

DEBIASING COPYRIGHT'S OVERSPILLS – THE UNFORESEEN VIRTUES OF THE ENDOWMENT EFFECT

ABSTRACT

Contemporary copyright scholarship underscores copyright's deterrence effect and users' risk aversion even when it comes to legitimate permitted uses of copyrighted works. The risk of being sued often outweighs the value of a permitted use. The common view is that users' tendency towards risk aversion derives from the ambiguous nature of permitted uses in copyright law and particularly the unpredictable nature of the fair use defense as an open-ample standard-based copyright exception. The uncertainty of permitted uses and the risk aversion coupled with it are perceived as elements that chill socially desirable permitted uses of copyrighted works. Additionally, uncertainty and unpredictability are elements that tend to implicate also on the contractual level by causing users to acquire licenses for permitted uses, at times while even waiving some of their rights to engage in certain permitted uses. The common proposed solutions for copyright over spills focus on measures and techniques to reduce the elements of uncertainty and unpredictability that characterize the fair use doctrine.

The purpose of this article is to offer another explanation, as well as a novel solution, to the problem of copyright over spills, which are based on the contribution of behavioral economics. More specifically, prospect theory, the psychological phenomenon of loss aversion and the endowment effect. I argue that users' risk aversion derives also from the legal nature of permitted uses in copyright law: the fact that as opposed to copyright owners' bundle of exclusive rights, permitted uses are neither constructed, nor perceived, as endowments.

The current reference point, in copyright law, is the proprietary exclusive entitlements of copyright owners, on the one hand, and the ambiguous nature of copyright exceptions, as affirmative defenses, on the other hand. Consequently, under current law, engaging in a permitted use is more likely to be perceived as a gain rather than as a loss, a fact which according to prospect theory, further explains users' tendency towards risk aversion. I argue that by constructing permitted uses in copyright law as endowments, or in forms that bear more resemblance to endowments, users will become less risk averse and more inclined to engage in permitted uses.

The legal formalization of permitted uses, in copyright law, as endowments, functions therefore as a debiasing mechanism that reduces users' risk aversion and overcomes copyright over spills. Thus, it provides a solution that enables to benefit

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from the advantages of a standard-based, flexible, open-ample fair use defense while mitigating the costs of its ambiguous nature.

INTRODUCTION – RISK AVERSION IN COPYRIGHT LAW

Copyright law grants exclusive rights in creative works to authors for the purpose of incentivizing authors to create and distribute their works of authorship.¹ Along with its incentive to originating creators, copyright imposes burdens and costs on any further creative activity that attempts to rely on, and use existing copyrighted materials.² For these reasons, one central task of copyright law has been to reach an optimal level of both maximum incentives to creation and minimum burdens on further non-rival creative activity that relies on existing copyrighted works.³ Such equilibrium is realized by acknowledging exemptions to copyright protection. The fair use defense⁴ is considered as the central mechanism through which such balancing is being achieved.⁵

As a practical matter, however, striking equilibrium between incentive to create and permissible secondary creative activity is a task which is hard to attain. Contemporary copyright scholarship underscores copyright's deterrence effect and users' risk aversion even when it comes to legitimate permitted uses of copyrighted works.⁶ The current copyright system is

¹ See e.g., *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575 (1994); *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349–50 (1991) (quoting the U.S. Constitution's Intellectual Property Clause, U.S. CONST. art. I, § 8, cl. 8, which proclaims the clause's social-public purpose: “[t]o promote the Progress of Science and useful Arts”).

² See William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 JOURNAL OF LEGAL STUDIES, 325, 332-341 (1989) (arguing that copyright protection is a mechanism that increases the costs of borrowing from previous works and thus it weakens the incentive of future authors to create); Gillian .L. Lunney, *Reexamining Copyright Incentives-Access Paradigm*, 49 VANDERBILT LAW REVIEW, 483, 496-497 (1996) (describing copyright's social cost and the fact that copyright burdens and increases the costs of accessing and utilizing copyrighted materials for further creative activity).

³ See Lunney, *Id* (describing copyright's incentive-access paradigm and the goal of structuring copyright's scope, as well as copyright's exceptions, based on an equilibrium that better promotes capture of social value).

⁴ See 17 U.S.C. § 107 (1976).

⁵ The literature on the fair use defense and its functions is vast. See e.g. Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 COLUM. L. REV. 1600 (1982); William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV.; Pamela Samuelson, *Unbundling Fair Uses*, 77 FORDHAM L. REV. 2537 (2009).

⁶ See James Gibson, *Risk Aversion and Rights Accretion in Intellectual Property Law*, 116 YALE L.J. 882, 890-91 (2007); Thomas F. Cotter, *Fair Use and Copyright Overenforcement*, 93 IOWA L. REV. 1271, 1284-1288 (2008) (describing as risk the indeterminacy associated with copyright law's fair

portrayed as a system that has an embedded chilling effect on legitimate and permitted uses.⁷ The risk of being sued often outweighs the value of a permitted use.⁸

The common view is that users' tendency towards risk aversion derives from the ambiguous nature of permitted uses in copyright law and particularly the unpredictable nature of the fair use defense as an open-ample standard-based copyright exception.⁹ The uncertainty of permitted uses and the risk aversion coupled with it are perceived as elements that chill socially desirable permitted uses of copyrighted works.¹⁰ Indeed an open-norm, such as fair use is essential for a copyright system that is flexible and adaptable to changing circumstances.¹¹ Yet, at the same time the standard-based flexible nature of the fair use defense also leads to uncertainty that deters users from engaging in what are potentially socially desirable

use doctrine); Michal Shur-Ofry, *Hatch-Waxmanizing Copyright*, 18 MICH. TELECOMM. TECH. L. REV. 171, 173-178 (2011) (surveying and critically analyzing the literature regarding copyright's deterrence effect and users' risk aversion even when it comes to legitimate permitted uses of copyright works).

⁷ See *Id. id* and also Patricia Aufderheide & Peter Jaszi, UNTOLD STORIES: CREATIVE CONSEQUENCES OF THE RIGHTS CLEARANCE CULTURE FOR DOCUMENTARY FILMMAKERS 17-19 (2004); Jennifer Rothman, *The Questionable Use of Custom in Intellectual Property*, 93 VA. L. REV. 1899 (2007).

⁸ See Cotter, *supra* note __, at 1274; Neil Weinstock Netanel, *Copyright's Paradox* (2008)15-17; Ben Depoorter & Robert Kirk Walker, *Copyright False Positives*, 89 NOTRE DAME L. REV. 319, 321-322 (2013); Peter S. Menell & Ben Depoorter, *Using Fee Shifting to Promote Fair Use and Fair Licensing*, 101 CAL. L. REV. 53, 57-58 (2014).

