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Intellectual Property Law's Plagiarism Fallacy

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ABSTRACT

Intellectual property law is caught in a widespread debate over whether it should serve incentive or natural rights objectives, and what the best means for achieving those ends are. This article reports a series of experiments revealing that these debates are actually orthogonal to how most users and many creators understand intellectual property law. The most common perception of intellectual property among the American public is that intellectual property law is designed to prevent plagiarism.

The plagiarism fallacy in intellectual property law is not an innocuous misperception. This fallacy likely helps explain pervasive illegal infringing activity on the Internet, common dismissal of copyright warnings, and other previously puzzling behavior. The received wisdom has been that the public is ethically dismissive or indifferent towards intellectual property rights. This research reveals instead that experts have failed to comprehend what the public's conception of intellectual property law actually is.

The studies reported here uncover several additional intellectual property law findings, including that (1) the majority of the American public views intellectual property rights as too broad and too

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strong, (2) knowledge of intellectual property law does not affect opinions about what the law should be, and (3) there are significant demographic and cultural divides concerning attitudes towards intellectual property rights. The findings as a whole raise central questions concerning the public legitimacy of intellectual property law and, consequently, its ability to function as intended.

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I. INTRODUCTION

Intellectual property law suffers from somewhat of an identity crisis. A robust debate has raged for decades concerning how intellectual property law can best incentivize creation and whether it should have more of a natural rights or commons bent than current doctrine.[1] This debate has been ignorant of a critical fact. To the public, intellectual property law is not about these traditionally identified objectives. Rather, in the public mind, the primary objective of intellectual property law is to prevent plagiarism.

This article presents an original series of experiments that reveal preventing plagiarism to be the leading perceived basis for intellectual property protection in the United States. This perception spans a wide variety of subject matter in both the copyright and patent domains, ranging from books and music to software and pharmaceuticals. Whether people are evaluating what they believe intellectual property law actually is, or what they think the law should be, the plagiarism fallacy governs popular responses.

Though the widespread plagiarism fallacy will appear antithetical to most who focus in intellectual property and is contrary to the law on the books, it nevertheless explains much previously confounding behavior. Illegal intellectual property activity has become surprisingly prevalent, from the unlawful file sharing of copyrighted movies and music,[2] to routine posting of infringing videos and

1. *See infra* Section III.B.1.

2. *See* Donald P. Harris, *The New Prohibition: A Look at the Copyright Wars Through the Lens of Alcohol Prohibition*, 80 TENN. L. REV. 101, 138–46 (2012) (discussing widespread consumer resistance and disregard for file-sharing prohibitions); Nick Bilton, *Internet Pirates*

other media on the Internet with ineffectual "no copyright intended" disclaimers,[3] to rising concerns about the use of 3-D printing technology to manufacture patent-infringing products.[4] Many people have tried to explain why otherwise law-abiding citizens seem to find intellectual property infringement to be unproblematic in many circumstances.[5] The studies presented here deliver an important clue. Rather than indicating a general immorality or ethical leniency concerning intellectual property law, the perceived acceptability of infringing behavior instead may stem from a disconnect between popular understanding of intellectual property law and its actual objectives.

We develop our plagiarism fallacy theory through a series of three experiments concerning lay understanding and preferences for intellectual property rights. Part II describes the first two studies. The first study involves an exploratory survey of public attitudes about the copying of another person's creative work product. The responses indicate a dominant focus on moral and ethical concerns with copying, but not legal concerns. The second study focuses on popular perceptions of the basis for intellectual property law. Preventing plagiarism is the most commonly selected objective, surpassing all traditionally identified objectives, including incentives, natural rights, and expressive alternatives.

The third study, presented in Part III, is substantially more involved. A national sample of approximately 450 American adults took part in a set of intellectual property experiments. The experiments were designed to test whether the participants believed that the copying of particular intellectual works should be allowed or prohibited in a series of scenarios. These scenarios covered a wide range of creative and innovative production in both artistic and technological fields, including books, music, painting, medicine,

Will Always Win, N.Y. TIMES, Aug. 5, 2012, at SR5 (reporting that unauthorized movies, music, and other digital media are accessed through file sharing millions of times each day).

3. Andy Baio, *No Copyright Intended*, WAXY (Feb. 11, 2012), http://waxy.org/2011/12/no_copyright_intended/.

4. Deven R. Desai & Gerard N. Magliocca, *Patents, Meet Napster: 3D Printing and the Digitization of Things*, 102 GEO. L.J. 1691 (2014).

5. *See, e.g.*, Steven Lysonski & Srinivas Durvasula, *Digital Piracy of MP3s: Consumer and Ethical Predispositions*, 25 J. CONSUMER MARKETING 167 (2008); Tom R. Tyler, *Compliance with Intellectual Property Laws: A Psychological Perspective*, 29 N.Y.U. J. INT'L L. & POL. 219, 224 (1996).

electronics, and software. The scenarios varied based on what type of intellectual creation was being copied (an idea, expression of the idea, or a complete creative product), and whether there were any factors that might mitigate perceived infringement liability (such as copying for educational purposes, without commercial benefit, with attribution, or with permission). Study participants were queried concerning both what they thought intellectual property law should be and what they thought current intellectual property law actually is.

The results of the studies provide substantial support for the plagiarism fallacy hypothesis. Across a wide variety of subject matters and contexts, people tend to believe that simply providing proper attribution to the originator of a creative work or invention should enable the free copying of that work by others. These results hold in a diverse range of circumstances that would constitute intellectual property infringement under the law. Uncovering the plagiarism fallacy in intellectual property law helps explain a variety of human behavior, such as the substantial failure of widespread information and warning efforts by various content industry actors.

Part IV of the article explores several additional insights that the experiments provide concerning popular understanding of, preferences for, and reactions to intellectual property protection. These insights include: (1) Americans have an extremely low level of knowledge about intellectual property law; (2) knowledge of intellectual property law does not affect individual opinions about what the law should be; and (3) there are demographic and cultural divides concerning attitudes towards intellectual property law based upon people's gender, age, income, and political identity.

Collectively, the studies reported here shed new light on how intellectual property law is understood and how it functions in the real world. The results raise stark concerns for the public legitimacy of intellectual property law and, consequently, for its ability to function successfully in practice. This greater comprehension of public perceptions of the law, however, also advances opportunities for legal reform that could enable intellectual property law to better serve its social objectives.

II. PERCEPTION STUDIES

Technological progress and intellectual property law are inevitably intertwined, but it is a stormy relationship. Just as

technological progress enables wondrous advances that allow for greater creation, production, and dissemination of intellectual works, technological progress also continually creates new means that make unlicensed copying of intellectual property works easier than ever before. Though this complex interaction has been heavily studied, relatively little attention has been paid to what is likely the most important mediator in the relationship: how humans react to intellectual property law. It is this reaction that dictates whether intellectual property law functions relatively efficiently to achieve desired ends, or whether the law struggles ineffectually in a largely indifferent world.

The first pair of studies reported here seeks to elucidate human perception concerning copying and intellectual property law. In a world where new technologies such as the Internet and nascent 3-D copying make extensive reproduction easier and easier,[6] intellectual property law necessarily depends on widespread voluntary compliance to a greater extent now than it ever has in the past. Investigating popular reactions to copying and intellectual property law is therefore necessary for understanding how the intellectual property system functions (or fails to function) in the real world.[7]

A. Study 1: Perceptions of Copying

The first study involved a basic exploratory examination of popular opinions concerning the copying of creative work product. Previous research has documented that both adults and children (as young as five years of age) show a dislike towards those who

6. *See* Desai & Magliocca, *supra* note 4, at 1693 ("The promise of 3D printing is that people will be free to make almost anything they want themselves . . . ."); Mark Lemley, David S. Levine & David G. Post, *Don't Break the Internet*, 64 STAN. L. REV. ONLINE 34, 34 (2011) (describing large-scale copyright infringement as a "serious global problem").

7. Other experimental work has explored how human cognitive and behavioral biases can affect the functioning of intellectual property law. *See, e.g.*, Christopher Buccafusco & Christopher Jon Sprigman, *The Creativity Effect*, 78 U. CHI. L. REV. 31, 31–32 (2011) (reporting experiments indicating that people tend to irrationally overvalue the quality of their own creations due to endowment and creativity effects); Gregory Mandel, *Patently Non-Obvious II: Experimental Study on the Hindsight Issue Before the Supreme Court in* KSR v. Teleflex, 9 YALE J.L. & TECH. 1, 1 (2006) (reporting experiments indicating that people's nonobviousness decisions in patent law suffer from a significant hindsight bias); *see also* Gregory N. Mandel, *Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational*, 67 OHIO ST. L.J. 1391, 1393–95 (2006).

deliberately copy the work of others.[8] Further, it has been suggested that the basis for this dislike is the potential negative influence of copying on one's reputation.[9] However, much of this work has examined particular domains of creative products, like drawings or stories. In order to shed light on adults' general opinions toward copying, the first study did not specify a domain when asking for participants' opinions concerning the copying of one person's creative work product by another.

Participants included fifty adults, ages nineteen to sixty-one (M_{age} = 33.41, SD = 9.65), 48% of whom were female, recruited through Amazon's Mechanical Turk website. Almost all participants reported having at least a high school degree (n = 49), and 40% of participants reported a bachelor's degree or higher. A majority of participants reported being white (82%) and employed part or full-time (74%). The group of participants was slightly skewed toward the liberal end of the political spectrum (22.9% conservative; 25% moderate; 52% liberal). All participants were paid one dollar for participating, a typical mTurk compensation rate, and none of the participants were excluded from analyses.

Amazon's mTurk is considered a reliable source for online national data collection samples.[10] The primary concerns raised with

8. *See* Kristina R. Olson & Alex Shaw, *'No Fair, Copycat!': What Children's Response to Plagiarism Tells Us About Their Understanding of Ideas*, 14 DEVELOPMENTAL SCI. 431 (2011) (reporting that children as young as five years old rated deliberate copiers [plagiarizers] more negatively than independent drawers who happened to produce similar works); Chris Park, *In Other (People's) Words: Plagiarism by University Students—Literature and Lessons*, 28 ASSESSMENT & EVALUATION HIGHER EDUC. 471, 477 (2003) (reviewing the norms adults endorse with respect to plagiarism, including disapproval of taking credit for ideas originally put forth by others).

9. Alex Shaw & Kristina Olson, *Whose Idea is It Anyway? The Importance of Reputation in Acknowledgement*, 18 DEVELOPMENTAL SCI. 502, 502 (2015) (finding that children, like adults, approve of copying when original creators are given credit for their work/idea and that this concern for acknowledgement is rooted in its reputational effects).

10. *See* Michael Buhrmester, Tracy Kwang & Samuel D. Gosling, *Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?*, 6 PERSP. ON PSYCHOL. SCI. 3, 3 (2011) (arguing that data collected from Amazon's Mechanical Turk is highly diverse and reliable due to a payment method that maintains high performance and, thus, high quality data); Adam J. Berinsky, Gregory A. Huber & Gabriel S. Lenz, *Evaluating Online Labor Markets for Experimental Research: Amazon.com's Mechanical Turk*, 20 POL. ANALYSIS 351 (2012) (finding that samples from mTurk have been shown to be more representative of the greater United States population than other convenience samples that are frequently used, particularly student samples, and that concerns about participant

mTurk for research populations relate to such populations having greater knowledge or experience with the subject matter of a study or greater familiarity with experimental methods in general than does the general population.[11] Neither of these concerns raise significant issues for our research. Our subjects displayed very low knowledge of and experience with intellectual property matters,[12] low enough such that it would not be possible for them to have significantly greater knowledge and experience than the general public. While the sample is younger and more liberal than the general population, our primary analyses involve differences within the study population across different vignettes, and there does not appear to be a reason that such population characteristics would interact with our variables of interest in a way that would skew the study results. Finally, the possibility that mTurk populations may have greater experience with research studies than average Americans or that they may be familiar with the instant materials being tested are not significant concerns here because studies of intellectual property law are very rare and our materials in this study were original.

Through mTurk worker qualifications, we required that all participants be located in the United States (based on I.P. address) and have a 95% or higher prior approval rate (based on previous site history). The possibility that study participants could communicate with one another online is a potential concern with data collection via Amazon's mTurk. In particular, many mTurk users turn to the Reddit website to share information about certain studies on mTurk. Our studies were in fact posted on the Reddit website;[13] however, given our small sample size and timing,[14] it is very unlikely

motivation/attentiveness are relatively modest). *See generally* Gabriele Paolacci, Jesse Chandler & Panagiotis G. Ipeirotis, *Running Experiments on Amazon Mechanical Turk*, 5 JUDGMENT & DECISION MAKING 411 (2010); Joseph K. Goodman, Cynthia E. Cryder & Amar Cheema, *Data Collection in a Flat World: The Strengths and Weaknesses of Mechanical Turk Samples*, 26 J. BEHAV. DECISION MAKING 213 (2013).

11. Yanna Krupnikov & Adam Seth Levine, *Cross-Sample Comparisons and External Validity*, 1 J. EXPERIMENTAL POL. SCI. 59 (2014).

12. *See infra* Section IV.A.2.

13. REDDIT.COM, (July 1, 2014 01:14:29 UTC) http://www.reddit.com/r/HITsWorthTurkingFor/comments/29ivo4/us_answer_a_survey_about_intellectual_property/.

14. The studies lasted an hour or two on mTurk.

that there was time for the Reddit post to drive users to our study before it was completed. In addition, the sole post on the Reddit site about this study simply noted that our study included attention check questions; it did not reveal what the questions or answers were. Although it is possible that the Reddit posting led some participants to our study, there is no reason to believe that the informational content or results were compromised.

Participants in Study 1 were asked an open-ended question: "In general, do you think copying someone else's creative product is acceptable or not? Why or why not?" No reference was made to intellectual property protection or intellectual property law. Participants' open-ended responses were coded independently by two trained raters. Coded responses to the first part of the question were in substantial agreement, with the inter-rater reliability at Kappa = 0.738 ($p < 0.001$). Any disagreements were settled with independent coding by a third trained rater. Seventy-eight percent of participants believed that copying was not acceptable in this generic context, 20% believed it was acceptable under certain conditions, and 2% believed it was acceptable—responses that all differed from chance ($\chi^2(2) = 47.32$, $p < 0.001$).

Qualitative responses to the latter part of the query ("Why or why not?") were coded based on participants' proffered justifications. Raters coded responses for appeals to moral/ethical and legal justifications. Coded responses for both moral/ethical justifications and legal justifications were each independently in very high agreement, with the inter-rater reliability at Kappa = 0.820 ($p < 0.001$) and Kappa = 0.847 ($p < 0.001$), respectively.

A striking 78% of respondents identified a moral or ethical basis for their response concerning whether copying someone else's creative product is acceptable. Only 6% of respondents mentioned any legal basis for explaining why copying someone else's creative product is or is not acceptable. The explanations provided often did focus on the concept of copying another's work as theft, but not from a perspective associated with intellectual property rights. Rather, copying was viewed as theft because it was perceived as taking credit for another person's work. Typical responses in this regard included, "Copying someone else's work and taking credit for it is theft" and "I do not think it is right. People should give credit where credit is due." Misplaced attribution raised the greatest

qualitative concern among respondents, being mentioned by 18% of participants.

