobel Memorial Award in Economics? The award, after all, expressly distinguishes recipients for the originality and importance of their work.

So, which of these two Georges is the real Stigler – the younger scholar who proclaimed that we overvalue originality or the somewhat older but much wealthier scholar whose works had been honored for their originality and influence? No doubt, his head was turned by the honor. And by his new found wealth, for he did appreciate the information content of market values. But I think more than this was involved. In 1958, three years after his article on originality appeared, he joined the faculty of the University of Chicago. There, in the company of his friend and colleague Aaron Director, he proceeded to reshape, to the point of creating, the field of economics we know as industrial organization. He then went on to make original and important contributions to economic theories of regulation and the State. It became apparent to all, even to George, that he overstated the case he made in his 1955 article on originality.

2. AN EXPLANATION OF THIS NEGLECT

Historically, economists have not been at the forefront of writings about creativity. As measured by number of articles on the topic, psychologists and sociologists have been much more active, and real attention has been offered to the topic in their textbooks. Economics texts, in contrast, give creativity almost no attention; this

is true whether the texts are aimed at undergraduates or graduates and whether they are recently published or old. At most, very brief mention is given to Schumpeterian ideas about innovation; and these ideas are aimed more at problems of business cycles than at creativity itself. What I mean by the study of creativity “itself” is illustrated by Francis Galton’s work *Hereditary Genius*, which was published in 1869. In this empirical study, Galton showed that certain families consistently produced more people of creative distinction than chance would have called forth. The empirical result of this study has never been rejected. However, Galton’s appeal to biological inheritance to explain the result quickly involved him in a vigorous “nature versus nurture” debate, a debate that has remained active to this date in the writings of psychologists and sociologists. Yet it did not noticeably affect the writings of economists, though its finding is hardly irrelevant to a discipline concerned with the productivity of an economy. Why was it that creativity did not seem of interest to economists?

The explanation, I believe, is to be found in the important puzzle that occupied mainstream economists during their discipline’s neoclassical period, the period during which economics matured into a distinct field of investigation. Their inquiry sought to understand resource allocation in a decentralized economy, an economy in which resources are owned privately and in which owners are informed about opportunities available to them by prices, and *only by prices*. Their target was to understand the role of the price system in an economy that is neither guided by central planners nor influenced by individual private owners of resources. The inquiry succeeded, partly for a reason that is not generally recognized; the role of the price system was modeled in a way that implicitly removed creative activity from the resource allocation opportunities. To allow such opportunities would have resulted in complexities of risk and uncertainty, necessitating a confrontation with imperfect information.

More than this is involved. Any serious attempt to include creativity in this inquiry would have made the task of determining resource allocation influenced only by information obtained from prices *impossible*, not just more complex and difficult. The assumptions that define the framework of the perfect competition model stipulate that all preferences, goods, resources, and technologies are fixed as well as known. These assumptions, then, rule out the use of resources in creative activity; in this model there are no new goods, no new technologies, no new preferences, and no sources of information, other than prices, to guide decisions about resource deployment opportunities. The entire burden of resource allocation is brought to rest only on prices, which are at levels that clear demand and supply of any shortages or surpluses on the basis of given demand and supply. The meaning of given demand and supply is that preferences and technologies are fixed. To allow novel

developments in preferences, goods, and technologies would be to deprive the model of its power to make resource allocation decisions rely only on price.

Meaningful creativity necessarily involves differences between a new work and old works, and this implies that the new and the old are imperfect substitutes. In turn, this introduces a measure of control, however weak or strong, over both the price and quantity of that which has been created. Control such as this would have undermined an inquiry into the role of prices in an economy in which no one person and no central government influences prices and quantities. The perfect competition model eliminates the possibility of such control and makes each owner of resources face, and take as given, market prices. Out of these constraints comes an understanding of price guidance of private decisions in a decentralized economic system. The model is a grand achievement. It substantially weakened support for the notion that chaos would be a necessary consequence of decentralized allocation of resources; it also gave valuable insight into the characteristics of the resource allocation that would emerge from decentralization. The model has often been criticized for its lack of realism, yet its selective abstraction is what makes it a creative act of the first order. A creative act, yes. But one that does not and cannot embrace creative activity.