⁹ See Gideon Parchomovsky & Kevin A. Goldman, *Fair Use Harbors*, 93 VA. L. REV. 1483, 1497-1502 (2007); Shur-Ofry, *supra* note __, at 174; Andres Sawicki, *Risky IP*, 48 Loyola U. Chi. L.J. 81, 92-93 (2017). For general criticism of the fair use doctrine as unpredictable see Joseph P. Liu, *Two-Factor Fair Use?*, 31 COLUM. J.L. & ARTS 571, 574, 577-80, 580 n.51 (2008); Michael W. Carroll, *Fixing Fair Use*, 85 N.C. L. REV. 1087, 1095 (2007); Darren Hudson Hick, *Mystery and Misdirection: Some Problems of Fair Use and Users' Rights*, 56 J. COPYRIGHT SOC'Y U.S.A. 485, 497 (2009).

¹⁰ *Id. Id.* See also Gibson, *supra* note __, at 888-898 and the sources cited in *supra* note __; William W. Fisher III & William McGeeveran, *THE DIGITAL LEARNING CHALLENGE: OBSTACLES TO EDUCATIONAL USES OF COPYRIGHTED MATERIAL IN THE DIGITAL AGE* (Berkman Center for Internet & Society, 2006); Anthony Falzone & Jennifer Urban, *Demystifying Fair Use: The Gift of the Center for Social Media Statements of Best Practices*, 57 J. COPYRIGHT SOC'Y U.S.A. 337 (2009).

¹¹ See Pamela Samuelson, *Justifications for Copyright Limitations & Exceptions*, in *COPYRIGHT LAW IN AN AGE OF LIMITATIONS AND EXCEPTIONS* (Ruth Okediji ed.) (2016); Pierre Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105 (1990); Ben Depoorter, *Technology and Uncertainty: The Shaping Effect on Copyright Law*, 157 U. PA. L. REV. 1831, 1834 (2009); P. Bernt Hugenholtz & Martin Senftleben, *FAIR USE IN EUROPE: IN SEARCH OF FLEXIBILITIES* (November 2011) (available at <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2013239>

secondary uses. Thus, the current copyright system is portrayed as a system that has an embedded chilling effect on legitimate and permitted uses.¹²

Additionally, uncertainty and unpredictability are elements that tend to implicate also on the contractual level by causing users to acquire licenses for permitted uses, at times while even waiving some of their rights to engage in certain permitted uses.¹³ As James Gibson rightfully observed, people acquire licenses even for uses that are likely to shelter under the fair use defense or other defenses against copyright infringement.¹⁴ Here also, fair use uncertainty constraints coupled with users' risk aversion undermine users' inclination to object copyright oversteps, at least when the required licensing fees are lower than users' perceived risk, and particularly in view of copyright owners' rigid enforcement actions.¹⁵ Scholarship also highlights the circular feedback effect under which such constrained industry practices influence the perceptions and expectations of rights owners, users, courts and therefore also the contours of fair use.¹⁶ Similarly, in the course of their inclination to tolerate copyright's over enforcement, users also tend to contractually waive their right to engage in permitted uses; thus, further extending the gap between copyright law's purported incentive-access equilibrium and copyright's de facto oversteps.¹⁷

Altogether, copyright's oversteps bear the social cost of deterring lawful permitted uses of copyrighted works – a fact which contradicts the intended regulatory goals of copyright law. This in turn stimulates a potential deadlock between the need to enable flexibility with regard to copyright's exemptions and the unpredictability that a standard-based exemption tends to generate.

A variety of proposals have been raised to overcome the embedded ambiguity that comes along with a standard-based fair use defense. Proposals include the legal establishment of “fair use best practices”, in various fields, that would represent acknowledged circumstances meeting the parameters of fair use;¹⁸ statutory enactment of fair use “safe harbors”

¹² See footnotes __ *supra* and the sources cited therein.

¹³ See Gibson, *supra* note __ at 893-894; Cotter, *supra* note __, at 1284-88.

¹⁴ Id. Id.

¹⁵ See Shur-Ofry, *supra* note __, at 174-175; Depoorter & Walker, *supra* note __, at 325-327.

¹⁶ See Gibson, *supra* note __, at 897-900.

¹⁷ See Gibson, *supra* note __, at 897; Rothman, *supra* note __, at 1902; Depoorter & Kirk Walker, *supra* note __, at 322, 340-342.

¹⁸ See Jennifer Rothman, Best Intentions: Reconsidering Best Practices Statements in the Context of Fair Use and Copyright Law, 75 J. COPYRIGHT SOC'Y 371(2010); Niva Elkin-Koren et al., Fair Use

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that would set inconclusive instances that guarantee the fair use defense for certain classes of users or uses under clearly defined circumstances;¹⁹ proposals for regulatory involvement in clarifying the boundaries of fair use²⁰ and finally utilizing doctrines such as copyright misuse in order to incentivize users to challenge the proclaimed narrow boundaries of fair use as enforced by copyright owners that leverage users' risk aversion tendency.²¹

Proposals and initiatives to reduce copyright exceptions' uncertainty merit important potential contribution to the problem of copyright's over deterrence effect. Yet, at the end of the day, all such proposals suffer from similar deficiencies: clarifying and rulyfying fair use, in order to enhance certainty and reduce risk, might undermine the flexibility of the fair use defense by setting de facto ceilings for categories and instances that users perceive as fair use.²² There is a certain tradeoff between the rulification of fair use and the willingness of users to test the applicability of the defense in uncertain and borderline instances. By making this argument I am not claiming that attempts to reduce uncertainty, regarding the scope and applicability of the fair use defense, are undesirable. I do argue, however, that such attempts provide only a partial solution to copyright's overflows. By capping the risk of engaging in exempted uses, such solutions leave unattended zones of potentially permitted uses, which are beyond them; thus, while explicitly coloring them as risky uses with the potential of infringing copyright. Additionally and more generally, secondary uses in areas and activities, which are not covered by such categories of clarified permitted uses, would still face the disadvantages of the current legal regime of an open-ample standard-based fair use defense.

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Best Practices for Higher Education Institutions: The Israeli Experience, 57 J. Copyright Soc'y, 447 (2010); Niva Elkin-Koren & Orit Fischman-Afori, Taking Users' Rights to the Next Level: A Pragmatist Approach to Fair Use, 33 CARDOZO ARTS & ENT. L.J. 1 (2015).

¹⁹ See Parchomovsky & Goldman, *supra* note __.

²⁰ See Jason Mazzone, *Administering Fair Use*, 51 WM. & MARY L. REV. 395, 430-47 (2009).

²¹ See Shur-Ofry, *supra* note __ (proposing the development of an affirmative copyright misuse doctrine, which would entitle successful challengers of copyright overflows to statutory damages); Cotter, *supra* note __, at 1301-1304 (proposing to use the copyright misuse doctrine as a tool to impose financial sanctions against invalid assertion of copyright claims).

²² See Gibson, *supra* note __, at 937-938; Parchomovsky & Goldman, *supra* note __, at 1524-28 (acknowledging this deficiency but arguing that all in all, the benefits of statutory fair use harbors outweigh their potential negative impact in setting de-facto ceilings for categories and instances that users perceive as fair use).