Participants were also queried concerning what circumstances would make it acceptable or not acceptable to copy another person's creative work. These justifications were coded in terms of the particular moral/ethical or legal concerns identified. There was substantial inter-rater reliability in coding participant responses (K = 0.60, $p < 0.001$ and $K = 0.658$, $p < 0.001$, respectively). Once again, the explanations provided were dominantly based in morality and ethics and rarely made mention of any legal factors. For the query, "Why do these circumstances make it not acceptable to copy someone else's creative product?," 56% of respondents identified moral or ethical justifications and only 2% mentioned legal justifications. The most common reason that participants identified as making it unacceptable to copy another person's work involved financial effects, either for the copier or the creator (40%). The second most common reason mentioned on this open-ended query was the failure of the copier to acknowledge the original creator (28%). Without any prompting, one of respondents' main foci for the inappropriateness of copying another person's creative work concerned claiming another creator's creative expression as one's own.

In sum, Study 1 found that in an abstract context, participants tended to have a strong, negative reaction to copying another person's work. This reaction was rooted in moral and ethical disapproval of copying, not legal concerns. The moral and ethical disapproval appears closely tied to concerns about one person taking credit for another person's work. Study 1 examined popular attitudes towards copying in general. Study 2 turns to attitudes towards intellectual property law.

B. Study 2: Perceptions of Intellectual Property

Intellectual property is now mainstream. Once a relative legal backwater, intellectual property disputes are everywhere these days: from debates concerning online pirating of music and videos to questions about whether genes should be patented and whether vaccine and drug patents should be modified to lower health care

costs. The Supreme Court decided ten intellectual property cases in the 2013–14 term, representing the highest proportion of intellectual property cases on its docket in history.[15] The decisions in many of these cases made front page news, were splashed across various media outlets, and were widely discussed by the public.[16]

In the wake of this upsurge in interest in intellectual property, it is striking that almost nothing is known about popular perceptions and attitudes concerning intellectual property law. This vacuum is particularly surprising given the critical function that human behavior plays in the success of the intellectual property law system. Our second study begins to explore popular perceptions of intellectual property law.

1. Expert theory of intellectual property law

The Intellectual Property Clause of the United States Constitution grants Congress the power "To promote the Progress of Science and useful Arts" by enacting copyright and patent laws.[17] Consistent with this objective-oriented framework, the dominant view of intellectual property law and policy in the United States is that intellectual property law exists in order to incentivize creative and innovative activity.[18] This utilitarian incentive perspective of

15. Am. Broad. Cos. v. Aereo, Inc., 134 S. Ct. 2498 (2014); Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014); POM Wonderful LLC v. Coca-Cola Co., 134 S. Ct. 2228 (2014); Limelight Networks, Inc. v. Akamai Techns., Inc., 134 S. Ct. 2111 (2014); Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120 (2014); Petrella v. Metro-Goldwyn-Mayer, Inc., 134 S. Ct. 1962 (2014); Highmark Inc. v. Allcare Health Mgt. Sys., Inc., 134 S. Ct. 1744 (2014); Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749 (2014); Lexmark Int'l., Inc. v. Static Control Components, Inc., 134 S. Ct. 1377 (2014); Medtronic, Inc. v. Mirowski Family Ventures, LLC. 134 S. Ct. 843 (2014); *Granted & Noted List Cases for Argument in October Term 2013*, SUP. CT. U.S. (June 30, 2014), http://www.supremecourt.gov/orders/13grantednotedlist.pdf (last visited Feb. 6, 2015).

16. *See, e.g.*, Jerry Markon, Robert Barnes & Cecilia Kang, *Win for Traditional TV, Setback for Streaming*, WASH. POST, June 26, 2014, at A1; Editorial, *Clarifying, and Tightening, Patent Law*, N.Y. TIMES, June 5, 2014, at A26.

17. U.S. CONST. art. I, § 8, cl. 8.

18. *See* Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1746–51 (2012) ("According to the dominant American theory of intellectual property, copyright and patent laws are premised on providing creators with . . . incentive[s] to create artistic, scientific, and technological works . . . ."); Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1597–99 (2003) ("To a greater extent than any other area of intellectual property, courts and commentators widely agree that the basic

intellectual property rights has been repeatedly affirmed by the Supreme Court[19] and by experts in both legal and economic fields.[20] The incentive theory of intellectual property law is based on the rationale that providing authors and inventors with the potential for intellectual property rights will induce them to engage in greater innovative activity than they otherwise would, from the creation to the production to the commercialization of intellectual works.[21]

Though the incentive theory of intellectual property law is the prevailing conceptual basis among experts and policy-makers in the United States, other theories of intellectual property rights receive support as well. Some scholars rely on John Locke's labor theory of

purpose of patent law is utilitarian: We grant patents in order to encourage invention." (footnotes omitted)).

19. *E.g.*, *Alice Corp.*, 134 S. Ct. at 2354 ("We have 'repeatedly emphasized this . . . concern that patent law not inhibit further discovery by improperly tying up the future use of' these building blocks of human ingenuity." (alteration in original) (quoting Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1301 (2012))); *Mayo*, 132 S. Ct. at 1305 ("[T]he promise of exclusive rights provides monetary incentives that lead to creation, invention, and discovery."); Eldred v. Ashcroft, 537 U.S. 186, 223 (2003) (Stevens, J., dissenting) ("[T]he grant of exclusive rights [in the Intellectual Property clause] is intended to encourage the creativity of 'Authors and Inventors.'"); Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991) ("The primary objective of copyright is not to reward the labor of authors, but '[t]o promote the Progress of Science and useful Arts.'" (alteration in original) (quoting U.S. CONST. art. 1, § 8, cl. 8)); Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 558 (1985) ("[C]opyright supplies the economic incentive to create and disseminate ideas."); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) (granting patents and copyrights is "intended to motivate the creative activity of authors and inventors"); United States v. Paramount Pictures, Inc., 334 U.S. 131, 158 (1948) ("The sole interest of the United States and the primary object in conferring the [copyright] monopoly lie in the general benefits derived by the public . . . ." (quoting Fox Film Corps. v. Doyal, 286 U.S. 123, 127 (1932))).

20. *E.g.*, Fromer, *supra* note 18, at 1746–51; Burk & Lemley, *supra* note 18, at 1597–99; Christopher Buccafusco & Christopher Sprigman, *Valuing Intellectual Property: An Experiment*, 96 CORNELL L. REV. 1, 3 (2010) ("IP, perhaps more than any other substantive area of law, is grounded in the rational actor model . . . . According to [this model], the monopolistic rights granted by copyrights and patents exist to provide economic incentives to creators." (footnote omitted)); WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 4 (2003) ("[I]t is acknowledged that analysis and evaluation of intellectual property law are appropriately conducted within an economic framework that seeks to align that law with the dictates of economic efficiency.").

21. ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 11–14 (5th ed. 2010); Christopher A. Cotropia & James Gibson, *The Upside of Intellectual Property's Downside*, 57 UCLA L. REV. 921, 926–27 (2010).

property rights and similar concepts to argue that authors and inventors should hold natural rights in their creative works.[22] This equitable perspective views individuals as automatically entitled to the fruits of their efforts.[23] Natural rights theory supports intellectual property protection on the basis that a creator is morally entitled to control the copying and distribution of inventions or artistic creations produced as a result of the creator's own labor and effort.[24]

Other scholars contend, based on reasoning from Kant and Hegel, that intellectual property rights can advance an expressive function for creators.[25] Intellectual property rights should be protected under this rationale to promote greater personal freedom, human flourishing, and cultural development.[26] Just as individuals use physical property, such as homes or clothing, to express their

22. *See, e.g.*, Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533, 1540 (1993). *See generally* Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 296–330 (1988) (discussing Locke's labor theory as it relates to intellectual property rights). Some scholarship not only supports the natural rights theory of intellectual property, but also makes a historical argument that this was an originally understood basis for such rights in the United States. PAUL D. CLEMENT, VIET D. DINH & JEFFREY M. HARRIS, THE CONSTITUTIONAL AND HISTORICAL FOUNDATIONS OF COPYRIGHT PROTECTION 1 (2012) ("[F]rom its inception[,] copyright was seen not merely as a matter of legislative grace designed to incentivize productive activity, but as a broader recognition of individuals' inherent property right in the fruits of their own labor."); Adam Mossoff, *Rethinking the Development of Patents: An Intellectual History, 1550-1800*, 52 HASTINGS L.J. 1255, 1257 (2001) ("It is my intention, nonetheless, to offer a modest challenge to the prevailing view that the ideas of the natural rights philosophers did not influence the early development of patent law.").

23. ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 33–41 (2011).

24. *See* Gordon, *supra* note 22, at 1543 ("[A]ll persons have a duty not to interfere with the resources others have appropriated or produced by laboring on the common. This duty is conditional, and is a keystone in the moral justification for property rights." (footnote omitted)); Hughes, *supra* note 22 at 297 ("Locke proposes that . . . there are enough unclaimed goods so that everyone can appropriate the objects of his labors without infringing upon goods that have been appropriated by someone else.").

25. *See, e.g.*, Fromer, *supra* note 18, at 1754–56; Margaret Jane Radin, *Market-Inalienability*, 100 HARV. L. REV. 1849, 1894–95 (1987); Hughes, *supra* note 22, at 330–65.

26. *See, e.g.*, Fromer, *supra* note 18, at 1754–56; Radin, *supra* note 25, at 1892; Hughes, *supra* note 22 at 330–65.

personality,[27] an individual's intellectual creations may be used in a similar manner.[28]

Consistent with these alternative notions of intellectual property rights, several European countries endow authors with certain "moral rights" in their works.[29] These moral rights can include a right of attribution (requiring that the author of a work be identified) and a right of integrity (permitting the author of a work to prevent others from distorting the work in a way that would injure the author's reputation).[30] In the United States, however, alternative foundations for intellectual property rights tend to play less of a role than that of incentive-based rationales in most expert and policy discourse concerning the actual operation and scope of intellectual property law.[31] United States intellectual property law essentially provides no moral rights to attribution for creators.[32]

It appears that no intellectual property expert or scholar has ever propounded a plagiarism theory of intellectual property

27. Nestor M. Davidson, *Property and Identity: Vulnerability and Insecurity in the Housing Crisis*, 47 HARV. C.R.-C.L. L. REV. 119, 119–20 (2012).

28. Fromer, *supra* note 18, at 1765–81 (discussing how authors and inventors use their creations to express themselves).

29. Jane C. Ginsburg, *"European Copyright Code"—Back to First Principles (With Some Additional Detail)*, 58 J. COPYRIGHT SOC'Y U.S.A. 265, 278–80 (2010); ROBERTA ROSENTHAL KWALL, THE SOUL OF CREATIVITY: FORGING A MORAL RIGHTS LAW FOR THE UNITED STATES 37–47 (2009).

30. Ginsburg, *supra* note 29, at 278–80.

31. *See, e.g.*, Fromer, *supra* note 18, at 1750–51 ("The Supreme Court, Congress, and many legal scholars consider utilitarianism the dominant purpose of American copyright and patent law." (footnote omitted)); John P. Conley & Christopher S. Yoo, *Nonrivalry and Price Discrimination in Copyright Economics*, 157 U. PA. L. REV. 1801, 1802 (2009) ("[B]oth sides [in debates over copyright laws] generally frame the arguments in largely economic terms."); Burk & Lemley, *supra* note 18, at 1597–99 ("While there have been a few theories of patent law based in moral right, reward, or distributive justice, they are hard to take seriously as explanations for the actual scope of patent law." (footnotes omitted)).

32. There are a couple minor exceptions to this statement. The Visual Artists Rights Act (VARA) provides attribution rights to a limited number of authors of valuable works of visual arts in particular circumstances. *See* 17 U.S.C. § 106A(b) (2012) (limiting the scope of VARA to particular works). Until 2013, the Patent Act required that a patent identify the inventor of the subject matter of a patent application. 35 U.S.C. § 102(f) (2006) (repealed 2011) ("A person shall be entitled to a patent unless . . . he did not himself invent the subject matter sought to be patented . . . ."). This requirement never applied beyond identification before the Patent and Trademark Office (for example, in intellectual property licenses or on products) and was substantially modified by the America Invents Act. *See* 35 U.S.C. § 102 (2012) (omitting required disclosure of the true inventor).

law.[33] Much of current patent and copyright doctrine can be explained as seeking to achieve incentive objectives,[34] and certain aspects promote natural rights and expressive aims as well.[35] It is hard, however, to identify any existing intellectual property law doctrine that is grounded in preventing plagiarism. Current United States patent and copyright law provide scarcely any rights related to attribution.[36]

2. Public understanding of intellectual property law

Given the ongoing debates over how intellectual property law should function, it is important to understand how potential users and creators themselves conceive of the law, as these conceptions will help shape actions under the law. The second study focused on the public's perceived basis for intellectual property rights.

Based on the traditionally identified objectives for intellectual property law and the responses in the first study, we developed brief descriptions of each of four potential purposes for intellectual property law: incentives, natural rights, expressive rights, and plagiarism. Participants were presented with the descriptions of potential bases for intellectual property law (presented in a random order on a single page) and were informed that these were "reasons why someone might support laws regulating the products of creativity and innovation." Participants were asked to "rank the statements based on how much you agree with them as a basis for intellectual property law," ordering all four statements according to how much they agreed with each one. The intellectual property basis descriptions are reported in Appendix A.

After ranking the bases for intellectual property law, participants were asked four questions concerning intellectual property rights, also presented in a random order. For each of these opinion questions, participants responded using a slider scale ranging from

33. *See* Catherine L. Fisk, *Credit Where It's Due: The Law and Norms of Attribution*, 95 GEO. L.J. 49, 50–51 (2006) ("Although attribution is pervasive and important, it is largely unregulated by law. Intellectual property law does not adequately protect the right of attribution because American law does not recognize or protect moral rights.").

34. Burk & Lemley, *supra* note 18, at 1597–99.

35. Fromer, *supra* note 18, at 1746–51.

36. *Id.* at 1792.

zero to one hundred, with labels at either end of the scale. For example, one question asked, "Do you think Intellectual Property laws in the United States should generally be made stronger, weaker, or left about where they are?," with "weaker" at the low end of the scale and "stronger" at the high end of the scale. Thus, by moving the slider up or down the scale, participants indicated not only whether they thought intellectual property law should be made weaker or stronger, but also the degree to which they held that opinion.

Other opinion questions included: (1) "How important do you believe it is for people to comply with intellectual property rights laws?," with "not important" on the low end and "important" on the high end of the scale; (2) "How carefully do you comply with intellectual property laws?," with "not carefully" on the low end and "carefully" on the high end of the scale; and (3) "Intellectual property laws should be most concerned with the rights of the:," with "creator" and "user" at the low and high end of the scale, respectively. The output for each question was a number from zero to one hundred based on where the participant placed the scale's slider.

