First Ideas

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We live in a world obsessed with firsts, in terms of accomplishments, creations, races, and milestones. At the same time, societal understandings of "first" can obscure others who in fact came beforehand. This Article is about understanding the hold that the idea of "first" has over intellectual property laws and how this hold can make the allocation of intellectual property rights less effective. It locates the roots of "first" as a basis to allocate rights in traditional property law. It then sets out four values that a rule of first possession can be seen to promote when it is transplanted to intellectual property: fairness, order, societal benefits, and rhetorical power.

This Article's thick description of how this principle of first possession actually operates in patent, copyright, and trademark laws lays bare that the idea of "first" has been mutated and contorted substantially. This Article shows how patent, copyright, and trademark laws' mutations and contortions of "first" are systematic. For one thing, they deviate from actual first possession when they treat someone as a firstcomer for things they have not actually done, through two mechanisms that I term to be "constructive firsts" and "fictional firsts." These laws also diverge from actual first possession when they consider latercomers as if they were firstcomers, through three mechanisms that I term to be "erased firsts," "excused firsts," and "leapfrogging firsts."

All in all, this description and analysis show that the idea of "first," something we reflexively believe to be objective and straightforward, is instead—at least in the context of intellectual property and due to its mutations and contortions—normative and thorny. An overly simplistic understanding of "first" also obscures that the law must make complicated determinations as to which actions—or verbs—qualify someone as a first possessor at all.

With this understanding of "first" both broken down and built out, this Article seeks to explore what optimal rules of allocation look like in intellectual property. It suggests that the purported values of "first"—fairness, order, societal benefits, and rhetorical value—are in fact undermined to some degree by the mutations and contortions of "first" in

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intellectual property. Indeed, rules awarding rights to those who create later or better might instead sometimes better promote these same four values, especially because sometimes awarding rights to those who create first might contravene these values. This Article then proposes that these key values are advanced by integrating in sensible ways awards of patent, copyright, and trademark rights to firstcomers, latercomers, and latercomers who create better.

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INTRODUCTION: FIRST THINGS FIRST

We live in a world obsessed with firsts. We study the names of trailblazers like Neil Armstrong, the first to walk on the moon.[1] We know Amelia Earhart as the first woman to fly solo across the Atlantic Ocean.[2] Surgeon Edward Jenner developed the world's first vaccine, eradicating smallpox.[3] The Magna Carta is the first charter to limit a king's power by law.[4] We celebrate the first to complete marathons and other races, including eccentric ones like cheese rolling, wife carrying, and bed racing.[5]

At the same time, societal understandings of "first" can obscure others who in fact came beforehand. Perhaps most notoriously, this obfuscation has happened in the context of colonialism, such as when European settlers declared themselves to have discovered the Americas where many Native Americans were already living.[6] As a consequence, those falsely labeled to be "first" can be awarded unwarranted recognition or property rights.

In this vein, this Article is about understanding the hold that the idea of "first" has over intellectual property laws.[7] It locates the roots of "first" as a basis to allocate

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1. *See Neil Armstrong Walks on Moon*, HISTORY (May 28, 2025) https://www.history.com/this-day-in-history/armstrong-walks-on-moon [https://perma.cc/Z5V6-ZDM9].

2. *See Amelia Earhart*, BRITANNICA (Sep. 26, 2025) https://www.britannica.com/biography/Amelia-Earhart [https://perma.cc/A4YX-QXHW].

3. *See* Stefan Riedel, *Edward Jenner and the History of Smallpox and Vaccination*, 18 BAYLOR U. MED. CTR. PROCS. 21, 21 (2005).

4. *See* Doris Mary Stenton, *Magna Carta*, BRITANNICA (May 15, 2025) https://www.britannica.com/topic/Magna-Carta [https://perma.cc/MM5T-VXTU].

5. *See* Matt Meltzer, *From Robot Camels to Wife Carrying: The 13 Strangest Races in the World*, THRILLIST (Oct. 12, 2014, at 21:00 ET), https://www.thrillist.com/travel/nation/the-weirdest-races-in-the-world-robot-camels-wife-carrying-and-beer-can-regattas [https://perma.cc/5PPW-6J9U]; *List of Winners of the New York City Marathon*, WIKIPEDIA (May 2, 2025), https://en.wikipedia.org/wiki/List_of_winners_of_the_New_York_City_Marathon [https://perma.cc/5W5Z-3JYG].

6. *See infra* Sections IV.A–B.

7. Others have written about first possession in intellectual property laws by focusing on a narrower subtopic—such as inventorship in German patent law—or by using a singular lens of analysis—such as time. *See generally* Katya Assaf-Zakharov & Lisa Herzog, *The Importance of Being First: Economic and Non-Economic Dimensions of Inventorship in American and German Law*, 70 AM. J. COMPAR. L. 447 (2023) (analyzing the nature of an inventor's rights in U.S. and German laws); Lawrence Berger, *An Analysis of the Doctrine that "First in Time Is First in Right,"* 64 NEB. L. REV. 349, 356–57 (1985) (describing the rules of "first" across many areas of law, including briefly in patent and copyright laws); Dotan Oliar & James Y. Stern, *Right on Time: First Possession in Property and Intellectual Property*,

rights in traditional property law.[8] It then sets out four values that a rule of first possession can be seen to promote when it is transplanted to intellectual property: fairness, order, societal benefits, and rhetorical power.[9]

Yet this Article's thick description of how this principle of first possession actually operates in patent, copyright, and trademark laws lays bare that the idea of "first" has been mutated and contorted substantially, not unlike in the context of colonialism.[10] In some ways, this is because intellectual property laws have a different conceptual basis than traditional property laws.[11] Intellectual property laws are principally about providing incentives to create and distribute artistically, culturally, scientifically, and technologically valuable works or to promote fair competition.[12] In other ways, it is because patent, copyright, and trademark laws are directed at intangibles that can extend well beyond the actual physical things created by the rightsholder.[13] Those slippery intangibles can be difficult to pin down.[14]

This Article shows how patent, copyright, and trademark laws' mutations and contortions of "first" are systematic. For one thing, they deviate from actual first possession by at times treating someone as a firstcomer for things they have not actually done, through two mechanisms that I term to be "constructive firsts" and "fictional firsts."[15] These laws also diverge from actual first possession by sometimes treating latercomers as if they were firstcomers, through three mechanisms that I term to be "erased firsts," "excused firsts," and "leapfrogging firsts."[16]

All in all, this description and analysis show that the idea of "first," something we reflexively believe to be objective and straightforward, is instead—at least in the context of intellectual property and due to its mutations and contortions—normative and thorny.[17] An overly simplistic understanding of "first" also obscures that the law must make complicated determinations as to which actions—or verbs—qualify someone as a first possessor at all.[18]

With this understanding of "first" both broken down and built out, this Article seeks to explore what optimal rules of allocation look like in intellectual property.[19] It suggests that the purported values of "first"—fairness, order, societal benefits, and rhetorical value—are to some degree undermined by the mutations

99 B.U. L. REV. 395 (2019) (analyzing intellectual property laws through the lens of time, whether to award rights earlier in time or later in time).

8. *See infra* Part I.
9. *See infra* Part II.
10. *See infra* Sections III.A–C.
11. *See infra* Part III.
12. *See infra* Part III.
13. *See infra* Part III.
14. *See infra* Part III.
15. *See infra* Part III.
16. *See infra* Part III.
17. *See infra* Part III.
18. *See infra* Part IV.
19. *See infra* Part IV.

and contortions of "first" in intellectual property.[20] Indeed, rules awarding rights to those who create later or better might instead sometimes promote these same four values, especially because sometimes awarding rights to those who create first might contravene these values.[21] This Article then proposes that these key values are advanced by integrating in sensible ways awards of patent, copyright, and trademark rights to firstcomers, latercomers, and latercomers who create better.[22] Such analysis and improved integrations of these values are ever important in a world in which creation and innovation are hyper-accelerated,[23] and the consequences of being labeled "first" or not are ever important.

Part I discusses the roles that "first" and "later" play in traditional property law. Part II unpacks fairness, order, societal benefits, and rhetorical power as the purported values that "first" serves in intellectual property. Part III continues to show how "first" is contorted and mutated across patent, copyright, and trademark laws. It also underscores the normativity of "first." Part IV turns to restoring order to intellectual property. It shows both how the values purported to be served by "first" might rather be contravened by it and how "later" and "better" might more optimally serve those values. This Part also unpacks the different actions—or verbs—with which a rule of "first," "later," or "better" might be associated. It then shows how this analysis might be deployed in intellectual property laws to better integrate "first," "later," and "best."