Against this backdrop, based on the contribution of behavioral economics,²³ this article offers another explanation, as well as a novel solution, to the problem of copyright overflows. By relying on insights from prospect theory,²⁴ the psychological phenomenon of loss aversion²⁵ and the endowment effect,²⁶ I argue that users' risk aversion derives also from the current legal nature of the fair use defense and exempted uses in copyright law: the fact that as opposed to copyright owners' bundle of exclusive rights, fair use and other exempted uses in copyright law are generally both constructed and perceived, as defenses, rather than as positive entitlements.²⁷

As further elaborated in part __ *infra*, according to prospect theory and under the phenomenon of loss aversion, people ordinarily perceive outcomes as gains and losses, rather than as final states of wealth or welfare.²⁸ Gains and losses are defined relatively to a reference point;²⁹ thus whereas the value function is normally concave for gains (implying risk aversion), convex for losses (reflecting risk seeking), and generally steeper for losses than for gains.³⁰ Altogether this means that people's tendency towards risk aversion in the domain of gains is higher than their tendency towards risk seeking in the domain of losses.³¹ Prospect theory also posits that the benchmark by which people perceive outcomes as either gains or as losses depends on the way that they frame their reference point and the scenario that they face.³²

²³ For a concise survey of behavioral economics basic principles see part _ *infra*.

²⁴ See part __ *infra* and the text accompanying *infra* notes ____.

²⁵ See part __ *infra* and the text accompanying *infra* notes ____.

²⁶ See part __ *infra* and the text accompanying *infra* notes ____.

²⁷ See part __ *infra* and the text accompanying *infra* notes _____. But see also footnotes ____ *infra* and the text accompanying them (surveying several recent judicial approaches that reflect seeds of a tendency to treat permitted uses as positive rights that users benefit from).

²⁸ See part __ *infra* and the text accompanying *infra* notes ____.

²⁹ See part __ *infra* and the text accompanying *infra* notes ____.

²⁹ See part __ *infra* and the text accompanying *infra* notes ____.

²⁹ See part __ *infra* and the text accompanying *infra* notes ____.

³⁰ See part __ *infra* and the text accompanying *infra* notes ____.

³¹ See part __ *infra* and the text accompanying *infra* notes ____.

³² See part __ *infra* and the text accompanying *infra* notes ____.

A related phenomenon is the endowment effect.³³ According to the endowment effect, individuals tend to place higher value on entitlements that they already have, compared to entitlements that they do not have.³⁴ Departing from an entitlement is perceived as a loss whereas acquiring an entitlement is perceived as a gain. The endowment effect thus implicates on people's reference point, which in turn incriminate whether a certain outcome is perceived as a loss or as a gain, with the implications of this aspect on people's attitude towards risk and therefore also their conducts under condition of legal uncertainty.³⁵

These insights and observations by behavioral economists bear direct implications on both the reasons for and the solutions to the problem of copyright over spills and users' tendency towards risk aversion. In addition to the embedded uncertainty that comes along with a standard-based fair use defense, users' risk aversion derives also from the legal nature of fair use as an affirmative defense rather than as a positive entitlement. As opposed to copyright owners' bundle of exclusive rights, permitted uses are neither constructed, nor perceived, as endowments.

Under current law, although the legal nature of fair use is not entirely resolved, thus far, its legal framing by the Supreme Court was as an affirmative defense.³⁶ Users benefit from a legal state under which they have the privilege to engage in a certain act—the exempted use, only if they prove that they qualify for the defense. Thus, whereas copyright owners benefit from a *right*: a legal claim one possesses to require or prevent a certain act by another.³⁷

³³ See part __ *infra* and the text accompanying *infra* notes ____.

³⁴ Id. Id.

³⁵ See part __ *infra* and the text accompanying *infra* notes ____.

³⁶ See *Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 561 (1985) (defining the fair use as an "affirmative defense" and ruling that the burden of proof is on the party claiming fair use); *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 590 (1994) (citing *Harper & Row*, 471 U.S. at 561, in support of holding, that fair use is an affirmative defense and that the applicability of fair use must be proven by defendant); Fair Use of Copyrighted Works, H.R. Rep. No. 102-836, 102d Cong., 2d Sess. 3 n.3 (1992) (stating that the burden "is always on the party asserting the defense, regardless of the type of relief sought by the copyright owner"). For similar views see also *Coll. Entrance Examination Bd. v. Pataki*, 889 F. Supp. 554, 564-65 (N.D.N.Y. 1995); *Princeton Univ. Press v. Mich. Document Servs., Inc.*, 99 F.3d 1381, 1385-86 (6th Cir. 1996). But see also footnotes [infra](#) and the text accompanying them (surveying recent lower courts developments in this area).

³⁷ See Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L. J. 710, 718 (1917) (defining right *in rem* as "availing respectively against persons constituting a very large and indefinite class of people"). See also Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial*

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Copyright owners' entitlements are defined as *in rem* exclusive property rights to do and authorize certain uses of copyrighted works.³⁸ Otherwise phrased, copyright owners have the right to exclude the rest of the world from utilizing their copyrighted works for uses that fall within their bundle of exclusive uses. As opposed, users of copyrighted materials benefit from the fair use defense only if they comply and prove the applicability of the defense under a certain specific factual scenario. Permitted uses, including the fair use defense, are neither constructed, nor normatively treated, as positive rights. As further discussed in part __ *infra*, this predominant view has recently been challenged both by scholars and by several lower court decisions.³⁹ Yet, at the end of the day, under existing law, permitted uses are treated as defenses whereas the burden of proving the privileged authorized nature of a use rests on the user.

This implies that in circumstances of legal uncertainty, users' current reference point is most likely to be one which does not perceive the purported permitted use as something that they are entitled to – as an endowment. Not just because of the element of uncertainty, regarding the applicability of the fair use defense, but also as a consequence of the manner in which law shapes their perception of the permitted use – as a conditioned privilege that has to be proven.

As a result, refraining from the purported use is more likely to be perceived as an unfulfilled gain rather than as a loss. According to prospect

Reasoning, 23 YALE L. J. 16, 30 (1913).

³⁸ See 17 U.S.C. § 106(4) (2002) (defining copyright owners' bundle of exclusive rights: "Subject to sections 107 through 122, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following..."); Copyright, Designs and Patents Act, 1988, ch. 1 §§ 1–2 (U.K.) (defining copyright as a "property right" that provides the copyright owners with "the exclusive right to do the acts specified in Chapter II as the acts restricted by the copyright in a work of that description"). See generally Frank H. Easterbrook, *Intellectual Property Is Still Property*, 13 HARV. J.L. & PUB. POL'Y 108 (1990).