Participants included 116 adults ages nineteen to seventy-one (M_{age} = 35.22, SD = 11.73), forty-five of whom were female, recruited through Amazon's Mechanical Turk website. As in Study 1, through mTurk worker qualifications, we required that all participants were located in the United States (based on I.P. address) and had a 95% or higher prior approval rate (based on previous site history).[37] Almost all participants reported having at least a high school degree (96%), and a majority of participants reported having a bachelor's degree or higher (54%). A majority of participants were white (79.1%), employed part- or full-time (69%), and tended to be liberal politically (16.5% conservative; 21.1% moderate; 62.4% liberal). A total of twelve participants were excluded from the analyses for either completing the survey in an

37. This study was also posted to the Reddit site. Suuserx, *Answer a Survey About Intellectual Property – Kristina Olson – $1.00/6 min –(>95%)*, REDDIT.COM (Sept. 4, 2014 18:16:12 UTC), http://www.reddit.com/r/HITsWorthTurkingFor/comments/2fh4tk/us_answer_a_survey_about_intellectual_property/ (last visited Feb. 6, 2015). For similar reasons to those discussed in relation to Study 1, there is no reason to believe that this posting compromised the study results. *See supra* Section II.A.

unreasonably short amount of time (n = 1) or for incorrectly answering both attention-check questions in the survey (n = 11).[38]

Participants ranked plagiarism as the primary basis for intellectual property rights more often than any of the other commonly accepted bases ($\chi^2(3) = 15.655$, $p = 0.001$) (see Table 1). This perception did not influence respondents' position on any of the other intellectual property rights matters that we tested, with the exception of one item discussed below. Thus, participants' opinions on whether intellectual property law is currently too weak, too strong, or just about right did not differ depending on their identification of the primary basis for intellectual property law ($F(3,111) = 0.988$, $p = 0.401$). Similarly, differences in respondents' perceived basis for intellectual property law did not lead to differences in how important the respondent thought that it was for people to comply with intellectual property rights ($F(3,112) = 0.611$, $p = 0.610$), or whether they themselves tended to comply with intellectual property rights ($F(3,111) = 0.329$, $p = 0.805$).

Top ranked basis	*N*	Percent
Plagiarism	43	37.1
Incentives	30	25.9
Natural Rights	30	25.9
Expressive	13	11.2

Table 1. Perceived basis for intellectual property rights.

There was a significant difference, depending on participants' primary reason for intellectual property law, in responses to the query concerning whether intellectual property law should be primarily concerned with the rights of creators or those of users ($F(3,112) = 6.509$, $p < 0.001$). Participants identifying an expressive basis for intellectual property law were significantly less likely to say that intellectual property law should be concerned with the rights of the creator ($M = 50.14$) than those preferencing an incentives ($M = 19.62$, $p < 0.001$), natural rights ($M = 20.73$, $p < 0.001$), or

38. Inserting attention check questions into a study is a common method for assuring the authenticity of responses in mTurk data collection. Daniel M. Oppenheimer, Tom Meyvis & Nicolas Davidenko, *Instructional Manipulation Checks: Detecting Satisficing to Increase Statistical Power*, 45 J. EXPERIMENTAL SOC. PSYCHOL. 867, 867 (2009).

plagiarism ($M = 19.14$, $p < 0.001$) basis. Those who perceived that intellectual property rights are designed to protect people's ability to express themselves did not think that intellectual property protection should favor either users or creators.

The first two studies thus lend significant support for the plagiarism fallacy hypothesis: that the popular perception of intellectual property rights is that they are designed to prevent plagiarism, not to provide incentives or protect creators' natural rights. These results could have significant implications for intellectual property policy and law, but the contours of individual perceptions and preferences need to be better understood in order to provide sound guidance.

III. STUDY 3: PLAGIARIZING INTELLECTUAL PROPERTY

Over one million YouTube videos state "no copyright intended" or "no copyright infringement intended" in a legally misguided belief that such disclaimers provide protection against copyright infringement.[39] Many of these videos implicate copyright infringement under the law, yet the people who post the videos believe that by disclaiming authorship of the video, and sometimes by identifying the apparent copyright owner, they can avoid copyright liability.[40] Anyone with even a basic knowledge of intellectual property law tends to mock these disclaimers and profess a lack of comprehension about why such misinformation could persist.[41] In fact, the entry for "no copyright infringement intended" in the *Urban Dictionary* reads: "A phrase put in the title and/or description section of youtube [sic] videos by incredibly

39. This data was gathered by performing a search on YouTube with the phrase "no copyright intended."

40. This reality can be seen in the results from the following search: https://www.youtube.com/results?search_query=%22no+copyright+intended%22.

41. *See, e.g.*, Andy Baio, *No Copyright Intended*, WAXY (Feb. 11, 2012), http://waxy.org/2011/12/no_copyright_intended/ (discussing the ineffectual nature of such disclaimers); Edward Lee, *Warming up to User-Generated Content*, 2008 U. ILL. L. REV. 1459, 1534 (2008) (discussing how such disclaimers are not a defense to copyright infringement).

stupid people who don't understand how copyright laws actually work."[42]

This widespread fallacy about intellectual property law is not limited to just a few people or to a quirky context on YouTube. Rather, it reveals an underlying reality that is experimentally established here for the first time: the public tends to view intellectual property law as designed to protect against plagiarism.

Study 3 provides a substantially more involved examination of individual perceptions of and preferences for intellectual property rights across a wide variety of contexts. The core results not only confirm the plagiarism fallacy hypothesis, but they raise significant questions concerning the public legitimacy of intellectual property law and, consequently, the ability of the law to function as designed in a variety of circumstances.

A. Methodology

Participants included 443 adults recruited through Amazon's Mechanical Turk website. Once again, we required that all participants be located in the United States and have a 95% or higher prior approval rate.[43] An additional thirty-seven participants completed the study but were excluded from analyses because they either completed the study more rapidly than could be reasonably expected[44] or did not satisfy our pre-set criterion of correctly responding to at least two of the three attention-check questions included in the study. All participants who completed the study were compensated one dollar for their participation.[45]

Of the 443 participants, 60.1% were male and 80.5% were white, with a large participant age range (range = 19–78, M_{age} =

42. *No Copyright Intended*, URBAN DICTIONARY (Dec. 12, 2009), http://www.urbandictionary.com/define.php?term=No+copyright+infringement+intended&defid=4431901.

43. See *supra* Section II.A.

44. These participants completed the study in under five minutes, whereas the typical participant took ten to fifteen minutes.

45. Like the first studies, this study was also posted to the Reddit site. Suuserx, *Answer a Survey About Intellectual Property – Anne Fast – $ 1.00/6.5 min –(>95%)*, http://www.reddit.com/r/HITsWorthTurkingFor/comments/22qkai/us_answer_a_survey_about_intellectual_property/. Again, as discussed above, none of the posts disclosed substantive information that would raise concern about the results of the study being compromised. *See supra* Section II.A.

33.84, SD = 12.08). As with the other study samples, a majority of participants reported a liberal political orientation (56.7%), followed by moderate (25.2%), and conservative (18.2%) identity. A majority of participants reported full-time employment (59.9%), compared to part-time employment (25.8%) and unemployment (14.3%). In this study, participants also reported income and residence characteristics. The most commonly reported annual family income was in the $50,000 to $75,000 range (19.2%), followed by nearly identical proportions of participants reporting $30,000 to $40,000 (15.2%), $20,000 to $30,000 (14.9%), and $10,000 to $20,000 (13.6%). Additionally, participants tended to be from suburban (45.5%) or urban (24.9%) residences, compared to small town (17.4%) or rural (12.2%) residences.

The experiment was presented through Qualtrics and included four main sections: (1) three vignettes, each followed by a series of questions about the vignette; (2) questions about intellectual property knowledge and experience; (3) intellectual property opinion questions; and (4) demographic queries.

1. Vignettes

The study employed six different vignettes, developed to test six different fields of potential intellectual property protection: medicine, electronics, software, books, music, and painting. The six subject matter areas thus included three artistic fields that are the domain of copyright protection and three innovation scenarios where the products were protected by patents. Each vignette described a scenario depicting one person copying another person's idea, expression of an idea, or completed creative product. Participants received three vignettes, each in a different subject matter, presented in randomized order. The vignettes are reported in Appendix B.

The participants were asked a series of five questions following each vignette concerning the permissibility of copying under the given circumstances. These circumstances included whether copying was permissible in the baseline context described and whether it was permissible under four different potentially mitigating circumstances. The potentially mitigating circumstances included copying for an educational purpose, without receiving financial compensation, with attribution, and with permission.

Half of the participants were queried concerning whether they believed intellectual property rights should provide protection in the given scenario (*ought* conditions), and half were asked what they perceived intellectual property law to actually provide (*is* conditions). The questions were answered on a scale from one to six, with lower numbers indicating that copying is/should not be allowed and higher numbers meaning that copying is/should be allowed (1 = definitely not allowed, 6 = definitely allowed).

In addition to asking whether the copying is/should be permitted in general, four further queries asked participants whether copying should be permitted under a variety of potentially mitigating circumstances: where the copying is for educational purposes, where the copier does not receive compensation for the copy, where the copier includes correct attribution to the creator, and where the copier has permission from the creator to make the copy. Each of these queries was addressed using the same scale. Finally, three attention-check questions, related to the particular scenarios, were asked for each participant, one after each vignette.

The study design was therefore a 2 (response viewpoint: what the law should be vs. what the law is) X 2 (subject matter: artistic/copyright domain vs. inventive/patent domain) X 3 (property type: idea vs. expression vs. complete product) X 5 (mitigating factors: baseline (no mitigation) vs. education vs. no compensation vs. attribution vs. permission) mixed-model design. Response viewpoint and mitigating factors were tested as between-subjects factors, with subject matter and property type as within-subjects factors.

2. Intellectual property knowledge, experience, and policy

After completing the vignette portion of the study, participants were asked a series of questions concerning their intellectual property knowledge, experience, and opinions, as well as a set of demographic questions. The intellectual property knowledge and experience question sections included ten multiple choice questions about intellectual property law and five questions about their level of experience with intellectual property rights and intellectual property creation. These panels of questions were designed to test whether those who know more or are more experienced with intellectual property law have different responses from those with

little to no knowledge or experience. Examples of the intellectual property knowledge questions include:

1. To obtain a copyright, someone must:

   (a) File the copyright material with the U.S. Copyright Office

   (b) File the copyright material and obtain copyright approval from the U.S. Copyright Office

   (c) Mail the copyright material to themselves in a sealed envelope

   (d) Do nothing particular with the copyright material

2. How long does the standard patent protection term last?

   (a) 20 years

   (b) 70 years

   (c) The life of the creator plus 20 years

   (d) The life of the creator plus 70 years

Participants also provided information about their prior experience with intellectual property laws, either through working in an industry in relation to intellectual property rights or experience as a creator or user of works protected by intellectual property rights. The complete knowledge and experience questions are included in Appendix C.

Participants next responded to a series of four questions, answered on a one-to-seven scale, concerning their opinions on various aspects of intellectual property law in general. In the first two opinion questions, participants were asked whether they believe that copyright and patent protection should be made weaker, stronger, or stay about the same (1 = very much weaker; 4 = stay the same, 7 = very much stronger). Participants were then asked how important it is that people adhere to intellectual property laws (1 = extremely not important, 4 = neutral, 7 = extremely important) and how carefully they themselves adhere to intellectual property laws (1 = extremely not carefully, 4 = neutral, 7 = extremely carefully).

Finally, participants provided demographic information including their gender, age, race, political ideology, education, income, and employment status.

B. Results: Popular Opposition to Intellectual Property Rights

The plagiarism fallacy appears rooted in, and may in part be a cause of, a widespread perception among the public that intellectual property rights are too broad and too strong. Our analysis therefore begins with evidence of this perception, which leads to findings that directly support the plagiarism fallacy.

One of the clear, consistent results of the intellectual property studies is that the general public believes that intellectual property laws are too strong. This belief is demonstrated from a number of different perspectives, including differences between how people respond to questions about what intellectual property law *is* versus what the law *should be* and participants' opinions about what types of activities should constitute infringement in comparison to actual law.

1. Is versus ought

Responses to the vignette queries were analyzed with a mixed-model repeated-measures ANOVA, with response viewpoint (personal opinion vs. understanding of law) as a between-subjects factor. There is a main effect of response viewpoint, revealing that participants believed that copying should be allowed ($M = 4.46$) to a greater extent than they believed intellectual property law actually permits copying ($M = 4.20$) ($F(1,418) = 13.138$, $p < 0.001$).

In identical scenarios, respondents consistently thought that copying was more acceptable when asked what intellectual property ought to permit versus being asked what the law actually allows. Participants thus perceive that intellectual property law mandates greater protection for creative works than they believe the law should provide.[46]

46. In contrast to these results, when directly queried concerning whether they thought copyright or patent law "should generally be made stronger, weaker, or stay the same," participants tended to respond that the law should stay about the same. Despite answering these questions on a seven-point scale ranging from "very much weaker" to "very much stronger," about half of participants gave the mid-point answer (copyright law: 50.3%, patent law: 44.7%) and the means of the responses were right at the mid-points as well (copyright law: 4.0, patent law: 4.1). The disparity in responses between answers to these acontextual questions and the vignette scenarios is likely a result of participants' lack of knowledge and perceived experience with intellectual property law. *See infra* Section IV.A.2. When asked about their preferences for stronger or weaker intellectual property law in the

2. Ought versus law

The difference in responses to the *is* versus *ought* queries indicates that people believe that intellectual property laws should be less protective than people perceive intellectual property laws actually are. These results, however, do not tell us about the relationship between the popular perception of what intellectual property law should be and what the law actually is, because most people do not know what the law actually is.[47]

One way to explore the relationship between popular preferences and actual law is to examine participant responses across the "idea/expression" divide. Intellectual property law draws a strict line between the protection of expression, which is provided by both copyright and patent law, and protection of ideas, which is prohibited under each doctrine. In copyright law, the idea/expression divide is codified by statute: "In no case does copyright protec[t] . . . any idea . . . described, explained, illustrated, or embodied in [the copyrighted] work."[48] Protected expression, as opposed to an idea per se, requires some tangible fixation of the author's ideas.[49] A work is "fixed" in this regard "when its embodiment . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[50] The Supreme Court explains that the idea/expression dichotomy, and the lack of copyright protection for ideas, "strike[s] a definitional balance between the First Amendment and the Copyright Act by permitting free communication of facts while still protecting an author's expression."[51]

Though the Patent Act does not contain an explicit idea/expression distinction, longstanding Supreme Court precedent

abstract, participants are aware they know little about it, and therefore answer that the law should stay about the same. When presented with a particular scenario, however, it provides the context for respondents to have an opinion about whether copying should be allowed or not under particular circumstances. In context, the public is at odds with intellectual property law.

47. *See infra* Section IV.A.2.

48. 17 U.S.C. § 102(b) (2012).

49. Mazer v. Stein, 347 U.S. 201, 214 (1954).

50. 17 U.S.C. § 101; Kelley v. Chi. Park Dist., 635 F.3d 290 (7th Cir. 2011).

51. Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 556 (1985).

establishes that one cannot patent "abstract ideas."[52] For example, one cannot patent a process for hedging risk in financial transactions[53] or mitigating settlement risk[54] because doing so would "effectively grant a monopoly over an abstract idea."[55] Similarly, one cannot patent a general mathematical formula or a law of nature.[56] Inventors can, however, obtain a patent on a useful, new, and nonobvious application of an idea to a known structure or process so as to create a new invention.[57] Thus, patent law mirrors copyright law in prohibiting intellectual property protection for ideas, but providing protection for ideas that are adequately expressed (implemented) in inventions.

The experiments here test how popular positions on intellectual property rights comport with the legal distinction between protectable expression versus unprotectable ideas. The studies examined whether people believe that ideas themselves, the expression of ideas, or complete creative products should be protected by intellectual property rights. Existing research indicates that lay people, including even young children, believe some aspects of intellectual creations can be owned,[58] but exactly what people perceive can be owned (i.e., ideas versus expressions of ideas) has never previously been explored.

To test these distinctions, three conditions were developed for each subject matter vignette in the present studies. The idea condition involved a scenario where the copier used the creator's idea, but did not copy other aspects of the creator's expression or product. The expression condition involved the copier copying some of the creative content of the original creator's expression, but never duplicating the full creative product itself. Finally, the complete creative product condition described complete duplication of the creative product.

52. Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347, 2354 (2014); Bilski v. Kappos, 561 U.S. 593, 601–02 (2010); Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

53. *Bilski*, 561 U.S. at 611–12.

54. *Alice Corp.*, 134 S. Ct. at 2355–57.

55. *Id.* at 2354 (quoting *Bilski*, 561 U.S. at 611–12).

56. *Bilski*, 561 U.S. at 611; Diamond v. Diehr, 450 U.S. 175, 191–92 (1981).

57. *Diehr*, 450 U.S. at 187.

58. Alex Shaw, Vivian Li & Kristina R. Olson, *Children Apply Principles of Physical Ownership to Ideas*, 36 COGNITIVE SCI. 1383, 1383 (2012).

The music vignettes, for example, involve a band that "wrote, recorded, and copyrighted" a new song "considered by many music scholars to be the first known track to blend upbeat reggae and jazz instrumentals." In the idea condition, another individual who was familiar with the original song wrote and recorded a new song in the same key, with a similar rhyming pattern, and with upbeat reggae and jazz instrumentals, but with different lyrics and melody. In the expression condition, the copier recorded a version of the same original song in a different key and at half speed, changing some of the lyrics, but keeping the chorus. Finally, in the full creative product condition, the individual simply purchased digital MP3 version of the original song, added a short introduction at the beginning, and emailed the MP3 to several other people.

The electronics vignettes provide a second example of the idea/expression/complete product differentiation. Here, an electrical engineer realized that automobiles could be designed to drive themselves. The engineer developed and patented a new semiconductor chip that could be installed in most automobiles to independently drive and navigate the vehicle. In the idea condition, a second electrical engineer, after hearing about the first semiconductor chip, independently designed his own chip that could perform the same function. In the expression condition, the second engineer reverse engineered the first chip and used it to program a similar chip that could perform all of the original function and also park itself. Last, in the full creative product copying version, the copier built a manufacturing device to make replicas of the original chip. The complete vignette scenarios for all six subject matters are included in Appendix B.

Our results reveal a main effect for property type, such that participants viewed it as most acceptable to copy an idea (M = 5.07), followed by the expression of an idea (M = 4.15), followed by copying the complete creative product (M = 3.74) ($F(2,836)$ = 156.285, $p < 0.001$). The public's ordering of the acceptability of copying is thus in accord with intellectual property law. Table 2 presents the mean participant responses concerning whether copying *should* be permitted in each circumstance as well as the

percentage of participants who responded that copying should be allowed.[59]

	Medical	Electronics	Software	Book	Music	Painting
Idea	5.22 (90.2%)*	4.10 (61.5%)*	4.24 (72.4%)*	5.26 (92.6%)*	4.28 (65%)*	4.76 (86.7%)*
Expression	4.44 (79.5%)*	3.93 (69.0%)*	2.12 (22.0%)	2.28 (20.0%)	3.44 (53.3%)*	4.89 (85.2%)*
Full Product	3.24 (48.3%)	2.56 (19.5%)	2.31 (23.9%)	3.16 (44.4%)	3.56 (59.3%)*	3.03 (37.5%)

*Majority response is that copying should be permitted.

Table 2. Mean responses and percentage responding that copying should be allowed by subject matter and property type.

Asterisks identify the conditions in Table 2 in which a majority of respondents concluded that copying should be permitted. In accordance with intellectual property law, a significant majority of respondents in every subject matter believed that copying of ideas should be permissible.

Responses to the expression conditions were much more mixed. Though intellectual property law would prohibit copying in each of the expression conditions provided, a majority of respondents believed that copying should be permitted in four of the six expression scenarios, in three of these by a very substantial margin. These scenarios included copiers who duplicated the chorus, additional lyrics, and some of the melody from a song; painted their own picture of an artist's collage; used a new process to copy a patented vaccine; and reverse engineered and copied a patented semiconductor chip. In the remaining two scenarios (involving copying in software and literary contexts), respondents overwhelmingly opposed copying. Summing across scenarios, a slight majority of respondents thought that copying of expression should be permitted in general (52%).

The complete product scenarios also display marked variation. While the majority of participant responses were in accord with the

59. Results reported for the baseline condition only (i.e., not the mitigating factors conditions).

law prohibiting copying in five of the six subject matter areas, in several of the scenarios involving complete infringement, respondents were close to evenly divided.

There are two significant conclusions to draw from these data. First, public preferences for what intellectual property should be are for weaker protection than what the law actually provides. In four of the six expression scenarios, and one of the complete creative product scenarios, the majority of respondents believed that copying should be allowed in circumstances where intellectual property law prohibits it. In none of the conditions for any of the subject matter did the majority of participants support intellectual property protection in a context where legal protection would not apply. Second, popular preferences for intellectual property rights appear to be highly context dependent. Participants varied greatly across the different subject matter areas and between whether they thought that expression should be entitled to greater, similar, or weaker protection than the copying of a full creative product. Though our study does not identify the root causes of these differences, it appears that people make distinctions among various subject matters based upon some combination of personal and social beliefs concerning innovation in a given field and context. For example, the complete copying in the music scenario may have been considered particularly acceptable because it involved copying an MP3 file, something which study participants may engage in, or, conversely, perhaps subjects were particularly concerned with copying in the book expression condition because it sounded in classic plagiarism, which our studies indicate is of great concern to the public.[60]

Intriguingly, even within the public's preference for less protective intellectual property rights, their perspective on where intellectual property law should be weaker does not comport with experts in the field. One of the most heavily criticized areas of patent protection, from an expert perspective, concerns the patenting of computer software.[61] Many leading scholars and

60. *See supra* Section II.B.2; *infra* Section III.C.

61. *E.g.*, Pamela Samuelson, *The Uneasy Case for Software Copyrights Revisited*, 79 GEO. WASH. L. REV. 1746, 1773–75 (2011); Robert E. Thomas, *Debugging Software Patents: Increasing Innovation and Reducing Uncertainty in the Judicial Reform of Software Patent Law*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 191, 214–15 (2008); James

commentators contend that patent protection is or may be retarding innovation in the software industry.[62] Yet, software is the subject matter in which participants in our study perceived the *greatest* preference for strong intellectual property rights, preferring much stronger protection overall for software than for any of the other subject matters tested.[63]

C. Results: Intellectual Property Law's Plagiarism Fallacy

The foregoing results provide the background against which we can test the public's plagiarism fallacy concerning intellectual property law. In addition to the conditions described above, the experiments tested a variety of potentially mitigating circumstances. These circumstances made it possible that certain acts of copying, which might otherwise constitute illegal intellectual property infringement under the law, would instead be permissible. The potentially mitigating circumstances tested concerned whether a participant's responses would change: if the copying were conducted solely for educational purposes, if the copier did not receive any financial compensation from the copying, if the copier had the creator's permission to make the copy, or if the copier provided attribution to the original creator in relation to the copy.

The last condition, providing attribution, tests the plagiarism hypothesis. While attribution is never a defense under actual intellectual property law, it would mitigate plagiarism concerns. The results from Study 1 and Study 2 support a prediction that attribution will influence perceptions of copying permissibility. In

Bessen & Robert M. Hunt, *An Empirical Look at Software Patents*, 16 J. ECON. & MGMT. STRATEGY 157, 184 (2007). *See generally* Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281 (1970) (discussing issues surrounding intellectual property protection for computer software).

62. JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 11–12 (2008); Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155, 1155 (2002).

63. It is possible that this difference results from a selection effect in our study participants. An mTurk participant population may be more likely to include an overrepresentation of respondents experienced with computer programming, and such a population may be more deferential to intellectual property protection for computer software.

Study 1 we found that participants were often concerned about copying on the grounds that the original creator would "lose credit" for their work, a concern that sounds in plagiarism. In Study 2 we found that lay members of the public perceive protection against plagiarism to be the primary purpose for intellectual property law. If lay perceptions of intellectual property law are in fact based in plagiarism concerns, then people would be expected to believe that copying is permissible, regardless of permission, so long as a copier provides attribution to the original creator.

1. Attribution in intellectual property law

The various mitigating factors tested have differing import under intellectual property law. Attribution is irrelevant to infringement liability under both copyright and patent doctrine,[64] and neither copyright nor patent law provides authors or inventors with any general right to attribution.[65] Duplicating copyrighted or patented works is prohibited regardless of whether the infringer attributes the work to its original source.[66] In fact, under certain circumstances, providing attribution could actually support enhanced damages for infringement because it provides evidence that an infringement was willful.[67]

Copyright law does have a "fair use" defense that provides protection against liability for copyright infringement in certain

64. Castle Rock Entm't, Inc. v. Carol Pub. Grp., Inc., 150 F.3d 132, 142–43 (2d Cir. 1998). Non-attribution in the form of a disclaimer of any relationship with a referenced author could sometimes provide a defense to copyright infringement. For example, in a lawsuit for copyright infringement in a case involving a trivia book about the television show *Seinfeld*, the trivia book included the proviso that it "has not been approved or licensed by any entity involved in creating or producing *Seinfeld*." *Id.* at 136. The court held that this was not enough to negate the factors militating against a finding of fair use in the particular case but left open the possibility that such a disclaimer could be relevant in a closer case. *Id.* at 141–46.

65. As discussed above, one small exception to this general statement is the Visual Artists Rights Act (VARA), which provides attribution rights to a limited number of authors of valuable works of visual arts in particular circumstances. *See supra* Section II.B.2.

66. *Cf. Castle Rock Entm't*, 150 F.3d at 137.

67. *See* 35 U.S.C. §§ 284–285 (2012) (providing for enhanced damages for willful infringement); *In re* Seagate Tech., 497 F.3d 1360, 1371 (Fed. Cir. 2007) (explaining the meaning of "willful").

circumstances, but these do not include attribution.[68] The Copyright Act provides, "the fair use of a copyrighted work, including such use by reproduction in copies . . . for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright."[69] Whether a given act of copying constitutes fair use depends upon a variety of factors, of which the Copyright Act explicitly identifies four:

> (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
> (2) the nature of the copyrighted work;
> (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
> (4) the effect of the use upon the potential market for or value of the copyrighted work.[70]

Included within the first factor, often the primary focus of a fair use inquiry,[71] are two of the mitigating factors that we tested: lack of financial compensation for the copying and copying for educational purposes. Though these factors are taken into account in a copyright fair use inquiry, fair use is an equitable doctrine based on all circumstances, and the existence or absence of any particular factor is not determinative.[72]

Patent law has no equivalent fair use defense.[73] Patent infringement is a strict liability offense, and the fact that an alleged copier received no compensation for the copy or used it only for educational purposes is generally irrelevant to patent infringement

68. 17 U.S.C. § 107 (2012); Golan v. Holder, 132 S. Ct. 873, 890 (2012); Sony Corp. of Am. v. Universal City Studios, Inc. 464 U.S. 417, 447–51 (1984).

69. 17 U.S.C. § 107.

70. 17 U.S.C. § 107; *Sony Corp.*, 464 U.S. at 448–51 & n.30.

71. *Sony Corp.*, 464 U.S. at 448–49.

72. Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577–78 (1994); *Sony Corp.*, 464 U.S. at 448–51.

73. Patent law does have an experimental use defense, but it is tightly cabined and rarely applied. Madey v. Duke Univ., 307 F.3d 1351, 1360–63 (Fed. Cir. 2002).

liability.[74] The non-commercial and education mitigating factors thus vary in their import under copyright versus patent doctrine.

Finally, permission from the copyright or patent owner is a defense to infringement liability under both copyright and patent doctrine.[75] Having the permission of an intellectual property rights owner to make a copy precludes infringement liability.[76]

In contrast to this summary of actual intellectual property doctrine, if lay intuitions about intellectual property rights are driven by concerns about plagiarism, we would expect an especially strong focus on attribution.

2. Attribution in popular perception

We tested the effect of attribution on people's perception of the acceptability of copying in connection with the series of potentially mitigating factors. Participant responses to the mitigating factors questions in Study 3 reveal a main effect ($F(4,1672) = 427.514$, $p < 0.001$), such that participants saw it as most permissible to copy if one had permission from the original author ($M = 5.36$), followed by where the copy was for educational use ($M = 4.31$), where there was attribution to the creator as the source ($M = 4.24$), where the copier received no financial compensation ($M = 4.13$), and finally followed by the baseline condition where the copying took place without any mitigating factors ($M = 3.62$). In sum, adding any of the four mitigating circumstances to the original, baseline scenario contexts led respondents to find copying behavior to be more acceptable.

For comparison to actual intellectual property law, participant responses to the expression and complete creative product conditions are the most important areas to explore, as these are the domains in which intellectual property law provides protection. These results are displayed in Figure 1.

74. 35 U.S.C. § 271 (2012).

75. Wang Labs., Inc. v. Mitsubishi Elecs. Am., Inc., 103 F.3d 1571, 1580 (Fed. Cir. 1997) (pertaining to patent law); *Sony Corp.*, 464 U.S. at 433 (pertaining to copyright law).

76. De Forest Radio Tel. Co. v. United States, 273 U.S. 236, 241–42 (1927); Spindelfabrik Suessen-Schurr Stahlecker & Grill GmbH v. Schubert & Salzer Maschinenfabrik Aktiengesellschaft, 829 F.2d 1075, 1081 (Fed. Cir. 1987).

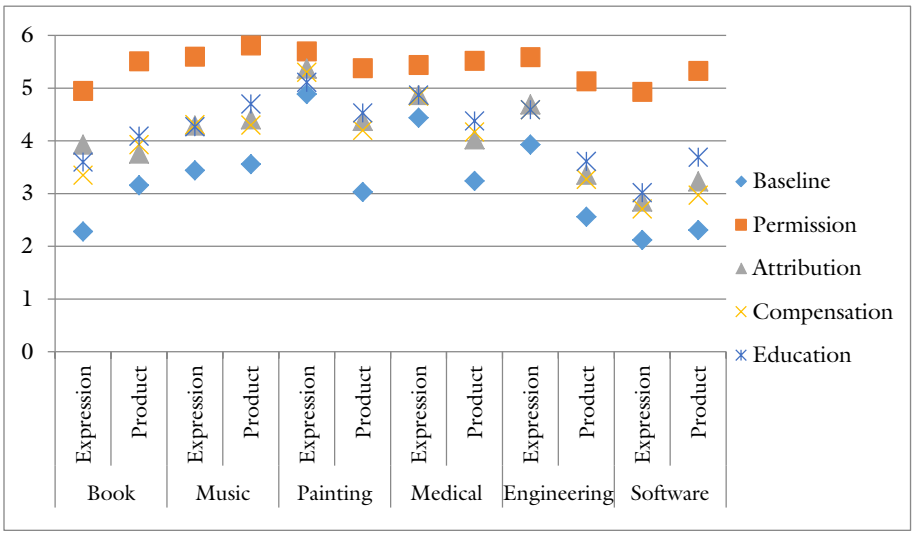

Figure 1. Effect of mitigating factors on copying permissibility.[77]

Though the various potentially mitigating circumstances differ in their legal import, respondents overwhelmingly thought that every mitigating factor should reduce liability for infringement. In every subject matter, respondents concluded that copying in the baseline condition was less permissible than in any of the mitigating conditions. Similarly, in every subject matter, respondents believed that permission from the creator should have the greatest mitigating effect on potential infringement liability. Aside from the powerful mitigating force of permission, all of the other mitigating factors had about the same effect on popular preferences.