I. "FIRST" AND "LATER" IN TRADITIONAL PROPERTY LAW

Before turning to the ways that "first" and "later"—as well as "better"—play a role in intellectual property laws, let us first traverse traditional property law, from which many of the rules of patent, copyright, and trademark laws are understood to derive. As this Part shows, in traditional property, the notion of first possession is dominant in awarding rights.[24]

Pursuant to the common law, first possession determines property rights in an unowned resource.[25] One important link in the lineage of this critical principle is John Locke, who wrote,

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20. *See infra* Part IV.

21. *See infra* Part IV.

22. *See infra* Part IV.

23. *E.g.*, AZEEM AZHAR, EXPONENTIAL: ORDER AND CHAOS IN AN AGE OF ACCELERATING TECHNOLOGY (Penguin Books 2022) (2021); THOMAS L. FRIEDMAN, THANK YOU FOR BEING LATE: AN OPTIMIST'S GUIDE TO THRIVING IN THE AGE OF ACCELERATIONS (2016); Nadio Granata, *When Shift Happens . . . The Era of Hyper-Acceleration: Deciphering AI's Time Scale*, NADIO'S SUBSTACK (Aug. 14, 2023), https://nadio.substack.com/p/when-shift-happens-the-era-of-hyper [https://perma.cc/R89P-W7B2].

24. *See* Oliar & Stern, *supra* note 7, at 397. Enshrinement of "first" also happens in other areas of law outside of traditional and intellectual property. Examples include first-to-file advantages for plaintiffs' lawyers in class actions, Elliott J. Weiss, *The Lead Plaintiff Provisions of the PSLRA After a Decade, or "Look What's Happened to My Baby,"* 61 VAND. L. REV. 543, 546, 561 (2008), and the doctrine of res judicata's bar on relitigating certain claims that were already litigated (or could have been litigated) in a first action, Dennis Crouch & Homayoon Rafatijo, *Resorbing Patent Law's* Kessler Cat *into the General Law of Preclusion*, 55 AKRON L. REV. 51, 80 (2022).

25. *See* Richard A. Epstein, *Possession as the Root of Title*, 13 GA. L. REV. 1221, 1224–25 (1979); Dean Lueck, *The Rule of First Possession and the Design of the Law*, 38 J.L. & ECON. 393, 393 (1995);

> He that is nourished by the Acorns he pickt up under an Oak, or the Apples he gathered from the Trees in the Wood, has certainly appropriated them to himself. . . . I ask then, When did they begin to be his? . . . And 'tis plain, if the first gathering made them not his, nothing else could.[26]

First possession's central role in property law is all but further assured by Blackstone's commentaries: "[W]hoever was in the occupation of any determinate spot of [ground] . . . acquired for the time a sort of ownership."[27]

One commonly begins their study of traditional property law by learning and exploring this principle of first possession through *Pierson v. Post*, an 1805 case about foxes.[28] In that case, Lodowick Post had been out chasing a fox with his hounds when Jesse Pierson saw the fox, killed it, and carried it off.[29] In the ensuing lawsuit over ownership of the fox, a majority of the Supreme Court of Judicature of New York sided with Pierson, reasoning that "mere pursuit gave Post no legal right to the fox, but that he became the property of Pierson, who intercepted and killed him."[30] The majority dismissed Post's argument on the ground that siding with one who has merely chased but not captured the animal would give rise to too many disputes.[31] By contrast, the dissent would have ruled in favor of Post on the ground that his hot pursuit conferred ownership in accordance with local hunting custom, especially because it encouraged hunters to rid foxes from the countryside.[32] Yet the majority's rule is that capture is first possession, and first possession is ownership.[33] While sometimes construing the particulars of possession differently depending on the context, courts have applied the rule that first possession is ownership to a diverse array of things, including whales,[34] water streams,[35] sunken ships,[36] and oil.[37]

Oliar & Stern, *supra* note 7, at 397; Carol M. Rose, *Possession as the Origin of Property*, 52 U. CHI. L. REV. 73, 74 (1985). Lawrence Berger describes the notion of awarding rights to the "first in time" as being "an ancient one." Berger, *supra* note 7, at 350.

26. JOHN LOCKE, TWO TREATISES OF GOVERNMENT 306 (Peter Laslett ed., Cambridge Univ. Press 1960) (1690).

27. 2 WILLIAM BLACKSTONE, COMMENTARIES *3.

28. 3 Cai. 175, 177 (N.Y. Sup. Ct. 1805).

29. *Id.*

30. *Id.* at 178 (emphasis omitted).

31. *Id.* at 179.

32. *Id.* at 180–82 (Livingston, J., dissenting).

33. *Id.* at 178. There is a significant body of commentary and historical exploration of *Pierson*. *See generally* Bethany R. Berger, *It's Not About the Fox: The Untold History of* Pierson v. Post, 55 DUKE L. J. 1089 (2006) (unpacking the case history, and suggesting that the conflict in the case was truly about whether the proprietors of undivided land or the town residents had a right to the lands on which the fox was caught); Josh Blackman, *OutFoxed:* Pierson v. Post *and the Natural Law*, 51 AM. J. LEGAL HIST. 417 (2011) (exploring the natural law theories of possession of a wild animal in the context of *Pierson*); Angela Fernandez, *The Lost Record of* Pierson v. Post*, the Famous Fox Case*, 27 L. & HIST. REV. 149 (2009) (recounting the rediscovered record in the case); Andrea McDowell, *Legal Fictions in* Pierson v. Post, 105 MICH. L. REV. 735 (2007) (positing that *Pierson* is truly a defective torts case and that the judges used outdated understandings about fox hunting to characterize the case as one about property).

34. *See* Swift v. Gifford, 23 F. Cas. 558, 560 (D. Mass. 1872) (No. 13,696).

35. *See* Eddy v. Simpson, 3 Cal. 249, 251–52 (1853).

36. *See* Columbus-Am. Discovery Grp. v. Atl. Mut. Ins. Co., 974 F.2d 450, 465 (4th Cir. 1992).

37. *See* Jones v. Forest Oil Co., 44 A. 1074, 1075 (Pa. 1900).

The rule of first possession tends to apply against a background of no property rights, such as a commons.[38] By contrast, a different rule—accession—is sometimes instead applied, as property scholar Thomas Merrill puts it, to "award[] new resources to the owner of existing property most prominently connected to the new resource."[39] Accession is applied to grant rights, as per Merrill, to the "existing property owner [that] is the most logical one . . . to whom to assign the new resource or value."[40] Accession applies, for example, to award newborn animals to the mother's owner and crops to the owner of the soil.[41] Although accession is applied against a background of property rights whereas first possession is not, both principles award property rights in a resource to the individual who is arguably the most prominently associated with the resource.[42] In a sense, accession might be grounded in a determination that the existing property owner of the related resources is factually likely to be the first possessor of the new connected resource in most circumstances, so why not constructively deem the existing owner to be the first possessor?

Even in the rarer situations in which the law seems to award rights to later possessors, property law typically understands those circumstances as "first possession." Notably, consider adverse possession. Adverse possession permits someone to potentially earn title to property even against someone else who already owns the property—a previous possessor—by later possessing the land.[43] Scholars typically understand the adverse possessor to be the first possessor against the original owner, who is treated as having abandoned their property.[44]

First possession has such a strong hold on traditional property—or it is innate in some way—that it even rears its head in informal settings in the shadow of law. For example, norms of first possession parcel out parking spaces after heavy snowstorms when someone has shoveled clean such a space and has placed an old chair or the like in the space to reserve it.[45]

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38. Thomas W. Merrill, *Accession and Original Ownership*, 1 J. LEGAL ANALYSIS 459, 480 (2009).

39. *Id.* at 459.

40. *Id.* at 480.

41. *Id.* at 464–65 (citing cases).

42. *But cf. id.* at 481 (contrasting first possession and accession by emphasizing that accession "awards ownership based on status—the status of owning something prominently connected to the disputed object").

43. *See* Nadav Shoked, *Who Needs Adverse Possession?*, 89 FORDHAM L. REV. 2639, 2641 (2021); Jeffrey Evans Stake, *The Uneasy Case for Adverse Possession*, 89 GEO. L.J. 2419, 2420 (2001). *See generally* Lee Anne Fennell, *Efficient Trespass: The Case for "Bad Faith" Adverse Possession*, 100 NW. U. L. REV. 1037 (2006) (noting that knowledge of encroachment, while not currently a disqualification for adverse possession, often erroneously dictates how courts view adverse possessors).

