

Copyrights as Incentives: Did We Just Imagine That?

*Diane Leenheer Zimmerman**

The most widely accepted explanation of why we need copyright is that it provides authors with the necessary economic incentive to create. This incentive story has largely gone unchallenged, and has been used to justify lengthening and strengthening the legal protections for expressive works. This Article points out, however, that the empirical foundation for the copyright-as-incentive story is seriously suspect. It fails to account for the economic conditions under which most art, literature and other expressive works are produced, and it contravenes the insights provided over the last forty years or so by psychologists interested in creativity and by behavioral economists. Empirical research has shown that intrinsic factors are much more important determinants of participation in creative work than such extrinsic ones as monetary reward. In fact, evidence exists that the promise of extrinsic rewards such as money can actually be detrimental to the creative impulse. This is not to say that concern with economic rewards should play no role in a legal regime designed to encourage the creative process. But, at a minimum, this Article suggests both that copyright scholars (and possibly patent ones as well) need to develop a far more nuanced understanding of why people produce what they do, and that a satisfactory legal regime to promote intellectual property

* Samuel Tilden Professor of Law Emerita, New York University School of Law. I deeply appreciate the helpful comments on earlier drafts by colleagues Ann Bartow, Orin Bar-Gill, Barton Beebe, Rochelle Dreyfuss, Raymond Ku, Katherine Strandburg and Rebecca Tushnet, as well as those of the participants in the conference on Copyright Culture, Copyright History held by the Cegla Center at Tel Aviv University, January 2010, at which this Article was first presented. In particular, I appreciate the insights of my commentator, Anupam Chander, and the subsequent assistance of Rebecca Eisenberg and the participants in the University of Michigan Intellectual Property Workshop in further refining my thoughts on this subject. Last, but not least, my special thanks to William Frank, NYU Class of 2011, for his able research assistance.

creation and dissemination can afford to be far less concerned than it presently is with ensuring that authors and copyright owners can extract every bit of available profit from their works.

INTRODUCTION

This Article is intended as an investigation of the creative process, but not, I want to make clear at the outset, about the nature of creativity, or how it should be defined. Nor is it about the basic social structures that are needed for creative and innovative behavior to flourish among individual members of a society.¹ Exploration of that issue has been ably begun by other scholars, including Julie Cohen² and Margaret Chon.³ Instead, this is an investigation of the assumption in the United States that the law of copyright, by dangling monetary and other economic "carrots" before people already endowed by virtue of their backgrounds and innate ability to be creative (however we define that word), is what induces them to actualize their potential.

Today, the standard American story about why we have copyright is that it provides the economic incentive that is essential to the creation of new works. Certainly, intellectual property law, at a minimum, is a useful device for overcoming a public goods problem — namely, it protects creators and disseminators of intellectual goods who, because those goods are inexhaustible and readily appropriable, could not, absent the law, recover the fixed and variable costs associated with innovating or creating a work and then disseminating it to the public. Nor could they hope to earn a reasonable profit. An exclusive right to license or vend the work for a limited time period permits markets for public goods to form. In that purely business sense, intellectual property clearly acts as a kind of incentive.

But the claims made on behalf of intellectual property as an incentive system go farther: the widely accepted argument is that intellectual property

¹ For an interesting discussion of the noneconomic components of creativity, see generally Roberta Rosenthal Kwall, *Inspiration and Innovation: The Intrinsic Dimension of the Artistic Soul*, 81 NOTRE DAME L. REV. 1945 (2006) [hereinafter Kwall, *Inspiration*]; ROBERTA ROSENTHAL KWALL, *THE SOUL OF CREATIVITY: FORGING A MORAL RIGHTS LAW FOR THE UNITED STATES* (2009).

² Julie E. Cohen, *Creativity and Culture in Copyright Theory*, 40 U.C. DAVIS L. REV. 1151 (2007).

³ Margaret Chon, *Intellectual Property "from Below": Copyright and Capability for Education*, 40 U.C. DAVIS L. REV. 803, 813 (2007).

law not merely supports market formation, but that it is a significant — even necessary — precondition for creative activity to occur. In other words, without an intellectual property regime that reserves for copyright owners any profits that can be gleaned from their work over an extensive time span, potential authors would lack adequate motivation to create in the first place, or subsequently to disseminate what they have created so that others could benefit from it.

How the drafters of the American Constitution conceptualized the function of copyright was not clearly specified in the document, although certainly from the outset money was envisioned as playing a central role: copyrights (and patents, too) at a minimum provided a mechanism to channel over a limited period of time income that might be generated by a work of authorship or invention to a legal rights holder. That this was simply a solution to the public goods dilemma was an especially plausible understanding of copyright in the early days when the maximum term of protection could not exceed 28 years.⁴

But the idea of "rewarding" creators of intellectual property with a limited monopoly offered subtle but important opportunities for recasting the incentives theme in copyright. Significantly, the protections created by formal intellectual property rights could be explained and rejustified in terms congenial to neoclassic microeconomists. This story (in which copyrights are now generally characterized as "property") conceives of the creative individual as a rational profit-maximizer whose willingness to invest effort, time and resources in creative enterprises is directly correlated to the expected extent of the returns that will be forthcoming.⁵

4 The original copyright statute granted rights for 14 years with the possibility of a second such term should the author be alive when it was time to renew. Copyright Act of 1790, ch. 15, § 1, 1 Stat. 124, 124.

5 See, e.g., Stanley M. Besen & Leo J. Raskind, *An Introduction to the Law and Economics of Intellectual Property*, 5 J. ECON. PERSP., 3, 5 (1991) (arguing that producers will innovate only if they receive an appropriate return). As Landes and Posner put it, "[T]he more extensive copyright protection is, the greater the incentive to create intellectual property" William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 474 (2003) [hereinafter Landes & Posner, *Renewable Copyright*]. It should be added that, while Landes and Posner generally adhere to the proposition that "all valuable resources . . . should be owned," WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 213 (2003), they also believe that the incentive value of a copyright term diminishes to insignificance after a certain point, *id.* at 214. Once that point is reached, their reason for favoring the possibility of indefinite regular extensions of the copyright term for valuable works is to prevent "premature exhaustion" of their economic worth, *id.* at 223, and

Whether as a consequence or simply by coincidence, as the economists' view subtly reshaped the conception of intellectual property's incentive structure, the timeline for ownership rights in copyright also began to move out. From 1909 until 1978, copyright kicked in at publication and offered a term of 28 years, renewable for a second 28.⁶ By the last quarter of the twentieth century, copyright covered works from the time of fixation until 50 years after the death of the author.⁷ Then, near the close of the century, the term expanded again to life plus 70 years.⁸ (By comparison, the term of a patent has changed very little (from 17 years from issuance to 20 years from application), although a variety of new, not-quite-patent schemes were added to increase interest in developing new seeds and plants and in providing specialized drugs for small populations.⁹)

Because an almost linear relationship between the opportunity to reap profits and the incentive to produce is so commonly presumed as a theoretical matter, a number of neoclassic economists have argued that, absent concerns over the needs of downstream creators to build on prior art and over the deadweight losses caused by monopoly pricing, permanent intellectual property rights would be justified.¹⁰ As a result, there has been relatively little critical evaluation of the empirical legitimacy of the theoretical assumptions about copyright as an incentive.¹¹ Instead, the focus has been on how best

to encourage the owner to promote the work and make it continuously available, *id.* at 228-29.

6 Copyright Act of 1909, Pub. L. No. 60-349, § 23, 35 Stat. 1075, 1080.

7 17 U.S.C. § 302 (1976) (amended 1998).

8 17 U.S.C. § 302 (2006).

9 See Plant Variety Protection Act of 1970, 7 U.S.C. §§ 2321-2582 (2006); Orphan Drug Act, Pub. L. No. 97-414, § 527, 96 Stat. 2049, 2050-51 (1983) (codified at 21 U.S.C. § 360aa-ee (2010)). A possible reason that the patent term has remained more stable is that the scope of the patent during that term is extremely broad, and the risk of harm from monopolies in inventions is perceived as being more severe than with copyrighted works.

10 Nancy Gallini & Suzanne Scotchmer, *Intellectual Property: When Is It the Best Incentive System?*, in 2 INNOVATION POLICY AND THE ECONOMY 51, 62 (Adam B. Jaffe, Joshua Lerner & Scott Stern eds., 2002). In fact, as noted earlier, some have gone so far as to propose that it would make sense to allow valuable copyrights to be indefinitely extendable, at the option of the owner. Landes & Posner, *Renewable Copyright*, *supra* note 5, at 491. As noted earlier, however, Landes and Posner do not justify infinite copyrights on the ground of incentives to authors, but rather as a way to encourage efficacious marketing of the works at issue. *Id.* at 494-95.