The attribution results provide strong support for the plagiarism fallacy hypothesis. A majority of the population (62%, summing across conditions) believes that providing proper attribution to creators should enable the free copying of their intellectual property works and inventions. This is true regardless of whether the copier has permission, is using the work for educational purposes, or is not receiving financial benefit from the copying. The attribution results were stable across the various subject matters,

77. Data is based on mean responses to each question (baseline and each of the four mitigating factors) for participants in the "should" condition, differentiated by subject matter and by copying of expression versus complete product.

applying whether the attribution was provided in connection with an artistic work or an invention.

The public's perception of the importance of attribution in copying permissibility is consistent with prior research in intellectual property finding that creators of intellectual works highly value the right of attribution. In a series of experiments, Christopher Jon Sprigman, Christopher Buccafusco, and Zachary Burns found that intellectual property "creators are willing to sacrifice significant economic payments in favor of receiving attribution for their work."[78] Similarly, Jessica Silbey conducted a series of in-depth interviews with a variety of people involved in the creative process and found that concerns about proper attribution and credit were pervasive.[79] There appears to be a significant disconnect between how intellectual property law treats attribution (or fails to treat it) and both creator and general public interest in the rights of creators to attribution.

Participants also concluded that the other mitigating factors tested should similarly defeat infringement liability. Like the attribution responses, these results are generally inconsistent with actual intellectual property law. For example, even though copyright and patent law vary significantly in the import of financial compensation and educational use as a basis for mitigating infringement liability, respondents believed that each factor should reduce infringement liability equivalently in the patent- and copyright-based scenarios (no compensation): $F(1,218) = 3.293$, $p = 0.071$; educational use: $F(1,218) = 0.361$, $p = 0.548$).

Analyzing the mitigating factor responses on the whole, the existence of any factor appears to present a tipping point in public perception about intellectual property rights protection. Table 3 displays the percentage of respondents who believe that infringement should be permitted in the given baseline and mitigation scenarios for each of the six subject matters tested. As discussed above, the public is mixed when it comes to infringement liability for copying expression and generally supports infringement liability for copying a complete creative product. Introducing any

78. Christopher Jon Sprigman, Christopher Buccafusco & Zachary Burns, *What's a Name Worth?: Experimental Tests of the Value of Attribution in Intellectual Property*, 93 B.U. L. REV. 1389, 1390 (2013).

79. JESSICA SILBEY, THE EUREKA MYTH: CREATORS INNOVATORS, AND EVERYDAY INTELLECTUAL PROPERTY (2015).

mitigating factor, however, shifts public opinion strongly in favor of permitting the copying of intellectual property works.

		Baseline	No Compensation	Attribution	Education	Permission
Medical	Expression	79.5%*	82.1%*	82.1%*	84.6%*	94.9%*
	Product	48.3%	65.5%*	55.2%*	65.5%*	96.6%*
Electronics	Expression	69.0%*	75.9%*	79.3%*	75.9%*	96.6%*
	Product	19.5%	39.0%	39.0%	58.5%*	82.9%*
Software	Expression	22.0%	34.1%	39.0%	41.5%	85.4%*
	Product	23.9%	38.5%	46.2%	56.4%*	94.9%*
Book	Expression	20.0%	45.0%	57.5%*	50.0%	80.0%*
	Product	44.4%	57.8%*	51.1%*	60.0%*	93.3%*
Music	Expression	53.3%*	71.1%*	68.9%*	68.9%*	97.8%*
	Product	59.3%*	70.4%*	74.1%*	85.2%*	100.0%*
Painting	Expression	85.2%*	96.2%*	100.0%*	92.6%*	100.0%*
	Product	37.5%	70.0%*	72.5%*	75.0%*	95.0%*
Overall	Expression	52.0%*	64.7%*	68.8%*	67.0%*	91.9%*
	Product	37.1%	55.7%*	65.6%*	55.2%*	93.2%*

*Majority response supports no infringement liability

Table 3. Percentage of participants responding that copying should be allowed by mitigating factor.

In the baseline conditions, the public favors allowing the copying of complete products in only one of the six subject matter scenarios; they favor allowing the copying of expression in four of the six subject matters. Summing participant responses across subject matters indicates a slight preference for permitting the copying of expression overall (52.0%) and opposition to copying full creative products (37.1%).

Introducing any of the mitigating factors to the baseline scenario shifts overall public opinion against infringement liability, even for direct copying of complete creative products. The

mitigating factors move public opinion even more strongly in favor of permitting the copying of expression, with about two-thirds of respondents favoring copying in the no compensation, attribution, and education conditions. These general effects are borne out in each of the individual mitigation contexts as well. Once a mitigating factor is added, the public favors copying in nearly every circumstance tested, with the primary exception of the software scenarios.

3. Plagiarizing intellectual property

It is hard to understate the import of the attribution results relative to actual intellectual property law. A legal rule permitting attribution to defeat infringement liability would essentially eviscerate intellectual property protection.[80] Such a doctrine would mean that one could freely copy another's copyrighted work or patented invention simply by providing appropriate source credit to the actual creator. An attribution defense would effectively replace copyright and patent law with a law that simply prohibits plagiarism. The majority of the public appears to favor such a practice, at least when queried about the permissibility of copying behavior in context.

Exposing the plagiarism fallacy in intellectual property law helps elucidate a variety of previously puzzling common behaviors. For example, this fallacy likely helps to explain the apparently widespread failure of intellectual property owners' warnings and threats concerning intellectual property infringement.[81] Despite a proliferation of campaigns declaring "infringement is theft" and "copyright is theft," a substantial

80. *See* 35 U.S.C. § 271 (providing liability for patent infringement, regardless of attribution); 17 U.S.C. § 501 (providing liability for copyright infringement, regardless of attribution).

81. Jenna Wortham, *The Unrepentant Bootlegger*, N.Y. TIMES, Sept. 28, 2014, at BU1 (reporting on the ineffectiveness of the Copyright Alert System and that only six percent of nearly ten billion movies, television shows, and other files downloaded in the second quarter of 2014 were legal); Ernesto Van der Sar, *RIAA Warns 1 Million Copyright Infringers a Year*, TORRENTFREAK (July 4, 2010), https://torrentfreak.com/riaa-warns-1-million-copyright-infringers-a-year-100704/ (noting that despite the Recording Industry Association of America issuing over a million copyright infringement warnings a year, file-sharing remains steady).

amount of infringing activity continues.[82] The reason for this disconnect is that, while many people might agree with the statement of these proclamations verbatim, this is only because the popular understanding of these phrases is different from intellectual property owners' intended meaning. Since anti-plagiarism is the most common perception of the basis for intellectual property law, many people likely view these proclamations as simply declaring that one should not copy another person's expression without proper attribution. Because the public has a different understanding of the word "theft" as used in such slogans, the campaigns likely do not convey their intended meaning.

More broadly, the plagiarism fallacy findings shed new light on the common perception that the public tends to be ethically dismissive or indifferent towards intellectual property rights. Instead, this research indicates that experts have failed to comprehend how the public actually conceives of intellectual property law. Understanding how the public perceives of intellectual property is critical not only for explaining user behavior, but also for understanding how the wide variety of creators who are unknowledgeable about intellectual property law may react under the intellectual property system. This comprehension is necessary for designing an intellectual property system that can function successfully in the real world to achieve its desired ends.

IV. PUBLIC PERCEPTIONS OF INTELLECTUAL PROPERTY

In addition to the core findings that the public appears to misunderstand intellectual property law as anti-plagiarism law, Study 3 uncovers a number of other significant results concerning the popular understanding of, preferences for, and reactions to intellectual property law. These findings are important for interrogating how the intellectual property system is functioning on a psychological and behavioral basis in practice.[83]

82. Peter J. Karol, *Hey, He Stole My Copyright! Putting Theft on Trial in the Tenenbaum Copyright Case*, 47 NEW ENG. L. REV. 887, 889–90 (2013); Harris, *supra* note 2, at 138–46.

83. Raymond Shih Ray Ku, Jiayang Sun & Yiying Fan, *Does Copyright Law Promote Creativity? An Empirical Analysis of Copyright's Bounty*, 62 VAND. L. REV. 1669, 1711–12 (2009) (discussing how perceptions of intellectual property law can affect behavior); *see also* Rebecca Tushnet, *Copy This Essay: How Fair Use Doctrine Harms Free Speech and How Copying Serves It*, 114 YALE L.J. 535 (2004).

Public conceptions of intellectual property rights matter because these perceptions represent the perspective of the dominant population of intellectual property users and consumers. This group is critical for understanding how people react to intellectual property rights held by others and the prevalence of voluntary intellectual property law compliance.

Popular understanding of intellectual property rights also reveals information concerning how intellectual property law affects the creative process. Significant intellectual creation is still produced by individual authors and inventors,[84] and how the general public perceives intellectual property law and rights can be expected to represent the perspective of many such individuals. In addition, general public attitudes towards intellectual property likely represent the dominant understanding at many start-up companies and smaller firms, where individuals generally lack specialized knowledge about intellectual property rights.[85] Critically, research indicates that most firms operating in copyright and patent intensive fields are small and that smaller firms are often responsible for more significant innovation than larger entities.[86]

The following sections describe several additional findings from Study 3's intellectual property experiments. Section A presents the global statistical results for each of the main factors in Study 3. Section B analyzes the most significant findings for intellectual property law, including that (1) American adults have an extremely low level of knowledge about intellectual property rights; (2) knowledge of intellectual property law does not affect individual opinions about what the law should be; (3) people generally do not distinguish between artistic and innovative creativity, or between the copyright and patent systems, for intellectual property rights purposes; and (4) there are demographic and cultural divides

84. Ku, Sun & Fan, *supra* note 83, at 1711–12 (discussing a potential increase in size of the "creative class," made up of individual artists and authors); John R. Allison et al., *Valuable Patents*, 92 GEO. L.J. 435, 472 (2004) (reporting that a sample of 1,300 U.S. patents included 432 individual inventors and small entity owners); *see* STEPHEN E. SIWEK, COPYRIGHT INDUSTRIES IN THE U.S. ECONOMY: THE 2011 REPORT (2011) (reporting on types of creators in the copyright industry, including several categories with significant individual author populations).

85. *See* Mark D. Janis & Timothy R. Holbrook, *Patent Law's Audience*, 97 MINN. L. REV. 72, 74–75 (2012).

86. Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CALIF. L. REV. 2187 (2000); Josh Lerner, *The New New Financial Thing: The Origins of Financial Innovations*, 79 J. FIN. ECON. 223, 228 (2006).

concerning attitudes towards intellectual property law based upon people's gender, age, income, and political identity.

A. Global Results

The following sections report the overall statistical results for each of the main factors in Study 3. Readers who are less interested in the detailed statistical analyses may proceed directly to the discussion of the implications for intellectual property law, including more specific statistical analyses, in Section IV.B.

1. Vignettes

Responses to vignette evaluation questions were analyzed with a mixed-model repeated-measures ANOVA, with protection type (copyright subject matter vs. patent subject matter) and response viewpoint (personal opinion vs. understanding of law) as between-subjects factors and with property type (idea vs. expression vs. full creative product) and mitigating factors (baseline vs. education vs. no compensation vs. attribution vs. permission) as within-subjects factors. In addition to the main effects for response viewpoint,[87] property type,[88] and mitigating factors[89] identified above, we also found a main effect of protection type indicating that participants found it more acceptable to copy copyright material (book, music, painting) ($M = 4.51$) than patent material (medicine, electronics, software) ($M = 4.13$) ($F(1,418) = 25.218$, $p < 0.001$).

These main effects were qualified by several interactions. Participant responses based on viewpoint (*is* versus *ought*) displayed a significant interaction depending on the type of property the vignette involved (idea versus expression versus complete creative product) ($F(2,836) = 7.211$, $p = 0.001$). Participants believed it should be more acceptable to copy actual creative products than they believe the law allows (should be allowed: $M = 4.01$; is allowed: $M = 3.48$; $t(431) = 4.277$, $p < 0.001$), but participant preferences for the law did not differ from what they believed the law to be in cases involving the copying of expressions of ideas (should be allowed: $M = 4.25$; is allowed: $M = 4.04$; $t(436) = 1.647$, $p = 0.100$), or in cases of copying the ideas themselves

87. *Supra* Section III.B.1.

88. *Supra* Section III.B.2.

89. *See supra* Section III.C.2.

(should be allowed: $M = 5.07$; is allowed: $M = 5.08$; $t(434) = 0.120$, $p = 0.905$) (Table 4).

	Should Be Allowed	Is Legally Allowed
Idea	5.07	5.08
Expression	4.25	4.04
Product	4.01	3.48

Table 4. Mean responses to whether copying is/should be allowed by property type.

Participants thus believe that the law is over-protective concerning the copying of full creative works but perceive it to be similar to their preferences concerning the copying of ideas and expressive portions or aspects of works. While participants are roughly correct that the law is in accord with their preferences permitting the copying of ideas, they are wrong with respect to the copying of aspects or portions of expression. As discussed in Section III.B.2, intellectual property law provides greater protection for expression than the public would prefer.

We also observed a significant interaction between response viewpoint and the mitigating factors questions ($F(4,1672) = 3.23$; $p = 0.012$), such that the relative difference between evaluations of what should be allowed and what participants think is actually allowed according to United States law varied as a function of the mitigating circumstance provided. Specifically, evaluations of what should be allowed versus what is allowed differed when participants were asked about cases involving permission ($t(434) = 2.571$, $p = 0.010$), attribution ($t(436) = 3.273$, $p = 0.001$), compensation ($t(437) = 3.250$, $p = 0.001$), and education ($t(438) = 2.881$, $p = 0.004$) (Table 5). However, when no mitigating circumstance was provided, estimates for what should be allowed and what is allowed did not differ ($t(439) = 0.958$, $p = 0.338$).

	Should be Allowed	Is Legally Allowed
Baseline	3.66	3.57
Permission	5.45	5.26
Attribution	4.40	4.07
Compensation	4.29	3.97
Education	4.45	4.17

Table 5. Mean responses to whether copying is/should be allowed for interaction between mitigating factor and viewpoint.

We found a third significant interaction between property type and mitigating factors ($F(8,3344) = 64.798$, $p < 0.001$), indicating that acceptability of copying scores decreases moving from copying ideas, to copying expression, to copying complete creative products for baseline, attribution, compensation, and education, but not for permission (where instead copying ideas was considered more acceptable, while copying expression and copying creative products were considered equally acceptable) (Table 6).

	Idea	Expression	Product
Baseline	4.77	3.34	2.72
Permission	5.54	5.26	5.27
Attribution	5.03	4.10	3.57
Compensation	5.04	3.93	3.43
Education	5.04	4.11	3.77

Table 6. Mean responses to whether copying is/should be allowed for interaction between mitigating factor and property type.

These interactions were further qualified by a significant three-way interaction between response viewpoint, property type, and mitigating factors ($F(8,3344) = 2.027$, $p = 0.04$). This three-way interaction suggests participants' perception is that, with the exception of permission (see Table 5), the law makes sharper distinctions than they think there should be between ideas, expression of ideas, and products (Table 7).

	Should be Allowed			Is Legally Allowed		
	Idea	Expression	Product	Idea	Expression	Product
Baseline	4.63	3.40	2.93	4.91	3.28	2.51
Permission	5.57	5.34	5.42	5.50	5.17	5.11
Attribution	5.10	4.25	3.82	4.96	3.95	3.32
Compensation	5.03	4.09	3.76	5.05	3.78	3.09
Education	5.07	4.17	4.12	5.00	4.05	3.43

Table 7. Mean responses to whether copying is/should be allowed for interaction between mitigating factor, viewpoint, and property type.