44. *E.g.*, Lueck, *supra* note 25, at 416. Similarly, sometimes property law awards rights to the first to record title in a property even if they were a subsequent possessor or purchaser. *See* Donald J. Kochan, *Dealing with Dirty Deeds: Matching* Nemo Dat *Preferences with Property Law Pragmatism*, 64 U. KAN. L. REV. 1, 3 (2015). One can view the law as requiring title to complete possession, thereby awarding rights to the title holder as first possessor.

45. Susan S. Silbey, *J. Locke, Op. Cit.: Invocations of Law on Snowy Streets*, 5 J. COMPAR. L. 66, 71, 78–79 (2010).

With this background on traditional property, let us turn from tangible resources—whales, foxes, and land—to the less tangible—stories about whales (Herman Melville's *Moby-Dick*, anyone?), inventions about foxes (such as a new type of fox den),[46] and brand names of land companies (such as Cushman & Wakefield).[47] Even though notions of traditional property are grounded in the physical world, they have found ready application in the world of the intangible,[48] something property scholars Jesse Dukeminier, James Krier, and their property casebook coauthors label "acquisition by creation."[49]

II. The Purported Value of "First" in Intellectual Property

Intellectual property laws have generally absorbed traditional property law's rule of first possession, centering it as an early[50] and dominant feature of patent, copyright, and trademark laws.[51] Patent law generally assigns rights to the first to invent—or file for a patent—in service of encouraging scientific and technological innovation for society's benefit.[52] Copyright law largely accords rights to the first to create an expressive work as against subsequent copyists, though not against independent creators.[53] It does so to stimulate the creation of artistically and culturally valuable works and perhaps also to protect an author's moral rights in their works.[54] Trademark law generally grants rights to the first to use a mark in commerce as a way to shore up fair competition and protect consumers.[55] Though Part III will tell a thicker story of these laws—thereby complicating this understanding by showing how "first" has been mutated and contorted in intellectual property—this Part first sets forth the *purported* values of protecting the first-comer in intellectual property: fairness, order, societal benefits, and rhetorical power. As shall be seen, some of these values descend from or parallel the values of first possession in traditional property law, while others are particular to intellectual property.

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46. *E.g.*, U.S. Patent No. 1,532,486 (issued Apr. 7, 1925).

47. CUSHMAN & WAKEFIELD, Registration No. 1,095,427.

48. *See* Oliar & Stern, *supra* note 7, at 418.

49. JESSE DUKEMINIER, JAMES E. KRIER, GREGORY S. ALEXANDER, MICHAEL H. SCHILL & LIOR JACOB STRAHILEVITZ, PROPERTY 140 (10th ed. 2022).

50. *See, e.g.*, MARK ROSE, AUTHORS AND OWNERS: THE INVENTION OF COPYRIGHT 90 (1993) (explaining how notions of first possession from traditional property made their way early into understandings of literary property); Edward C. Walterscheid, *The Early Evolution of the United States Patent Law: Antecedents (Part 1)*, 76 J. PAT. & TRADEMARK OFF. SOC'Y 697, 705–10 (1994) (describing, for example, fifteenth-century Venetian patent law to grant rights for "both newly invented work and that which is imported but not previously known within the state").

51. *See, e.g.*, Anupam Chander, *The New, New Property*, 81 TEX. L. REV. 715, 718 (2003) ("[T]oday's most important first possession regimes lie in intellectual property . . . ."); Abraham Drassinower, *Capturing Ideas: Copyright and the Law of First Possession*, 54 CLEV. ST. L. REV. 191, 191 (2006); Lueck, *supra* note 25, at 393–94.

52. *See infra* Section III.A.

53. *See infra* Section III.B.

54. *See infra* Section III.B.

55. *See infra* Section III.C.

A. FAIRNESS

Fairness is one value that intellectual property laws purport to promote. Harkening back to Lockean thought on traditional property,[56] some scholars ground intellectual property protection in natural or moral rights. Notably, "[l]abor-desert theory sees intellectual property rights as a Lockean acknowledgment of the labor of creation," in granting intellectual property protection to creators that have labored, whether to create a painting, a medication, or an indicator of source for goods or services.[57] The notion then is that the person or business that has labored to create something valuable to a particular intellectual property realm—be it patent, copyright, or trademark—deserves protection against subsequent copyists. By offering protection against subsequent copyists, this understanding—by definition—offers rights to the person or business that is first to create something. And these rights are deserved as a matter of fairness.

This Lockean framing embeds multiple components of fairness underpinning a rule protecting first creators. For one thing, it seeks to be fair by rewarding the first creator of a valuable work for the time, effort, and resources that they invested in creating something new.[58] For another, the framing suggests that if no rights were conferred on the firstcomer, it would be unfair to them because latercomers could exploit them by using the creation over which they labored—though only if they copy rather than independently create the same thing.[59]

B. ORDER

Another value on which protection for firstcomers in intellectual property rests is order. If the law is to award rights to a creator, doing so to the first is a straightforward choice promoting order. Just like the first in a line to buy something is typically easy to identify, the thinking is that the same is true for the first to create

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56. *See supra* text accompanying note 26.

57. Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1753 (2012); *see* ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 67 (2011); 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); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 296–97 (1988). For articulations, refinements, and critiques of this theory specific to copyright, see generally Mala Chatterjee, *Intellectual Property, Independent Creation, and the Lockean Commons*, 12 U.C. IRVINE L. REV. 747 (2022); Mala Chatterjee, *Lockean Copyright Versus Lockean Property*, 12 J. LEGAL ANALYSIS 136 (2020) [hereinafter Chatterjee, *Lockean Copyright*]. As to patent law, see generally Adam Mossoff, *Rethinking the Development of Patents: An Intellectual History, 1550–1800*, 52 HASTINGS L.J. 1255 (2001); Joan E. Schaffner, *Patent Preemption Unlocked*, 1995 WIS. L. REV. 1081 (1995). As to trademark law, see generally Mark P. McKenna, *The Normative Foundations of Trademark Law*, 82 NOTRE DAME L. REV. 1839 (2007); Kenneth L. Port, *The "Unnatural" Expansion of Trademark Rights: Is a Federal Dilution Statute Necessary?*, 18 SETON HALL J. LEGIS. & PUB. POL'Y 433, 472–75 (1994); Jesse R. Dill, Comment, *Possessing Trademarks: Can Blackstone or Locke Apply to Fast Food, Grocery Stores, and Virtual Sex Toys?*, 14 MARQ. INTELL. PROP. L. REV. 371 (2010).

58. *See* Mossoff, *supra* note 57, at 1308–09.

59. *See* Gordon, *supra* note 57, at 1546.

an invention or artistic work or to use a mark in commerce.[60] The ease with which legal bodies can identify a creator thereby promotes order.[61]

Even better yet, if the law has the firstcomer record its rights, third parties that are interested in using a work that is covered by the rights can locate them to bargain for access to those rights.[62] Indeed, one thing patent, copyright, and trademark laws all care about is providing clear notice to the world that a particular individual or business has rights and what scope their rights cover.[63] It is critical for third parties to know when rights have been granted so they know which spaces are off-limits and which are not.[64] Third parties then also know with whom to negotiate when they would like to license, buy, or challenge these rights.[65] In these ways, early recording of rights, as is likely to be the case when conferring rights on a first creator as compared to a subsequent one, furthermore promotes prompt order.

Perhaps more deeply, broader order among a society of creators is thought to be promoted by centralizing exclusive rights to a creation in a firstcomer. Edmund Kitch, most famously associated with a version of this notion, promotes early order via his prospect theory.[66] Articulated in the context of patent law, this theory suggests that creators are rewarded with a patent right to centralize investment in the patented invention's commercialization and improvement, which in turn benefits society.[67] As Kitch explains it, prospect theory purports to do so

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60. *See, e.g.*, Catherine L. Fisk, *Removing the 'Fuel of Interest' from the 'Fire of Genius': Law and the Employee-Inventor, 1830–1930*, 65 U. CHI. L. REV. 1127, 1134 (1998); *cf.* Aditya Bamzai, Comment, *The Wasteful Duplication Thesis in Natural Monopoly Regulation*, 71 U. CHI. L. REV. 1525, 1546 (2004) ("Identifying the first possessor of a plot of land is comparatively easy; identifying the first discoverer of a patent right is somewhat less so; and identifying the first possessor of an entire industry seems nearly impossible.").