11 One recent exception is Raymond Shih Ray Ku, Jiayang Sun & Yiyang Fan, *Does Copyright Law Promote Creativity? An Empirical Analysis of Copyright's Bounty*, 62 VAND. L. REV. 1669 (2009). In it, the authors ask whether changes in the duration of copyright law actually have an effect on the number of new works produced.

to strike a balance between the incentives needed by today's authors versus the interests of tomorrow's, and between the incentives for today's authors and the public interest in freer access to what has been created.¹² Perhaps not surprisingly, given the assumptions in question, in practice all doubts seem consistently to have been resolved in favor of lengthening and strengthening the term and scope of exclusive rights.

In *Eldred v. Ashcroft*,¹³ when the United States Supreme Court grappled with the propriety of Congress's decision to reset the term of copyright for preexisting as well as for new works at the life of the author plus 70 years (an increase of 20 years), it specifically acknowledged that a major justification for Congress's decision to adopt the new law was its desire to give added incentives for creators by an upward adjustment in the term of protection. Without the extension, Congress concluded based on testimony before it, authors would receive less than "fair compensation" for their work, and hence would be less inclined to engage in future creative activity. To create a better incentive structure, in Congress's view, the law needed to provide not merely benefits for the lifetimes of authors, but also for those of several generations of their successors.¹⁴ The justices in the *Eldred* majority concluded that, "We would not take Congress to task for crediting this evidence which . . . reflects general 'propositions about the value of incentives that are 'undeniably true.'"¹⁵

To Justice Stevens in dissent, the incentives justification for the extension was unpersuasive, but apparently only on the particular facts in *Eldred* (the case challenged solely the extension for works already in existence).¹⁶ Although he agreed with Justice Stevens as to already created work, Justice Breyer went further and attacked the incentive argument as applied to new works as well. He attempted to demonstrate that the present value of an additional 20 years of copyright protection was so slight that it could not

They measure changes in copyright registrations as the metric for evaluating the effect of lengthening terms of protection.

¹² See, e.g., Kenneth W. Dam, *Intellectual Property in an Age of Software and Biotechnology* 3-4 (John M. Olin Law & Econ. Working Paper No. 53, 1995) (discussing the tension between need for incentives and needs of future innovators); Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 997-98 (arguing that because of the costs intellectual property laws impose on the public and on downstream innovators, such laws can be justified only if, on balance, they encourage the creation and dissemination of new works).

¹³ 537 U.S. 186 (2003).

¹⁴ *Id.* at 207 n.15.

¹⁵ *Id.*

¹⁶ *Id.* at 227.

credibly act as an inducement to produce copyrightable works.¹⁷ While admitting that some works actually did retain significant value well into the future, Breyer pointed out that no one could predict in advance which works they would be. Thus, prospectively, a rational creator could anticipate only, on average, a few additional pennies from the added twenty years, and would not be induced to modify his or her behavior on that basis.

What neither the majority nor the dissenters did was quarrel with the basic premise that the promise of economic reward, at least as long as the prospect is above de minimus, is a key factor in incentivizing people to contribute original expression to the public (ignoring the reality that, as Rebecca Tushnet points out, copyright offers no assurance that an author will actually ever earn a cent from her work¹⁸). Despite the current, almost universal, crediting of the incentive story in the United States, the strong possibility exists that this widely shared assumption about how the legal structure supports and encourages innovation is based on partially or even wholly mistaken beliefs about human behavior. If this is so, then, too, the balance that copyright law currently strikes between the interests of the author/owner and the interests of users might be in need of major readjustment.

Part I of this Article gives some examples of creative activity that do not readily line up with assertions about the power of economic rewards as an incentive. Not only have we long recognized situations in which non-economic incentives to create have played an important role, but evidence suggests that these other incentives must actually be quite powerful and pervasive, since large numbers of creators have little hope of ever gaining the economic rewards promised by the intellectual property regime. Part II explores intrinsic motivation as an alternative understanding of what explains the decision to engage in creative expression. This understanding has received considerable support in recent decades from researchers in psychology and behavioral economics. In fact, several studies suggest that tying the promise of a reward to the performance of creative work can

¹⁷ *Id.* at 254-57.

¹⁸ Rebecca Tushnet, *Economies of Desire: Fair Use and Marketplace Assumptions*, 51 WM. & MARY L. REV. 513, 517-18 (2009). While this Article was in preparation, Tushnet published *Economies of Desire*, a study equally skeptical of the incentives story as an explanation of what leads authors to create. Her focus is complementary to the one in this Article, in that she concentrates on the personal narratives of creators and their explanations for what they do as evidence of the weak explanatory power of the theory that potential payment is the key to promoting authorship. By contrast, this Article looks at studies of artists' actual earnings and at the social science research on what motivates creative behavior.

actually retard rather than encourage innovation. Part III concludes by examining the implications of the intrinsic motivation hypothesis for the future development of copyright law.

I. THE DOUBTFUL LINK BETWEEN MONETARY INCENTIVES AND CREATIVITY

A. Cases That Do Not Match the Theory

Anecdotally, there has long been reason to be suspicious of the claim that economic reward is the engine that makes innovation run. Although their creativity tended largely to the patent rather than the expressive side of intellectual property, the example of the United Society of Believers in Christ's Second Appearing, more commonly known as the Shakers, is instructive. The Shakers¹⁹ were, as a group, extremely innovative. Among those items they have been credited with inventing are the metal pen nib, clothespins, a greatly improved mechanical washing machine and the first flat broom.²⁰ One example of their striking innovativeness can still be seen at the site of the former Shaker community in Hancock, Massachusetts: a round barn in which someone standing on the upper level could quickly and singlehandedly feed a herd of 52 dairy cattle in the stalls below.²¹

Students of the Shakers agree that the stimulus for their remarkable inventiveness was only marginally commercial; the primary motives were pragmatic and spiritual. As one scholar has written, "Both labor and innovations to save labor showed the sacred commitment to redeem the world and by so doing transform earth into heaven."²² "Religious influence," wrote another, "was part and parcel of their everyday life and work."²³ The

19 Shakers belonged to a dissenting branch of Quakerism, founded in the middle of the eighteenth century in Britain by Mother Ann Lee and brought to the United States by her just as the American Revolution was beginning. She settled in New York State, and subsequent Shaker communities spread out from there through New England and south to Kentucky. For a brief history of the sect, see National Park Service, *The Shakers*, <http://www.nps.gov/nr/travel/shaker/shakers.htm> (last visited June 29, 2010).

20 EDWARD D. ANDREWS, *THE COMMUNITY INDUSTRIES OF THE SHAKERS* 40-44 (1932) (listing these and numerous other inventions).

21 Matthew Cooper, *Relations of Modes of Production in Nineteenth Century America: The Shakers and Oneida*, 26 *ETHNOLOGY* 1, 5 (1987).

22 *Id.*

23 ANDREWS, *supra* note 20, at 37.

invention of labor-saving devices freed more time for worship, and was also, as the numbers of Shakers declined in the late nineteenth century (celibacy being a practice inconsistent with long survival of the sect) while their farm holdings increased, a response to necessity. Because the Shakers developed a good reputation for craftsmanship and probity, they were also successful in marketing their innovations and their crafts to "the world," and could use the profits to help support the community. But students of the Shakers consider their profit-making enterprises more as happy side benefits of activities in which the Sisters and Brethren would have been engaged even had there been no outside markets for their creations.²⁴

It would be wrong to assume that the Shakers are outliers on the motivational spectrum. Economist Everett Hagen has concluded that innovators are often moved by a sense of duty to create that he considers a form of religious expression.

The doctrine that the specific religious dogma of the Protestant Dissenters is peculiarly associated with innovational activity is obsolete, but a number of scholars observing economic growth in various societies have noted that innovators in the early stages of growth seem to be characterized by a common ethic which is appropriately termed religious in nature, whatever their religious dogma. They feel a personal responsibility to transform the world that far transcends the profit motive.²⁵

Professor Roberta Kwall has similarly made the point in her recent contributions to the legal literature on this subject that creation often has a spiritual, if not a frankly religious, component to it.²⁶

Copyright scholars and economists interested in intellectual property were first forced to confront the possible inadequacy of their assumptions about the importance of economic incentives by the advent of the open source movement. Programmers participated by the hundreds in creating, refining and debugging complex pieces of software, commonly with no expectation

24 See, e.g., Cooper, *supra* note 21, at 5 (arguing that inventiveness and hard work were primarily in the service of the Shakers' "sacred commitment" to God, although they also resulted in products that were desired by what the Shakers called "the World").