Lastly, there was a marginally significant interaction between property type and copyright versus patent subject matter ($F(2,836) = 2.591$, $p = 0.076$), but as it and other interactions between the

factors were not significant (all p's > 0.100), they are not discussed further.

2. Intellectual property, knowledge, and experience

Every participant received the same intellectual property knowledge quiz consisting of ten multiple-choice questions. The questions were all relatively basic queries about copyright and patent law, each with four answer options. The median number of correct responses was 4 out of 10 (M = 4.17, SD = 1.612), which indicates that people got more answers right than they would have by random guessing alone (chance = 2.5 correct) ($t(442) = 21.812$, $p < 0.001$). These results comport with a study of intellectual property perceptions and awareness in Europe, which found that lay people tended to have a very low level of intellectual property knowledge.[90]

We also queried participants concerning their experience with intellectual property creation, law, and use. Of those queried, 94.8% of participants reported having no current or past experience working in connection with intellectual property law, and 86.2% of participants stated that they had no current or past experience working in an industry that depends on intellectual property rights. Significantly, 93.2% of participants reported having no other current or past experience in connection with intellectual property rights whatsoever.

On the scaled experience response questions (1 = no experience, 5 = considerable experience), participants reported, on average, effectively no experience as a creator or producer of works or products protected by intellectual property rights (M = 1.64), a result significantly lower than the "average experience" mid-point of the scale of 3.0 ($t(439) = 27.134$, $p < 0.001$). Participants reported greater experience as a user of works or products created by others that are protected by intellectual property law (M = 2.94), a result not significantly different from the "average experience" mid-point of the scale of 3.0 ($t(442) = 1.005$, $p = 0.315$).

90. OFFICE FOR HARMONIZATION OF THE INTERNAL MARKET, EUROPEAN CITIZENS AND INTELLECTUAL PROPERTY: PERCEPTION, AWARENESS, AND BEHAVIOUR 10–11, 35 (2013).

3. Intellectual property opinion questions

Participants were asked a pair of acontextual opinion questions concerning whether copyright and patent protection should be made weaker, stronger, or stay about the same. Participant responses did not differ from the 4.0 mid-point of the scale (copyright: $M = 3.94$, $t(441) = 1.082$, $p = 0.28$; patent: $M = 4.10$, $t(441) = 1.632$, $p = 0.103$). Thus, respondents on average thought that both copyright and patent law should stay about the same, though based on their responses on the intellectual property knowledge items, they are not sure what the law actually is. Interestingly, participants were more likely to think that patent protection should be made stronger than copyright protection should be ($t(441) = 2.853$, $p = 0.005$). As discussed in Section II.B.2, when asked generically about their opinions on intellectual property law, the majority of respondents appear to recognize their lack of knowledge and express no preference for change. When queried in a specific context, however, participants are able to form an opinion, which generally displays a belief that intellectual property rights are too strong.[91]

Participants' responses to the second two opinion questions ("How important is it for people to comply with intellectual property law?" and "How much do you comply with intellectual property law?") did differ from the mid-point of the scale (importance of adherence: $M = 5.50$, $t(442) = 21.244$, $p < 0.001$; participants' own adherence: $M = 5.18$, $t(441) = 15.181$, $p < 0.001$). Participants, on average, thought that it is important for people to comply with the law and that they themselves carefully comply with the law (again, despite not always knowing what the law is).

4. Demographic queries

In order to explore whether respondents' demographic characteristics (age, gender, education, political ideology, employment status, income, area of residence, and race) were related to their responses to the questions concerning intellectual property law, we ran correlations between each demographic item and each intellectual property opinion question, as well as

91. *See supra* Section III.B.1.

participant intellectual property knowledge and the two intellectual property experience questions. Results are displayed in Table 8.[92]

	Age	Gender	Education	Political Identity	Employment	Income	Residence	Race
Importance of IP compliance	0.195*	0.170*	0.109	-0.202*	-0.055	0.171*	0.012	-0.088
Individual IP compliance	0.206*	0.214*	0.106	-0.203*	-0.069	0.129	-0.027	-0.086
Copyright strength opinion	0.126	0.149*	0.042	-0.219*	-0.045	0.106	-0.030	-0.066
Patent strength opinion	0.072	0.102	0.018	-0.153*	-0.061	0.087	0.024	-0.087
IP knowledge	0.164*	-0.001	0.123	0.084	0.082	0.036	0.022	0.046
Experience as IP user	0.119	-0.130	0.181*	0.061	0.020	0.027	0.084	0
Experience as creator or producer	0.038	-0.069	0.192*	0.003	-0.034	0.041	-0.016	0.052

* Correlation is significant at the 0.005 level (2-tailed).

Table 8. Correlations between participant demographics and responses to intellectual property law opinions questions.

When participants were queried concerning how important it is that people comply with intellectual property laws, we found that participant age ($r(441) = 0.195$, $p < 0.001$), gender ($r(437) = 0.170$, $p < 0.001$), political ideology ($r(427) = -0.202$, $p < 0.001$), and income ($r(426) = 0.171$, $p < 0.001$) were all significantly correlated with their opinions. Being older, female, more conservative, and wealthier each made it more likely that an individual believed it was more important to comply with

92. To (partially) statistically account for the large number of correlations run, we only note those relationships that are significant at the $p = 0.005$ level.

intellectual property law. The other demographics were not significantly correlated after accounting for the number of correlations that were run (all p's > 0.021). When respondents were asked to report whether they themselves comply with intellectual property law, we found similar results: age ($r(440) = 0.206$, $p < 0.001$), gender ($r(436) = 0.214$, $p < 0.001$), and political ideology ($r(426) = -0.203$, $p < 0.001$) were all significantly correlated with responses, but other demographics were not (all p's > 0.007). Older, female, and more conservative individuals responded that they themselves complied with intellectual property laws to a greater extent than did younger, male, and more liberal respondents. The size of all of these effects are small to medium by traditional standards of social science, meaning that only a modest portion of the overall variance in responses is associated with the particular demographic characteristics identified.[93]

Participants were also asked if copyright laws should be made weaker, stronger, or stay about the same. Gender ($r(436) = 0.149$, $p = 0.002$) and political ideology ($r(426) = -0.219$, $p < 0.001$) significantly correlated with opinions here (all other p's > 0.008). This result indicates that female respondents and conservative-identifying respondents were more likely to say that copyright laws should be made stronger than, respectively, male respondents and more liberal-identifying respondents. When asked if patent laws should be made weaker, stronger, or stay about the same, political ideology ($r(426) = -0.153$, $p < 0.001$) was the only demographic item significantly correlated with responses (all other p's > 0.033). Again, more conservative participants were more likely to say that patent laws should be made stronger.

Participant age ($r(441) = 0.164$, $p = 0.001$) was significantly correlated with number of correct responses on the intellectual property quiz, but no other demographics were (all p's > 0.01). This relationship indicates that older respondents showed greater intellectual property knowledge, though as noted above, the effect size of this correlation is small.

Participant education ($r(441) = 0.181$, $p < 0.001$) was the only demographic item significantly correlated with participant self-identified experience as a *user* of works protected by intellectual property law (all other p's > 0.006), indicating that respondents

93. JACOB COHEN, STATISTICAL POWER ANALYSIS FOR THE BEHAVIORAL SCIENCES 77–81 (2d ed. 1988). In general, r = 0.1 is considered a small effect, r = 0.3 a medium effect, and r = 0.5 a large effect. *Id.*

with a greater amount of education reported more experience as users of intellectual property. In addition, participant education ($r(438) = 0.192$, $p < 0.001$) was the only demographic significantly correlated with participant experience as a *creator* or *producer* of works or products protected by intellectual property rights (all other p's > 0.149), such that participants with more education reported more experience creating and producing works covered by intellectual property rights.

Having reported the global results in this section, the following sections discuss the implications for intellectual property law.

B. Public Ignorance about Intellectual Property

Despite the sharp rise in attention to intellectual property over the past couple of decades, the general public retains an extremely low level of knowledge about intellectual property law. Our national sample of United States adults got an average of just four out of ten basic intellectual property questions correct, or an average of just 1.5 questions better than chance (random guessing would have yielded an average of 2.5 correct answers due to the four-answer multiple-choice format of the questions). Stated another way, the typical respondent knew the answer to only one or two out of ten simple intellectual property questions. The general public appears to know very little about intellectual property law.

Similarly, people report extremely limited experience with intellectual property (a conclusion anybody knowledgeable about intellectual property would have reason to doubt). Only 5% of study respondents reported having ever had any experience working in connection with intellectual property law. Only 6% of respondents reported having "any . . . current or past experience in connection with intellectual property rights." In reality, considering that our study platform was Amazon mTurk, most participants were presumably regular Internet users and very likely had "experience in connection with intellectual property rights" almost daily.[94]

94. Because copyright protection adheres as soon as an original work is created and fixed in a tangible medium, people actually have numerous "experience[s] in connection with intellectual property rights" every day, from copyright rights that adhere to most writings to almost any use of the Internet. *See* 17 U.S.C. § 102(a) (2012) (providing copyright protection once a work is fixed in a tangible medium); Mazer v. Stein, 347 U.S. 201, 214 (1954) (discussing the fixation requirement in copyright law).

Awareness of this interaction, however, is obviously extremely limited.

These low experiential response rates cannot be explained as the respondents simply believing that only work as a creator of intellectual property products was pertinent to their responses. A third of respondents (33.2%) reported little or no experience as a user of works or products created by others that are protected by intellectual property. Many people apparently do not even think about the media they encounter ceaselessly on the Internet, television, and smartphones, or the technology they use daily in their computer, transportation, or (again) smartphones, as relating to intellectual property. This general lack of recognition likely helps explain some of the other interactions discussed herein.

Even though people appear to lack both knowledge of and experience with intellectual property law, they still have clear opinions concerning what the law is.[95] Although this may seem paradoxical, the latter opinions may actually derive from the lack of intellectual property knowledge itself. Without a basis for knowing the law, people may simply assume it is what they want it to be in any given context. These results are partially consistent with prior studies in other areas of law finding little distinction between what people indicate the law should be versus what they believe the law actually provides.[96]

C. Knowledge of Intellectual Property Law Does Not Affect Opinions

One way that intellectual property owners have tried to combat the rapid rise in technology that makes copying far easier is through information campaigns.[97] The past decade has seen a proliferation of advertisements and warnings through a variety of media seeking to encourage respect for intellectual property rights and reminding users of the potential strict penalties for illegal infringement.[98] Despite these efforts, as noted earlier, the average member of the public remains largely ignorant of intellectual

95. *See supra* Section III.B.2.

96. *See, e.g.*, Alex Geisinger, *A Belief Change Theory of Expressive Law*, 88 IOWA L. REV. 35 (2002).

97. Van der Sar, *supra* note 81.

98. *Cf.* Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1194–95 (1994) (examining the psychological limitations of the effectiveness of product warnings in the tort context).

property law.[99] The intellectual property information campaign does not appear to have worked in significant regard.

Even more troubling for those seeking to protect their intellectual property works from unlicensed copying, our study results indicate that an information strategy is unlikely to succeed for another reason. Study participants' knowledge of intellectual property law did not affect their opinions about what the law should be. There were no significant differences between respondent knowledge level (based upon the number of correct responses to the intellectual property quiz) and preferences for intellectual property rights in the baseline condition for any of the subject matter scenarios (all p's > 0.294).[100] At least for the general population, greater knowledge of intellectual property law does not appear to lead one to change his or her intellectual property preferences.

As discussed in Section III.B.1, people generally do not distinguish between what the law is and what they believe it should be. We see particularly striking evidence of this effect here. Those who demonstrated high knowledge of intellectual property law in the intellectual property quiz generally did not differ from respondents with low knowledge in their (incorrect) perceptions concerning what intellectual property law actually provides under the scenarios tested.[101] Consistent with this result, correlation analyses reveal no significant relationship between participant intellectual property knowledge and responses in the *is* versus *ought* conditions. Knowledge of intellectual property law does not appear to affect people's opinions about what intellectual property law should be. This result has widespread implications for the ability of the law to affect human preferences and actions, likely in a variety of circumstances.

Although the lack of a differential between high- and low-knowledge groups existed at the overall level, it did not necessarily affect all details. High-knowledge individuals did demonstrate a difference in their responses concerning attribution, the focus of our plagiarism analysis. When asked about the mitigating effect of

99. *See supra* Section IV.A.2.

100. This regression is based on participant responses in the "should" condition, expression and creative product conditions only (the conditions in which intellectual property law provides for infringement protection).

101. As with the analyses above, results are based on the baseline scenario in the expression and creative product conditions.

attribution on infringement liability, intellectual property law knowledge correlated negatively with the differential between an individual's response in the baseline condition and the attribution condition ($r(219) = -0.247$, $p < 0.001$). Stated another way, knowing the law appears to lead people to recognize that simply providing attribution does not mitigate infringement liability. None of the other mitigating factors significantly correlated with intellectual property knowledge (all p's > 0.065), a result that may be explained by the fact that these factors, unlike attribution, can serve as actual mitigation under the law in certain circumstances.

Attribution seems to be one of the few areas where knowledge of intellectual property law does affect positions about what the law should be. This insight provides greater nuance to our plagiarism fallacy findings. For the low intellectual property knowledge portion of the population, intellectual property rights are anti-plagiarism law. To these people, who make up 82% of our study population, intellectual property law is more about prohibiting claiming another person's work as one's own rather than about any of the traditional incentive, natural rights, or expressive theories of intellectual property law.[102] Those with some knowledge of intellectual property law, on the other hand, appear to learn at a very introductory level that the law is not about plagiarism concerns. This group does not recognize attribution as a basis for mitigating infringement liability. Perhaps an information campaign could affect compliance with intellectual property rights, but it is a wholly different type of campaign than those that have been pressed to date. The results suggest that a campaign based on informing people about the objectives and function of intellectual property law may be more effective in increasing intellectual property rights compliance than current efforts.

D. Patent Versus Copyright Perceptions

The copyright and patent systems operate in widely different manners. There are starkly different procedures for acquiring a copyright versus a patent,[103] different standards for protection,[104]

102. *See* Gregory N. Mandel, *The Public Perception of Intellectual Property*, 66 FLA. L. REV. 261, 268–71 (2014) (explaining traditional theories of intellectual property law, including incentive, natural rights, and expressive theories).

103. Copyright protection adheres automatically the moment an author fixes a new work in a tangible medium of expression. *See* 17 U.S.C. § 102(a) (2012); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 432 (1984). Acquiring a patent requires the

different substantive rights,[105] and nearly mutually exclusive scopes of subject matter that can be protected.[106] Two basic examples are that minimally creative work can be protected by copyright[107] while only nonobvious creative achievement merits patent protection,[108] and patent rights protect against independent creation by a third party[109] while copyright protection does not.[110] Given this

patentee to apply and go through a lengthy administrative patent prosecution process at the United States Patent and Trademark Office (USPTO) to establish that an invention satisfies several patent validity requirements. 35 U.S.C. §§ 111, 115–118 (2012); Beech Aircraft Corp. v. EDO Corp., 990 F.2d 1237, 1248 (Fed. Cir. 1993).

