

## **Behavioralism and Copyright: Some Emerging Questions**

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“Well, you may say, a child might be taken in by such tricks--but an adult? Surely these devices would not persuade him of the truth of the proposition asserted if he did not believe it already, on the basis of other and more rational evidence. I am not sure this is true. People who are open to the appeal of poetry feel the force of genius in this poem and are willing to accord the author some presumption of insight. I do not mean they can be persuaded by all the things that poets tell us, many of which are false and even absurd, like the passages in Pound's Cantos (some of them quite beautiful) that denounce usury. If what a poet tells us is false and absurd we are not likely to rate his work so highly. If what he tells us is plausible, however, the way in which it is told may make it more persuasive.”

--Richard A. Posner, *Law and Literature: A Relation Revealed*, 72 Va. L. Rev. 1351, 1379 (1986).

“All models are wrong, however some models are useful.”

--George Box

## **I. Introduction**

The Constitution imbues an overtly utilitarian impetus to United States Copyright law by giving Congress the power to “promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”<sup>1</sup> Copyright can subsist “...in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”<sup>2</sup> Copyright adheres to the expression of an idea, but not the idea itself.<sup>3</sup> Upon the creation of such a work, copyright attaches instantly and protects the author’s right to reproduce the work, create and protect derivative works, distribute

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<sup>1</sup> U.S. Const. art. I, § 8. For a concise exposition of the Founders’ intentions in formulating United States’ copyright law, specifically discussing the Founders’ avoidance of moral rights language, see Marvin Ammori, *The Uneasy Case for Copyright Extension* 16 Harv. J.L. & Tech. 287, 308-15 (2002). While many have argued that European copyright law is firmly rooted in a tradition that prioritizes the protection of the moral rights of the author, several commentators have noted a slow transformation toward the utilitarian/instrumentalist/capitalistic ideals of the United States’ system. See, e.g. Giuseppina D’Agostino, *The Globalisation of Copyright: A Comparative Analysis of the Anglo-American and Continental European Copyright Laws in Relation to the Author*, 2 Hibernian L. J. 35 (2001).

copies by selling and leasing, and to perform or display certain works publicly.<sup>4</sup> In the case of single author-created works such protection lasts for 75 years after the author's death,<sup>5</sup> at which point the work passes into the public domain.

The expressions that copyright aims to protect are intangible; copyright treats them as entities apart from the physical medium in which they are fixed. Intangibles have public goods characteristics. The instrumental nature of copyright law and its protections are an attempt to solve the free-rider problem common to public goods by incentivizing authors to create in the hopes of pecuniary reward. The combination of term length and exclusive rights mentioned above create a temporary monopoly that enables an author to sell her work at a price above the marginal cost of reproduction. Copyright is not granted indefinitely because to do so would eventually lead to the inability to create without infringing upon another's copyright.<sup>6</sup> Nonetheless, such a broad perspective informs the reasons for the limited term. Firstly, infringement is not contingent upon the copying of an entire work, but may be accomplished by appropriating much smaller amounts of the work.<sup>7</sup> Secondly, there are several very good reasons for legally sanctioning various methods of appropriation, among them the

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<sup>2</sup> 17 U.S.C. § 102 (2003).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> 17 U.S.C. § 302 (2003). The constitutionality of this statute has been recently been challenged and upheld. *Eldred v. Ashcroft*, 123 S.Ct. 769 (2003).

<sup>6</sup> For a discussion of the exhaustibility of the public common of intellectual property, see Wendy J. Gordon, *A Property Right in Self Expression, Equality and Individualism in the Natural Law of Intellectual Property*, 102 Yale L.J. 1533, 1561-1570 (1993) (Stating "The [Lockean] proviso that 'enough and as good [be] left' [in the commons of intellectual property] lies at the center of this Article's thesis: that creators should have property in their original works, only provided that such grant of property does no harm to other persons' equal abilities to create or to draw upon the preexisting cultural matrix and scientific heritage").

<sup>7</sup> 17 U.S.C. §106, §501, and §107 (2003).

economic, pedagogical, and literary value of criticism;<sup>8</sup> the value of compilations as a mode of expression;<sup>9</sup> and the transaction costs inherent in some licensing markets that would otherwise prohibit the creation of certain works.<sup>10</sup> To oversimplify, American copyright aims to strike a balance between the incentives and protections for authors and the need for subsequent authors to make effective use of their predecessors' works. The placement of the statutory balance is predicated upon the presence of a well-functioning market for creative works, with rational actors on both the supply and demand sides. Consumers and producers of works of authorship must be able to make rational judgements about the allocation of their resources in order for the instrumental aims of the statute to work to their full potential.

This paper explores the applicability of the growing body of research that questions the assumption of rationality on the part of market actors to copyright law. Commonly referred to as behavioralism,<sup>11</sup> this field of research encompasses the work of a large number of cognitive psychologists, behavioral researchers, and probability theorists, whose experiments have uncovered what one commentator has called “a human decisionmaker model replete with heuristics and biases, unwarranted self-confidence, a notable ineptitude for probability, and a host of other nonrational cognitive features.”<sup>12</sup> This paper will briefly review the standard economic justifications for the copyright

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<sup>8</sup> See generally, Alfred C. Yen, *When Authors Won't Sell: Parody, Fair Use and Efficiency in Copyright Law*, 62 U. Colo. L. Rev. 79 (1991).

<sup>9</sup> See, e.g. *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*, 499 U.S. 340 (1991).

<sup>10</sup> See generally, Wendy Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors*, 82 Colum. L. Rev. 1600 (1982).

<sup>11</sup> See Christine Jolls, Cass Sunstein and Richard Thaler, *A Behavioral Approach to Law and Economics* in *Behavioral Law and Economics*, 14 (Cass Sunstein, ed., Cambridge University Press 2000) (describing Behavioralism as the study of the following boundaries: “bounded rationality; bounded willpower and bounded self-interest”).

<sup>12</sup> Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. Rev. 630, 640 (1999).

regime and the microeconomic models that explain the current regime. It will follow with a short overview of behavioral research emphasizing on the pervasive nature of cognitive departures from rationality. Specific criticisms of the application of behavioral research to markets similar to the market for copyrighted works are considered. The remainder of the paper examines several specific behavioral phenomena that re-invite examination of the traditional economic model of copyright. It will then apply these phenomena in detail to the rational-actor-based copyright model with a particular focus on the decision-making processes of the rational author.<sup>13</sup>

## **II. The Rational Author**

The most fundamental assumption of microeconomic theory is that market actors are rational decisionmakers. Put simply, actors must have preferences, regardless of whether the market actor is a firm or an individual. Robert Cooter and Thomas Ulen explain a theory of rational choice that demands that the actor meet three main requirements: completeness, transitivity, and reflexivity.<sup>14</sup> Completeness means that an actor must be able to rank all possible desired goods. Cooter and Ulen mention the truism that reflexivity refers to the fact that a particular bundle of goods is “at least as good as itself.”<sup>15</sup> Transitivity is the notion that if good A is preferred to B and B is preferred to C, A must also be preferred to C. Together, these notions create an actor that can correctly order all goods and services in a linear fashion according to preference. A further component of the rational actor is self-interest: an actor’s satisfaction is

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<sup>13</sup> I will be using the term author to mean any person who engages in a creative endeavor.

<sup>14</sup> Robert Cooter and Thomas Ulen, *Law and Economics* 17, (3d ed., Addison-Wesley 1999).