³⁹ See Lydia Pallas Loren, *Fair Use: An Affirmative Defense?*, 90 WASH. L. REV. 685 (2015); *Bateman v. Mnemonics, Inc.*, 79 F.3d 1532, 1542 n.22 (11th Cir. 1996) (Birch, J.) (stating that "although the traditional approach is to view 'fair use' as an affirmative defense, this writer, speaking only for himself, is of the opinion that it is better viewed as a right granted by the Copyright Act of 1976"); *Suntrust Bank v. Houghton Mifflin Co.*, 268 F.3d 1257, 1260 n.3 (11th Cir. 2001) (stating that: "I believe that fair use should be considered an affirmative right under the 1976 Act, rather than merely an affirmative defense, as it is defined in the Act as a use that is not a violation of copyright"); *Lenz v. Universal Music Corp.*, 815 F.3d 1145, 1152-1153 (9th Cir. 2015) (holding that the DMCA requires copyright owners to consider fair use before issuing a takedown notice under § 512 and that "given that 17 U.S.C. § 107 expressly authorizes fair use, labeling it as an affirmative defense that excuses conduct is a misnomer". For further discussion see part __ *infra*, footnotes __ *infra* and the text accompanying them.

theory,⁴⁰ this fact in turn, both implicates and explains users' tendency towards risk aversion. When considering whether to engage in a use, which is uncertain in terms of its classification as fair use, users' tendency towards risk aversion is likely to be high, due to their perception of such an engagement as a gain rather than as actualization of an entitlement that they already own and control. If, instead, the purported use was perceived as an endowment, users' deprivation from its actualization would more likely be observed as a loss resulting in a lower degree of risk aversion when considering whether to engage in a use which is possibly, yet not definitely, fair use.

This analysis derives important normative implications for copyright law policy.⁴¹ It reveals that by constructing permitted uses in copyright law as endowments, or in forms that bear more resemblance to endowments,⁴² users' risk aversion and copyright over spills are likely to decrease. Users will become less risk averse and more inclined to test the boundaries of the fair use defense in uncertain circumstances. Now, refraining from the purported use is more likely to be perceived as a deprived loss rather than as an unfulfilled gain. Consequently, users will be willing to risk more in the course of realizing their purported right to engage in a permitted use.

The legal formalization of fair use as a positive right, rather than as an affirmative defense, functions, therefore, as a debiasing mechanism that reduces users' risk aversion and assists in overcoming copyright over spills. Thus, it provides a solution that enables to benefit from the advantages of a standard-based, flexible, open-ample fair use defense while mitigating at least some of the costs of its ambiguous nature.

To illustrate,⁴³ consider the recent decision of the Ninth Circuit in *Lenz v. Universal Music Corp.*⁴⁴ In this case, the court had to decide upon the interpretation of § 512(f) of the Digital Millennium Copyright Act (the DMCA).⁴⁵ Under the DMCA, Online intermediaries benefit from a safe

⁴⁰ See part __ *infra* and the text accompanying *infra* notes __.

⁴¹ See part __ *infra* and the text accompanying *infra* notes __.

⁴² See part __ *infra* and the text accompanying *infra* notes __.

⁴³ For further discussion regarding this case study as well as other examples and case-studies, see part __ *infra*.

⁴⁴ See *Lenz v. Universal Music Corp.*, 815 F.3d 1145 (9th Cir. 2016).

⁴⁵ See Digital Millennium Copyright Act of 1998, 17 U.S.C. § 512 (2016), which states that "any person who knowingly materially misrepresents under this section - (1) that material or activity is infringing, or (2) that material or activity was removed or disabled by mistake or misidentification, shall be liable for any damages, including costs and attorneys' fees, incurred by the alleged infringer,

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harbor regime that grants them immunity from monetary liability, for copyright infringement, if they comply with the safe harbor provisions. Under § 512(c) of the DMCA, this scheme applies to services that store data at the direction of a user.⁴⁶

To qualify for a safe harbor, a hosting facility must meet several requirements, including applying the notice and take down procedure that is set under § 512(c) of the DMCA.⁴⁷ The procedure requires online intermediaries to respond "expeditiously" to notices of infringement by right-holders and remove or disable access to allegedly infringing material when certain conditions are met.⁴⁸

As part of this general framework, the DMCA requires that notifications include a statement that the complaining party "has a good faith belief" that the use of the materials "is not authorized by the copyright owner, its agent, or the law."⁴⁹ The DMCA also imposes liability on any person who knowingly sends a takedown notice regarding non-infringing materials.⁵⁰

by any copyright owner or copyright owner's authorized licensee, or by a service provider, who is injured by such misrepresentation, as the result of the service provider relying upon such misrepresentation in removing or disabling access to the material or activity claimed to be infringing, or in replacing the removed material or ceasing to disable access to it".

⁴⁶ *See id.* § 512(c)(1)(A)(ii). §512(c), applies to services that store data at the direction of a user, such as sites which store users' websites. In order to benefit from the immunity, online intermediaries: (1) cannot have actual knowledge that infringing content is on its system or be "aware of facts or circumstances from which infringing activity is apparent"; (2) if they become aware of such content, they must expeditiously remove it from their system, based on the notice and takedown procedure that is set in section 512(c); (3) they should not receive a direct financial benefit from any infringing activity, which they the right and ability to control.

⁴⁷ *See id.* § 512(a)-(d), (i) (immunity from monetary liability for materials that are transmitted over networks, cached on a server, linked to, or stored at the direction of a user). Online services providers are required to adopt and implement certain policies. In particular, online services providers must comply with two preliminary policies. First, they must adopt and reasonably implement a policy to terminate the accounts of repeat infringers and must notify users of this plan. Second, they must also accommodate "standard technical measures" used by copyright owners to identify infringing material).

⁴⁸ *See id.* §§512(b)(2)(E)(i)-(ii), 512(c)(1)(C).

⁴⁹ *Id.* § 512(c)(3)(A)(v) requires a takedown notification to include a "statement that the complaining party has a good faith belief that the use of the material in the manner complained of is not authorized by the copyright owner, its agent, or the law."

⁵⁰ *See* Digital Millennium Copyright Act, *supra* note 120, § 512(f) (2016) (providing "Any person who knowingly materially misrepresents under this section - (1) that material or activity is infringing, or (2) that material or activity was removed or disabled by mistake or misidentification, shall be liable for any damages ...").

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In practice, the DMCA's safe-harbor regimes and § 512(c) in particular, were implemented and applied also in context of content-sharing platforms.⁵¹ Content sharing platforms, such as YouTube, benefit from § 512(c)'s safe-harbor as long as they comply with to notice and takedown regime that § 512(c) sets. Under the safe harbor regime, content-sharing platforms are risk ignorant since they are not exposed to legal liability. Users who upload content, however, are still exposed to legal liability if they upload without authorization, either by law or contractually, content with copyrighted materials. Users' generated content and other forms of potentially fair-use content are implicated therefore by their exposure to potential legal liability, which in turn might deter them from engaging in what are also potentially fair uses.