61. Intellectual property rights have become increasingly globalized (and homogeneous across jurisdictions). *See generally* Rochelle C. Dreyfuss, *The Past and Future in International Patent Law*, 41 CARDOZO ARTS & ENT. L.J. 425 (2023) (discussing the substantive standardization of patent law due to international agreements); Rochelle Dreyfuss & Susy Frankel, *From Incentive to Commodity to Asset: How International Law Is Reconceptualizing Intellectual Property*, 36 MICH. J. INT'L L. 557 (2015) (examining the effects of globalization on intellectual property law); Laurence R. Helfer, *Regime Shifting: The TRIPs Agreement and New Dynamics of International Intellectual Property Lawmaking*, 29 YALE J. INT'L L. 1 (2004) (discussing the ways in which the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPs) has affected international intellectual property lawmaking); J.H. Reichman, *The TRIPS Component of the GATT's Uruguay Round: Competitive Prospects for Intellectual Property Owners in an Integrated World Market*, 4 FORDHAM INTELL. PROP., MEDIA & ENT. L.J. 171 (1993) (examining TRIPs in developing and developed countries). As that has happened, one might wonder whether the interests for and against early-in-time bestowals of rights become loaded exponentially as such decisions have greater effect. Relatedly, in a globalized world, the effects of conflicting assignments of rights across jurisdictions become magnified.

62. *See* Jeanne C. Fromer, *Claiming Intellectual Property*, 76 U. CHI. L. REV. 719, 761 (2009).

63. *Id.*; Jeanne C. Fromer & Mark P. McKenna, *Claiming Design*, 167 U. PA. L. REV. 123, 132 (2018).

64. Oliar & Stern, *supra* note 7, at 446–47.

65. *See* Timothy R. Holbrook, *Possession in Patent Law*, 59 SMU L. REV. 123, 149–50 (2006).

66. *See* Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266 (1977).

67. *Id.* at 267, 276–77.

precisely by "awarding exclusive and publicly recorded ownership of a prospect shortly after its discovery."[68] The early creator—and claimant—can then contract with others that are well-suited to commercialize and improve the "prospect" creation or to exploit it in particular contexts.[69] Therein, intellectual property rights promote order among creators, be it with regard to a scientific or technological innovation;[70] an artistic work with potential offshoots, such as book sequels, spin-offs, translations, and movie adaptations;[71] or a mark that can be licensed for multiple geographic markets, types of distribution, or new product categories.[72]

Property scholar Carol Rose—tracing her thinking back to Blackstone—similarly understands first possession to be an act to claim traditional property, therein bringing order: "the useful labor is the very act of speaking clearly and distinctly about one's claims to property. Naturally, this must be in a language that is understood, and the acts of 'possession' that communicate a claim will vary according to the audience."[73] Thus, to Rose, the majority in *Pierson v. Post* sees possession as,

> a clear act, whereby all the world understands that the [possessor] has "an unequivocal intention of appropriating the animal to his individual use." A clear rule of this sort should be applied, said the court, because it prevents confusion and quarreling among hunters (and coincidentally makes the judges' task easier when hunters do get into quarrels).[74]

Rose's overarching theory is essentially that,

> if I keep my property claims clear, others will know that they should deal with me directly if they want to use my property. We can bargain rather than fight; through trade, all items will come to rest in the hands of those who value them most. If property lines are clear, then, anyone who can make better use of my property than I can will buy or rent it from me and turn the property to his better use.[75]

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68. *Id.* at 266.

69. *Id.* at 276–77.

70. *See id.*

71. *See generally* Paul Goldstein, *Derivative Rights and Derivative Works in Copyright*, 30 J. COPYRIGHT SOC'Y U.S.A. 209 (1983) (exploring the history, theory, and doctrine of rights in derivative works).

72. *See* James B. Astrachan, *The Public Policy Argument Against Trademark Licensee Estoppel and Naked Licensing*, 85 MO. L. REV. 927, 940 (2020); Daniel Klerman, *Trademark Dilution, Search Costs, and Naked Licensing*, 74 FORDHAM L. REV. 1759, 1767 (2006); Rudolph J. Kuss, Comment, *The Naked Licensing Doctrine Exposed*, 9 MARQ. INTELL. PROP. L. REV. 361, 361 (2005).

73. Rose, *supra* note 25, at 77, 82.

74. *Id.* at 76 (quoting Pierson v. Post, 3 Cai. 175, 178 (N.Y. Sup. Ct. 1805)).

75. *Id.* at 82. One can critique whether it is easy to clearly claim traditional property because it might not be obviously clear whether possession of a parcel of land also includes possession of the minerals underneath the ground or the air above it. *See infra* note 104. Or whether someone who adversely possesses an acre of land possesses the entire, larger plot. To be sure, property has rules to govern these situations, *see infra* note 104, but it can make claims to traditional property less than clear. Rose finds that her theory applies not just to property's central principle of first possession but also threads through

C. SOCIETAL BENEFITS

Awarding intellectual property rights to the firstcomer is also thought to yield societal benefits by virtue of the works that are created.[76] An important facet of intellectual property laws is that they are designed to yield things that society values. The U.S. Constitution particularly emphasizes this goal with regard to patent and copyright laws, granting Congress power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[77] As to trademark law, not only is it grounded in promoting fair competition and consumer protection to the benefit of society,[78] but scholars also theorize that producers of trademarked goods will have the incentive to invest in the goods' quality, to the benefit of society.[79] They suggest that this investment will occur because consumers will use the trademark as a way to identify a desirable good only if their past experiences reliably forecast the good's worth.[80] In all, the thinking is that society gets medicines, software, movies, songs, and branded goods from which it can benefit.

In that sense, it is thought that the sooner that society gets these wonderful things, the better.[81] Society can then use them to its benefit and also learn from them to the end of further innovation.[82] Moreover, competition spurred by a desire to make something first might spur yet faster and faster development for society's benefit too.

Dotan Oliar and James Stern understand first possession, both with regard to traditional and intellectual property, in this way. They explain:

> One of the clearest ways to make sense of the seeming hodgepodge of possessory rules is to think about them in terms of a common metric: time. Each of

other property doctrines, including adverse possession and property recording statutes. Rose, *supra* note 25, at 79, 81. In this regard, Rose's claiming theory purports to explain more than first possession. It also shows how claiming can explain those rarer exceptions when the law awards rights to later possessors, be they an adverse—and later—possessor to a prior title holder, *see* Fennell, *supra* note 43, at 1043; Shoked, *supra* note 43, at 2641; Stake, *supra* note 43, at 2420, or the first to record title in a property even if they were a subsequent possessor or purchaser. *See* Kochan, *supra* note 44, at 3.

76. This sort of real-world societal benefit is to be distinguished from the sorts offered inevitably by the other values of fairness, order, and rhetorical power.

77. U.S. CONST. art. I, § 8, cl. 8.

78. *See infra* Section III.C.

79. *See, e.g.*, William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J.L. & ECON. 265, 269–70 (1987).

80. William M. Landes & Richard A. Posner, *The Economics of Trademark Law*, 78 TRADEMARK REP. 267, 271 (1988). There has been a good deal of debate among trademark scholars about whether the law ought to view the consumer as a free individual making a choice to pay more for intangible values conveyed through advertising or as a person to be protected from the irrational encouragement that advertising and trademarks provide, beyond the underlying goods' quality. *See generally* Ralph S. Brown, Jr., *Advertising and the Public Interest: Legal Protection of Trade Symbols*, 57 YALE L.J. 1165 (1948) (describing this debate).

81. *See* Oliar & Stern, *supra* note 7, at 414.

82. *See* Assaf-Zakharov & Herzog, *supra* note 7, at 448–49; Jeanne C. Fromer, *Patent Disclosure*, 94 IOWA L. REV. 539, 541 (2009).