104. In order to obtain copyright protection, a work must be original and fixed in a tangible medium. 17 U.S.C. § 102(a); Gates Rubber Co. v. Bando Chem. Indus., 9 F.3d 823, 837–38 (10th Cir. 1993). A work is original if the author created it independently and the work "possesses a minimal degree of creativity." Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991). To obtain a patent, the inventor must demonstrate that an invention is new, useful, nonobvious, appropriate subject matter, and satisfy several disclosure requirements. 35 U.S.C. §§ 101–103, 112. Nonobviousness requires that the invention would not have been obvious to a person having ordinary skill in the art to which the claimed invention pertains. KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 420 (2007). Nonobviousness in patent law presents a significantly higher creativity threshold standard than originality under copyright doctrine. Erlend Lavik & Stef van Gompel, *On the Prospects of Raising the Originality Requirement in Copyright Law: Perspectives from the Humanities*, 60 J. COPYRIGHT SOC'Y U.S. 387, 411–13 (2013).

105. For example, a patent grants the owner exclusive rights to the claimed subject matter while a copyright does not protect against independent creation of identical work. Mazer v. Stein, 347 U.S. 201, 217 (1954). As discussed above, copyright protection does not cover fair use of the copyrighted work by others, while patent law provides no fair use exception. *See supra* Section III.C.3.

106. The Copyright Act provides for protection of "literary works," "musical works," "dramatic works," "pantomimes and choreographic works," "pictorial, graphic, and sculptural works," "motion pictures," "sound recordings," and "architectural works." 17 U.S.C. § 102(a)(1)–(8). The Patent Act provides protection for "processe[s], machine[s], manufacture[s], and composition[s] of matter." 35 U.S.C. § 101. There are certain areas where copyright and patent protection overlap, such as computer code. Cal. Inst. of Tech. v. Hughes Commun. Inc., 59 F. Supp. 3d 974 (C.D. Cal. 2014) (holding that the computer code at issue was patentable); Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832, 838 (Fed. Cir. 1992) (providing copyright protection for computer programs); Samuelson, *supra* note 61, at 1773–75 (discussing the availability of copyright and patent protection for computer programs); Andrei Iancu & Jeremiah Helm, *Code on Disks and Hat Tricks—Is Computer Software on a Medium Really Patentable?*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 97, 108 (2008).

107. *Feist Publ'ns*, 499 U.S. at 349; *see* 17 U.S.C. § 102; Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 250–52 (1903).

108. 35 U.S.C. § 103; *KSR Int'l Co.*, 550 U.S. at 399; Graham v. John Deere Co., 383 U.S. 1, 17–18 (1966).

109. *See* Tex. Instruments, Inc. v. U.S. Int'l Trade Comm'n, 805 F.2d 1558, 1562–63 (Fed. Cir. 1986); *see also* 35 U.S.C. § 271; Scanner Techs. Corp. v. ICOS Vision Sys. Corp.,

divergence in law, one might expect significant divergence in public opinion. Our studies reveal, instead, that public opinion primarily views copyright and patent protection similarly but in certain significant circumstances tends to favor protection in one field over the other.

We designed our scenarios to try to test whether participant responses would vary based on the creative domain (artistic versus inventive) or type of protection available (copyright versus patent). The six different subject matters tested involved three which concerned artistic work protected by copyright (writing a novel, composing a song, and painting a collage) and three that related to inventive work protected by a patent (developing a new vaccine, designing a new semiconductor chip, and writing new computer code). As reported in Section IV.A.1, there is a main effect based on the type of creativity and protection: participants believed that the inventive/patent subject matter should be entitled to stronger intellectual property protection than the artistic/copyright subject matter.[111] We cannot be sure, however, that we are measuring category effects as opposed to context effects, as the context of each subject matter scenario necessarily differed significantly. Further, the main effect masks variation within each set of scenarios depending on the specific subject matter involved and whether an idea, expression of the idea, or full creative product was the subject of copying.

Table 9 presents the results broken down by subject matter and type of property. As discussed earlier, the basic pattern based on the type of creative property is that participants generally oppose intellectual property protection for ideas, support intellectual property protection as applied to the complete copying of a creative product, and are mixed on copying expression.[112]

528 F.3d 1365, 1379 (Fed. Cir. 2008) ("[Patent infringement] claims can be met by slavish copying, or equally met by independent development of the accused products.").

110. *Feist Publ'ns*, 499 U.S. at 345; *see* 17 U.S.C. § 106 (failing to provide copyright protection against independent creation).

111. *See supra* Section IV.A.1.

112. *See supra* Section III.B.2.

	Idea	Expression	Product
Medical	5.22	4.44	3.24
Electronics	4.10	3.93	2.56
Software	4.24	2.12	2.31
Book	5.26	2.28	3.16
Music	4.28	3.44	3.56
Painting	4.76	4.89	3.03

Table 9. Mean responses by property type and subject matter, 'should' condition.[113]

When these results are organized based on the type of property (idea, expression of an idea, or complete creative product) and the domain of creativity (copyright/artistic versus patent/inventive), a particular pattern emerges. Figure 2 displays the range of mean participant responses for the three copyright/artistic subject matters (books, music, and painting) and three patent/inventive subject matters (medicine, electronics, and software), each organized by property type.

113. Responses were on a 1–6 scale, with higher values indicating greater acceptability of copying.

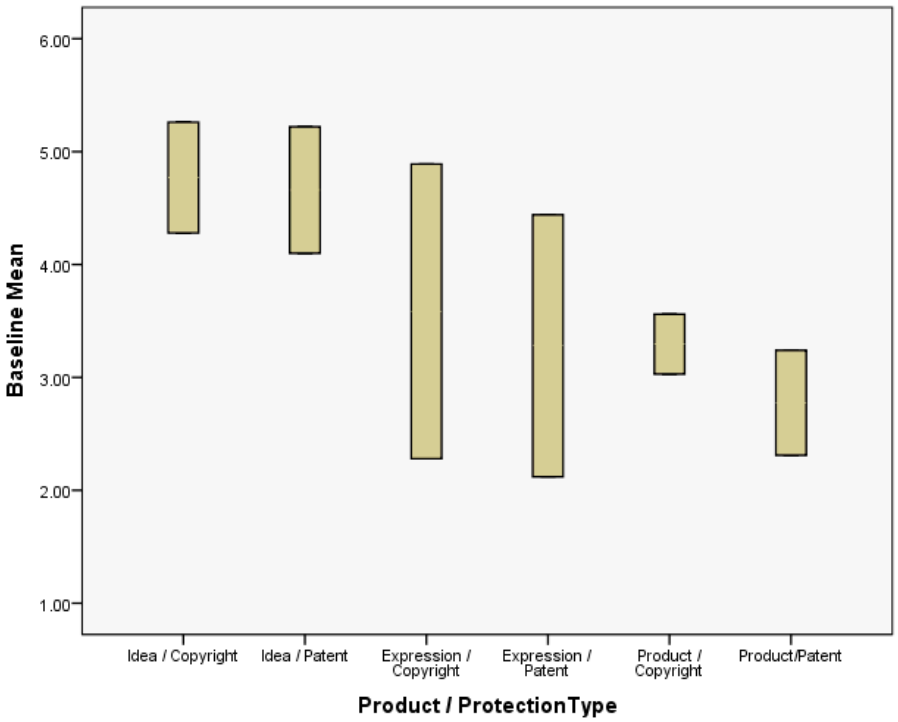

Figure 2. Ranges of means for copyright and patent subject matter by type of property.

Comparing responses in the copyright/artistic subject matters to the patent/inventive subject matters reveals that the ranges for the idea and expression scenarios are relatively consistent across the two different creative domains. Responses in the idea scenarios are not statistically different for the copyright/artistic group versus the patent/inventive group ($F(1,219) = 0.600$, $p = 0.439$). The variation in means is much greater in the expression scenarios, but again the variation in responses between the copyright/artistic group and the patent/inventive group is not statistically significant ($F(1,219) = 0.055$, $p = 0.815$). Participants, however, do display significant variation between responses to the copyright/artistic subject matter versus the patent/inventive subject matter with respect to copying complete creative products. The ranges for these two groups barely overlap, and the means of the responses are significantly different ($F(1,218) = 6.082$, $p = 0.014$). Thus, participants appear to prefer stronger intellectual property protection for the patent/inventive subject matters (medicine,

electronics, and software) than for the copyright/artistic subject matters (books, music, and painting) with respect to the copying of complete products.[114]

The effect of the mitigating factors on infringement liability is essentially the same for both the artistic/copyright subject matter and the inventive/patent subject matter, despite significant variation in the law. We found no interaction between the type of subject matter (artistic/copyright versus inventive/patent) and the mitigating factors, indicating that the mitigating factors generally increase participant preferences for permitting copying across the various types of subject matter tested. This finding again indicates the very limited effect of actual law on popular preferences. Though both the educational use and non-compensation mitigating factors have different import under patent and copyright law,[115] the public views them similarly.

That the general public tends to view the copyright and patent systems relatively similarly is not surprising given the low level of knowledge about, and perceived low level of experience with, intellectual property. Popular preferences for stronger patent protection for complete inventive works is one exception that stands out. This difference between copyright and patent preferences could be self-serving. The average individual has far greater opportunity to infringe a copyright, such as by illegally downloading music, movies, or software from the Internet. The average individual, however, rarely makes, or is aware of acquiring, patent-infringing products. Alternatively, the patent products may be seen as being more useful than the copyright products, and therefore deserving of greater protection. Investigating the reasons for this differentiation would be a fruitful avenue for further exploration.

E. What Affects People's Opinions About Intellectual Property Law?

The analysis to this point has focused on overall popular understanding of intellectual property law. This holistic examination ignores individual variation in responses to the survey stimuli. This

114. These results are consistent with the acontextual queries concerning whether respondents thought that "[Copyright/Patent] laws in the United States should generally be made stronger, weaker, or left about where they are?" Answering on a seven-point scale, with higher values indicating preferences for stronger laws, the mean response for patent law (M = 4.12) was for significantly stronger protection than for copyright law (M = 3.99; $t(471)$ = 2.093, p = 0.037).

115. *See supra* Section III.C.I.

section explores what individual factors may lead people to have differing opinions concerning how protective or lenient intellectual property protection should be.

Our study instruments included general questions at the end to query respondents about whether they thought it was important for people to comply with intellectual property laws and how carefully they themselves complied with intellectual property laws. As reported in the results section,[116] participants' age, gender, and political ideology all correlated with their answers to both of these questions, and participant income correlated with responses to the former question. Older, female, conservative, and wealthier respondents tended to believe that it is more important for people to comply with intellectual property laws. The differentials are displayed in Figure 3. Each of these cohorts, except the wealthier respondents, also self-reported higher personal compliance with intellectual property laws.

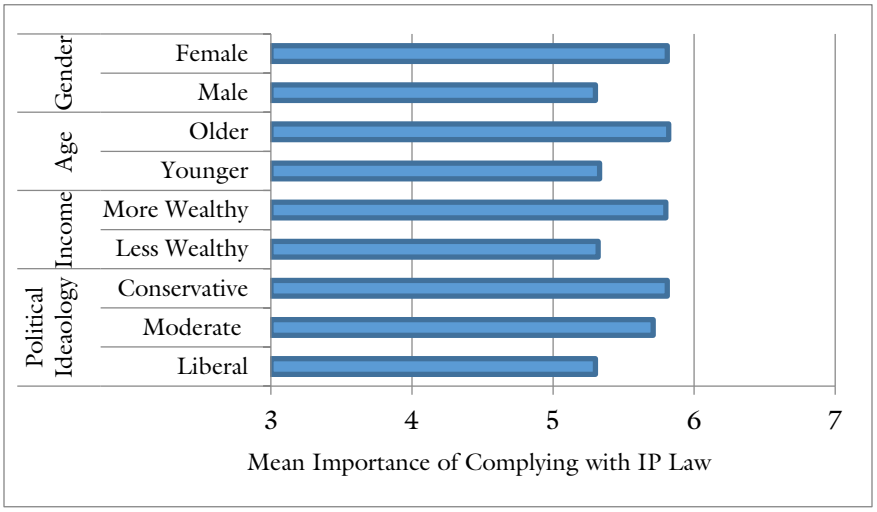

Figure 3. Importance of complying with IP law (mean responses).[117]

Participants were also asked about their positions concerning whether copyright and patent protection should

116. *Supra* Section IV.A.4.

117. For age, the division between "older" and "younger" was set at thirty-five years of age. For income, the division between "more wealthy" and "less wealthy" was set at $50,000.

generally be made weaker, stronger, or stay about the same. Participants responded that copyright laws should stay about where they are, but that patent laws should be made slightly stronger. Participant gender and political ideology were significant predictors of preferences for stronger versus weaker intellectual property rights for copyright responses, and participant political ideology was a significant predictor of preferences for stronger versus weaker intellectual property rights for patent responses.

The age, gender, and political ideology correlations are generally consistent with a prior study on intellectual property rights in the United States,[118] and with a comprehensive study of attitudes towards intellectual property rights in various countries across Europe.[119] Older people, conservatives, and women appear to believe that it is more important for people to comply with intellectual property laws than younger people, liberals, and men. The correlation between income and preferences for intellectual property rights runs counter to the result in the prior study on intellectual property rights in the United States, which found that people with lower income favored stronger intellectual property rights.[120] In both studies, the effect sizes are small, but the divergence could also be due to the differing stimuli. In the instant study, participants were queried concerning the importance of compliance with intellectual property laws, both on a general and a self-referential level. In the prior study, the analyses were based on participant responses to specific scenarios, scenarios which differed from those tested here.[121]

Taken as a whole, these results bolster the conclusion that there are certain cultural divides concerning attitudes towards intellectual property rights, divides that are likely to affect intellectual property related actions, politics, and discourse. For anyone concerned about the intellectual property system "getting it right," the effects of these cultural differences merit attention. Because intellectual property law has become such a hot topic and a part of national policy dialogue, these cultural effects are liable to

118. Mandel, *Public Perception*, *supra* note 102, at 289–91.

119. OFFICE FOR HARMONIZATION IN THE INTERNAL MARKET, *supra* note 90, at 10, 59 (finding consistent results with respect to age and gender; this study did not explore political ideology).

120. Mandel, *supra* note 102, at 289–90.

121. *Id*. at 278–79.

have significant effects on the future course of intellectual property law.

V. CONCLUSION

In decades past, intellectual property laws were negotiated in back-rooms by a handful of recognized experts or industry leaders, and were largely ignored by the rest of society.[122] This has changed. Driven by the rapid rise in the importance of intellectual property rights to the economy and society, intellectual property law is now present in popular discourse and in media and policy debates. Concurrent with this evolution, individuals have greater capacity than ever before to infringe intellectual property owners' rights. This new combination makes popular understanding, knowledge, and beliefs about intellectual property law critically important to the function of the intellectual property system.

The results of our research paint the picture of a daunting challenge for intellectual property law. Most significantly, the studies uncover a previously unrecognized plagiarism fallacy in intellectual property. More people perceive combating plagiarism as the basis for intellectual property law than any other objective. This plagiarism fallacy likely helps explain much observed behavior, certainly including the widespread posting of copyright disclaimers on the Internet, and presumably including many individuals' comfort with illegal infringement behavior more broadly. This insight also indicates why many prior information and warning campaigns attempting to promote intellectual property rights compliance have been misplaced.

122. *See, e.g.*, Jessica D. Litman, *Copyright Legislation and Technological Change*, 68 OR. L. REV. 275 (1989) (discussing the drafting, negotiating, and amending of the 1909 Copyright Act and the 1976 Copyright Act by groups of industry insiders); Harold R. Weinberg & William J. Woodward, Jr., *Legislative Process and Commercial Law: Lessons from the Copyright Act of 1976 and the Uniform Commercial Code*, 48 BUS. L. 437 (1993) (discussing the legislative history of the Copyright Act involving industry insiders); Giles S. Rich, *Congressional Intent—Or, Who Wrote the Patent Act of 1952?*, *in* NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY 1:1, 1:10–1:13 (John F. Witherspoon ed., 1980) (discussing the drafting of the Patent Act of 1952 by a small committee of experts composed of patent lawyers "from industry, from private practice, and from some government departments" and the adoption of the Act by Congress without much debate); P.J. Federico, *Origins of Section 103*, *in* NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY 1:101–1:109 (John F. Witherspoon ed., 1980) (discussing the drafting and passage of the Patent Act of 1952).