In *Lenz v. Universal Music Corp*⁵² the court had to decide: (a) whether fair use should be considered by the copyright holder prior to sending a takedown notice; (b) whether sending a takedown notice absent of such consideration amounts to a misrepresentation that imposes liability on the sending party. The court answered both questions affirmatively. It was held that fair use should be viewed as a right, and therefore also as a use which is "authorized by law."⁵³ Consequently, issuing a takedown notice without considering whether the proclaimed infringing use is fair use may amount to a liable misrepresentation lacking good faith belief.⁵⁴ The court's reasoning also disputed the classification of fair use as an affirmative

⁵¹ See *UMG Recordings, Inc. v. Shelter Capital Partners LLC*, 667 F.3d 1022 (9th Cir. 2011); *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627 (S.D.N.Y. 2011); *Io Group, Inc. v. Veoh Networks, Inc.*, 586 F. Supp. 2d 1132 (N.D. Cal. 2008); see also Mary Rasenberger & Christine Pepe, *Copyright Enforcement and Online File Hosting Services: Have Courts Struck the Proper Balance?*, 59 J. COPYRIGHT SOC'Y 627, 662–92 (2012). The most prominent case in this regard is *Viacom Int'l, Inc. v. YouTube, Inc.*, 676 F.3d 19 (2d Cir. 2012). In this case, after five years in the courts, the Second Circuit finalized parameters for applying § 512(c) in the context of content sharing platforms, such as YouTube, while determining that content sharing platforms may benefit from § 512(c)'s safe harbor according to the following determinations and parameters: (a) content sharing platforms fall within the definition of "service provider" in § 512(c); (b) knowledge or awareness of facts or circumstances that indicate specific and identifiable instances of infringement is a prerequisite for the obligation to remove and take down infringing materials; (c) "the right and ability to control" infringing activity does not require "item-specific" knowledge of infringement, yet it does not suffice with a general ability to remove or block access to materials posted on a service provider's website. What is required is some type of "substantial influence on the activities of users," without necessarily acquiring knowledge of specific infringing activity; (d) software functions of replication, playback and the related videos feature occur "by reason of the storage at the direction of a user" within the meaning of 17 U.S.C. § 512(c)(1).

⁵² See *Lenz v. Universal Music Corp*, *supra* note __ at __.

⁵³ *Id.* at __.

⁵⁴ *Id.* at __.

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defense, at least for the purposes of § 512(f), while characterizing fair use as a right which is "authorized by law."⁵⁵

Thus far, the *Lenz v. Universal* decision was analyzed mostly through the prism of the obligation that is imposed on right-holders – the requirement to consider whether the potentially infringing materials constitute fair use.⁵⁶ From a behavioral economics perspective, however, the *Lenz v. Universal* decision may also implicate users' behavior and their willingness to engage in secondary uses which are uncertain in terms of their compatibility with the fair use defense.

Users' generated content that incorporates copyrighted works, such as the one discussed in the *Lenz v. Universal* decision, may either qualify as fair use or constitute a copyright infringement. Amateur users are required to make decisions regarding the utilization of copyrighted works as well as the uploading of their content under conditions of uncertainty and risk.⁵⁷ In fact the DMCA's, § 512(c) safe harbor shelters only online intermediaries (e.g. hosting services providers, including content-sharing platforms). Users' exposure to the risk of copyright infringement remained the same after the enactment of the DMCA. The *Lenz v. Universal* decision also has no reference to substantial dimensions of the fair use defense. At the same time, however, the *Lenz v. Universal* decision frames fair use and users' engagement in fair uses as a positive right that users are entitled to, including enforceable remedies against any person who knowingly sends a takedown notice regarding non-infringing materials.

From a behavioral economics perspective, this approach may implicate on users' perception of refraining from engaging in potential, yet uncertain fair-uses through content sharing platforms. Under the framing of fair uses as positive rights, refraining from a proclaimed potential fair use, even under conditions of uncertainty, may now be perceived as a loss of an entitlement rather than as an unfulfilled gain. This state of mind mitigates the tendency for risk aversion which derives from the open-ample standard-based nature of fair use. Under this new state of mind, users would be willing to take more risks in the course of engaging in what they perceive as fair use. In the context of content-sharing platforms this means amateur users

⁵⁵ *Id.* at ____

⁵⁶ See e.g. Niva Elkin-Koren, *The New Frontiers of User Rights*, 32 AM.U.INT'L.L.REV, 1, 39-42 (2016) (analyzing the decision in *Lenz v. Universal* while focusing on the requirement it imposes on right-holders to consider fair use prior to sending takedown notification).

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that would be more willing to engage in borderline uses of copyrighted materials.

The *Lenz v. Universal* decision thus serves as an example for the manner in which a different legal formulation of fair use in a configuration that makes it closer to a positive entitlement (rather than as an affirmative defense) may debias the chilling effect of an open ample fair use and users' tendency toward risk aversion.

The purpose of this article is to introduce and discuss the connection between the legal formalization of permitted uses in copyright law and users' tendency towards risk aversion. By utilizing the toolbox of behavioral economics, I aim at demonstrating that effective

Part II begins by providing a brief introduction of several core principles of behavioral economics, which are required for my analysis. It then applies these principles on the current legal structure of the fair use defense. It explains how the construction and perception of fair use as an affirmative defense shapes users' perception of permitted uses as unfulfilled gains for which users tend to be risk averse under conditions of uncertainty and potential legal liability for copyright infringement. I close Part II by arguing that a different legal formalization of permitted uses, in forms and structures that are closer to endowments would change users' framing of permitted uses and therefore also their perception of refraining from what they now perceive as a probable legitimate utilization of their entitlement. Consequently, users would be willing to risk more in order to prevent the loss that they frame in refraining from the potentially permitted use. Altogether, I demonstrate how the reconstruction of permitted uses in copyright law as endowments, or in forms that bear more resemblance to endowments, may function as a debiasing mechanism that reduces users' risk aversion and overcomes copyright over spills. Thus, it provides a solution that enables to benefit from the advantages of a standard-based, flexible, open-ample fair use defense while mitigating the costs of its ambiguous nature.

Part III further examines the application of my hypothesis on four case-studies: (a) the emerging concept of users' rights and the acknowledgement of judicial remedies for an infringement of a user right; (b) revisiting the legal classification of fair use as an affirmative defense that places the burden of proof on the user; (c) notice and takedown procedures for content-sharing platforms under § 512(c) of the DMCA; (d) fair use best-practices codes and their potential impact on users' conducts under conditions of legal uncertainty.

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As these case-studies indicate, in a scale of different legal constructs of permitted uses that places affirmative defenses on one edge and legal entitlements on the opposite edge, the more permitted uses are perceived as users' endowments the less risk-averse users are likely to be. The theoretical framework that is presented in this article, establishes, therefore, the grounds for further future experimental and empirical work that will examine the validity and strength of my argument through different scenarios and settings. Alongside, as all case-studies demonstrate, independent of the importance of conducting such future research work, the theoretical framework itself bears important normative consequences regarding the interpretation and application of the fair use defense doctrine. Part V concludes.