<sup>15</sup> *Id.*

determined only by reference to her own preferences, not those of others.<sup>16</sup> A component of price is added to the model, with the result being a law of demand: as the price for a certain good increases, the preference for that good should decrease, relative to other goods on the actor's preference scale.<sup>17</sup> This model requires that the rational actor can perfectly calculate the reordering of preferences that must happen with any change to any characteristic of a good in a preference ranking. For this ordering to be accurate, our actor must have access to information on all relevant characteristics of available goods.

The above paragraph briefly describes the decisionmaking model of the rational consumer. To adapt it to the rational producer of creative works requires viewing the decision to create works of authorship as just another means of satisfying preferences. A rational author will create a work when the investment of time (taking into consideration the revenue that could be derived from alternate activities) and materials is expected to be less than or equal to<sup>18</sup> the present discounted value of the revenues that can be derived from selling or licensing whatever copyright-derived rights she can. This model of rational authorship assumes the author has knowledge of what the copyright regime does: it creates a property right for a limited time so that an author can 'sell'<sup>19</sup> their works to recoup the time invested in the creation of the work. Because copyright is in reality a bundle of rights, an author can 'sell'<sup>20</sup> them separately, enabling firms and consumers to more closely match these goods to their preferences.

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<sup>16</sup> Traditional economists often define and study altruism in the context bequest decisions, because those decisions do not harm the self-interest of the actor; i.e. dead men have no preferences. Jolls, Sunstein and Thaler, *supra* note 11 at 16.

<sup>17</sup> Exceptions to this abound, *e.g.* preferences for luxury goods that increase as the prices of the goods increase. The volume of empirical data documenting these exceptions imply that humans exhibit significant departures from the rational choice model of Coater and Ulen.

<sup>18</sup> I assume that all things being equal, an author would prefer to be an author.

<sup>19</sup> Technically, authors exercise the 'right to distribute' as found in 17 U.S.C. §106 (2003).

<sup>20</sup> Technically, authors license these rights.

### **III. Behavioralism and *Homo Inclusus Rationis***

Human beings are not the completely rational actors that neoclassical economists posit. While neoclassical economics has taken for granted the existence of an ordered set of preferences, humans do not always act in a way consistent with the maximizing of their preferences. In other words, we may think we know what we want, but we might not act accordingly, and even if we did, our preferences often seem to depend on how they are elicited from us. Further, we don't have the rational capabilities required to get as much as possible of what we think we might want with what we have. These departures from the predictions of the rational actor model can be characterized as either a failure to act in accordance with one's preferences (e.g. preferring one good to another, equally-priced good, yet buying the second good anyway), or a deviation in preference from what the model predicts (e.g. preferring a more expensive good to cheaper good with equivalent characteristics). The following paragraphs detail some of the more well-studied behavioral effects, some of which relate to our failing to act in accordance with our preferences, and others which relate to preference variabilities that deviate from the rational model.

#### **A. Probabilistic Un-rationality**

People are not computers: we lack the ability to perform complex risk analyses because we lack complete information about the problems we must solve and because we couldn't perform the complex mathematical calculations such analyses would require.<sup>21</sup> People show consistent difficulties in forming even simple probability judgements and develop heuristics and biases that prevent us from making accurate probability calculations.

One manifestation of this overarching phenomenon is that we form personal hypotheses and remain committed them despite the fact that their evidentiary foundations are refuted, an effect known as belief perseverance.<sup>22</sup> We misread and overvalue confirmatory evidence, an effect called confirmatory bias,<sup>23</sup> especially when it reflects favorably on our abilities. Finally, we often can develop faulty, supposedly unbiased, reasoning frameworks which allow us to arrive at the logical conclusions we preferred all along, a phenomenon known as motivated reasoning.<sup>24</sup>

A second manifestation of our limited probabilistic abilities is our overgrown sense of self-confidence. We are overly optimistic about our life prospects and underestimate our susceptibility to misfortune, regardless of how well informed we are about the risk. This is known as the optimistic bias.<sup>25</sup> We prefer to think that we can exercise some form of control over what are in fact random occurrences.<sup>26</sup>

We overestimate the likelihood of future events if we have experienced them or are cognizant of them recently, an effect known as the hindsight bias.<sup>27</sup> Additionally, the more personally invested we are in a hypothesis and the richer our explanatory models, the more likely we are to feel an equal degree of unwarranted confidence in those models, beyond even our own knowledge of their predictive limits.<sup>28</sup>

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<sup>21</sup> See generally, Herbert Simon, *A Behavioral Model of Rational Choice*, 69 Q.J. Econ. 99 (1955).

<sup>22</sup> See generally, Harold H. Kelley, *The Processes of Causal Attribution*, 28 Am. Psychologist 107 (1973).

<sup>23</sup> See Matthew Rabin, *Psychology and Economics*, 36 J. Econ. Lit. 11, at 24 (1998).

<sup>24</sup> Ziva Kunda, *The Case for Motivated Reasoning*, 108 Psychol. Bull. 480, 480 (1990).

<sup>25</sup> See Larry T. Garvin, *Adequate Assurance of Performance: Of Risk, Duress, and Cognition*, 69 U. Colo. L. Rev. 71, 149 (1998) (Detailing recent cognitive literature dealing with over-optimism).

<sup>26</sup> Known as the 'illusion of control,' this bias was discussed by Ellen J. Langer, in *The Illusion of Control*, 32 J. Personality & Soc. Psychol. 311 (1975)

<sup>27</sup> See, e.g. Hal R. Arkes, Thomas J. Guilmette, David Faust, & Kathleen Hart, *Eliminating the Hindsight Bias*, 73 J. Applied Psychol. 305 (1988).

<sup>28</sup> See, e.g. Hanson and Kysar, *supra* note 12 at 661



A third category of probabilistic deficiencies speaks directly to the fact that human beings are bad statisticians. Subject to the effects of a phenomenon known as availability we overestimate the likelihood of future events because of their cognitive proximity and perceptual richness.<sup>29</sup> A related phenomenon is our tendency to link an event to a particular class of events (thus enabling easier probability estimation), which in turn focuses us on irrelevant details at the expense of the more relevant general data.<sup>30</sup> Further, we are biased towards norms, anchors, and standard values; we deviate from these reference points much less than we should in making probabilistic determinations and effectuating our preferences.<sup>31</sup>

## **B. Preferences and Their Manipulability**

At its most basic, the classical economic actor's preferences can be perfectly ranked based on available information at the time of the ranking. In other words, *homo economicus*' preferences are self-determined. What recent behavioral research has shown is that this is hardly the case. Put simply, our preferences are dependent upon how they are elicited. Several kinds of observations have been made. The status quo bias was derived from evidence that shows that our preference for perceived 'standard' terms persists even when it is inefficient for us to prefer them.<sup>32</sup> The Coase Theorem<sup>33</sup> looks

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<sup>29</sup> For the foundational article on this phenomenon see, Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 *Cognitive Psychol.* 207, 208 (1973).

<sup>30</sup> See generally, Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, in *Judgment Under Uncertainty: Heuristics and Biases* (Daniel Kahneman, Paul Slovic, & Amos Tversky eds., Cambridge University Press, 1982). While this phenomenon could be considered a form of rationality in that the costs of performing a full probability assessment could outweigh the harm avoided or benefit gained, the salience of this heuristic is the fact that it produces incorrect answers for the decisionmaker, which the rational actor in the model detailed *supra* would get correct.

<sup>31</sup> *Id.* See also, Russell Korobkin, *Behavioral Economics, Contract Formation and Contract Law* in *Behavioral Law and Economics*, *supra* note 11, at 116.