More broadly, we find that United States adults have extremely low knowledge about, and perceive themselves as having little experience with, intellectual property or intellectual property law. These limitations, however, do not inhibit people from maintaining strongly held preferences concerning intellectual property rights. The popular perception is that intellectual property protection is too broad and too strong. Though people tend to support intellectual property protection for prohibiting the unlicensed copying of complete creative products, almost any deviation from a 'pure' copying context shifts public opinion to oppose intellectual property protection. Thus, the public supports free copying if the copier simply provides attribution, copies only parts of a work, contributes their own addition to it, reverse-engineers a work to make a duplicate, uses the copy for educational purposes, or does not derive financial compensation from the copy. Given just about any rationale to permit copying, the public is glad to support it. These results raise significant questions concerning the public legitimacy of intellectual property law and, consequently, its ability to function as designed to effect user compliance, incentivize creative endeavors, and achieve widespread public support.

APPENDIX A

Study 2: Intellectual Property Bases

1. Incentives to create and innovate
We should have intellectual property laws because we value the development and production of creative works and innovative products. These laws serve as a means of *encouraging* creation and innovation by allowing people to profit off of their creations and inventions. Providing an opportunity to profit for creators and innovators with intellectual property laws produces an *incentive* for people to create and innovate.

2. Natural rights
We should have intellectual property laws because we value the insight and effort required to achieve creative works and innovative products. These laws serve as a means of protecting people's inherent, natural rights to be *entitled* to in their creations and inventions. Providing protection for creators and innovators with intellectual property laws protects people's *inherent rights* to their creations and inventions.

3. Expressive rights
We should have intellectual property laws because we value the ability to express and distinguish ourselves in creative works and innovative products. These laws serve as a means of allowing and enabling people to *express* themselves in their creations and inventions. Valuing the opportunity to express oneself with intellectual property laws protects people's ability to express their *identity* creatively and through innovation.

4. Plagiarism
We should have intellectual property laws because we value creative works and innovative products. These laws serve as a means of preventing people from *plagiarizing* another person's creation or invention. Protecting creators and innovators with intellectual property laws prevents people from *claiming* another person's creations or inventions as their own.

APPENDIX B

Study 3: Vignettes

1. Medicine scenarios

a. Idea condition

HealthCorps, a pharmaceutical company, comes up with the idea that it might be possible to protect against West Nile Flu with a vaccine. It was previously thought that the West Nile Flu disease could only be prevented by avoiding areas with infected organisms. HealthCorps develops and obtains a patent on the chemical structure of a West Nile Flu vaccine. A competing company, Everlife, notices the success of HealthCorps's vaccine, and designs and manufactures a vaccine for West Nile Flu with a different chemical structure than HealthCorps's.

b. Expression condition

HealthCorps, a pharmaceutical company, comes up with the idea that it might be possible to protect against West Nile Flu, a disease previously thought to be incurable, with a vaccine. HealthCorps develops and obtains a patent on the chemical structure of a West Nile Flu vaccine. A competing company, Everlife, notices the success of HealthCorps's vaccine, and figures out how to use a different manufacturing process to produce a vaccine with the same chemical structure as HealthCorps's.

c. Creative product condition

HealthCorps, a pharmaceutical company, comes up with the idea that it might be possible to protect against West Nile Flu, a disease previously thought to be incurable, with a vaccine. HealthCorps develops and obtains a patent on the chemical structure of a West Nile Flu vaccine. A competing company, Everlife, notices the success of HealthCorps's vaccine, purchases one of the vaccines manufactured by HealthCorps, and does a chemical analysis to develop and manufacture duplicate copies of HealthCorps's.

2. Electronics scenarios

a. Idea condition

Several years back, an electrical engineer named Gary, realized that automobiles could be designed to drive themselves. Gary developed a new semiconductor chip that could be installed in most automobiles to independently drive and navigate the vehicle. The semiconductor processes information about road conditions including traffic and road signs. Gary obtained a patent on his semiconductor device. After learning of Gary's invention, a fellow electrical engineer named Milton developed his own automobile semiconductor chip that can navigate the vehicle and process road conditions.

b. Expression condition

Several years back, an electrical engineer named Gary, realized that automobiles could be designed to drive themselves. Gary developed a new semiconductor chip that could be installed in most automobiles to independently drive and navigate the vehicle. The semiconductor processes information about road conditions including traffic and road signs. Gary obtained a patent on his semiconductor device. After learning of Gary's invention, a fellow electrical engineer named Milton reverse engineered it and programed a similar automobile semiconductor chip that will not only navigate the vehicle and process road conditions, but also avoid hazards in the roadway and parks itself.

c. Creative Product Condition

Several years back, an electrical engineer named Gary, realized that automobiles could be programmed to drive themselves. Gary developed a new semiconductor chip that could be installed in most automobiles to independently drive and navigate the vehicle. The semiconductor processes information about road conditions including traffic and road signs. Gary obtained a patent on his semiconductor device. After learning of Gary's invention, a fellow electrical engineer named Milton designed a semiconductor chip manufacturing device to make semiconductor chips that are replicas of Gary's.

3. Software scenarios

a. Idea condition

Allan, a software programmer, obtains a patent for the computer code of a program that automatically maintains the synchronization among several of a customer's personal electronics. After learning of Allan's design, a fellow software programmer named Margaret writes computer code for another computer program to maintain synchronization of personal electronics.

b. Expression condition

Allan, a software programmer, obtains a patent for the computer code of a program that automatically maintains the synchronization among several of a customer's personal electronics. After learning of Allan's design, a fellow software programmer named Margaret hacks into Allan's program so that she can rewrite very similar code, and manufactures a computer program that will not only synchronize personal electronics, but also any commercial electronics that may be located in one's house.

c. Creative product condition

Allan, a software programmer, obtains a patent for the computer code of a program that automatically maintains the synchronization among several of a customer's personal electronics. After learning of Allan's design, a fellow software programmer named Margaret purchases Allan's program, extracts the code, and then uploads it onto a website.

4. Book scenarios

a. Idea condition

The famous novel *A Southern Belle,* written in 2003 by Sam Smith, depicts the fictional story of two young lovers during the onset of the U.S. Civil War. John, a young soldier in the Union Army, and Martha, the daughter of a southern plantation owner, fall in love only to be torn apart by the conflict between the Confederate South and Union North. Ten years after the release of *A Southern Belle*, a writer named Julie Jacobs writes a novel called *A Forbidden Girl* that takes place in the context of the Syrian civil war. *A Forbidden Girl* depicts the fictional story of two young lovers, a

loyalist soldier fighting for the Syrian government and the daughter of a rebel general, who fall in love at the onset of the war, only to be separated by their families because of the ensuing war.

b. Expression condition

The famous novel *A Southern Belle,* written in 2003 by Sam Smith, depicts the fictional story of two young lovers during the onset of the U.S. Civil War. John, a young soldier in the Union Army, and Martha, the daughter of a southern plantation owner, fall in love only to be torn apart by the conflict between the Confederate South and Union North. Ten years after the release of *A Southern Belle*, a writer named Julie Jacobs writes a novel called *A Forbidden Girl* that takes place in the context of the Syrian civil war. *A Forbidden Girl* depicts the fictional story of a family struggling to survive in the midst of the chaos brought by war. Julie Jacobs uses several sections of text from *A Southern Belle* that describe brutal war scenes, in each case making a series of modest editorial changes.

c. Creative product condition

The famous novel *A Southern Belle*, written in 2003 by Sam Smith, depicts the fictional story of two young lovers during the onset of the U.S. Civil War. John, a young soldier in the Union Army, and Martha, the daughter of a southern plantation owner, fall in love only to be torn apart by the conflict between the Confederate South and Union North. Ten years after the release of *A Southern Belle*, a woman named Julie Jacobs purchases a copy of the book. She enjoys it so much that she suggests her book group read it for the following month, and uploads a copy in PDF format, along with some possible group discussion questions that she appends, to a website for use by members of her book group.

5. Music scenarios

a. Idea condition

The classic fusion band, Garage Feet, wrote, recorded, and copyrighted the ballad "Don't Stomp on My Heart," which topped music charts in the summer of 1990. The song, written in the key of A minor, is considered by many music scholars to be the first known track to blend upbeat reggae and jazz instrumentals. An admirer of Garage Feet named Bill writes and records a new song,

"Don't Trample on My Soul," also written in A minor and featuring upbeat reggae and jazz instrumentals. Though some rhyming patterns of "Don't Trample on My Soul" are similar to "Don't Stomp on My Heart," the melody and lyrics are different.

b. Expression condition

The classic fusion band, Garage Feet, wrote, recorded, and copyrighted the ballad "Don't Stomp on My Heart," which topped music charts in the summer of 1990. The song, written in the key of A minor, is considered by many music scholars to be the first known track to blend upbeat reggae and jazz instrumentals. An admirer of Garage Feet named Bill records a different version of "Don't Stomp on My Heart," played in B minor and at half speed. Bill changes some of the lyrics from "Don't Stomp on My Heart," while keeping most of the original chorus.

c. Creative product condition

The classic fusion band, Garage Feet, wrote, recorded, and copyrighted the ballad "Don't Stomp on My Heart," which topped music charts in the summer of 1990. The song, written in the key of A minor, is considered by many music scholars to be the first known track to blend upbeat reggae and jazz instrumentals. An admirer of Garage Feet named Bill purchases a digital version of "Don't Stomp on My Heart," and likes it so much that he figures out how to extract the song into an mp3 file. Bill adds a short introduction at the beginning of the song, and then emails the mp3 to several of his friends.

6. Painting Scenarios

a. Idea condition

Charles O'Malley, an Irish artist trained in collage design, gained fame after developing a newspaper based collage technique. O'Malley premiered his newspaper collage style with a landscape piece titled Spotlight, which depicts a view from the top of the famous Cliffs of Moher in Ireland. After traveling to Ireland to study Charles O'Malley's artwork and view the Spotlight collage in person, an aspiring artist named Randall imitates O'Malley's technique to make a collage of another Irish landscape.

b. Expression condition

Charles O'Malley, an Irish artist trained in collage design, gained fame after developing a newspaper based collage technique. O'Malley premiered his newspaper collage style in his piece titled Spotlight, which depicts a view from the top of the famous Cliffs of Moher in Ireland. After traveling to Ireland to study Charles O'Malley's artwork and view Spotlight in person, an aspiring artist named Randall decides to create his own interpretation of Spotlight. Using oil paints on a similarly sized canvas, Randall paints a picture of the Spotlight collage.

c. Creative product condition

Charles O'Malley, an Irish artist trained in collage design, gained fame after developing a newspaper based collage technique. O'Malley premiered his newspaper collage style in his piece titled Spotlight, which depicts a view from the top of the famous Cliffs of Moher in Ireland. After traveling to Ireland to study Charles O'Malley and view Spotlight in person, an aspiring artist named Randall decides to run a computer analysis of the artwork in order to determine the exact paper, collage glue, and angles of lines used in the art, and makes several painstaking replications of Spotlight.

APPENDIX C

Study 3: Intellectual Property Knowledge and Experience Questions

1. IP knowledge questions

1. Which of the following statements most accurately describe the similarities and differences of the patent system and the copyright system?
   (a) Patent law and copyright law cover *different* types of creative works, and the patent system operates *very differently* from the copyright system
   (b) Patent law and copyright law cover *different* types of creative works, yet the patent system operates *similarly* to the copyright system
   (c) Patent law and copyright law cover *similar* types of creative works, yet the patent system operates *very differently* from the copyright system
   (d) Patent law and copyright law cover *similar* types of creative works, and the patent system operates *similarly* to the copyright system

2. To obtain a copyright, someone must:
   (a) File the copyright material with the U.S. Copyright Office
   (b) File the copyright material and obtain copyright approval from the U.S. Copyright Office
   (c) Mail the copyright material to themselves in a sealed envelope
   (d) Do nothing particular with the copyright material

3. A patent can cover, in general:
   (a) Any innovative idea
   (b) Any creative work
   (c) Any innovative discovery of scientific phenomena
   (d) Any innovative tangible product

4. Copyright fair use allows people to copy copyrighted material:
   (a) Never
   (b) When it is for educational purposes
   (c) When it is not used for financial gain
   (d) In limited cases based on the type of work and effect of the use on sales

5. How long does the standard patent protection term last?
   (a) 20 years
   (b) 70 years
   (c) The life of the creator plus 20 years
   (d) The life of the creator plus 70 years

6. Which of the following most accurately describes the rights provided by a patent on an invention?
   (a) Having a patent means others cannot legally make and sell the invention; however others can legally make the invention for any non-commercial use and can resell a copy of the invention that they legally purchased
   (b) Having a patent means others cannot legally make and sell the invention, and cannot legally make the invention for non-commercial use; however others can resell a copy of the invention that they legally purchased
   (c) Having a patent means others cannot legally make and sell the invention or resell a copy of the invention that they legally purchased; however others can legally make the invention for non-commercial use
   (d) Having a patent means others cannot legally make and sell the invention, cannot legally make the invention for non-commercial use, and cannot resell a copy of the invention that they legally purchased

7. Copyright protection can cover, in general:
   (a) Any creative idea
   (b) Written works, but not other forms of creative work
   (c) Creative work that is written or recorded in some tangible form
   (d) Any creative activity
8. Someone comes up with an original achievement and obtains intellectual property protection for it. Sometime later, a second person comes up with a nearly identical achievement, completely independently and without any knowledge of the earlier work. Which kind of intellectual property right might the second person be able to obtain?
   (a) A copyright (but not a patent)
   (b) A patent (but not a copyright)
   (c) Either a copyright or a patent
   (d) Neither a copyright nor a patent

9. To obtain a patent, someone must:
   (a) File the patent material with the U.S. Patent Office
   (b) File the patent material and obtain patent approval from the U.S. Patent Office
   (c) Mail the patent material to themselves in a sealed envelope
   (d) Do nothing particular with the patent material

10. What is permissible under copyright law, in general, concerning material found on the Internet:
    (a) It can be copied to other websites or downloaded freely
    (b) It can be copied to other websites freely, but not downloaded
    (c) It can be copied to other websites if attribution to the original site is provided
    (d) It can be copied to other websites if the author grants permission

2. Intellectual property experience questions:

1. Do you have any current or past experience working in an industry that depends on intellectual property rights?
   (a) Yes. (If so, please describe in what capacity)
   (b) No.

2. Do you have any current or past experience working in connection with intellectual property law?
   (a) Yes. (If so, please describe in what capacity)
   (b) No.

3. Do you have any other current or past experience in connection with intellectual property rights?
   (a) Yes. (If so, please describe in what capacity)
   (b) No.

4. Do you have any experience as a *creator or producer* of works or products protected by intellectual property rights?
   (a) No Experience
   (b) Little Experience
   (c) Average Experience
   (d) More Than Average Experience
   (e) Considerable Experience

5. Do you have any experience as a *user* of works or products created by others that are protected by intellectual property?
   (a) No Experience
   (b) Little Experience
   (c) Average Experience
   (d) More Than Average Experience
   (e) Considerable Experience