PART II – LAW & BEHAVIORAL ECONOMICS – SOME CORE PRINCIPLES

Behavioral economics, as a discipline, marks and signifies the departure from rational choice theory.⁵⁸ In 1979, Daniel Kahneman and Amos Tversky presented Prospect Theory as an alternative to traditional versions of expected utility theory.⁵⁹ Based on experimental evidence, Kahneman and Tversky demonstrated that people tend to perceive outcomes as gains and losses rather than as final states of capital or wealth.⁶⁰ Prospect theory's main pillar lies in developing the notions of framing and reference points.⁶¹ Kahneman and Tversky demonstrated that people establish their

⁵⁸ See generally Joshua D. Wright & Douglas H. Ginsburg, *Behavioral Law and Economics: Its Origins, Fatal Flaws, and Implications for Liberty*, 106 NW. U. L. REV. 1033 (2012) (critically surveying the emergence of behavioral theory as a theory that rebutted the assumptions of rational choice theory); MARK KELMAN, THE HEURISTICS DEBATE, 42-48 (2011) (providing a general account of behavioral economics, its departures from the presumptions of rational choice theory and its impact on legal scholarship). See also Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1060-66 (2000) (surveying rational choice theory, its assumptions, critiques and the emergence of behavioral economics as a theory with improved tools of prediction and understanding of human behavior, findings which in turn implicate on understanding the role of legal norms in regulating human behavior).

⁵⁹ See Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979) (presenting, for the first time, prospect theory according to individuals act differently when facing what they perceive as potential gains than when facing what they perceive as potential losses). See also Daniel Kahneman and Amos Tversky, *Choices, Values and Frames*, in Daniel Kahneman & Amos Tversky, eds, CHOICES, VALUES, AND FRAMES 1 (Cambridge 2000); Amos Tversky & Daniel Kahneman, *Advances in Prospect Theory: Cumulative Representation of Uncertainty*, 5 JOURNAL OF RISK & UNCERTAINTY 297 (1992).

⁶⁰ *Id. Id.*

⁶¹ See Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 SCIENCE 453, 453 (1981); Amos Tversky & Daniel Kahneman, *Rational Choice and the Framing*

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assessment of a certain prospected outcome, in terms of gains and losses, relatively to a reference point, which is the benchmark from which people conduct their decision-making process.⁶²

Prospect Theory's main contribution is in emphasizing that subjective weighting of probabilities varies from objective probabilities while being reference dependent, that is to say, one's reference point shapes one's perception of a scenario and therefore also one's value function and risk tendency. According to the related notion of framing, the way people frame a scenario or the choice that they are facing implicates whether they perceive the outcome either as a gain or as a loss; thus, whereas people's reference point determines their framing of the scenario or the choice that they are framing. Thus, for example, in their famous

Kahneman's and Tversky's complementary contribution was in experimental findings that documented the phenomenon of **loss aversion**. According to their findings, the framing of an outcome – either as a gain or as a loss – derives different choices even with regard to identical alternatives. Individuals tend to value their losses more highly than their evaluation of equivalent gains and therefore wish to avoid losses more than

of Decisions, 59 J. BUS. S. 251 (1986).

⁶² *Id. Id.* See also Anton Kühberger, *The Influence of Framing on Risky Decisions: A Meta-Analysis*, 75 ORG. BEHAV. & HUM. DECISION PROC. 23 (1998) (surveying more than 100 papers demonstrating that framing is a reliable phenomenon); Avital Moshinsky & Maya Bar-Hillel, *Loss Aversion and the Status Quo Label Bias*, 28 SOC. COGNITION 191 (2010) (finding framing effect in policy choices as well).

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they desire gains of an equivalent value. The phenomenon of loss aversion is a close relative of the framing effect because it implies that people's reference point and their framing of a scenario implicates whether a certain outcome is perceived either as a loss or as an unfulfilled gain.

Khammam and Tversky further demonstrated that the disutility generated by a loss is greater than the utility that is produced by a similar gain. According to their experiments the value function is typically concave for gains therefore implying a tendency toward risk aversion whereas for losses the value function is typically convex and therefore implying a tendency for risk seeking. This implies when making decisions under conditions of uncertainty, people would be willing to risk more, in order to avoid a loss, then they would be willing in order to obtain a gain of an equivalent value.

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Related phenomena. The notions of reference points and loss aversion have also been used to explain such phenomena as the ***839** endowment effect and the status quo bias. The endowment effect, sometimes dubbed the WTA-WTP disparity, refers to the phenomenon that individuals tend to place higher value on objects and entitlements that they already have, compared to objects and entitlements that they do not have.³² Arguably, parting with (at least some) objects is perceived as losing them, whereas acquiring objects is perceived as gaining them. The status quo bias refers to the phenomenon that people tend to stick to the state of affairs that they perceive as the status quo rather than opting for an alternative state.³³ When departing from the status quo may result in either gains or losses, people are inclined to avoid such a departure. Closely connected to an omission bias,³⁴ the status quo bias explains a robust default effect, the tendency not to opt out of default arrangements.³⁵ Interestingly, even contractual default rules, which arguably do not endow people with any entitlement unless they find a partner willing to contract with them without deviating from the default, create an endowment effect and result in a status quo bias.³⁶ Another phenomenon associated with loss aversion is the consideration of sunk costs. Contrary to the microeconomic notion that only future costs should ***840** affect one's decisions, people take past investments into consideration because they dislike the notion of wasting (losing) resources.³⁷

Critique. PT, including its core notions of reference points and loss aversion, has been the subject of considerable critique. To begin, PT is not the only theory that aims at explaining and predicting people's manifest loss aversion in risky choices. While PT explains loss aversion as resulting from a kink in people's utility function at the reference point and the greater steepness of the utility function in the domain of losses, configural weight theories posit that loss aversion results from the different weight that people attribute to losses and gains, which in turn depends on the perspective from which they judge the choice problem.⁴⁵ Configural weight theories and PT are

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not mutually exclusive, yet they differ in some of their predictions. In any case, they all recognize that people view losses and gains differently and are averse to losses. Hence, for the present purpose, one need not delve into their dissimilarities.

More importantly for our purposes, some studies have challenged the generality of loss aversion. Evidently, different people display varying degrees of loss aversion under different circumstances. Moreover, some studies indicate that loss aversion is neutralized or even reversed for very small amounts of money,⁴⁶ and the same is true under certain experimental settings.⁴⁷ Some scholars doubt that PT is ***842** the appropriate explanation for such phenomena as the observed WTA-WTP gap.⁴⁸ Yet, the overall picture emerging from hundreds of theoretical, experimental, and empirical studies is clear. People's preferences, choices, and judgments do generally depend on the perceived reference point and display strong loss aversion.