<sup>32</sup> See, Duncan Kennedy, *Cost-Benefit Analysis of Entitlement Problems: A Critique*, 33 *Stan. L. Rev.* 387, 401 (1981) (detailing the 'offer-asking' problem: "The offer-asking problem arises because as a matter of fact some people some of the time will give a very different answer to the question, 'How much will you pay to prevent X from happening?' than they will give to the question, 'How much are you asking in

even more theoretical when what is known as the endowment effect is considered: people show an irrational bias towards valuing an object more once they come to own it than when they didn't.<sup>34</sup>

Varying a decisionmaking context can cause a subject to irrationally alter her preferences because of a desire to be perceived as non-extreme.<sup>35</sup> A similarly-rooted phenomenon has been discovered that describes how a decisionmaker will often rely on irrelevant information when charged with the completion of a task that requires a choice between two options. For example, option A is equivalent to option B with regard to a characteristic relevant to the charge of the task, but option A is expressed as a range of outcomes (the median value of which is equivalent to B). Option B is superior in regard to a characteristic irrelevant to the completion of the task. Nonetheless, option B was chosen more often than option A, and to a greater degree than a risk-avoidance hypothesis could explain.<sup>36</sup>

Contextual effects in evaluation are not limited to choice constraints: the passage of time, *cet. par.* can alter preferences irrelevantly. People's abilities to discount over

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exchange for allowing us to do X?"); See also Russell Korobkin, *Behavioral Economics, Contract Formation and Contract Law in Behavioral Law and Economics* *supra* note 11, at 116 (presenting data from an experiment where first year law students irrationally chose default terms even when transaction costs for departing from defaults were effectively reduced to zero).

<sup>33</sup> A brief summary of Professor Coase's Theorem: "In a world without transaction costs, initial entitlements have no effect on the efficient outcome."

<sup>34</sup> Daniel Kahneman, Jack L. Knetsch, & Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. Pol. Econ. 1325, 1330 (1990).

<sup>35</sup> See, e.g., Itamar Simonson, *Choice Based on Reasons: The Case of Attraction and Compromise Effects*, 16 J. Consumer Res. 158, 170-71 (1989) (theorizing the existence of the 'compromise effect' which posits that a particular alternative will gain market share when the addition of a new alternative situates it as a compromise between to extreme alternatives).

<sup>36</sup> Christopher K. Hsee, *Elastic Justification: How Tempting but Task-Irrelevant Factors Influence Decisions*, 62 J. Org. Behav. & Hum. Decision Processes 330, 330-331 (1995).

time dissolves with proximity of maturation. Put differently, the farther off the reward, the better able people are to correctly ascertain valuations.<sup>37</sup>

Contextual irrationality can also be found in people's perceptions of the intrinsic fairness of other market actors. It has been shown that people will behave altruistically to those they feel are deserving and that people are willing to expend resources to punish those who are perceived to have acted unfairly.<sup>38</sup> Grouped under the label reciprocity, these behaviors have been shown to persist even when the experimental subjects are aware that there is no possibility that their behavior can bring them any subsequent material gain. This behavior is thus differentiated from cooperation or trust-building, which are motivated by rational expectations of the future benefits to be derived from such costs.<sup>39</sup>

Finally, market actors' contextual analyses are subject to framing effects, which essentially function as conduits of other cognitive biases. To the degree that choices can be framed to present certain alternatives in ways that trigger other biases, irrationality can be introduced.<sup>40</sup> Encoding a certain choice as fair to a particular market actor, or encoding a choice as a default term, will trigger sub-optimal attraction to those options.

#### **IV. Criticisms, Responses, What Remains, and the Implications for Copyright**

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<sup>37</sup> See George Ainslie & Nick Haslam, *Hyperbolic Discounting*, in *Choice over Time* 57, 69 (George Loewenstein & Jon Elster eds., 1992); Kris N. Kirby & R.J. Herrnstein, *Preference Reversals Due to Myopic Discounting of Delayed Reward*, 6 *Psychol. Sci.* 83, 84 (1995).

<sup>38</sup> See generally, Matthew Rabin, *Incorporating Fairness into Game Theory and Economics*, 83 *Am. Econ. Rev.* 1281, 1282 (1993); see also Ernest Fehr and Aramin Falk, *Psychological Foundations of Incentives*, Institute for Empirical Research in Economics, University of Zurich, Working Paper Series, working paper no. 95, Nov., 2001 at 2-17 (examining reciprocity and economic incentives).

<sup>39</sup> Fehr and Falk *supra* note 38 at 3.

<sup>40</sup> See, e.g. Daniel Kahneman & Amos Tversky, *Choices, Values, and Frames*, 39 *Am. Psychologist* 341, 343 (1984).

The most significant criticisms of behavioral research center around the overall lack of coherency.<sup>41</sup> While the rational actor theory is unified by the very conditions of its rationality (completeness, transitivity and reflexivity, self-interest, and limitless computational ability), the behavioral traits discussed above seem disparate, incongruent, and unconnected. The most important attempt at unification came from Daniel Kahneman and Amos Tversky in the form of prospect theory. This alternative to a utility-based decision-making theory (1) assigns value to gains and losses (instead of final outcomes) and (2) replaces probabilities with decision weights, where low probabilities are given proportionally more weight.<sup>42</sup> While the theory does a good job at bringing the various phenomena under a single umbrella, it has been criticized because, unlike the rational actor model, it allows for these phenomena to have conflicting influences on decisionmaking. Further criticism focuses on the concept that humans are rationally irrational. In other words, we recognize and rationally react to our limited cognitive abilities by maximizing our utility under those cognitive constraints. This is better known as the theory of bounded rationality.<sup>43</sup> Behavioralists accept this theory, however, and claim that their experiments are merely an exercise in cognitive boundary-mapping.<sup>44</sup> Behavioralists would also posit a much smaller rational geography than would most classical microeconomists.

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<sup>41</sup> See, e.g. Gregory Mitchell, *Why Law and Economics' Perfect Rationality Should Not Be Traded for Behavioral Law and Economics' Equal Incompetence*, 91 *Geo. L.J.* 67 (2002); Robert E. Scott, *Error and Rationality in Individual Decisionmaking: An Essay on the Relationship Between Cognitive Illusions and the Management of Choices*, 59 *S. Cal. L. Rev.* 329, 334 (1986); Alan Schwartz, *Proposals for Products Liability Reform: A Theoretical Synthesis*, 97 *Yale L.J.* 353, 380 (1988).

<sup>42</sup> Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 *Econometrica* 263 (1979).

<sup>43</sup> See generally, Herbert A. Simon, *Rationality as Process and as Product of Thought*, 68 *Am. Econ. Rev.* 1, 14 (1978).

<sup>44</sup> See Hanson and Kysaar, *supra* note 12 at 690-691.

The most relevant criticism, in the context of this article, is that if a large proportion of microeconomic decision making is subject to these behavioral phenomena, opportunities for arbitrage are created which will eventually be exploited, restoring efficiency, and “starving” the cognitively deficient.<sup>45</sup> There are many situations where the transaction and entry costs for the exploitation of behavioral phenomena outweigh the benefits to be had. Significant work in this area of inquiry has been done by Thomas Russell and Richard Thaler.<sup>46</sup> They theorize that deviations from perfect market conditions are what facilitate the survival of behavioral phenomena, which can produce significant effects in the aggregate. Specifically, Russell and Thaler look at the possibility of actors incorrectly mapping their utility functions to their purchases. The authors posit that these deviations from the perfect execution of a utility function can develop where the desired characteristics of goods<sup>47</sup> are not easily separable from the goods themselves.<sup>48</sup> Thus, only in markets where these characteristics can be separated from the goods which contain them, and where the true equilibrium price for that characteristic can be learned by all actors, can rationality<sup>49</sup> be proven to exist.