> these possessory practices can usefully be placed on a chronology starting with the first preliminary steps necessary to appropriate the resource at issue and ending when the resource is consumed, commercialized, or otherwise put to use.[83]

They see both forms of property law as generally deeming either first-committed searchers to be the first possessor or the ultimate capturer to be the first possessor.[84] Either way, they see this choice as being about giving rights to the earliest comer who is also deemed to be conferring the maximal societal benefit via their labors or creation.[85]

Another important societal benefit offered by an award of rights to the first to do something is that the first can be a trailblazer and open the way to others, which can have inherent value regardless of results. There is a social value in being the earliest in time and opening the way to others. For example, Michal Shur-Ofry tells the story of Dan Shechtman, who in 1982 discovered a quasi-periodic crystal after the field had widely accepted that such quasi-crystals do not exist.[86] In response to his discovery, Shechtman was ridiculed and asked to leave his research team, but thirty years later, he won the Nobel Prize after finally being accepted to have revolutionized the space.[87] Shur-Ofry uses this story and others like it to build the case that not all innovation is linear. Much important innovation is a break with the past or nonlinear in other ways, not just creators "standing on the shoulders of giants."[88] This is as true in artistic and commercial genres as well. Just as the first woman to graduate from a top law school might create positive social externalities, even if she is not the best lawyer, these firstcomers create positive social externalities by virtue of opening up new spaces, even if their work will later be refined to become better.[89] In this way, intellectual property

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83. Oliar & Stern, *supra* note 7, at 400.

84. *See id.* at 400, 404–05.

85. *See id.* at 405–07. How does property law decide between these two approaches? As per Oliar and Stern, "[d]ifferences in the way property law approaches first possession can be understood as reflecting how the balance between the relative pros and cons of early and late awards changes for different resources along the course of their acquisition." *Id.* at 406. If one awards rights too early to a chaser, the chaser may own the resource but have failed to complete the chase, so the resource is underused and thus misallocated. *Id.* at 407–08. That said, Oliar and Stern recognize that "[w]hen a party receives an early award but fails to follow through, the right can sometimes be reallocated to a more capable party through voluntary exchange or, perhaps, via abandonment and a new contest for possession." *Id.* at 408 (underscoring, however, that there may be significant transaction costs in doing so). In that sense, later in time is better for deciding the first possessor. On the other hand, rights awarded later to a capturer might yield "excessive and wasteful investment in resource search and pursuit," including when a pursuer who does not successfully capture the resource ends up empty-handed, which can discourage them from pursuing in the first instance. *Id.* at 408–09; *accord* Lueck, *supra* note 25, at 401. It can also encourage third parties to pop up late in a race and capture a resource while freeriding on the efforts of earlier pursuers, thereby discouraging pursuit in the first place. Oliar & Stern, *supra* note 7, at 411. For a richer discussion of "later" versus "first," see *infra* Part IV.

86. Michal Shur-Ofry, *Non-Linear Innovation*, 61 MCGILL L.J. 563, 565 (2016).

87. *Id.*

88. *Id.* at 565–66.

89. *See id.* at 573–74.

can propel societal benefits by encouraging early comers as a way to encourage those who open up new spaces.[90]

D. RHETORICAL POWER

Finally, there is great rhetorical power in conferring rights on the first creator. As discussed above, well beyond intellectual property rights, we live in a world obsessed with firsts, in terms of accomplishments, creations, races, and milestones.[91] Society has general rules like "first come, first served" to indicate that the first to come has priority in service without regard for class or other favoritism.[92]

In many ways, the rhetorical power of "first" in society stems derivatively from the three values just discussed. It is fair and orderly to recognize and favor the first to complete a race or to accomplish a milestone.[93] It can also be to society's benefit to enshrine the first to attain a goal that society would like to see reached.[94]

This is just as true specifically in the context of creations protected by intellectual property. As sociologist Robert Merton has observed, inventors' "fights over priority, with all their typical vehemence and passionate feelings, are not merely expressions of hot tempers, although these may of course raise the temperature of controversy; basically, they constitute responses to what are taken to be violations of the institutional norms of intellectual property."[95] Merton notes furthermore that these institutional norms in intellectual property are borrowed from the scientific community itself.[96] The scientific norms give innovators a claim to "recognition and esteem," such as via eponymy for their results—as in the Copernican system or Boyle's law.[97] This reputation interest is so important, in Merton's view, that society's systems of priority in discovery are designed to protect this interest.[98]

This rhetorical power can bleed into how motivated individuals are to create works altogether. In previous work, I have termed "expressive incentives" to be "the ways in which copyright and patent law[s] can protect creators' labor and personhood interests and employ rhetoric communicating concern for these interests . . . ."[99] Examples of expressive incentives might be attribution of a creation or duration of rights that lasts through a creator's lifetime.[100] Precisely because of the rhetorical power that "first" holds, in this prior work, I hypothesize that

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90. *Cf. id.* at 581 (arguing that intellectual property does not do enough to encourage opening the space).

91. *Supra* text accompanying notes 1–5.

92. Candace Osmond, *First Come, First Served*, GRAMMARIST, https://grammarist.com/phrase/first-come-first-served [https://perma.cc/K5KF-LZTQ] (last visited Aug. 2, 2025).

93. *See supra* Sections II.A–B.

94. *See supra* Section II.C.

95. ROBERT K. MERTON, THE SOCIOLOGY OF SCIENCE: THEORETICAL AND EMPIRICAL INVESTIGATIONS 293 (Norman W. Storer ed., 1973).

96. *See id.*

97. *Id.* at 273–74, 293–305 (taking cognizance, also, of science's institutional norm of humility, of arguing one's debt to one's predecessors).

98. *See id.* at 273–74; *accord* Rebecca S. Eisenberg, *Proprietary Rights and the Norms of Science in Biotechnology Research*, 97 YALE L.J. 177, 197–98 (1987).

99. Fromer, *supra* note 57, at 1747.

100. *See id.* at 1790, 1798.

deeming someone to be first to conceive of an idea or first to actualize a work might motivate creators as an expressive incentive.[101]

With this unpacking of the purported values of "first" in intellectual property—fairness, order, social benefit, and rhetorical power—I now turn to show how "first" manifests in patent, copyright, and trademark laws.

III. THE MUTATIONS, CONTORTIONS, AND NORMATIVITY OF "FIRST" IN INTELLECTUAL PROPERTY

This Part provides a thick description of rights allocation in patent, copyright, and trademark laws. This account of these laws is not the typical one but is told through the lens of "first" to explore how the principle is instantiated throughout these laws. The thick description lays bare that it is not at all straightforward to transplant the principle of first possession from the context of traditional property[102] to intangible property.

There are a few reasons that "first" cannot easily be transplanted to intellectual property from traditional property law. For one thing, because of the differences between traditional property law and intellectual property laws, the adaptation—and its description—are neither easy nor straightforward. Intellectual property laws are principally about providing incentives to create and distribute artistically, culturally, scientifically, and technologically valuable works or to promote fair competition.[103] Moreover and importantly, while traditional property does not always have clear metes and bounds, because it is tangible, it can typically be pointed at or readily described with relative precision.[104] It is quite the opposite with intangibles, making it very hard to know which objects one might be in first possession of precisely because intellectual property rights extend well beyond the physical things someone has created.[105] Because of these particular legal bases and the difficulty in pinning down slippery intangibles, applying a rule of "first" for allocating rights in intellectual property provokes knotty questions of what it means to be "first."

As shown across the various forms of intellectual property, there are many mutations and contortions to the notion of "first." This Part taxonomizes five of the most common mutations and contortions of "first," showing how they manifest in patent, copyright, and trademark laws. There are "constructive firsts,"

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101. *Id.* at 1807–13.

102. *See supra* Part I.

103. *See supra* Part II; *infra* Sections III.A–C.

104. The general principle is that the owner of a particular piece of land owns everything on their plot up to the sky and everything underneath the ground. *See* Steve P. Calandrillo, Chryssa V. Deliganis & Andrea Woods, *Making "Smart Growth" Smarter*, 83 GEO. WASH. L. REV. 829, 836 & n.34 (2015). Of course, governments have made exceptions, such as not having air rights transfer with a corresponding land parcel. *See generally* Note, *Conveyance and Taxation of Air Rights*, 64 COLUM. L. REV. 338 (1964) (exploring the possibility of conveying and taxing air rights). Regarding air rights, this issue starts to matter once people fly or can build high, and with regard to underground rights, once they have oil or other valuable minerals underground and new spaces of exploitation open up. *See* Joseph A. Schremmer, *A Unifying Doctrine of Subsurface Property Rights*, 46 HARV. ENV'T L. REV. 525, 526 (2022); Note, *supra*, at 341.