Impact on legal theory. Over the past decades, behavioral studies have profoundly impacted economic, finance, and legal theory. Numerous legal theorists have utilized PT, including its key elements of reference points and loss aversion and the related phenomena of endowment effect and status quo bias, in various legal contexts. Often, commentators used these psychological insights to criticize the explanatory and normative force of standard economic analysis of law.⁴⁹ These insights were also relied upon to illuminate human behavior in legal contexts, advise legal actors how to act in interactive legal encounters, and inform legal policymaking.⁵⁰ Notable contributions to this body of literature include Jeffrey Rachlinski's analysis of litigants' behavior in settlement negotiations,⁵¹ Russell Korobkin's study of people's reluctance to contract around default rules due to the status quo bias,⁵² and Edward McCaffery's analysis of hidden taxes and loss aversion.⁵³

Without detracting from the great contribution of these and other analyses, the present Article goes one step further. It examines ***843** how the notions of reference points and loss aversion explain fundamental characteristics of entire legal fields and their relative importance.

As further elaborated in part __ *infra*, according to prospect theory and under the phenomenon of loss aversion, people ordinarily perceive outcomes as gains and losses, Gains and losses are defined relatively to a rather than as final states of wealth or welfare.
reference point

Kahneman and Tversky's prospect theory is most commonly associated with framing effects. Prospect theory posits that decisionmakers evaluate and maximize expected outcomes not in

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isolation but rather relative to an initial reference point.³⁰ While this effect is uncontroversial, prospect theory adds the empirical observation that decisionmakers weigh losses from the reference point more heavily than gains, a phenomenon described as "loss aversion." The key experimental finding of prospect theory is that individuals are, in many cases, reluctant to sell a good endowed to them when offered a sum greater than they are willing to pay to acquire the good.³¹

This "endowment effect" is the most celebrated, and certainly the most discussed, of the cognitive biases in the *behavioral law* and *economics* literature, in part because behavioral economists and legal scholars claim it as the most robust of the biases,³² and in part because of its significant policy implications. The principal implication of the endowment effect is that the Coase Theorem does not apply,³³ and thus market transactions may not lead to an efficient allocation of resources, which in turn has implications for virtually every area of substantive law.³⁴ Legal scholars [*1043] have certainly not missed many opportunities to elaborate on these implications.

³⁰ Kahneman & Tversky, *supra* note 11, at 277-79. In this narrow sense, prospect theory implicates rational choice behavior. As discussed, however, the reference-dependent preferences against which *economic* agents maximize generally arise from a form of cognitive bias such as "loss aversion."

³¹ Thaler, *Positive Theory*, *supra* note 16, at 43-44; Amos Tversky & Daniel Kahneman, *Loss Aversion in Riskless Choice: A Reference-Dependent Model*, 106 Q.J. *Econ.* 1039, 1041-42 (1991).

³² See, e.g., Samuel Issacharoff, *Can There Be a Behavioral Law and Economics?*, 51 *Vand. L. Rev.* 1729, 1735 (1998) ("The endowment effect is the most significant empirical observation from behavioral *economics*"); Daniel Kahneman et al., *Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias, in Choices, Values, and Frames* 159, 170 (Daniel Kahneman & Amos Tversky eds., 2000) (describing the robustness of the endowment effect as "part of our endowment, and we are naturally keener to retain it than others might be to acquire it"); Russell Korobkin, *The Endowment Effect and Legal Analysis*, 97 *Nw. U. L. Rev.* 1227, 1229 (2003) ("The endowment effect is undoubtedly the most significant single finding from behavioral *economics* for legal analysis to date.").

³³ Cf. Elizabeth Hoffman & Matthew L. Spitzer, *Willingness to Pay vs. Willingness to Accept: Legal and Economic Implications*, 71 *Wash. U. L.Q.* 59, 99 (1993) (illustrating how a difference between a person's willingness to pay to purchase a good and the price the same person is willing to accept to sell the same good could prevent Coasean bargaining); Jolls et al., *supra* note 28, at 1497 ("An important aspect of law and *economics* is the Coase theorem, which says that the assignment of a legal entitlement will not influence the ultimate allocation of that entitlement ...").

³⁴ See Christopher Buccafusco & Christopher Sprigman, *Valuing Intellectual Property: An Experiment*, 96 *Cornell L. Rev.* 1, 13 (2010) ("Recognition of the systematic discrepancy between owner and purchaser valuations has caused legal scholars to reevaluate many areas of the law where Coasean bargaining has been influential."); Cass R. Sunstein, *Switching the Default Rule*, 77 *N.Y.U. L. Rev.* 106, 112 (2002) ("The Coase Theorem fails to account for the fact that the initial allocation seems to create an endowment effect. When the endowment effect is at work, those who initially receive a legal right value it more than they would if the initial allocation had given the right to someone else." (footnote omitted)).

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³⁵ For example, they have relied upon failures of Coasean bargaining caused by the endowment effect to reexamine areas of property law, ³⁶ tort law, ³⁷ contract law, ³⁸ and intellectual property.
³⁹

One tool for understanding how *uncertainty* shapes incentives is Kahneman and Tversky's prospect theory, ¹³⁴ the principles of which have been demonstrated in myriad experimental settings and earned Kahneman a Nobel Prize. ¹³⁵ According to the theory, people evaluate choices not in absolute terms but in their divergence from a reference point. ¹³⁶ For example, those selling their homes tend to consider not "What is the fair market value of this house?" but instead "How much would I accept to sell this house that I bought for X, lived in for so many years, and now

³⁵ As of June 19, 2012, a search of the Westlaw Journals & Law Reviews (JLR) database reveals 1094 articles in legal periodicals referencing "endowment effect." The same search on Google Scholar shows 1030 references in legal periodicals and court opinions. According to one legal scholar, a broader search for "endowment effect" or "status quo bias" revealed that the terms were referenced in only two legal periodicals in 1990 but in 373 by 2003. Korobkin, *supra* note 32, at 1229.

³⁶ See, e.g., William A. Fischel, The Offer/Ask Disparity and Just Compensation for Takings: A Constitutional Choice Perspective, 15 *Int'l Rev. L. & Econ.* 187, 187 (1995); Jeffrey J. Rachlinski & Forest Jourden, Remedies and the Psychology of Ownership, *51 Vand. L. Rev.* 1541, 1542-46 (1998).

³⁷ See, e.g., Jack L. Knetsch, Biased Valuations, Damage Assessments, and Policy Choices: The Choice of Measure Matters, 63 *Ecological Econ.* 684, 684-85 (2007); Edward J. McCaffery et al., Framing the Jury: Cognitive Perspectives on Pain and Suffering Awards, *81 Va. L. Rev.* 1341, 1351-54 (1995).

³⁸ See, e.g., Russell Korobkin, The Status Quo Bias and Contract Default Rules, *83 Cornell L. Rev.* 608, 630-33 (1998).

³⁹ See, e.g., Christopher Buccafusco & Christopher Jon Sprigman, The Creativity Effect, *78 U. Chi. L. Rev.* 31, 51-52 (2011) (arguing evidence of an endowment effect in experiments simulating intellectual property markets "undermines the normative justification for an IP law structured around strong property rules"); Buccafusco & Sprigman, *supra* note 34, at 2-4.