These pockets of deviation from perfect satisfaction of utility functions are one place where the behavioral phenomena exist and are able persist over repeated

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<sup>45</sup> See Richard Zeckhauser, *Comments: Behavioral Versus Rational Economics: What You See Is What You Conquer*, in *Rational Choice: The Contrast Between Economics and Psychology* at 251, 260 (Robin M. Hogarth & Melvin W. Reder eds., University of Chicago Press, 1987).

<sup>46</sup> *The Relevance of Quasi Rationality in Competitive Markets*, 75 *Am. Econ. Rev.* 1071, 1071-82 (1985). The authors question two justifications for reliance on “maximizing models in applied microeconomics.” They claim that (1) the predictive value of the maximizing model is undercut by behavioral phenomena, and (2) that non-maximizing behavior will be eliminated by the maximizing tendencies of the market only in rare situations. *Id.* at 1080.

<sup>47</sup> These are what in actuality satisfy a person’s utility function.

<sup>48</sup> Russell and Thaler contrast the characteristics of “ride” and “comfort” in a car (which are not easily stripped and sold as goods themselves) with the maturation characteristics of treasury bonds (which can be separated and sold). *Id.* at 1076.

<sup>49</sup> Russell and Thaler define rational to mean “maximizing for a single increasing concave utility function.” *Id.* at 1072.

transactions, and are thus the appropriate starting point for my inquiries. I accept the findings of the behavioral research cited throughout this paper; my task is to discover where they might persist within the constituent processes of the decision to create works of authorship.

## **V. Behavioral Phenomena and The Supply Side of Copyright: Production and Dissemination**

The following paragraphs scrutinize the behavioral effects on the supply side of the market for creative works. I first look at the decision to create a work of authorship, and whether copyright law might facilitate sub-optimal behavior. I next look at the dissemination function of copyright law and the behavioral phenomena surrounding contract formation. Finally, I examine whether the decision to create might be affected by behavioral decisionmaking with regard to possible infringement.

### **1. The Decision to Create**

#### **a. Crowding out and Extrinsic Incentives**

People, and artists in particular, enjoy certain activities as ends in and of themselves. While some activities, such as golfing, yield no tangible end products, most creative activities do produce physical products, to which, in the U.S., copyright attaches upon completion.<sup>50</sup> Nonetheless, people were engaging in creative activity long before there was any form of property-like protection for their works. Economists, however, generally assume that effort is associated with negative marginal utility.<sup>51</sup> Behavioral research has revealed that this is not true for all levels of activity.<sup>52</sup> Activity that is

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<sup>50</sup> 17 U.S.C. §102 (2003).

<sup>51</sup> Fehr and Falk, *supra* note 38 at 31.

<sup>52</sup> *Id.*, at 32 (citing much research which claims that the introduction of monetary rewards decreases task-specific intrinsic motivation).

intrinsically pleasing provides its own incentives. When there are also legally created monetary incentives to participate in a certain activity, such an intrinsically pleasing pursuit is called oversufficiently justified.<sup>53</sup>

Self-perception theorists reason that for any actor performing an oversufficiently justified task, the economic incentives will outweigh the intrinsic incentives because they will be perceived to be more targeted and specific to the task. However, if the external incentives (copyright) for such an activity are removed, the artist will be less likely to re-discover and act upon the intrinsic motivation. Fehr and Falk summarize in economic terms: “The marginal disutility of effort will be higher for those who first experienced an external incentive.”<sup>54</sup> These are attempts to explain changes in individuals’ motivations, and by proxy their utility functions, when extrinsic incentives are increased or decreased. To generalize the results, most experimental data indicates if actors expect monetary rewards intrinsic motivation is reduced.<sup>55</sup> This is known as crowding out.<sup>56</sup>

The crowding out thesis presents some difficulties. The most salient criticisms pose questions of isolation and contamination: do the experimental data represent only the crowding out of intrinsic incentives? One theory interprets the data so as to reveal a disappointment effect, whereby the removal of an extrinsic reward incites both loss aversion and negative reciprocity biases because the subjects began to feel entitled to the extrinsic rewards. Loss aversion “refers to the phenomenon that gains are less valued

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<sup>53</sup> *Id.* Contrast the situations where (1) the only incentive to perform an activity is external, which fits the classical economist’s negative marginal utility thesis and (2) there are no external incentives to perform the activity, in which case the actor infers the activity is intrinsically motivated.

<sup>54</sup> *Id.*

<sup>55</sup> E.L. Deci, R.M. Koestner and R. Ryan, *A Meta-Analytic Review of Experiments Examining the Effect of Extrinsic Rewards on Intrinsic Motivation*, 125 *Psychological Bulletin* 627 (1999).

<sup>56</sup> See, e.g. E. Deci, and R.M. Ryan, *Intrinsic Motivation and Self-Determination in Human Behavior*, (Plenum Press 1985); E. Deci, R.M. Koestner and R.M. Ryan, *supra* note 55.

than losses are disvalued”<sup>57</sup> while reciprocity bias is a perceived social obligation to return favors and harms.<sup>58</sup> Further, the data reviewed by Deci et al. all involved monetary rewards for tasks that are not typically rewarded.<sup>59</sup> Whether crowding out persists in situations where monetary reward is normatively appropriate has yet to be systematically studied.

Nevertheless, these findings complicate the essential copyright conundrum: what is the socially optimal level of protection? If the creative enterprise is subject to the crowding out effect, we need to determine how the incentives of copyright interact with the intrinsic rewards of creativity. Let  $I$  be the intrinsic reward level of a creative activity,  $C$  be the reward level of copyright,  $W$  be the total number of works of creative output and  $U_A$  the social utility of this one-artist system. With no copyright protection, the creative output of an artist is

$$U_A = W = \beta I_0$$

where  $\beta$  is a coefficient denoting the ability of an incentive to induce the production of a work. The equation assumes that dissemination without copyright protection is widespread (i.e. that the marginal cost of copying is small). With the addition of a copyright incentive,  $C_I$ ,

$$U_A = W = \beta (I_0 + C_I)$$

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<sup>57</sup> Edward J. McCaffery, Daniel J. Kahneman, and Matthew L. Spitzer, *Framing the Jury: Cognitive Perspective on Pain and Suffering Awards*, 261, in *Behavioral Law and Economics* *supra* note 11.

<sup>58</sup> See, e.g. Robert Axelrod, *The Evolution of Cooperation* (Basic Books, 1984).

<sup>59</sup> Fehr and Falk, *supra* note 38 at 37-8 (noting both the work of Deci et al.; B.M. Staw, B.J. Calder, and R. Hess, *Intrinsic Motivation and Norms About Payment*, working paper, Northwestern University (1975), the latter positing crowding out *only* in the absence of payment norms).



I use  $I_1$  to denote that intrinsic motivation is altered in the presence of copyright. But a copyright system has costs so to calculate total utility we need to alter the equation by including those costs:

$$U_A = \beta(I_1 + C_1) - \lambda \beta(I_1 + C_1)C_1$$

The negative portion of the equation is an attempt to estimate deadweight loss caused by the copyright system<sup>60</sup> and the loss of free inputs to creation,<sup>61</sup> the total of which is proportional to the number of works created.  $\lambda$  is a coefficient accounting for the magnitude of the deadweight loss relative to the number of works created.<sup>62</sup> Substituting  $W$  for  $\beta(I_1 + C_1)$  simplifies:

$$U_A = W - \lambda WC_1.$$

This equation also applies to the aggregate utility of the copyright system. In fact, some of the costs of copyright can only be accurately accounted for when the aggregate is modeled, because it is impossible to infringe upon one's own work (unless it has been licensed), thus the lost inputs referred to above can only be the works of other artists protected by copyright.