Successful modeling of the neoclassical inquiry, of course, was not the end of history for economics, nor even of neoclassical economics. The accomplishment spawned derivative inquiries into monopoly, oligopoly, and information acquisition and, more recently, into the consequences of risk, but attention to the problem of creativity has not yet risen to prominence except in the works of Schumpeter and his followers. The exclusion of creativity from perfect competition and from most other economic models necessitates care when these models are used to support or reject a change in copyright or patent laws. A few examples of problems that can arise in the absence of care may be given.

3. EXAMPLES OF THIS EXPLANATION

3.1. Open entry. Some participants in the copyright debate see free copying of a new work as open entry into the market that has been created by the emergence of the new work, and the benefit they see in facilitating copying is no different than the benefit most economists see in the weakening of monopolized market by way of competitive entry.

This view neglects an important aspect of the underlying theory that leads economists to favor open entry. The theory does not contemplate creative activity. It deals only with production of an existing, known good. This denies opportunities to engage in the sort of free-riding that is involved in the copyright debate, which is based on the ability of a copier to avoid the cost of creating the new work. The

existence of opportunities to free-ride on investments in creativity made by others, an essential element in the copyright debate, casts doubt on analogizing the benefits of open entry into markets that involve no creative activity to markets in which creativity is important. The transformation from monopoly to competition by way of open entry, as discussed in standard economic theory, does not allow for two classes of goods, newly created and already existing. All goods are presumed to already exist in these models.

3.2. Accounting for access if copyright protection is varied. The case for free copying rests heavily on the expectation that a weakening of copyright protections will increase the use of newly produced works. The expectation may be correct, but it also may not. Three issues are involved: (1) the diminution in creative activity that is plausibly associated with weaker enforcement of copyright law, (2) the narrowing of pricing strategies available to creators of new works if copyright enforcement is weakened, and (3) the effect of copyright on the mix of works. I discuss the first two issues on the assumption that the specifics of copyright law remain fixed, but that the degree to which the law is enforced varies. Discussion of the third issue allows for a change in the specifics of copyright law.

- (1) Access is reasonably thought to be increased for existing works, but access to new works is reasonably diminished if the weakening of copyright protections discourages creative activities. This makes the total effect on access unclear; this ambiguity does not exist for situations that fit the neoclassical model, since these do not contenance creative activity.
- (2) If copyright confers a degree of control of prices on creators of new works, it also opens the door to a discriminatory pricing strategy. As compared to price-takers in perfectly competitive markets, this strategy plausibly results in lower prices for users of new works whose demands are more elastic and higher prices for those whose demands are less elastic. This not only increases profits for creators of these works, but, generally, also reduces the gap between that is usually associated with the ability to control prices of new works.
- (3) Some works are closer substitutes to each other than are others. Copyright law can affect the mixture of substitutables offered to users. To discuss this, I use “broadening of coverage” to mean that copyright holders are protected from a larger set of rival works, including more works that are only moderately substitutable from those that already exist. Broadening the coverage of copyright protection, then, discourages creative activity that, with higher probability, will result in new works that are only somewhat substitutable for exist works. However, it will also encourage creative

activity that seeks to create a new work that is truly different from existing works, for the creator of a truly-different new work secures protection from more future rivals. Changes in the coverage of copyright protection, then, alter the characteristics of the stock of works that exist at any given time, doing so by altering the proportions of works that are very different and those that are only somewhat different.

Access, then, is multi-dimensional. Some sort of quality index is needed to give meaning to the unit to which access refers; how many moderate substitutes equal the value of one very different new work? More troublesome yet, the answer to this question for a given mixture of new works will vary from person to person.

The complications that emerge from the substitutability problem make empirical studies of access difficult to interpret. The absolute number of works may change, either up or down, in response to a change in the coverage of copyright law, but application of a quality index to these works may indicate a change that is opposite to that which is indicated by an unweighted treatment of works.