25 EVERETT E. HAGEN, ON THE THEORY OF SOCIAL CHANGE: HOW ECONOMIC GROWTH BEGINS 93 (1962).

26 Kwall, *Inspiration*, *supra* note 1, at 1951-62. Kwall, a supporter of moral rights, would, however, draw quite different conclusions about the implications of her argument from those in this Article.

of payment for their work, and with an affirmative unwillingness to claim ownership in their contributions. Subsequently, people in many other settings have joined in the peer production of complex information products entirely outside the framework of market exchange.²⁷ The elaboration of Wikipedia by numerous volunteers is an example of authors devoting unpaid time to the creation of things that are then offered free and without restriction to the public. Thousands of other authors and artists devote hours to creating fan fiction and fan videos they do not expect anyone to buy, and perhaps would actually be unwilling to sell. Creators of vast numbers of Harry Potter sagas seem to be motivated by no more than the joy of writing them and the possibility of sharing them for free with other fans.²⁸

B. Copyright as an Uncertain Reward

This behavior is scarcely unprecedented or peculiar to the internet. As I have noted elsewhere, poets have long had particularly poor hopes of economic success in the marketplace, but the writing of poetry continues.²⁹ To give one relevant example, during the nineteenth century, poetry, which had previously been very popular,³⁰ fell out of favor to such an extent that poets typically now had to bear the costs of publishing their work themselves.³¹ The loss of a market and the need to finance one's own publication certainly did diminish the numbers who could afford to devote substantial time to writing verse, with the result, according to literary scholar Lee Erickson, that poetry in the

²⁷ See generally Yochai Benkler, *Coase's Penguin, or, Linux and the Nature of the Firm*, 112 YALE L.J. 369 (2002). That is not to deny that some participants in these projects might have specific economic objectives to further by their contributions. A company interested in promoting a product, or a publicist intending to promote a celebrity, might well contribute something favorable about the good or the personality to a peer-produced project in hopes of indirect economic gain.

²⁸ Tushnet, *supra* note 18; Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L.J. 651, 657-58 (1997) [hereinafter Tushnet, *Legal Fictions*].

²⁹ Diane Leenheer Zimmerman, *Authorship Without Ownership: Reconsidering Incentives in a Digital Age*, 52 DEPAUL L. REV. 1121, 1136-37 (2003).

³⁰ *Id.*

³¹ I am not sure the situation has improved much, if at all, since then. According to the Academy of American Poets, "[v]ery few poets rely entirely on the proceeds from their work. Journal publication is frequently unpaid, compensated only by additional contributor's copies, and poetry book advances are modest sums. Most poets, even the most widely published, hold other jobs, such as teaching and journalism." Poets.Org, Writing and Publishing FAQ, <http://www.poets.org/page.php/prmID/56> (last visited Feb. 23, 2010).

latter last two-thirds of that century became "a gentleman's avocation," an activity most likely to be engaged in by those, like Robert Browning, with an independent source of income, or those rare writers who, like William Wordsworth, managed against the odds to establish a popular following.³² Nevertheless, as a glance at any anthology of Victorian poetry will quickly demonstrate, the practice of writing poetry continued among those who were not independently wealthy, even in the absence of any reasonable expectation of financial reward. Matthew Arnold supported himself and his family by working as a school inspector;³³ Gerard Manley Hopkins was a Jesuit priest and fit in his writing around his duties to his parishioners and his teaching responsibilities.³⁴ Both made little if any income from their writing.

A raft of recent studies make it quite clear that modern creators generally have little more realistic hope than Victorian poets of earning much in the way of remuneration for their acts of creation. The copyright "incentive" notwithstanding, it is more credible to understand their devotion to the production of expressive works more as a product of love than as a response to the promise of money, because they are unlikely ever to see much of the latter. A British survey, for example, found that few of that country's writers could support themselves by their craft, with the result that most must regularly turn to other part- or full-time jobs to supply themselves with the income necessary to survive.³⁵ This finding is consistent with those from similar studies in the United States and Canada.

A 2009 Canadian analysis, based on census data, found that the typical visual artist in that country earned about \$8000 from his or her work in 2005.³⁶ This put artists more than 50 percent below the poverty level for

32 Zimmerman, *supra* note 29.

33 Stanley Kunitz, Matthew Arnold: A Biography, <http://www.victorianweb.org/authors/arnold/bio.html> (last visited Feb. 23, 2010). Arnold worked at that job until five years before his death, when he was awarded a pension by British Prime Minister William Gladstone. *Id.*

34 Glenn Everett, Gerard Manley Hopkins, A Brief Biography, <http://www.victorianweb.org/authors/hopkins/hopkins12.html> (last visited Feb. 23, 2010). Most of Hopkins's poetry was not published until after his death.

35 The study showed that 60 percent of those who are identified as "professional" writers need other jobs to support themselves, and that more than half the income generated from writing flows to the top 10 percent of authors. Press Release, Authors' Licensing and Collecting Society, New Research Confirms UK Writers Still Struggle to Survive (Mar. 8, 2007), *available at* <http://www.prnewswire.co.uk/cgi/news/release?id=192513>.

36 KELLY HILL & KATHLEEN CAPRIOTTI, HILL STRATEGIES RESEARCH, INC., STATISTICAL INSIGHTS ON THE ARTS VOL. 7 NO. 4: A STATISTICAL PROFILE OF ARTISTS IN CANADA BASED ON THE 2006 CENSUS 11 (2009), *available*

single persons living in cities with populations of half a million or more.³⁷ The median earnings for authors from their writings were higher (just under \$25,000),³⁸ but that figure is a bit misleading because many who were so classified were full-time employees of advertising companies, educational institutions or corporations and earned a salary for producing such materials as instruction manuals or advertising copy.³⁹ Because the census data on which that study was based did not allow the researchers to break out and separately study the circumstances of writers engaged solely or primarily in "artistic" endeavors, the true state of the economic returns for these artists could not be estimated;⁴⁰ based on the data from other studies, it is unlikely that their earnings would approach, much less exceed, the median for the panoply of types of writers within the category studied.

What is more, the current economic downturn has imposed further financial constraints on all Canadian artists, forcing more of them to look for "day jobs" at a time when the availability of jobs generally is shrinking.⁴¹ The inability to be self-supporting from one's creative output, however, does not seem to be merely an artifact of a stretch of particularly hard economic times. The Canadian researchers found that from 1990 through 2005, a time when real earnings increased in the overall labor force by 9 percent,⁴² visual artists saw their average earnings decrease by 32 percent, and authors and writers lost an average of 12 percent.⁴³

A U.S. survey by Kingston and Cole, reported in 1983, concluded that "writing yields little economic return: the median writing-related income at that time was \$4,775" (which worked out to be a return of a little under \$5.00 an hour).⁴⁴ The researchers in that study found that 70 percent

at http://www.canadacouncil.ca/publications_e/research/default.htm (follow "A Statistical Profile of Artists in Canada" hyperlink). The study was funded by the Canada Council for the Arts, the Department of Canadian Heritage and the Ontario Arts Council, and was based on census data.

³⁷ The poverty line was set at \$20,800. *Id.* at 10.

³⁸ *Id.* at 11.

³⁹ *Id.* at 42. Journalists were not included in the census category for writers and authors.

⁴⁰ *Id.* at 3 (noting that the census category for authors is not a "perfect fit" for identifying novelists, poets, and so forth).

⁴¹ Artist Trust, *Artists and the Economy Survey 2* (2009), http://www.artisttrust.org/artists_economy_survey. The survey covered artists in the state of Washington.

⁴² HILL & CAPRIOTTI, *supra* note 36, at 39.

⁴³ *Id.* at 35.