The two most important questions for optimizing copyright in the light of the crowding out thesis are (1) how sensitive is  $I$  to the presence of  $C$ ? and (2) how large is  $I$  relative to  $C$ ? With respect to question (1), the case for copyright protection in general weakens as  $I$  becomes more susceptible to  $C$ . With respect to (2), the larger  $I$  is, the weaker the case for copyright becomes.

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<sup>60</sup> See, e.g. William Landes and Richard Posner, *Infinitely Renewable Copyright*, at 6-7, John M. Olin Law & Economics Working Paper No. 154 (2d series, 2003) (detailing copyright's many costs).

<sup>61</sup> *Id.*

<sup>62</sup> Note that I do not imply a value for  $\lambda$ . A case could be made for a value of either above 1 or below 1, the former implying a negative aggregate social utility for the copyright system.

Teresa Amabile has done significant research into the effects of reward on creativity<sup>63</sup> and her findings inform our examination of the crowding out phenomenon. Reviewing a large body of research on the topic, she notes that the presence of reward can have conflicting effects on creativity. On one hand,

“There was a clear and statistically significant superiority of non-rewarded subjects [...] In addition, there were nearly significant differences between the two groups on intrinsic measures: subjects expressed enjoyment of the activities and their willingness to volunteer for further participation. There is, then, considerable evidence suggesting that reward and other forms of task constraint might be detrimental to creativity. Subjects offered rewards differed from subjects not offered rewards in their approach to open-ended tasks; they approach their tasks with less enjoyment; they focus more narrowly on the attainment of the extrinsic goal; they sometimes express less interest in the task; [...] and they may even produce work that is subjectively rated as less creative.”<sup>64</sup>

On the other hand, she also summarizes research that offers evidence that creativity can be positively influenced by rewards. Amabile resolves this problem by theorizing that differences in tasks and differences in reward methods can account for the varying levels of creativity. Generally, the more algorithmic a task the greater the effect of reward. Further, the more competence information a reward conveys (e.g. rewarding uncommon word associations), the greater the effect of reward on performance. Amabile summarizes the differences as follows:

“Specifically, sheer quantity and variety of responses (fluency, flexibility, and elaboration) were much more strongly influenced [by extrinsic reward] than originality (statistical frequency of responses). And where originality (statistical infrequency) of responses was enhanced by reward, subjects had been told explicitly that they should give unusual responses. In addition, set-breaking studies showed a superiority of non-reward subjects on problems where the correct solution was not directly obvious. There was no such superiority, however, when the correct solution *was* obvious; in fact, under such circumstances, reward subjects sometimes preformed better.”<sup>65</sup>

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<sup>63</sup> Teresa Amabile, *Creativity in Context, Update to The Social Psychology of Creativity* (Westview Press, 1996).

<sup>64</sup> *Id.* at 158.

<sup>65</sup> *Id.* at 161 (citations omitted, emphasis is the author's)

The data Amabile summarizes are results of research that attempted to study creativity using objective measurements. Amabile has developed a theoretical notion of creativity and has examined attempts to make objective measurements of it.<sup>66</sup> While her experimentation and review of literature reveal obvious difficulties in defining and measuring creativity, she notes that researchers in the field seem to have adopted the following underlying definition as a guide to their experimentation and research: “that process which results in a novel work that is accepted as tenable or useful and or satisfying by a group at some point in time.”<sup>67</sup> This definition, to the degree that it describes a set of qualities that can be objectively measured,<sup>68</sup> is quite relevant to a discussion of copyright because it appears to emphasize concepts that correspond to the legal requirements for a copyrighted work.

By emphasizing novelty, the definition shows a correspondence to the legal requirement that a work must embody some new expression. 17 U.S.C. §102 states that copyright attaches to “original works of authorship.” This originality requirement has come to embody two relevant component requirements:

- some form of “objective creativity” (i.e. a hearable/sensible/perceptible difference from other works);<sup>69</sup>
- some form of “subjective creativity” (i.e. skill, craftsmanship, talent etc.)<sup>70</sup>

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<sup>66</sup> *Id.* at 19-40 (“Meaning and Measurement of Creativity”); 41-79 (A Consensual Technique for Creativity Assessment”).

<sup>67</sup> *Id.* at 37-38 (citing Morris Stein, *Creativity and Culture*, 36 J. Psych. 311 (1953)).

<sup>68</sup> Amabile believes there has been significant progress toward this end. *Id.* at 37-40

<sup>69</sup> *Feist*, *supra* note 9 at 345 (“Originality does not signify novelty; a work may be original even though it closely resembles other works so long as the similarity is fortuitous, not the result of copying)

<sup>70</sup> *Id.* (“The *sine qua non* of copyright is originality. [...] Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), *and that it possesses at least some minimal degree of creativity*. To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, “no matter how crude, humble or obvious” it might be.”) (emphasis mine).

The presence of novelty in Stein’s definition has lead researchers to include both of these components in various forms in their methodologies of measuring creativity.<sup>71</sup> The more creative a work is, using the creativity researchers’ criteria, the more likely it is to satisfy the demands of copyright. It could be argued that the legal requirements for copyright discussed above are just that, minimum requirements, as opposed to qualitative measurements. Despite their instrumental nature, they were adopted in order to carry out the Constitutional mandate of copyright<sup>72</sup> and therefore reflect not only minimum requirements, but can be viewed as guiding ideals, which when followed, help to fulfill copyright’s ultimate goals.

The second part of Stein’s definition speaks to what Amabile termed appropriateness<sup>73</sup> The analogue to this quality in copyright is the market value of the work. While the creativity researchers view ‘appropriateness’ in a task-specific context, this shouldn’t harm the definition’s relevancy to the market for copyrighted works. If the task is the creation of a popular book, the best-selling author is likely be the one who has most appropriately completed her task.

These correspondences between Stein’s definition of creativity and the ideals embodied in copyright’s requirements for protection mean that the behavioralists’ research on reward has significant relevance to the copyright system. Specifically, the notion that characteristics of tasks and rewards influence intrinsic motivation implies that there is a need to categorize the tasks which are embodied in the creation of works of

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<sup>71</sup> See Amabile *supra* note 63 at 22-33 (describing methodologies of measuring creativity which include crativity tests, objective analyses of work product, and subjective analyses of work product. Creativity tests typically assessed the following dimensions: “(1) fluency, the production of large numbers of ideas; (2) flexibility, the production of a large variety of ideas; (3) elaboration, the development embellishment, or filling out of ides; and (4) originality, the use of ideas that are not obvious, banal or are statistically infrequent.”)

<sup>72</sup> U.S. Const. art. I, § 8. See also note 1 *supra*.

authorship, and that there is a need to examine the nature of the ‘rewards’ provided by copyright.

There are two significant difficulties with applying Amabile’s task/reward analyses to the copyright system. Firstly, there would be a problem of implementation. Given the trends in the data that Amabile details, it is likely that there will be some combinations of creative tasks and copyright rewards which justify copyright’s structure because of a positive effect on creativity. However, it is also likely that there will be many combinations where this is not the case and that either the reward structure provided by copyright is harmful to creativity, or that the particular creative task is one which doesn’t respond positively to any extrinsic reward. While altering reward structures might be feasible to implement,<sup>74</sup> the statutory implementation of a task schema which copyright-centered creativity research might reveal could present insurmountable legislative challenges.