105. *See* Fromer, *supra* note 62, at 725–26; Fromer & McKenna, *supra* note 63, at 177–79.

works that were never actually created but are legally construed to have been created in an act of first possession nonetheless because a substitute act was done. There are relatedly "fictional firsts," also works that were never actually created but are legally construed to have been created in an act of first possession even though no substitute act was done. There are also "erased firsts," works that were actually created first but whose status as first is revoked by legal rule. Additionally, there are "excused firsts," in which a true firstcomer preceding the legally recognized firstcomer is excused from infringement liability to the legally recognized firstcomer by virtue of having actually preceded them. And there are

TABLE 1: MUTATIONS AND CONTORTIONS OF "FIRST" IN INTELLECTUAL PROPERTY

	Patent Law	**Copyright Law**	**Trademark Law**
Constructive firsts	• Constructive reduction to practice • Enablement of full scope of invention • Continuation applications • Priority for provisional applicants	N/A	• Analogous use • Priority for intent-to-use applicants
Fictional firsts	• Doctrine of equivalents	• Protection for substantially similar works and derivative works	• Nationwide geographic priority for registered marks • Protection for similar marks due to likelihood of confusion • Anti-dilution protection • Protection for rebranding
Erased firsts	• Denial of protection for non-novel, non-useful, or obvious inventions	• Denial of protection for ideas	• Denial of protection for non-distinctive marks • Genericide
Excused firsts	• Prior user rights	N/A	• Prior user rights
Leapfrogging firsts	• Reverse doctrine of equivalents • Experimental use defense	• Protection for fair uses	• Reclamation of abandoned marks

"leapfrogging firsts," where someone who comes later in time is allowed to leapfrog over someone who came earlier to secure rights in their later work. Table 1 sets out some of the major constructive firsts, fictional first, erased firsts, excused first, and leapfrogging firsts across patent, copyright, and trademark laws, as will be discussed in greater depth in this Part.

This account of "first" in intellectual property also accentuates how many ways there are to operationalize a rule of "first," especially a determination of "first to do what." Is it about the first to conceive of an idea? The first to implement it? The first to implement all variations of the idea? The first to commercialize it? The first to file for rights in it? The first to have their own personal take on an idea? After unpacking the legal descriptions in this Part, this Article returns to analyze how to think through these different possible verbs in the next Part.[106]

All in all, importantly and contrary to conventional wisdom, this investigation reveals that a rule canonizing "first" is not reflecting some natural state but rather is normative, perhaps just as normative as a rule awarding rights to the "best."[107] It is therefore important not to fall back on a rule of "first" merely to avoid making normative determinations because a rule of "first" is in essence a normative determination.

Sections A through C walk through patent, copyright, and trademark laws in turn. Each of these three Sections identifies how its body of law deals with mutations and contortions in the concept of "first," applying the five-part taxonomy of different kinds of mutations and contortions throughout. Section D then breaks down the normativity of "first" in intellectual property.

A. PATENT LAW

Patent law generally exists to encourage scientific and technological innovation for society's benefit. American patent law grants protection to inventors of useful, novel, and nonobvious inventions.[108] Patents are granted after successfully undergoing examination by the Patent and Trademark Office to ascertain that an invention is patentable and the description in the patent application satisfies disclosure requirements.[109] The patent right permits the patentee to exclude others from making or using the invention claimed in the patent for a limited time, typically twenty years from the date the patent application was filed.[110]

Suppose two inventors come up with the same invention, as indeed happened close in time with the light bulb, telephone, airplane, steam engine, and many other pioneering inventions.[111] Patent law dictates that at most one of them is entitled to a patent claiming that invention: Until 2011 in the United States, it was the person who was the first to invent it.[112] By contrast, patent law in most other

106. *See infra* Section IV.C.
107. *See infra* Section III.D.
108. *See* 35 U.S.C. §§ 101–103.
109. *See id.* §§ 112, 131.
110. *Id.* § 154(a).
111. *See* Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 710–11, 716 (2012).
112. *See* Dennis D. Crouch, *Is Novelty Obsolete? Chronicling the Irrelevance of the Invention Date in U.S. Patent Law*, 16 MICH. TELECOMM. & TECH. L. REV. 53, 56 (2009); Mark A. Lemley & Colleen

countries has long employed a first-to-file system, awarding a patent to the first applicant to have filed for it.[113] In 2011, the United States decided to align itself more closely with these other countries by enacting the America Invents Act.[114] Under the new law, the first applicant to file for a patent would win the patent, except in a few circumstances, such as when a second filer was first to publicly disclose the invention.[115] As such, U.S. law is now principally a first-to-file system like the rest of the world, but with minor remnants of its first-to-invent system. In crafting these rules, patent law has made a choice—and then changed its decision—as to the action that qualifies among different possible "first to do what" answers. We therefore live in a (mostly) first-to-file world.

But how soon can one file for a patent? U.S. patent law allows filing only once the inventor is in possession of the invention, which is understood to be once the inventor has reduced the invention to practice.[116] Reduction to practice can be actual, in that "the claimed invention [is actually created and] work[s] for its intended purpose,"[117] or constructive, in which the claimed invention is not necessarily created, but the applicant files a patent application that satisfies the statutory disclosure requirements: a written description of the invention, enabling a person having ordinary skill in the art to make and use the invention, and disclosing the best mode of carrying out the invention.[118] In that sense, constructive reduction to practice means that someone can file for a patent well before they have made an actual prototype, let alone a commercialized product. Practically, this means that an inventor is considered first to possess an invention even if the inventor has never actually made the invention, so long as the patent document provides a sufficient roadmap to an expert in the field to do so and provides evidence that the inventor is in possession of the claimed invention.[119] In so doing, patent law chooses which actions must be taken for someone to be deemed to have created an invention, another component of deciding "first to do what." The law also implements a constructive first by allowing a writing with sufficient detail to substitute for actual creation.

V. Chien, *Are the U.S. Patent Priority Rules Really Necessary?*, 54 HASTINGS L.J. 1299, 1299 (2003). The law had a mechanism for determining priority between competing claims to inventorship: "[T]here shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other." 35 U.S.C. §102(g)(1) (2000) (amended 2011).

113. *See* Crouch, *supra* note 112, at 54–55.

114. Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 3, § 100, 125 Stat. 284, 285 (2011).

115. 35 U.S.C. §§ 100, 102.

116. BASF Plant Sci., LP v. Commonwealth Sci. & Indus. Rsch. Org., 28 F.4th 1247, 1264 (Fed. Cir. 2022).

117. Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed. Cir. 1986). *See generally* Fromer, *supra* note 82 (describing how patent disclosures are beneficial and can advance scientific progress); Sean B. Seymore, *Uninformative Patents*, 55 HOUS. L. REV. 377 (2017) (describing issues concerning patents based on inventions explained and described but not understood by creators).

118. 35 U.S.C. § 112. *See supra* text accompanying note 109. *See generally* Janet Freilich, *Prophetic Patents*, 53 U.C. DAVIS L. REV. 663 (2019) (describing issues concerning patents based on unsubstantiated experiments).

119. *See* Holbrook, *supra* note 65, at 146–50, 161–63. There therefore can be a disincentive to jump the gun if the patent document cannot enable and show possession. *Id.* at 147–48.

Legal and marketplace pressures encourage inventors to file for patents at an early juncture. The patent system's priority to the first to file encourages inventors to file patent applications expeditiously to avoid being blocked from getting a patent by a competing inventor.[120] Moreover, patent law's statutory bar to filing a patent more than one year after public disclosure of one's invention (among other things)[121] compels inventors to file quickly lest they block themselves from obtaining a patent. In addition, there are marketplace pressures to rush to patent, in that patents can serve as signals to venture capitalists and other funders that the inventions at issue are a worthy business investment.[122]

Does patent law require an inventor to have reduced to practice every possible embodiment of the invention they claim in their patent? For example, if an inventor claims an invention of 'all light bulbs with a filament starting with the letter T,' do they have to have actually made a light bulb with a tungsten filament, a tomato filament, a toad filament, a toffee filament, and so forth? Yes and no. Because an inventor need not actually reduce an invention to practice, they need not actually make a tungsten embodiment of the light bulb, let alone tungsten, tomato, toad, and toffee embodiments, and so forth. Yet as per patent law's disclosure requirements, in the patent document, the inventor both needs to enable a person having ordinary skill in the art to make and use the invention without undue experimentation and provide a written description that shows the inventor is in possession of the claimed invention.[123] That is, as the U.S. Supreme Court recently put it,

> If a patent claims an entire class of processes, machines, manufactures, or compositions of matter, the patent's specification must enable a person skilled

120. *See* David S. Abrams & R. Polk Wagner, *Poisoning the Next Apple? The America Invents Act and Individual Inventors*, 65 STAN. L. REV. 517, 528–29 (2013) (highlighting how a first-to-file system gives inventors a "need to 'rush' to the door of the patent office"). Even under the first-to-invent system the United States long had, there was heightened pressure in patent law to move quickly to patent. For example, between competing claims to have been first to invent, the first patent filer would get a presumption of first invention. 35 U.S.C. § 102(g) note (2006) (Subsec. (g). Pub. L. 106–113). In addition, other pressures that continue to exist in the patent system, such as statutory bars, likely pushed inventors to file promptly in the previous first-to-invent system. *See infra* text accompanying note 121.