⁴⁴ Paul William Kingston & Jonathan R. Cole, *Economic and Social Aspects of the Literary Situation*, 47 PUB. OPINION Q. 361, 366 (1983).

of those surveyed either held fulltime jobs or spent several hours each week on outside work to make ends meet.⁴⁵ The support of spouses, they noted, is often necessary to allow individuals to devote significant blocks of time to the practice of their craft.⁴⁶

The situation in the United States has not improved over time. The National Council on the Arts surveyed the economic situation of a variety of U.S. artists in the period from 1999 to 2005. It found that, for the years 2003 to 2005, the average income from all sources (for artists as a group, who were wholly or partially self-employed) was about \$20,000 a year.⁴⁷ Writers without fulltime jobs, who made up almost half of all writers, averaged \$22,500;⁴⁸ similarly situated actors (who made up 85 percent of all actors, and who represent a sector of creative persons who do not benefit from copyright) averaged an annual income of \$20,700.⁴⁹ The worst off were dancers and choreographers. The 25 percent of them who were employed full-time earned an average of \$34,600, but the approximately 75 percent who were self-employed or employed only part-time made an average of only \$16,600 per year.⁵⁰ The current economic downturn has aggravated the plight of creative workers in the United States, as it has of those in Canada. At least half the U.S. respondents in a 2009 study reported a drop in their art-related income in the previous year.⁵¹

Certainly there are ways to make these individuals seem to fit into recognizable neoclassical economic models. In the open source movement, where people affirmatively eschew payment for the product to which they contribute, some scholars have argued that the actions of programmers fit the traditional economic incentive theory of copyright because what the participants are actually hoping to garner through their participation are

45 *Id.* at 370. Kingston and Cole found that many but by no means all of those with outside employment would have preferred to write full-time.

46 *Id.* at 383.

47 NAT'L ENDOWMENT FOR THE ARTS, ARTISTS IN THE WORKFORCE 1990-2005, at 122 (2008). The income figures are given in 2005 dollars.

48 *Id.*

49 *Id.*

50 *Id.* Dancers are not protected by copyright, but choreographers are as soon as their work is fixed in tangible form, usually by dance notation systems or on video. 17 U.S.C. § 102(a)(4) (2006).

51 LEVERAGING INVESTMENTS IN CREATIVITY WITH HELICON COLLABORATIVE & PRINCETON SURVEY RESEARCH ASSOCS. INT'L, THE ARTISTS AND THE ECONOMIC RECESSION SURVEY: SELECTED FINDINGS 2 (2009), <http://www.lincnet.net/sites/all/files/Selected%20Findings%20Artists%20and%20the%20Recession%20Survey%202009.pdf>.

indirect extrinsic benefits, including the approbation of their peers and improved employment opportunities.⁵²

It is harder, however, to squeeze the starving artist into that familiar storyline. If we start with the assumption that people are rational profit-maximizers, then it is difficult to make sense of the degree of risk creators are willing to take of never reaping any profit at all from all their work. Certainly, some degree of risk-taking is essential to entrepreneurial behavior. But even allowing for this reality, rational risk-taking assumes not just a willingness to absorb losses, but reasonableness in calculating the likelihood of success; in business, excessive risk-taking is likely to be disciplined by the market. By contrast, the creators in my examples toil in fields that are singularly unlikely to pay off in any tangible form, and do so for extended periods of time; to the best of my knowledge, gambling against such appalling odds, especially in light of the level of creative and emotional investment needed to keep painting pictures no one else is ever likely to hang on their walls or writing books no one else wants to read, could scarcely be characterized as an example of a sensible economic decision about where to risk investing one's resources.

An alternative economic explanation for why at least some artists might labor long and hard for scant returns is a lottery theory. Even if most literary, artistic and musical works are not highly valued by society, some are, and what, on this hypothesis, may motivate individuals to pursue their creative activities in the face of such dreadful odds of success is the hope of hitting the jackpot — writing a bestseller with lucrative film rights, or having the New York City Ballet decide to add their choreography to its repertory. Copyright, in this alternative narrative, plays an important role because, even if it cannot assure a return, it does protect those who are willing to gamble their all for the chance, however feeble, to grab the proverbial pot of gold (or at least the million dollar book deal) at the end of the rainbow.⁵³ But even

⁵² See *infra* notes 58-59 and accompanying text.

⁵³ This argument is laid out by Scherer, who quotes Schumpeter on the efficacy of lotteries with their promise of great rewards to the very few in stimulating business investment. Scherer, who has extensively studied the payoffs from technological innovation, concluded that in areas like pharmaceuticals investments are indeed made in hopes of finding a "blockbuster." Over time, the profits from the blockbusters not only reward the investments, but compensate for expenditures on research and development for drugs that are less successful. Scherer hypothesized, based on the earlier research, that in cultural production, too, risk and participation in "lotteries" has utility to many creators and they will risk all on the chance that one or two of them will win fame and economic success. He suggests, therefore, that copyright should be structured to offer the promise of such long shots because they

assuming that this theory accurately describes the motives of some individuals (and even its most eloquent proponent, F.M. Scherer, suggests that a taste for this sort of risk at most is likely to explain only a modest part of creative behavior⁵⁴), it is fairly debatable whether the interest in providing incentives to lovers of risk and to the determinedly unrealistic is reason enough to justify our modern, expansive system of copyright, especially when weighed against the costs imposed by the exclusive rights scheme on future creators and on public access to content.⁵⁵

II. PSYCHOLOGY AND BEHAVIORAL ECONOMICS: RETHINKING INCENTIVES

A. The Intrinsic Motivation Theory

Returning, therefore, to the more traditional incentives argument, what has largely been overlooked is the fact that, in recent decades and outside of the intellectual property literature, the findings of researchers in psychology and behavioral economics have cast considerable doubt on both the existence of "rational profit-maximizers" who routinely make their choices based

are effective motivators for at least some creators. F.M. Scherer, *The Innovation Lottery*, in *EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 3* (Rochelle Dreyfuss, Diane L. Zimmerman & Harry First eds., 2001).

54 *Id.* at 19 (speculating that for most artists "the uncertain prospect of spectacular payoffs may be more of a 'nice to have' fringe benefit than a necessary incentive"); see also Niva Elkin-Koren, *Tailoring Copyright to Social Production*, 12 *THEORETICAL INQUIRIES L.* 309 (2011) (making the case that social factors, including a sense of community and the opportunity for social interaction, are more important than economic factors as motivators of participation in the collaborative production of information goods).

55 Both behavioral economists and psychologists have pointed out the negative effects of what is termed the "optimism bias" in human behavior. This bias leads individuals to miscalculate the level of risk involved in various activities with the result that they may make unwise decisions and engage in unduly imprudent behavior. This bias can lead people to follow avenues that turn out to be innovative and productive, but that far more often will lead to failure. For discussions of optimism bias, see generally, for example, Christine Jolles, *Behavioral Law and Economics*, in *BEHAVIORAL ECONOMICS AND ITS APPLICATIONS 115* (Peter Diamond & Hannu Vartiainen eds., 2007); Peter R. Harris, Dale W. Griffin, & Sandra Murray, *Testing the Limits of Optimistic Bias: Event and Person Moderators in a Multilevel Framework*, 95 *J. PERSONALITY & PSYCH.* 1225 (2008).

on economic criteria, and indeed on the power of external inducements generally (pots of gold included) actually to motivate people and shape their behavior in any central way.

What these scholars posit instead is that the expression of human creativity is primarily driven by intrinsic rather than extrinsic factors.⁵⁶ The studies go further, however, to suggest that, in fact, the promise of monetary or other extrinsic rewards for creative activities can actually diminish rather than enhance the likelihood that individuals will be induced to produce high-quality new work. Although this growing body of literature (which dates back now over half a century) is occasionally referenced in the scholarship on intellectual property,⁵⁷ there has been little systematic attempt to review it or to ask what its insights might reveal about the validity of the practices and assumptions of intellectual property.

As noted earlier, the growth of the open source movement has pushed hard against neoclassic economic assumptions about what impels people to devote themselves to creating copyrightable works. As Josh Lerner and Jean Tirole have candidly admitted, "to an economist, the behavior of individual programmers and commercial companies engaged in open source processes is startling."⁵⁸ After considering the puzzle at some length, however, the authors ultimately concluded that they could indeed come up with an explanation for the behavior resting entirely on an assumption that the participants were acting in expectation of future extrinsic benefits. They noted that the programmers (and, in some cases, their employers) were motivated by the anticipation of reaping advantages from software that is collectively debugged and/or customized to perform a needed function.⁵⁹ Software developers might also expect that their reputations would be

56 On this point, Scherer is in agreement; he notes that "creative activity is often driven by non-pecuniary motives." Scherer, *supra* note 53, at 19.

57 See, e.g., Kwall, *Inspiration*, *supra* note 1; Bradford S. Simon, *Intellectual Property and Traditional Knowledge: A Psychological Approach to Conflicting Claims of Creativity in International Law*, 20 BERKELEY TECH. L.J. 1613 (2005); Wendy J. Gordon, *Render Copyright unto Caesar: On Taking Incentives Seriously*, 71 U. CHI. L. REV. 75, 89 (2004).