It could be argued that the challenge of fitting reward to task in copyright should doom any attempt to address the crowding out phenomena because copyright has generally ignored many incentive variances in favor of the administrative economy of uniform protection. Nonetheless, if crowding out is pervasive across a significant portion creative activities, it can be addressed without the administrative inefficiencies which might be inherent in further sub-classification of works of authorship. Copyright ignores differences in incentives among people and media, but at its core it addresses the notion that incentives are required. Just because the strength of crowding out can vary in the same way incentives do (after all, crowding out is just an incentive-altering phenomena),

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<sup>73</sup> Amabile *supra* note 63 at 38.

<sup>74</sup> See *e.g.* the compulsory licensing scheme of 17 U.S.C. §115 (2003).

this doesn't mean the notion of crowding out shouldn't also be addressed by copyright. The same tools that legislators have used to address changes in incentives brought on by the advance of technology<sup>75</sup> can be used to address crowding out: term length, scope of rights, defenses to infringement (e.g. fair use), and civil and criminal penalties.

The second problem crowding out research might uncover implicates the constitutional mandate for copyright. If the tasks that respond best to extrinsic reward, are, as research suggests, those which are more heavily reliant on algorithmic problem solving, or those problems “for which a solution is obvious,”<sup>76</sup> this begs the question whether such works which are the product of those tasks are ones which “promote the progress of the useful arts and sciences.”<sup>77</sup>

#### **b. Optimistic Bias and Discounting Failures**

Apart from the strength of crowding out effects and the difficulties in addressing copyright to compensate for them, the incentive-creating methodology of the current U.S. copyright system can be examined in light of other behavioral phenomena. The current regime mandates a copyright term spanning the lifetime of the author plus seventy years.<sup>78</sup> This type of term structure has unintended effects upon the incentives of the rational author.

Firstly, compared to a fixed term of years, a lifetime-plus years term introduces risk.<sup>79</sup> The introduction of risk without any offsetting remuneration could result in a reduction of creative output for rational authors. Further, rational authors' incentives will

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<sup>75</sup> See e.g. The DMCA, Pub. L. 105-304 (Oct. 28, 1998).

<sup>76</sup> Amabile supra note 63 at 161.

<sup>77</sup> U.S. Const. art. I, § 8.

<sup>78</sup> 17 U.S.C. §302(a). Works-for-hire, as defined by 17 U.S.C. §101 are outside the scope of this paper.

<sup>79</sup> Avishalom Tor and Dotan Oliar, *Incentives to Create Under a “Lifetime-Plus-Years” Copyright Duration: Lessons From a Behavioral Economic Analysis for Eldred v. Ashcroft*, 36 Loy. L.A. L. Rev. 437, 451 (2002).

vary across age, sex, health, and ethnic groups (to name a few categories), because they will be aware of their relative life expectancies. Older authors have smaller incentives than do relatively younger authors.<sup>80</sup> Commentators have noted problems with this method of incentivizing: should we provide greater incentives to women authors who have greater life expectancies? Should we provide greater incentives for younger authors, who generally have less life experience and wisdom, and who might more likely gain such experience by engaging in other pursuits before becoming authors?<sup>81</sup>

The incentives and their drawbacks are usually analyzed under the assumption of authorial rationality. There are several well-researched behavioral effects that call this rationality into question. Tor and Oliar summarize earlier research and have conducted their own experiments and have concluded that the lifetime-plus-years term results in a larger than intended incentive to create, rational disparities detailed above notwithstanding.<sup>82</sup> Firstly, the optimistic bias<sup>83</sup> induces authors to overestimate their life expectancies, not only directly, but also because they underestimate the severity of any illnesses from which they might suffer, and their susceptibility to accidents. Contributing to the optimistic bias is the well-documented illusion of control, which causes authors to believe they have influence over eventualities which in fact they cannot control.

Tor and Oliar also describe the presence of subadditivity,<sup>84</sup> a phenomenon whereby possible outcomes or causes of an event can become overestimated when broken down into sub-components. In other words, if the cause of a car's breakdown is

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<sup>80</sup> *Id.* at 451-454.

<sup>81</sup> *See, e.g.* Thomas B. Macaulay's, A Speech Delivered in a Committee of the House of Commons on the 6th of April, 1842, in *Macaulay Speeches: A Selection* 181 (N.Y. AMS Press 1979).

<sup>82</sup> *Id.* at 458.

<sup>83</sup> *See* Garvin, *supra* note 25.

<sup>84</sup> Tor and Oliar *supra* note 79 at 459.

attributed 50% of the time to a particular cause, say faulty transmission, asking the same subject the same question, but replacing the ‘faulty transmission’ option with 4 more detailed options having to do with faulty transmission, will result in total of these faulty transmission’ options of more than 50%. Further, humans also overestimate the importance of smaller, but better-known component probabilities.<sup>85</sup> Thus, Tor and Oliar posit that authors overvalue the fixed ‘years’ element of copyright’s term relative to the variable and uncertain ‘lifetime’ element, and more generally, overestimate the length of the entire term because subadditivity influences their evaluation of each component of the term.<sup>86</sup> Because term length determines the chronological component of the revenue to be derived from the exploitation of a copyrighted work, the overestimations of term length exerts an influence over an author’s decision to create.

### **c. Hyperbolic Discounting**

Any rational decision to create must not stop at the estimation of the length of the copyright term, but necessarily includes the evaluation of a revenue stream based on the length of the term. The rational author will estimate the revenues to be derived from her monopoly rights on her work and discount them based on the current interest rate.<sup>87</sup> The rational author will then decide whether or not to produce the work based on whether the discounted revenues outweigh the expenditures needed to produce the work: materials and time (or opportunity cost).

Several difficulties that undermine this process should be noted. It assumes that the author can estimate the revenues, not only in the short term, but also throughout the

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<sup>85</sup> *Id.* at 464.

<sup>86</sup> *Id.* at 480.

<sup>87</sup> See Wendy J. Gordon, Authors, Publishers and Public Goods: Trading Gold for Dross, 36 Loy. L.A. L. Rev. 159, 182 (2003) (detailing a rational author’s discounting calculation).



length of the copyright monopoly (the very length of which is variable and the estimation of which is subject to the behavioral influences noted above). Assuming that the author can correctly estimate the length of the term and the revenues from each year the work is protected, she must then estimate the interest rate over each year of the term and discount appropriately. The discounting is the only operation which can be carried out with any certainty. All the rest are estimations; decisions which are made under uncertainty and as such, according to Kahneman and Tversky's prospect theory, are subject to behavioral influences.