3.3. Fixed costs and costs of creative activities. Some debaters favoring free copying analogize fixed costs of plant and equipment to costs of creating new works. That is, to produce standard goods, one must first invest in plant and equipment and, to produce new works, one must first invest in creative activity. It is true that costs to create and costs of plant and equipment share a common characteristic: once incurred, they need not be incurred again to produce additional units of output. The cost of copying, then, is viewed as the equivalent of variable cost, both being necessary to the production of additional units. The argument then points to the social benefits to be derived from open entry in the production of standard goods, noting that these benefits are not compromised by expenditures on plant and equipment. The question then posed is: if plant and equipment costs do not undermine the benefits of entry, why worry about costs of creative activity?

But the analogy is faulty. Fixed cost, unlike creativity cost, does not give rise to a free-rider problem, since this cost must be incurred by any and all entrants. In contrast, copiers of a newly created works need not incur the cost of creating these works.

3.4. Defining the market. The problem of substitutability, thought about generally, is sometimes treated too casually. For example, Boldrin and Levine, in their new book on patent law (Boldrin and Levine, 2008), compare land and ideas. Since many persons own parcels of land, no one owner can control the price at which his or her parcel will fetch in the real estate market. The protection copyright gives to expressed ideas, however, creates significant power the price paid by other to use

these ideas. Copyright, then, is the equivalent, of someone owning all existing acres of land; this, of course would create price setting power.

However, the pricing power created by copyright for ideas may not differ much from the pricing power created for an owner of parcels of land by laws governing land use and ownership. Parcels of land, after all, are not identical to each other, just as copyright protected ideas are not identical to each other. Parcels of land differ by location, topology, mineral deposits, and moisture content. The equivalent of ownership of all land is not the copyrighted expression of an idea. It is the ownership of all copyrighted expressions of ideas.

3.5. Ownership, copyright, and the free-rider problem. The laws that give substance to ownership, including here copyright and patent, might vary across types of resources. From the perspective of efficiency seeking society, this variation should be influenced by the seriousness of free-rider problems. Some resources and activities offer more serious free-rider behavior than do others. Efficiency calls for controls or institutional changes that limit the degree of free riding if these changes are less costly to implement than is the resource misallocation costs created by free-rider behavior. Goods whose existence requires significant costs of creation would seem to demand more legal restraints on entry. The technology of producing known goods calls for investment in plant and equipment, a requirement that is approximated by copyright restrictions on the production of copies of newly created works. Reliance on copyright protections for creativity-intense activities brings the meaning of ownership of the product of these two types of activities into rough equivalence if judged by the meaning of ownership. On this view, copyright theory is encompassed by property right theory.

3.6. Compensation for creative activity. The digital revolution has trivialized the cost of copying a new work, thereby increasing the potential for free copying to discourage the creation of new works, especially new works that are riskier or otherwise more costly to create. In recognition of this, and in an attempt to out flank the free-rider problem, proposals have been made for changing the way in which creators of new works are compensated.

The most interesting of these proposals is to allow free copying of new works and to compensate creators of these works by way of governmentally-provided payments. The annual distribution of these payments will be in accord with number of copies sold by copiers who are given free or low cost rights to copy. In this way, the payout mechanism becomes something like the market price system. However, the use of tax revenues does not circumvent the free-rider problem; it relocates it and probably changes its severity. Taxpayers who derive little or no pleasure from popular digital copies are asked to support the pleasures of those who are

pleased. Those who have no strong preference for digitally supplied information and entertainment will vote against putting much money in the compensation fund; taxpayers who experience great pleasure will vote for a very large fund, supplied partly by those who derive little pleasure. The resulting funding of creative work may not be equitably distributed and the amount may not be correct. So which will it be? Copyright protection, possibly linked to a modicum of non-competitive pricing power for creators of successful works, or taxpayer rewards to creators of new works, linked to free riding by some potential taxpayers on others?

It would seem that more ideas are needed to resolve issues in copyright law, ideas of the kind disparaged by Stigler the younger and produced by Stigler the Laureate. I wonder if those of you who produce these ideas will seek copyright protection. Well, the first page of this lecture, whether or not followed by an offering of useful ideas, has “All Rights Reserved, 2009” writ large in the first footnote.

REFERENCES

Boldrin, M. and D. Levine (2008), *Against Intellectual Monopoly*, Cambridge: Cambridge University Press.

EMERITUS PROFESSOR, UNIVERSITY OF CALIFORNIA, LOS ANGELES.