58 Josh Lerner & Jean Tirole, *Some Simple Economics of Open Source*, 50 J. INDUS. ECON. 197, 198 (2002).

59 The authors note that Richard Stallman, for example, got interested in open source because he wanted to improve a printer program for which the owner would not release the source code. *Id.* at 218. Other economists have developed this theme in various ways. James Bessen, for example, has posited that contributions to a public good like open source software can often be understood as the most efficient way to provide certain highly complex products that need to be tested and debugged, and where information on how users intend to utilize the product is difficult to acquire in

enhanced, leading in the long run to greater career opportunities or status in the community of programmers.⁶⁰

But students of the phenomenon have not been altogether satisfied that these hoped-for and readily monetizable extrinsic rewards adequately explain why individuals who are often paid nothing for their participation spend so much time on open software development. Lerner and Tirole mention in passing that participants seem to be people who enjoy being allowed to choose what they want to spend time on and who like bearing the responsibility for a project's success or failure. Other students of the open source phenomenon, however, have given more explicit weight to these intrapersonal components.

Eric von Hippel and Georg von Krogh, for example, found that "learning and enjoyment, and a sense of 'ownership' and control over [the] work product" were highly significant determinants of who would participate.⁶¹ They also found that, because open source development tended to proceed as group projects, participants also often gained personal satisfaction from the sense of membership in a community.⁶² These are not merely incidental factors in incentivizing participation, they concluded, but "very important motivators."⁶³ Other forms of intrinsic motivation for participation in these projects, in addition to enjoyment and a sense of self-determination, have also been identified. Cahir, for example, talks about a sense of obligation to give back to the society at large or to one's own immediate group of friends or colleagues.⁶⁴

In singling out such factors, those who study the collaborative, nonproprietary production of public goods may be closer to an accurate view of what prompts humans to behave creatively than those who attribute

the market. JAMES BESSEN, *OPEN SOURCE SOFTWARE: FREE PROVISION OF COMPLEX PUBLIC GOODS IN THE ECONOMICS OF OPEN SOURCE SOFTWARE DEVELOPMENT* 3 (Jürgen Betzer & Philipp J.H. Schröder eds., 2006). Thus, the economic benefits of participation can outweigh the losses incurred by eschewing property rights in the product. *See also* Eric von Hippel & Georg von Krogh, *Open Source Software and the "Private-Collective" Innovation Model*, 14 *ORG. SCI.* 209, 214 (2003).

⁶⁰ Lerner & Tirole, *supra* note 58, at 218. Increased status might, however, also be conceived of as a psychic reward, rather than something the participant hopes to monetize.

⁶¹ von Hippel & von Krogh, *supra* note 59, at 216. For a similar point, see ERIC VON HIPPEL, *DEMOCRATIZING INNOVATION* 60 (2005).

⁶² von Hippel & von Krogh, *supra* note 59, at 216.

⁶³ *Id.*

⁶⁴ John Cahir, *The Information Commons* 32-33 (July 23, 2003) (unpublished manuscript), available at <http://papers.ssrn.com/=428584>.

these activities largely to the attainment of traditional monetizable extrinsic objectives. In recent decades, behavioral economists have cautioned against assuming that economic models predicated on theory rather than empirical information about how real people actually behave have much predictive value.⁶⁵ To correct for the non-empirical nature of neoclassical models, some economists have tried to bring to bear the insights of psychology to gain a better understanding of a wide range of activities and behaviors, including what motivates people to engage in tasks requiring creativity and innovative thinking. The psychological research into motivation is complex and those engaged in it do not always agree with one another about how to interpret its results. But a number of tantalizing experiments emphasize not merely the fundamental significance of innate sources of motivation for creative activity, but also the potential harm that may flow from tying creative and innovative activities too closely to the promise of salient rewards, monetary or otherwise.

In some ways, evolution of the understanding of psychologists about motivation marks a shift in thinking surprisingly parallel to the one that behavioral economists are trying to introduce into a field dominated by neoclassical economic ideation. In the middle of the twentieth century, psychologists such as B.F. Skinner promoted an understanding of human behavior that was reliant largely on external reinforcement (or, to use a technical term, that was a result of operant conditioning). Behaviors that were rewarded, it was believed, would be perpetuated, while those that were unrewarded would be discouraged and ultimately abandoned. Thus, the Skinnerian actor, like a rational profit-maximizer, would engage in endeavors that involved creativity and problem-solving primarily, if not entirely, as a response to appropriate extrinsic motivators or reinforcements.⁶⁶

But as a theory that conceived of human motivation in quite different terms gained purchase, a different picture emerged.⁶⁷ Abraham Maslow, most notably, relied more on the insights of psychiatry than on those of more

65 Morris Altman, *Introduction* to HANDBOOK OF CONTEMPORARY BEHAVIORAL ECONOMICS: FOUNDATIONS AND DEVELOPMENTS, at xv, xv-xvi (Morris Altman ed., 2006); Colin Camerer, *Behavioral Economics: Reunifying Psychology and Economics*, 96 PROC. NAT'L ACAD. SCI. USA 10575, 10575 (1999) ("[E]conomists routinely — and proudly — use models that are grossly inconsistent with findings from psychology.").

66 For a discussion of Skinner's theories and his research on operant conditioning, see B.F. SKINNER, ABOUT BEHAVIORISM (1974).

67 According to one prominent researcher, skepticism about the Skinnerian model began to grow by the 1970s. TERESA AMABILE, CREATIVITY IN CONTEXT: UPDATE TO THE SOCIAL PSYCHOLOGY OF CREATIVITY 153 (1996).

mechanical behaviorist models to reconceptualize the source of motivation as internal (or intrinsic), stemming from the individual's need to satisfy basic, innate needs. People are motivated first, he claimed, to satisfy their physiological and safety needs, then their needs for love, connectedness and esteem, and finally by their need for self-actualization.⁶⁸ Maslow posited, based on his studies, that creativity is an aspect of self-actualization rather than a response elicited by motivations external to the individual (that is, extrinsic).⁶⁹ He argued that the reason people create art is because they have a built-in desire both to express themselves, and, also, to communicate their thoughts, impressions and ideas to others.⁷⁰ Creativeness, he says, "seems to be . . . a fundamental characteristic of common human nature — a potentiality given to all human beings at birth," even though it is one that, unfortunately, most of us lose over time.⁷¹ Economist Everett Hagen also speaks of creativity as a function of innate drives. He claimed that people are impelled to create by the pleasure they take from the act of problem-solving, and also from an inbuilt sense of "duty to achieve."⁷²

Another major figure in the study of innovative behavior, Mihaly Csikszentmihalyi, used the technique of in-depth interviews to study the phenomenon; he, too, concluded that creative people have "a powerful calling" to do what they do.⁷³ He writes:

Creative persons differ from one another in a variety of ways, but in one respect they are unanimous: They all love what they do. It is not the hope of achieving fame or making money that drives them; rather, it is the opportunity to do the work that they enjoy doing.⁷⁴

68 ABRAHAM H. MASLOW, *MOTIVATION AND PERSONALITY* 15-31 (2d ed. 1970).

69 *Id.* at 142. The line between intrinsic and extrinsic is not perfect, and at the margin, reasonable people could disagree about how to characterize a motivation, but generally, a task performed for the purpose of obtaining a reward is extrinsically motivated, whereas one that is performed because of its inherent interest or out of some sense of one's own psychic needs or the needs of the individual's community might be said to be intrinsically motivated.

70 *Id.* at 69-70. Interestingly, he made no claim that his studies explain the causes of real "genius" in music, art, literature, the sciences, or other creative endeavors, but he also believed the traits that unusually creative people express are inborn. *Id.* at 142.

71 *Id.*

72 HAGEN, *supra* note 25, at 93.

73 MIHALY CSIKSZENTMIHALYI, *CREATIVITY: FLOW AND THE PSYCHOLOGY OF DISCOVERY AND INNOVATION* 37 (1996).

74 *Id.* at 107.