¹³⁴ See generally Kahneman and Tversky, 47 *Econometrica* 263 (cited in note 115). See also generally Daniel Kahneman and Amos Tversky, Choices, Values and Frames, in Daniel Kahneman and Amos Tversky, eds, Choices, Values, and Frames 1 (Cambridge 2000); Amos Tversky and Daniel Kahneman, Advances in Prospect Theory: Cumulative Representation of *Uncertainty*, 5 *J Risk & Uncertainty* 297 (1992); George Wu, Jiao Zhang, and Richard Gonzales, Decision under Risk, in Derek J. Koehler and Nigel Harvey, eds, Blackwell Handbook of Judgment and Decision Making 399 (Blackwell 2004).

¹³⁵ Kahneman won the 2002 Nobel Prize in Economics for his work. See Daniel Kahneman, *Autobiography* (The Nobel Foundation 2002), online at http://nobelprize.org/nobel_prizes/economics/laureates/2002/kahneman.html (visited Nov 7, 2011).

¹³⁶ See Kahneman and Tversky, 47 *Econometrica* at 277 (cited in note 115).

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owe Y on?" Both losses and gains from a given reference point have a diminishing marginal effect: people value the first \$ 1,000 they win in a raffle more than the second, just as they fear the first \$ 1,000 in car repair costs more than the second.¹³⁷ Losses and gains are not felt equally, however. The [*359] (negative) value of the prospect of a loss is greater than the (positive) value of the prospect of an identical gain.¹³⁸

Prospect theory's more significant asymmetry for my purposes relates to risk sensitivity. People tend to be risk seeking for potential losses and risk averse for potential gains,¹³⁹ except when the stakes are low.¹⁴⁰ Roughly speaking, this means that people tend to prefer risking a 50 percent chance of losing \$ 1,200 over a 100 percent chance of losing \$ 500, even though they will lose \$ 600 rather than \$ 500 on average. Conversely, people tend to prefer a 100 percent chance of gaining \$ 500 over a 50 percent chance of gaining \$ 1,200, even though this means choosing an expected \$ 500 gain over an expected \$ 600 gain.¹⁴¹

¹³⁷ In Kahneman and Tversky's terms, "the value function for changes of wealth is normally concave above the reference point ... and often convex below it." Id at 278.

¹³⁸ See id at 279 ("The value function for losses is steeper than the value function for gains."). The phenomenon is called "loss aversion." See Daniel Kahneman, Jack L. Knetsch, and Richard H. Thaler, Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias, 5 J Econ Persp 193, 199-203 (1991).

¹³⁹ See Kahneman and Tversky, 47 Econometrica at 269 (cited in note 115).

¹⁴⁰ In their initial work, Kahneman and Tversky identified a gain-loss dichotomy for risk attitudes. See id. Later work culminating in "cumulative prospect theory" revealed a fourfold pattern of risk attitudes, however. People are risk averse for moderate or large gains, and risk seeking for moderate or large losses. But when the stakes are low, attitudes reverse: people become risk seeking for small gains and risk averse for small losses. See Tversky and Kahneman, 5 J Risk & *Uncertainty* at 306 (cited in note 134). See also Amos Tversky and Peter Wakker, Risk Attitudes and Decision Weights, 63 Econometrica 1255, 1256-57 (1995) (describing the fourfold pattern and collecting empirical sources); George Wu and Richard Gonzalez, Curvature of the Probability Weighting Function, 42 Mgmt Sci 1676, 1676-77 (1996) (noting the fourfold pattern); Antoni Bosch-Domenech and Joaquim Silvestre, Reflections on Gains and Losses: A 2 x 2 x 7 Experiment, 33 J Risk & *Uncertainty* 217, 225-27 (2006) (confirming the basic risk attitudes described by prospect theory but suggesting that attitudes may be shaped more by the amount of money in play than whether one faces a gain or a loss). Because the financial stakes in copyright suits are probably at least moderate and often high, I rely on the simple gain-loss dichotomy that applies to such situations. <PARA'0 pt'0 pt'0 pt'>For other legal applications of prospect theory, see Chris Guthrie, Framing Frivolous Litigation: A Psychological Theory, [67 U Chi L Rev 163, 167-70 \(2000\)](#); Jeffrey J. Rachlinski, Gains, Losses, and the Psychology of Litigation, [70 S Cal L Rev 113, 128-30 \(1996\)](#). See also generally Guthrie, [97 Nw U L Rev 1115](#) (cited in note 115) (reviewing applications).

¹⁴¹ The numbers here are stylized for exposition, but it is more accurate to say the risk seeker prefers a 50 percent chance of losing \$ 1,000 to a certain loss of \$ 500, whereas a risk-neutral person would not distinguish between the two.

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This asymmetric sensitivity suggests that the optimal distribution of uncertainty in the copyright system is an asymmetric one.¹⁴² Those seeking gains from copyright - the copyright holders - overvalue [*360] certainty: a right affording less protection may be preferred to a more protective right if the former is more predictable. In other words, the same (expected value of a) carrot is more valuable to a risk-averse actor when it is reliably awarded. So copyright's clarity in areas salient to copyright holders enhances incentives. By contrast, those who see copyright as an impediment and want only to avoid liability - the potential users - are risk seekers: holding copyright's scope constant, they prefer uncertainty. The same (expected value of a) stick is less daunting to a risk-seeking actor when it is uncertain. Because users are risk seekers, uncertainty in areas salient to them may promote access. It may also promote access by making copyright holders discount their entitlements to exclude uses at the boundaries of their entitlement and thus charge less for licenses and litigate less often. These points require elaboration, but they combine to cast doubt on the conventional argument that uncertainty inhibits access. Asymmetric uncertainty may be the best response to asymmetric sensitivity to risk.

A related phenomenon is the endowment effect. According to the endowment effect, individuals tend to place higher value on entitlements that they already have, compared to entitlements that they do not have.⁶³ Departing from an entitlement is perceived as a loss whereas acquiring an entitlement is perceived as a gain. The endowment effect thus implicates on people's reference point, which in turn incriminate whether a certain outcome is perceived as a loss or as a gain, with the implications of this aspect on people's attitude towards risk and therefore also their conducts under condition of legal uncertainty.

¹⁴² I am eliding somewhat the distinction between risk and uncertainty, where risk represents a known probability of an event's occurrence and uncertainty an ambiguous probability. See, for example, Frank H. Knight, Risk, Uncertainty and Profit 19-20, 197-232 (Cambridge 1921). In any event, choice under uncertainty follows many of the same patterns as choice under risk. See Tversky and Kahneman, 5 J Risk & Uncertainty at 316 (cited in note 134). See also Marco Lauriola and Irwin P. Levin, Relating Individual Differences in Attitude toward Ambiguity to Risky Choices, 14 J Behav Dec Making 107, 120-21 (2001).

⁶³ Id. Id.

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