The behavioral phenomena which are collectively known as intertemporal choice distort an author's rational approach to estimating the value of the copyright incentives over time. Specifically, hyperbolic discounting plays a significant role in an author's revenue estimation. Hyperbolic discounting describes how people will discount revenue streams using decreasing rates over time, starting with a wildly inflated rate for short term comparisons and decreasing it over time but never reaching the current interest rate.<sup>88</sup> This suggests that authors will under-react to copyright term incentives, provided they are able to correctly perform all the other operations required make the rational decision to create.<sup>89</sup>

## **2. Contract, Default Terms and Inefficiency**

It is rare that the authors of any copyrighted work perform the actual distribution of their work. Authors must therefore not only estimate the revenue to be derived from

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<sup>88</sup> Tor and Oliar *supra* note 79 at 485 ("In one typical early study, for example, subjects specified the amount of money they would require in one month, one year, and ten years to make them indifferent to receiving \$15 at present. The median responses were \$20, \$50, and \$100 respectively, implying in turn median annual discount rates of 345% over the one-month horizon, 120% over the one year horizon, and 19% over the ten year horizon." Quoting Richard H. Thaler, *Some Empirical Evidence on Dynamic Inconsistency*, 8 Econ. Letters 201, 204-05 (1981)).

their work in the context of the decision to create, but must also use this estimation in negotiations with firms which specialize in promotion and distribution. Thus, the behavioral influences that apply to contract formation could also have some influence in the decision to create a work. The following discussion applies not only to prospective authors, but also to those who have already created a copyrighted work and are seeking to exploit it.

One behavioral bias strongly applicable to the author-distributor contracting situation is known as the status quo bias.<sup>90</sup> Researchers investigating this bias suggest that contracting parties are subject to bias in favor of initial entitlements, even when transaction costs are zero.<sup>91</sup> Such initial entitlements can be anything from statutory rights, legally promulgated default rules for contracts, or even the terms of a contract of adhesion devised by a vendor.

The status quo bias manifests itself when parties to a negotiation elect to adopt a contract term despite it resulting in a sub-optimal contract for one or both of the parties because, they perceive it to be part of the status quo. Put simply, parties are reluctant (or more reluctant than they should be) to deviate from the initial context of a negotiation. The relevant context in the case of copyright would arguably be made of several components. Firstly are the statutory rights of the author as specified throughout Title 17. Secondly there are the default rules of contract: those relevant to copyright in Title 17 and those in the state's common law of contract.<sup>92</sup> Finally, and most relevant, the context

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<sup>89</sup> *Id.* at 486. (“Hence, the very low value of the [copyright term] extension for rational economic actors using lower discount rates [than empirically observed actors] diminishes to a nullity for [those actors].”)

<sup>90</sup> See generally Russell Korobkin, *Behavioral Economics, Contract Formation and Contract Law*, 116 in *Behavioral Law and Economics*, *supra* note 11.

<sup>91</sup> *Id.* at 118.

<sup>92</sup> The influence of these ‘contexts’ are subject to debate. Many commentators argue that the statutory rights granted by copyright are not perceived by negotiators beyond a cursory understanding.

of the status quo bias is constituted by the initial terms propounded during negotiation, especially if they are touted by one of the parties as industry norms. The more a particular contract term is viewed as a normative baseline, the greater the likelihood it will remain in the final draft of the contract.<sup>93</sup> Korobkin has postulated an emotion-based theory of anticipatory regret to explain the status quo bias.<sup>94</sup> People feel worse about a loss that stems from an active choice than an equivalent loss that was the result of inaction.

To determine the significance of the status quo bias in contract negotiations between authors and distributors, several pieces of data will need to be examined. The presence of an ‘industry standard’ contract or contract terms, and the degree to which they are used, would indicate that there is in fact a reference point against which most negotiations of this type are judged. In evaluating the prevalence of this ‘industry standard,’ an investigator should pay attention to the contract *structure* and the contract’s *content*. By structure, I refer to the presence of particular contract terms, and by content, I mean the actual substantial values ascribed to those terms. In other words, a term regarding the payment of a percentage of sales to the author would be regarded as structural, and the actual percentage value would be the term’s content. It could be that the industry has a standard contract structure without standard content. Other relevant data might include information about previous attempts at designing alternative remuneration schedules. This could shed further light on the strength of the ‘industry

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<sup>93</sup> *Id.* at 126-9.

<sup>94</sup> *Id.* at 130 (“A preference for inaction is consistent with a decision-making strategy that seeks to minimize the likelihood of future regret over choices made.”)

standard.’ Experimental data could be gathered that enhances the validity of Korobkin’s research<sup>95</sup> by using actual authors and publishers in mock negotiations.

One possible hypothesis that could be tested: because a publisher is likely to be involved in more negotiations than any one author, a publisher has a greater ability to present a particularly favorable contract (or contract term) as an industry standard, thereby creating a status quo bias in favor of such a contract or term.<sup>96</sup> If this phenomenon exists in empirical data, it might suggest aggregate under-pricing by authors. Countervailing evidence would measure the use of agents in negotiations, who would presumably have more experience negotiating and would be in a better position than an author to perceive the content and structure of an industry standard contract. The use of agents might result in improved accuracy in the perception of what constitutes the industry standard, and may prevent the publisher from ‘putting one over’ on an inexperienced author by creating a misperception, favorable to the publisher, about the content of the industry standard. Nonetheless, the status quo bias appears to persist in any situation in which there is a perceived status quo, and agents could still be susceptible to it. Without empirical data, however, it is impossible to estimate the actual effects of the status quo bias on the market for creative works.

#### **4. Informational Cascades and Chilling Effects: The (Ir)rational Decision Not to Create**

One behavioral effect relevant to the decision to create is the availability heuristic. Kurnan and Sunstein describe it as a “pervasive mental shortcut whereby the perceived likelihood of any given event is tied to the ease with which its occurrence can be brought

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<sup>95</sup> *Id.* at 120-123

to mind.”<sup>97</sup> In other words, we believe that if something has happened to us, or someone we know, in the recent past, we believe that it is more likely to happen to us in the future than a rational probabilistic analysis would suggest, because of our exposure to the intricacies of the experienced event. Availability has been observed to feedback into itself, as Kuran and Sunstein note, enabling “expressed perceptions [to] trigger chains of individual responses that make these perceptions appear increasingly plausible through their rising availability in public discourse.”<sup>98</sup>

One particularly applicable availability heuristic is known as an availability cascade. An availability cascade is the composite process consisting of the interaction of informational cascades<sup>99</sup> and reputational cascades.<sup>100</sup> Informational cascades “occur when with people little personal information on a particular matter base their own beliefs on the apparent beliefs of others.” Informational cascades result from an individual’s desire to be *informed* and the resultant reliance upon more knowledgeable sources of data or belief.<sup>101</sup> Reputational cascades occur when people’s beliefs are formed in order to gain social approval.<sup>102</sup> Another way of thinking about when reputational and informational cascades interact to form an availability cascade is to envision it as a mis-estimation of a person’s statistical *N* sample regarding the probability of a particular event. The cascade is the result of multiple, cyclically-feedback games of whisper-down-the-lane. Viewed *en masse*, availability cascades can produce what Sunstein calls

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<sup>96</sup> Indeed, Korobkin advises negotiators, for the underlying behavioral reasons, to “control the reference point of contract negotiations,” *Id.* at 136.

<sup>97</sup> *Controlling Availability Cascades*, at 374 in *Behavioral Law and Economics*, *supra* note 11.

<sup>98</sup> *Id.*

<sup>99</sup> See, e.g. Sushil Bickchandani, David Hirshleifer, and Ivo Welch, *A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades*, 100 *J. Pol. Econ.* 992 (1992).

<sup>100</sup> Kuran and Sunstein, *supra* note 97, at 374.

<sup>101</sup> *Id.*

<sup>102</sup> *Id.* at 375.

“collective availability errors.”<sup>103</sup> These errors can be instigated by those who recognize the processes at work and are in a position to exploit them.<sup>104</sup>

Technological advancement has enabled people to communicate with an ever greater number of social contacts through one-to-one, one-to-many, and many-to-many media. To the degree that each message serves as a discrete datum which contributes the formation of availability heuristics, technology can be seen as greasing the wheels of the cascade-building process. The internet, with its modes of communication, provides the best example of this phenomenon.