His research subjects uniformly reported that if they were asked to make a tradeoff between doing what they love and doing what will earn them money, they would tend to favor their creative pursuits.⁷⁵ In a similar vein, a survey done of software designers in high-tech industries found that what mattered most to the respondents was their jobs' innate challenge and level of responsibility; the level of the base pay available for the work rated only fourth in importance, and the availability of additional compensation through stock options and the like turned out to be of little significance.⁷⁶

The work of scholars who study innovation and creativity, if accurate, renders questionable the assertion that the degree to which people are willing to devote themselves to creative pursuits depends primarily, or even significantly, on the promise of a potential pot of economic rewards. This is not to say that those whose primary motivation to create is internal are indifferent to money. Common sense, and the survey evidence discussed earlier, suggests that people will be able to spend less time, overall, producing copyrightable works if they have no prospect of being able to support themselves, either directly or indirectly, from this kind of work. As Csikszentmihalyi notes with regard to the role of money, it "gives relief from worries, from drudgery, and makes more time available for one's real work. It also enlarges the scope of opportunities. One can buy necessary materials, hire help if needed, and travel to meet people from whom one can learn."⁷⁷

And certain works are probably produced almost entirely because they

75 *Id.* The findings of Csikszentmihalyi are closely replicated by the stories that appear in Tushnet, *supra* note 18, at 522-36. Presumably, the comments of Csikszentmihalyi's subjects about preferring work for love over work for money were not absolute; one must assume they had some way at the time of the interviews to meet their basic economic needs for housing, food, health care and the education of their children. I do not understand the choice in question to have been between starving while doing work they loved or pursuing enough income to survive on.

76 RICHARD FLORIDA, *THE RISE OF THE CREATIVE CLASS* 89 (2002). Florida notes that fewer than 10 percent of respondents selected the availability of stock options as a significant motivator. *Id.* Similar results were obtained in a study examining the motivating factors that lead college music professors to engage in research and publication. Responses to a survey showed that the most important motivators for these faculty were the satisfaction of their intellectual curiosity and their enjoyment of the research process. External rewards, including salary increases and recognition, were reported as much less significant. Albert LeBlanc & Jan McCrary, *Motivation and Perceived Rewards for Research by Music Faculty*, 38 J. RES. MUSIC EDUC. 61, 64-66 (1990).

77 CSIKSZENTMIHALYI, *supra* note 73, at 334-35.

are expected to generate a good return on the investment. A friend of mine who was a struggling actress sheepishly admitted that she wrote "potboiler" bodice-rippers solely to support herself in lean professional times. Some complex information products — motion pictures come to mind — may be sufficiently costly to produce (in dollar terms) that, whatever the intrinsic motivation of the filmmaker, the likelihood of a robust market and concomitant monetary returns will loom large in the decision whether or not to engage in the activity in the first place.

Copyright is one way to serve the need authors have for economic security and access to the materials that will help them produce the best work of which they are capable. But it is not the only way, and probably not even the most effective one, given the uncertainty of its returns. Some argue that a better environment for creativity might emerge from forms of patronage, including grants, stipends, or regular salaries. The economist and Nobel laureate Joseph Stiglitz recently made this case in relation to creativity of the sort covered by the patent system. According to Stiglitz, the majority of important research actually comes from university and government laboratories, where researchers earn paychecks or get up-front support from research grants; it is less likely to emerge from commercial entities more dependent on the patent system for rewards.⁷⁸ What academic researchers want, he argues, is freedom to explore problems that interest them, to share knowledge, and to "shape the intellectual debate,"⁷⁹ rather than to earn whatever windfall income might be derived from the fact that their work product might ultimately be patentable. Paying researchers a salary spares them from the financial risks and uncertainties of the patent system, giving them far greater security in a way that is also less tied to the achievement of a specific result or finding that is marketable.

B. Can Rewards Actually Inhibit Creativity?

The most surprising contribution of psychology to our understanding of

78 Joseph E. Stiglitz, *Economic Foundations of Intellectual Property Rights*, 57 DUKE L.J. 1693, 1697 (2008). For another interesting discussion of the ability of non-copyright economic models to support creative endeavors, see Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, 19 BERKELEY TECH. L.J. 785 (2004). Universities, of course, do seek patents on the research of faculty members for the benefit of the institution, and some of the benefits may inure to the discoverer, but the basic compensation of faculty inventors is independent of the patent system.

79 Stiglitz, *supra* note 78, at 1695.

creativity is not, however, the insight that creative individuals are motivated by love of what they do and will do best if they are left alone, without undue need to worry about money, to pursue their work. Rather it is the growing body of research suggesting that the willingness to engage in creative activities, and the quality of what is produced, is not enhanced by the promise of salient financial rewards for performance, and indeed may actually be harmed by it.⁸⁰ Although the conclusions that can be drawn from this research remain contested,⁸¹ and the studies are complex and difficult to interpret,⁸² they are by now sufficiently numerous and sufficiently convincing to be taken seriously by a wide range of social scientists, including many economists.

Much of this research requires some extrapolation for its implications for the production of copyrightable work to emerge because its focus is most often on motivators that lead to improved performance in the workplace.⁸³ However, research testing the hypothesis that pay levels in organizational settings will correlate with productivity, and, indeed, that increases in compensation will lead to higher levels of performance, is suggestive, in that the results are frequently at odds with traditional expectations about the

80 The focus of this Article is on individual creativity and does not take into account dissemination costs or unusual production costs (as, for example, in the production of a feature film). It may be the case that the copyright incentive will be the only practical way to finance such works, although as the work of Yochai Benkler suggests, even here, the emphasis on monetary returns could have negative effects on the end product. See, e.g., Yochai Benkler, *Intellectual Property and the Organization of Information Production*, 22 INT'L REV. L. & ECON. 81, 91 (2002).

81 For critiques challenging the finding that external rewards can be harmful to creativity, see, for example, Judy Cameron & W. David Pierce, *Reinforcement, Reward and Intrinsic Motivation: A Meta-Analysis*, 64 REV. EDUC. RES. 363 (1994) (reanalyzing past studies and concluding that monetary rewards are harmful only when not tied to measures of performance); Robert Eisenberger & Judy Cameron, *Detrimental Effects of Reward: Reality or Myth?*, 51 AM. PSYCHOLOGIST 1153 (1996) (rejecting the findings of negative effects of rewards on creativity).

82 For an excellent review of the studies and of the variety of interpretations to which they are subject, see Beth A. Hennessey, *Self-Determination Theory and the Social Psychology of Creativity*, 11 PSYCHOL. INQUIRY 293 (2000).

83 Examples include Teresa M. Amabile, *Entrepreneurial Creativity Through Motivational Synergy*, 31 J. CREATIVE BEHAV. 18 (1994) (discussing entrepreneurship in firms); George P. Baker, Michael C. Jensen & Kevin T. Murphy, *Compensation and Incentives: Practice vs. Theory*, 43 J. FIN. 593 (1988) (examining typical pay practices and asking if they better fit the psychologists' or the economists' models); Ignacio Falgueras Sorauren, *Non-Monetary Incentives: Do People Work Only for Money?*, 10 BUS. ETHICS Q. 925 (2000) (exploring the issue of motivation in firms).

efficacy of extrinsic incentives. In a recently published study, for example, one team of researchers ran a series of experiments with residents of a town in rural India, and then with students at MIT and the University of Chicago, testing their performance on a variety of tasks involving memory, problem-solving and creativity.⁸⁴ The findings suggested that, in situations involving cognitive rather than physical effort,⁸⁵ "higher monetary incentives led to worse performance."⁸⁶ The results were sufficiently striking to impel one of the researchers to speculate that there may be a relationship between the findings in this research and the fact that the very people in the financial and banking industries who received such huge bonuses and salaries were the same ones whose actions led to the economic collapse in 2008.⁸⁷

One explanation for why rewards may be detrimental to performance can be found in what is known as the self-determination theory. Building on the insights of Maslow and others, researchers such as Edward Deci, Richard Ryan and Teresa Amabile have conducted empirical studies and interviews that have demonstrated a link between enhanced creativity and such internal factors as whether the subject thinks of herself as free to follow her curiosity and structure her own approach to the tasks she chooses to undertake. If extrinsic tangible rewards are offered as motivators in a way that is perceived as controlling, the quality of the individual's performance of a specified task seems to be diminished.⁸⁸ Interestingly, the disincentive effect of extrinsic motivators is strongest where the task at issue requires imagination and innovative approaches to problem-solving. By contrast, extrinsic monetary or other rewards are effective motivators when used as carrots to induce the performance of routine, reasonably dull tasks. Some researchers have speculated that the reason tangible rewards do not result in a drop in the quality of outcomes with "dull tasks [is] because there is little or no motivation to be undermined."⁸⁹ To the extent that extrinsic rewards are effective motivators under such circumstances, it is because they encourage

84 Dan Ariely, Uri Gneezy, George Loewenstein & Nina Mazar, *Large Stakes and Big Mistakes*, 76 REV. ECON. STUD. 451 (2008).

85 *Id.* at 464.

86 *Id.* at 467.