121. *See* 35 U.S.C. § 102(b).

122. *See* Clarisa Long, *Patent Signals*, 69 U. CHI. L. REV. 625, 651 (2002). *But see* Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 27–29 (2005); Ted Sichelman, *Commercializing Information with Intellectual Property*, 92 TEX. L. REV. SEE ALSO 35, 39 (2014) (citing Riitta Katila, Jeff D. Rosenberger & Kathleen M. Eisenhardt, *Swimming with Sharks: Technology Ventures, Defense Mechanisms and Corporate Relationships*, 53 ADMIN. SCI. Q. 295, 316 (2008)).

123. 35 U.S.C. § 112(a); *see* Monsanto Co. v. Syngenta Seeds, Inc., 503 F.3d 1352, 1360 (Fed. Cir. 2007). For commentary on and critique of these requirements, see Fromer, *supra* note 82; Holbrook, *supra* note 65; Sean B. Seymore, *The Teaching Function of Patents*, 85 NOTRE DAME L. REV. 621, 622–23 (2010). As the Federal Circuit has explained, "'[a] patentee may rely on [but need not specify] information that is well-known in the art' to the extent it informs how a relevant artisan would reasonably understand what is actually described in the specification." BASF Plant Sci., LP v. Commonwealth Sci. & Indus. Rsch. Org., 28 F.4th 1247, 1264 (Fed. Cir. 2022) (quoting Anjimoto Co. v. ITC, 932 F.3d 1342, 1359 (Fed. Cir. 2019).

> in the art to make and use the entire class. In other words, the specification must enable the full scope of the invention as defined by its claims. The more one claims, the more one must enable.[124]

What this means as a practical matter is that to be considered first to possess an invention, an inventor must have enabled the whole scope of the claimed invention—tungsten, tomato, toad, toffee, and so forth in the light bulb example. This is yet another way that patent law certifies constructive firsts: one need not actually create every embodiment in the claimed invention, but one must sufficiently describe the entire scope.

Patent law also erases some firsts. In particular, not all scientific and engineering ingenuity can be possessed under patent law. As imaginative and revolutionary as Albert Einstein's theory of relativity may have been, the former patent examiner was not entitled to a patent for generating it.[125] While U.S. patent law allows patents on new, useful, and nonobvious "process[es], machine[s], manufacture[s], or composition[s] of matter,"[126] courts have long excluded "laws of nature, natural phenomena, and abstract ideas" from patentability.[127] As Rochelle Dreyfuss and James Evans explain, this rule in large part is about timing:

> Patent claims cannot be made too early in the development of a field because there is a danger of preemption: exclusive rights may preempt others from competing and thereby diminish the vibrancy of the marketplace or the vigor of the creative environment. . . . [E]arly claiming can pose an obstacle to the "onward march of science" (or business) and it does so by limiting the number of approaches, experiences, bodies of knowledge, and interests that can be brought to bear in mining the initial insight.[128]

By requiring that an abstract idea or a law of nature be refined to a machine or applied method, downstream innovation of ideas or theories is kept more open to all.[129] Therein, this is an instance of erased firsts in patent law, in that the law

124. Amgen Inc. v. Sanofi, 598 U.S. 594, 610 (2023). For an exploration of the issues in that case, see Dmitry Karshtedt, Mark A. Lemley & Sean B. Seymore, *The Death of the Genus Claim*, 35 HARV. J.L. & TECH. 1, 23–25 (2021).

125. *Albert Einstein: The Best-Known Patent Examiner of All Time,* GERMAN PAT. & TRADE MARK OFF. (Apr. 16, 2025), https://www.dpma.de/english/our_office/publications/milestones/greatinventors/einstein/index.html [https://perma.cc/WL8F-XPNA].

126. 35 U.S.C. § 101.

127. Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 82 (2012).

128. Rochelle C. Dreyfuss & James P. Evans, *From* Bilski *Back to* Benson*: Preemption, Inventing Around, and the Case of Genetic Diagnostics*, 63 STAN. L. REV. 1349, 1357–58 (2011) (citation omitted).

129. *See generally* Katherine J. Strandburg, *Much Ado About Preemption*, 50 HOUS. L. REV. 563 (2012) (discussing Supreme Court jurisprudence on patentable subject matter and the doctrine's normative grounding).

erases certain firsts from its ambit, as they are too early and upstream.[130]

Likely for similar reasons about timing and preemption, courts have held that an invention lacks the utility it needs to be patentable until a "specific benefit exists in currently available form," even if that benefit is largely suspected.[131] As the U.S. Supreme Court concluded in *Brenner v. Manson*, the canonical case on utility (and recalling the fox in *Pierson*), "a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion."[132] Based on these doctrines of patentable subject matter and utility, being first to possess an invention requires sufficient downstream refinement and establishment of a specific utility. For example, *Brenner* held that a new process to produce a steroid that might fight cancer lacked utility when it could be shown only that a closely-related chemical inhibited tumors in mice.[133] More specific anticancer utility needed to be established for patentability. These doctrines therein erase some firstcomers from claiming patents.

Patent law also disqualifies some people, and sometimes anyone at all, from being first to possess an invention. Inventions must be novel to be patentable. With limited exception, U.S. patent law disqualifies someone from getting a patent if "the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the . . . filing date of the claimed invention."[134] Legally, then, in the face of such prior art, that person is not first. That does not necessarily mean that the prior comer is first instead in the eyes of patent law—thereby entitled to a patent—for they too might be disqualified for having disclosed or placed their invention on sale too long without filing for a patent.[135] Relatedly, patent law prohibits an inventor from getting a patent on their invention if it is considered to be an obvious or insignificant leap forward in light of the prior art.[136] In these ways, too, patent law erases some—and possibly all—inventors from being considered first.

At the other end of the spectrum, patent law also sometimes deploys pure legal fiction to deem some to be first even if they were truly not. For one thing, U.S. patent law allows an inventor's filing of continuation applications to claim matter disclosed and enabled by a preexisting application of the inventor—but more broadly, with a different focus, or otherwise than claimed in the underlying

130. One can alternatively view erased firsts as first to do something narrower. In this context, one might see patent law as awarding rights not to the first to invent or file but to the first to invent or file for an invention that is not a law of nature, natural phenomena, or abstract idea. Either framing underscores the normativity of "first," *infra* Section D, and leads to similar evaluation about integrating "first," "later," and "better," *infra* Part IV.

131. Brenner v. Manson, 383 U.S. 519, 534–35 (1966).

132. *Id.* at 536.

133. *Id.* at 531–32.

134. 35 U.S.C. § 102(a)(1).

135. *See id.* § 102(b). *See generally* Jonathan S. Masur & Lisa Larrimore Ouellette, *Real-World Prior Art*, 76 STAN. L. REV. 703 (2024) (explaining and proposing doctrinal changes to accommodate real-world prior art).

136. 35 U.S.C. § 103. *See generally* Jeanne C. Fromer, *The Layers of Obviousness in Patent Law*, 22 HARV. J.L. & TECH. 75 (2008) (dissecting nonobviousness as a patent requirement).

application.[137] Even though the application post-dates the initial application, it is treated "as though filed on the date of the prior application."[138] So, a person can be considered to be the first to be in possession of an invention even if they did not realize they were in possession of the invention at the time they filed an initial application and only realized as much later in filing a continuation application. Patent law thus permits a constructive first in this regard by allowing the content of the prior applicant to stand in for possession. Some companies take massive advantage of such fictional firstcoming, with over 80% of the patents issued in 2023 to Sonos, eBay, Edwards Life Sciences, and others deriving from continuations.[139]

Similarly, patent law allows inventors to file a provisional application before they file a full patent application[140] and land an earlier priority date based on another constructive first. The provisional application needs to contain a specification with a disclosure that complies with the general statutory disclosure requirements, but it need not contain claims staking out the scope of the invention.[141] This application is not examined.[142] Yet it serves as a placeholder that both avoids launching the twenty-year term of patent duration[143] and backdates the priority of the applicant to the date of the filing of the provisional application so long as the applicant files a full-blown patent application within twelve months.[144]

For another thing, through the doctrine of equivalents, patent law allows a patentee to "claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes,"[145] so long as they do not intrude on the prior art.[146] For example, in one of the earliest articulations of the doctrine of equivalents, the U.S. Supreme Court held that the defendant's railcar with octagonal and pyramidal cavities was equivalent to the plaintiff's patented railcar with a conical cavity for carrying coal.[147] Because the scope of the doctrine of equivalents is assessed when measuring patent infringement, it often encompasses later-developed technologies, which the inventor never actually possessed at the time of invention,[148] such as a patented invention involving vacuum tubes being equivalent to a similar device involving

137. 35 U.S.C. § 120. For a critical take on this practice, see Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63 (2004).