More specifically, the practice of linking between web pages illustrates how technologically enhanced communication might facilitate availability cascades. One striking set of empirical data show that hyperlinks in general, and in weblogging (or blogging) communities<sup>105</sup> in particular follow a power-law distribution.<sup>106</sup> This distribution of links implies the blogging community is susceptible to availability cascades with respect to content linked pages as their popularity rises within the community.

How do informational cascades and weblogging relate to copyright? The decision to create is not entirely incentive-centered; the possibility that a work might infringe another author’s valid copyright can act as a disincentive for certain classes of authors.

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<sup>103</sup> *Id.* at 347.

<sup>104</sup> Sunstein notes that these phenomenon can be appropriated by enterprising “availability entrepreneurs” who recognize their effects. Also noted is one particular beneficial aspect of the phenomenon: the arousal of much needed public discussions on topics unwisely neglected. *Id.*

<sup>105</sup> For a brief description of the weblogging phenomenon, see A. Michael Froomkin, *Habermas@Discourse.net: Towards a Critical Theory of Cyberspace*, 116 Harv. L. Rev. 749, 859 (2003).

<sup>106</sup> See generally, Albert-László Barabási, *Linked: The New Science of Networks* (Perseus Publishing, 2002) Jason Kottke, *Weblogs and Power Laws*, <[http://www.kottke.org/03/02/030209weblogs\\_and\\_.html](http://www.kottke.org/03/02/030209weblogs_and_.html)>, (; describing the power-curve phenomenon with respect to weblogging; accessed April 26, 2003).

Authors of what is known as fan-fiction<sup>107</sup> face the possibility of infringement because their works typically inhabit the legal landscape that borders upon, or even trespasses upon, some previous author's derivative work right.<sup>108</sup> Fan fiction writers are often members of web-centered communities.<sup>109</sup> As Tushnet notes, these communities are typically made up of "non-lawyers of limited means, and are at the mercy of their Internet service providers, who, fearing liability as accessories to copyright infringement, will shut down an account or Web site in response to an informal complaint from a copyright owner"<sup>110</sup> Copyright owners also often send cease and desist letters before contacting the ISP. Because of their heightened state of intercommunication, these web-centered communities could be vulnerable to the availability cascades with respect to the putative legality of fan-fiction, which could, in turn, produce availability errors, when the perception departs significantly from the law. If an availability error skews toward the perception that producing fan-fiction renders an author liable for infringement, prospective authors might refrain from creating or disseminating their fan fiction.

It is clear is that the distribution of links in weblogging communities indicates the possible of availability cascades. It is unclear whether an availability cascade or an availability error actually exists with regard to the creation of fan fiction, and if so, in which directions they might skew. Nonetheless, it can be inferred, from the presence and stated goals of websites like [www.ChillingEffects.org](http://www.ChillingEffects.org), that there is a perception amongst

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<sup>107</sup> See generally, Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fictions, and a New Common Law*, 17 Loy. L.A. Ent. L.J. 651, 655 (1997) (describing fan fiction as "any kind of written creativity that is based on an identifiable segment of popular culture, such as a television show, and is not produced as "professional" writing. Fan authors borrow characters and settings, such as Princess Leia and Luke Skywalker or the Starship Enterprise, for use in their own writings. Fan fiction spans genres including comedy, drama, melodrama, adventure, and mystery").

<sup>108</sup> 17 U.S.C. §101, 106(2) (2003)

<sup>109</sup> Tushnet *supra* note 107 at 653.

<sup>110</sup> *Id.*

the web community that availability errors do exist with respect to the legality of fan-fiction creation.<sup>111</sup> It could even be argued that Chilling Effects is attempting to function as an availability entrepreneur in this context, albeit an altruistic one. Whether the increased information made available by Chilling Effects alters the decisionmaking processes of would-be authors is a matter for further empirical research. Whether Chilling Effects is somehow contributing to an availability error on the part of these authors is also a matter for empirical study which could be answered by monitoring the resolution of any legal battles fought by those sites it documents.

## **VI. Further Possibilities for Research: Demand, Consumption and Enforcement**

Behavioral phenomenon are not just relevant to the supply side of copyright. Research indicates that the demand side can be affected as well. Specifically, there is data to indicate that people increase their contribution to a public good if others do so as well, even though a self-interested person would act otherwise.<sup>112</sup> Further, studies investigating social approval indicate that full cooperation in public goods markets can be achieved under the threat of punishment, which could be meted out by any participant.<sup>113</sup> Adapting these experiments specifically to copyright/infringement scenarios could yield valuable data about the effectiveness of the current copyright scheme. Other behavioral

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<sup>111</sup> “Chilling Effects aims to support lawful online activity against the chill of unwarranted legal threats. We are excited about the new opportunities the Internet offers individuals to express their views, parody politicians, celebrate favorite stars, or criticize businesses, but concerned that not everyone feels the same way. Anecdotal evidence suggests that cease and desist letters often silence Internet users, whether or not their claims have legal merit. The Chilling Effects project seeks to document that “chill” and inform C&D recipients of their legal rights in response.” <<http://www.chillingeffects.org/about>> (accessed April 26<sup>th</sup>, 2003).

<sup>112</sup> See R. Croson, *Theories of Altruism and Reciprocity: Evidence From Linear Public Goods Games*, University of Pennsylvania, Mimeo (2000) (cited in Fehr and Falk, *supra* note 38); U. Fischbacher, S. Gächter, and E. Fehr, *Are People Conditionally Cooperative? Evidence From a Public Goods Experiment*, 71 *Econ. Letters* 397 (2001).

<sup>113</sup> See E. Fehr and S. Gächter, *Cooperation and Punishment in Public Goods Experiments*, 90 *Econ. Rev.* 980 (2001); J.P. Carpenter, *Punishing Free-Riders: How Group Size Affects Mutual Monitoring and the Provision of Public Goods*, Middlebury College, Mimeo (2001) (cited in Fehr and Falk, *supra* note 38).



decision research indicates that “given a constant expected sanction, deterrence is increased when either the size of the sanction or the probability that it will be imposed is uncertain.”<sup>114</sup> This indicates that copyright’s sanctions regime<sup>115</sup> could be made more efficient by varying the possibility and severity of the punishment.<sup>116</sup>

## VII. Conclusion

The growing body of research commonly referred to as behavioralism has revealed several phenomena that call into question the canonical economic justifications for the copyright regime. In particular, there is much evidence that the rational actor model that informs copyright’s incentive structure incompletely explains an author’s decision to create. Deviations from the behavior expected of a rational author can lead to inefficiencies, many of which can persist despite the corrective influences of the market. While some research has dealt specifically with copyright-based scenarios, there is much experimental and empirical work left to be done to better relate known behavioral phenomena to the specifics of copyright. I hope this paper has provided a basic introduction to what might be fertile areas of research. Whether the results of these future measurements and experiments yield compelling reasons to alter the current copyright regime is a further challenge to commentators, legislators, and the public.

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<sup>114</sup> Tom Baker, Alon Harel, and Tamar Kugler, *The Virtues of Uncertainty in Law: An Experimental Approach*, 4 *Experimental and Empirical Studies* 1 (2003).

<sup>115</sup> 17 U.S.C. §501-513 (2003).

<sup>116</sup> Obviously there are moral arguments against uncertainty in punishment. Because copyright’s civil sanctions, particularly money damages can only be sought by a copyright owner, implementing an uncertainty element into the regime could present further moral problem.