87 DAN ARIELY, PREDICTABLY IRRATIONAL 323 (2009).

88 EDWARD L. DECI & RICHARD M. RYAN, INTRINSIC MOTIVATION AND SELF-DETERMINATION IN HUMAN BEHAVIOR 66, 149, 310 (1985).

89 Edward L. Deci, Richard Koestner & Richard M. Ryan, *Extrinsic Rewards and Intrinsic Motivation in Education: Reconsidered Once Again*, 71 REV. EDUC. RES. 1, 14 (2001); cf. AMABILE, *supra* note 67, at 133 (arguing that external evaluation does not have a harmful effect where the path to the solution is "clear and straightforward").

those who would otherwise have performed the tasks in a perfunctory way to take them more seriously.⁹⁰ A further important observation for the purposes of this Article is that extrinsic rewards are more likely to detract from the performance of a creative task that is inherently interesting to a subject than it is when the subject is asked, for example, to take a standard creativity test.⁹¹

Edward Deci and Richard Ryan, leading researchers in the field, began by studying the effect of various external motivators, including cash payments,⁹² on learning among students, ranging in level from elementary school to college. In some studies, students were exposed to a set of materials, and half of the experimental subjects were told that they would be tested and graded on what they learned.⁹³ What the researchers discovered was that those who did not expect to be tested not only exhibited "considerably greater conceptual understanding of the material than did the students who learned in order to be tested,"⁹⁴ but they tended to retain more of it for longer periods of time.⁹⁵ Reflecting back on the results of several decades of his and others' work in testing the efficacy of intrinsic versus extrinsic motivators, Deci has concluded that "[i]ntrinsic motivation is associated with richer experience, better conceptual understanding, greater creativity, and improved problem solving, relative to external controls."⁹⁶

Some of the most telling research dealing specifically with the kind of creativity involved in creating copyrightable works — the work of artists — has been conducted by Amabile. In addition to studies offering tangible financial rewards, she also conducted several where the prospect of critical evaluation was substituted for the promise of monetary rewards.⁹⁷ In one such study, 95 women (non-artist students at Stanford) were asked to make

90 Deci, Koestner & Ryan, *supra* note 89, at 14.

91 AMABILE, *supra* note 67, at 161 ("Enhancement in performance [by rewards] is to be expected when intrinsic interest is initially low.").

92 For discussions of experiments using money as the salient reward, see DECI & RYAN, *supra* note 88, at 44-49.

93 In a study using college students, the second half were told that they would later have a chance to teach what they'd learned to others. EDWARD L. DECI WITH RICHARD FLAST, *WHY WE DO WHAT WE DO: THE DYNAMICS OF PERSONAL AUTONOMY* 47-48 (1995).

94 *Id.* at 47.

95 *Id.* at 48.

96 *Id.* at 51.

97 Amabile also gives an anecdotal example of the effect that the prospect of evaluation can have on output. She says that poet Ann Sexton was temporarily but completely blocked in her writing after her mentor, Robert Lowell, told her to write "ten more really good poems." AMABILE, *supra* note 67, at 9.

collages; with the exception of a control group, each of several subgroups were told that their work would be evaluated, in some cases on technical and in others on creative grounds. Those expecting evaluation of their creativity performed significantly less well than the controls.⁹⁸ The study also showed that those anticipating evaluation of their creativity found the collage-making task less interesting than did the other groups.⁹⁹

In another experiment, Brandeis students were asked to write an original American Haiku poem. The object of the exercise, they were told, was to evaluate handwriting. However, one group of students was told that only their handwriting would be evaluated, whereas another group was told that they would be evaluated on both their handwriting and their poems. Judges, given the poems to evaluate without knowing anything about the group to which any student belonged, found that the poems written by students expecting evaluation of their handwriting rather than of their work product were considerably more creative than those of the students expecting a formal evaluation. To the latter group, the task seemed more like work than fun.¹⁰⁰ This is a significant observation, since what seems most conducive to creative output is a perception that the activity is engrossing or pleasurable, and not merely a chore.

In another effort to understand the relationship between extrinsic motivators and creativity, Amabile and her colleagues asked practicing artists to submit randomly chosen examples of work they had done pursuant to commissions along with examples of works that had not been commissioned. The works were again judged by a panel of experts who did not know which works belonged in which category. The works that turned out to be commissioned were evaluated overall by the experts as less creative than the noncommissioned ones. In addition, the creativity of the commissioned works was negatively correlated to the degree to which

98 Amabile developed a method of evaluation in which the creative work product of the intrinsically and the extrinsically motivated subjects was mixed together, and given to a panel of experts to evaluate. The experts were then asked to rate the creativity and technical facility exhibited by each work. The results of this evaluation were then re-sorted according to the group that produced them and the average quality of each group was then calculated, based on the experts' scoring. The technique is described in Teresa M. Amabile, *Motivation and Creativity: Effects of Motivational Orientation on Creative Writers*, 48 J. PERSONALITY & SOC. PSYCH. 393 (1985).

99 AMABILE, *supra* note 67, at 135-41. A repeat of the experiment with students at Brandeis yielded similar results, *id.* at 142-43.

100 *Id.* at 144-45.

the artists independently reported that they felt constrained or controlled by particular commissions.¹⁰¹

Amabile speculates that extrinsic motivators have negative effects because they tend to lessen the individual's involvement in the work at hand, resulting in a less creative product.¹⁰² The key to why this happens appears to be the person's sense of being controlled by external forces. When the prospect of a reward undermines the creative person's feeling of control and autonomy, and when it shifts her attention from the inherent interest in the task to a concern with the consequences that will flow from what she produces, this research suggests that creativity will be undermined.¹⁰³ In short, working to earn money seems qualitatively different from working because one loves the enterprise and finds it inherently engrossing. According to Deci and Ryan, rewards contingent on performance are a special and especially harmful distraction because "the activity becomes a means to an end rather than an end in itself."¹⁰⁴ Little wonder, then, that author Stephen King once characterized thinking about money during the creative process as "constipating."¹⁰⁵

Amabile's work, however, also demonstrates that the relationship between the quality of performance on creative tasks and external rewards is not unitary. Differences in reaction may also be dependent on differences in talent. Her research has found that where individuals with relatively low innate talent were told their work product would be evaluated upon completion, their performance actually improved; by contrast, among those whose skills were judged to be high at the outset of the experiment, performance deteriorated.¹⁰⁶ Research also suggests that rewards per se do not have a negative impact on creativity. Thus an unexpected bonus received at the completion of a task, although it will not incentivize performance, will not hurt it either.¹⁰⁷ What seems to be problematic is a reward that is salient during the performance of the work.

To recapitulate, it would appear that, for creativity of the kind society wants copyright to incentivize, the law's tools may be effective to some

101 *Id.* at 175.

102 *Id.* at 176.

103 DECI WITH FLAST, *supra* note 93, at 142.

104 DECI & RYAN, *supra* note 88, at 49.

105 AMABILE, *supra* note 67, at 174 (quoting from STEPHEN KING, *FOUR PAST MIDNIGHT*, at xv (1990)).

106 *Id.* at 151.

107 Deci, Koestner & Ryan, *supra* note 89, at 7, 10. At least one kind of salient reward — positive verbal feedback — seems to have variable effects, depending on a wide variety of surrounding circumstances. *Id.* at 9.

degree, but far less so than routinely assumed. Truly creative people respond most strongly to some innate drive to solve problems or to produce art and are unlikely to be encouraged to make a greater effort by the promise of profit if their work is successful. What is most sobering is that by making the promise of economic reward salient to creative production, the copyright system could even to some degree be undermining the very outcome that copyright theorists most desire.

III. RECONSIDERING COPYRIGHT IN LIGHT OF THE INTRINSIC MOTIVATION THEORY

Well, what to make of all this? It is not my intent to offer, as Harry Kalven once quipped with regard to a suggestion about broadcast regulation made by Ronald Coase, "an insight more fundamental that we can use."¹⁰⁸ Clearly we are not about to abandon copyright and replace it with some other system, even if it turns out that some other system might be both more effective for creators and less costly to the public. This is not Renaissance Florence, and the Medicis are not waiting in the wings to lure promising artists into studios with stipends that will relieve them of want and free them to pursue their imaginations and talents. And, realistically, because we treat information products as commodities, many (although not all) creators of them might well be demoralized in ways we cannot currently measure by the prospect of others profiting from their works while they (even if on salary) fail to share in that profit.¹⁰⁹

Furthermore, to the extent that production and dissemination remain costly (a state of affairs undergoing dramatic, but not universal, change with the advent of the internet), parties other than the artists themselves will

108 Harry Kalven, *Broadcasting, Public Policy and the First Amendment*, 10 J.L. & ECON. 15, 30 (1967). The comment was induced by Coase's argument that it would have been more efficient had the government auctioned off broadcast licenses instead of having chosen in the 1920s to have a government agency handle them.

109 The demoralization argument is often made, although its empirical basis is not clear. What can be said with increasing confidence, however, is that people seem to have some internal compass for "fairness," and when they perceive a "bargain" as being unfair to them, even if its actual effect is to increase their financial welfare, they may walk away from the bargaining table and forego the profit. For discussions of this phenomenon, see, for example, Robert A. Hillman, *The Limits of Behavioral Decision Theory in Legal Analysis: The Case of Liquidated Damages*, 85 CORNELL L. REV. 717, 724-25 (2000); Jennifer Arlen, *Comment: The Future of Behavioral Economic Analysis of Law*, 51 VAND. L. REV. 1765, 1775-76 (1998).

need a period of time during which they can enjoy exclusive rights so that they can recover costs ancillary to creation and earn some profit besides. Whether they need life plus 70 years for that purpose is clearly a debatable issue, as the arguments in *Eldred* demonstrated. But that term is now firmly embedded in our law and it is unlikely that it (or, for that matter, Berne's minimum of life plus 50 years) is going to go away in the foreseeable future. Does this mean we are now so tied into the consequences of our embrace of the incentive story that we cannot break free in any way, even if the story itself cannot withstand scrutiny?

Well, to some extent yes. But skepticism about the market incentives story can be a useful antidote to copyright excess, even if it cannot be applied other than at the margins. For one thing, any further attempt to extend the term of copyright would be truly ridiculous if the operative theory cannot justify even the term we have. For another, it is difficult to have faith in the belief that strict adherence to a system of exclusive rights needs to remain sacrosanct when the evidence so strongly suggests that, beyond a certain point, only rent-seeking, and not incentivization, is the primary point of the enterprise.

Thus, incentives skepticism may have legs, for example, in helping to make the case that a remedy to the problem of orphan works can be crafted without doing any damage to the incentives of authors to produce. Surely authors will continue to write and paint and photograph and produce textbooks and software without any assurance that, even should they or their successors become impossible to find, their exclusive rights to control all uses of their works will be defended to the hilt. Appropriate incentives skepticism might, in addition, lend weight to the perception of validity attaching to such extra-statutory resolutions to licensing problems as that in the pending Google Books settlement. If we recognize that such exceptions are unlikely to diminish the willingness of authors to create, that would also add credence to arguments for additional statutory exemptions from copyright to permit such publicly desirable activities as digital preservation projects to proceed without the need for the copyright owner's explicit consent.

And even within the confines of copyright law as it currently exists, understanding the contingent and questionable nature of the incentives argument might allow courts more room to maneuver in determining the boundaries of fair use, what constitutes substantial similarity, or the line that properly divides a derivative work from one which merely makes permissible use of a previous author's ideas. In fair use, were courts less constrained to worry about preserving authorial incentives, they might be in a better position to mediate such thorny matters as whether a defendant has

usurped a "prospective" market, giving more leeway to users where it seems highly unlikely that the copyright owner will exploit that market herself. And there would be far less reason to treat many kinds of noncommercial uses as infringing if judges were less wedded to the proposition that creators need to control virtually all spin-offs from their works because, without every bit of economic return they can extract, they will be less inclined to continue creating.¹¹⁰

It is also clear that, over the past century and a half, the evolution of the concept of a "derivative" work has zoomed from practically zero to a very high speed. In the nineteenth century, courts did not consider such variants on the original as abridgments and translations to be infringing "copies" of the protected work.¹¹¹ By the beginning of the twentieth century, the Copyright Act of 1909 gave owners the right

To translate the copyrighted work into other languages or dialects or make any other version thereof if it be a literary work; to dramatize it if it be a nondramatic work; to convert it into a novel or other nondramatic work if it be a drama; to arrange or adapt it if it be a musical work; to complete, execute, and finish it if it be a model or design for a work of art.¹¹²

Since then, the concept of derivative works has continued to expand so that it is now likely to be considered infringement to reuse even such elements from an earlier protected work as a character or elements of a plot line.¹¹³

But if we were not so concerned about ensuring that authors have economic

¹¹⁰ This idea has been played with by other scholars, as well, albeit with slightly different assumptions and in slightly different contexts. Lydia Loren has argued that greater fair use should be available with regard to works that would have been created even without the incentive of copyright. Lydia Loren, *The Pope's Copyright? Aligning Incentives with Reality by Using Creative Motivation to Shape Copyright Protection*, 69 LA. L. REV. 1, 38-39 (2008). Rebecca Tushnet has argued that fair use should be more generous toward people who borrow to create noncommercial works. Tushnet, *supra* note 18, at 543.

¹¹¹ *Lawrence v. Dana*, 15 F. Cas. 26, 59 (C.C. Mass. 1869) (stating that the doctrine that abridgments are permissible under copyright is too venerable to be open to dispute); *Stowe v. Thomas*, 23 F. Cas. 201 (C.C. Pa. 1853) (holding a translation not to be infringing, but rather a wholly independent copyrightable work).

¹¹² Copyright Act of 1909, Pub. L. No. 60-349, § 1(b), 35 Stat. 1075, 1075.

¹¹³ *Metro-Goldwyn-Mayer, Inc. v. American Honda Motor Co., Inc.*, 900 F. Supp. 1287 (C.D. Cal. 1995) (ad showing an unnamed character held to violate the copyright in the James Bond character, as developed in the Bond movies); *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49 (2d Cir. 1936) (use of parallel plot elements can constitute infringement).

rights to everything that might possibly be conceived as expression, it might become feasible to entertain the possibility that the first author's control should actually extend only to works that come very close to the original, and not to those that depart from it in significant ways. Thus a novelist might have a claim to the exclusive right to license the making of a film that uses the plot and characters from her novel in a highly detailed and clearly referential way (intending merely to transfer the book into a new medium), but not where the second user merely borrows elements such as a character who is then introduced into a wholly new story, or appropriates a plotline which he then endows with a different emphasis and meaning. A court less worried about zealously preserving essential incentives might also feel freer to mediate conflicts in the visual arts with a more forgiving hand, seeing itself as better able to accommodate longstanding traditions of one artist borrowing from another, rather than making crabbed applications of the traditional and unforgiving "look and feel" test.¹¹⁴

Maybe, too, understanding the true incentives for creativity might counsel investigating better ways to meet the needs of authors for a reliable source of income—possibly including greater investment in grants and fellowships—and perhaps better protection of the right of attribution. Having said that, there are going to be works that are created largely, or perhaps only, to earn money from public distribution. As noted earlier, lots of Hollywood productions seem to fall into this category, as do some kinds of works that the public may indeed want but which might never appear if their creation depended on intrinsic motivation alone. But the idea that for copyright to be any kind of useful incentive, it must offer the prospect of a larger and larger pot of gold through more control spread out over longer and longer times seems simply disconnected from what is really going on in the creative sphere.

If copyright is really about incentives to invest time and capital in the production of works by providing a mechanism to recover the investment if the product is successful, rather than the tool that incentivizes creativity, then it is a lot easier to be unsentimental, and a bit more stingy, in evaluating

114 Examples of arguably "crabbed" uses of the look and feel test (the common test for infringement of visual works) can be found in *Roth Greeting Cards v. United Card Co.*, 429 F.2d 1106 (9th Cir. 1970) (finding infringement based on similarity of look and feel where the defendant combined a public domain text with its own illustration to make a card that was similar in feel to plaintiff's); *Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1157 (9th Cir. 1977) (holding that McDonaldland characters infringe H.R. Pufnstuf characters despite clear differences in appearance).

how to provide fair compensation for authorship through a copyright system. The law can now be structured in light of reasonable business calculations. Copyright becomes a way, simply, to overcome the public goods problem so that authors and disseminators have the same opportunities enjoyed by businesses that produce exhaustible goods (the proverbial widget factory, for example) to recoup costs and earn a profit. Achieving that goal would not demand that each and every economically valuable spin-off from the protected work automatically be treated as the property of the copyright holder; nor would it demand that every bit of profit that can be gleaned from exploiting a work be protected by copyright for a century or more.

In short, even if we are not about to remake copyright wholesale, we could get away from a position where we have enforcement of more rights than the copyright theory can legitimately justify. And suggested concessions to the general public interest may be more sympathetically considered if we were less tied up in knots about whether, by limiting the scope of copyright, we will create disincentives for authors to create. Radical insights need not require radical changes to have value; they can help simply by moderating a mindset that for too long has been wedded to the misperception that authorial creativity and economic returns are locked in an eternal embrace.