138. 35 U.S.C. § 120.

139. *See* Rocky Berndsen, *Patent Data Reveals Unique Continuation Practice Amongst Patent 300 Companies*, HARRITY (Jan. 26), https://harrityllp.com/patent-data-reveals-unique-continuation-practice [https://perma.cc/K9VS-N8L3] (last visited Sep. 22, 2025).

140. 35 U.S.C. § 111(b).

141. *Id.*; *supra* text accompanying note 123.

142. U.S. PAT. & TRADEMARK OFF., MPEP § 201.04(C) (9th ed. Rev. 01.2024, Nov. 2024).

143. *See* Robert A. Migliorini, *Twelve Years Later: Provisional Patent Application Filing Revisited*, 89 J. PAT. & TRADEMARK OFF. SOC'Y 437, 439 (2007).

144. 35 U.S.C. § 119(e).

145. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 733 (2002).

146. *See* Stumbo v. Eastman Outdoors, Inc., 508 F.3d 1358, 1361 (Fed. Cir. 2007).

147. Winans v. Denmead, 56 U.S. 330, 340, 343–44 (1853).

148. *See* Timothy R. Holbrook, *Equivalency and Patent Law's Possession Paradox*, 23 HARV. J.L. & TECH. 1, 2 (2009).

later-arising transistors instead of vacuum tubes.[149] It is therefore another fictional first in patent law, allowing a patentee to be deemed to be first to possess a technology that never existed when the patentee claimed possession.[150] Alternatively, one might understand the doctrine of equivalents as a right of accession rather than a fiction of possession.[151]

Additionally, patent law sometimes excuses earlier-in-time possessors—those who possessed an invention before the rightsholder—from infringement liability as a type of excused first. In particular, since the United States' 2011 switch to a mostly first-to-file regime, the law has immunized a broad class of prior users of a patented invention: those who "acting in good faith, commercially used the subject matter in the United States" at least one year before the patent filing date or the invention was publicly disclosed, whichever is earlier.[152] Such a carve out may call to mind St. Thomas Aquinas's first-cause argument for the existence of God, that because everything has a cause, there must be a cause for the existence of the world outside of it and that cause must be God.[153] That is, even those deemed "first" inventors entitled to a patent might have someone else who precedes them, who are yet more "first" in some way. They might be excused as first, but they are not deemed under patent law to be inventors deserving a patent and its exclusionary rights.

Patent law also has two (ever-shrinking) leapfrogging firsts with its reverse doctrine of equivalents and experimental use defense. As per the U.S. Supreme Court, the reverse doctrine of equivalents excuses infringement when "a [defendant's] device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim . . . ."[154] That said, the doctrine has rarely been applied, let alone cited.[155] Yet in theory, it provides an opportunity for a latercomer to leapfrog beyond a prior patent to escape infringement and protect a subsequent invention considered to be a major advancement.

As to the experimental use defense to patent infringement, it was long understood broadly to exempt someone "using patented material to learn about the patented invention," as Rochelle Dreyfuss puts it, from infringement.[156] Under a

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149. *See* Raj S. Davé, *A Mathematical Approach to Claim Elements and the Doctrine of Equivalents*, 16 HARV. J.L. & TECH. 507, 540–41 (2003).

150. *See id.*

151. *See* Merrill, *supra* note 38, at 468–69.

152. 35 U.S.C. § 273(a). Before that time, prior-user rights were significantly more limited, applying only to business method patents, but otherwise with similar rules. 35 U.S.C. § 273 (2006). Other jurisdictions with first-to-file regimes, like European countries, also have prior-user rights. Lemley & Chien, *supra* note 112, at 1302.

153. *The Existence of God: The First Cause Argument*, BBC, https://www.bbc.co.uk/bitesize/guides/zv2fgwx/revision/2 [https://perma.cc/N8W6-6FX9] (last visited Aug. 2, 2025).

154. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608–09 (1950) (citing Westinghouse v. Boyden Power Brake Co., 170 U.S. 537, 568 (1898)).

155. *See* Katherine J. Strandburg, *Patent Fair Use 2.0*, 1 U.C. IRVINE L. REV. 265, 275 (2011).

156. Rochelle Dreyfuss, *Protecting the Public Domain of Science: Has the Time for an Experimental Use Defense Arrived?*, 46 ARIZ. L. REV. 457, 458 (2004).

broad understanding, then, the defense could be invoked for making or using a patented invention to try to understand it for the purposes of follow-on innovation.[157] Yet in more recent decades, the Federal Circuit emphasized that the defense is so limited that it can be invoked only when use is "for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry," but not when there is the "slightest commercial implication" or it is "in keeping with the legitimate business of the alleged infringer."[158] The defense's narrowing has been harshly criticized for undermining patent law's goals of promoting scientific and technological advancement.[159] In line with such critique and more so under the earlier understanding than the more current, impoverished one, the defense can promote a leapfrogging first. It can do so by allowing someone who comes later in time to leapfrog over someone who came earlier to secure rights in their later work by using an earlier-patented invention experimentally to innovate and secure their own patent rights, even when their use might have otherwise infringed.

As this synthesis of patent law and doctrine demonstrates, it is not straightforward to translate the notion of first possession from the physical realm of property—where it already can raise knotty questions—to the world of the intangible. Patent law makes choices among actions that qualify as firsts and mutates and contorts "first" with constructive firsts, fictional firsts, erased firsts, and excused firsts. Copyright law presents another variation on this theme, to which I now turn.

B. COPYRIGHT LAW

Copyright law's goals are relatively similar to patent law's, although directed at artistic works rather than scientific and technological works. And while its goals are in large part utilitarian ones of encouraging the creation of culturally valuable works, this body of law is also concerned to some extent with protecting an author's moral rights in their works.[160] U.S. copyright law protects "original works of authorship fixed in any tangible medium of expression," which range from literary works and sound recordings to movies and computer software code.[161] To obtain copyright protection, authors need not necessarily register their work or comply with other formalities; rather, they need only create a qualifying work.[162] A copyright holder receives the exclusive right to reproduce the work,

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157. Fromer, *supra* note 82, at 558.

158. Madey v. Duke Univ., 307 F.3d 1351, 1362 (Fed. Cir. 2002) (quoting Embrex, Inc. v. Serv. Eng'g Corp., 216 F.3d 1343, 1349, 1353 (Fed. Cir. 2000)).

159. *See* Dreyfuss, *supra* note 156, at 461; Fromer, *supra* note 82; Katherine J. Strandburg, *What Does the Public Get? Experimental Use and the Patent Bargain*, 2004 WIS. L. REV. 81, 84 (2004).

160. Fromer, *supra* note 57.

161. 17 U.S.C. §§ 101, 102(a). Abraham Drassinower deems copyright law's originality requirement to be the law's instantiation of first possession. Drassinower, *supra* note 51, at 191.

162. *See* 17 U.S.C. § 102(a) (requiring only that a work be "fixed in any tangible medium of expression" to be copyrightable).

distribute copies of it, and prepare derivative works, among other things,[163] typically until seventy years after the author's death.[164]

As this Section shows, copyright law is more accommodating and generous than patent law in deeming creators to be first possessors and therefore rightsholders. The central conception of "first" in copyright law is copyright law's originality requirement. The U.S. Supreme Court's most recent formulation of copyright law's originality requirement occurred in *Feist Publications, Inc. v. Rural Telephone Service Co.*, a case involving the copyrightability of a local telephone directory listing names in alphabetical order along with their respective towns and telephone numbers.[165] The *Feist* Court held that work is original so long as it "was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity."[166] The requisite level of creativity, according to the U.S. Supreme Court, "is extremely low; even a slight amount will suffice."[167] A work must merely evidence "intellectual production, . . . thought, and conception."[168] Originality, therefore, does not require true novelty—unlike patent law.[169]

With regard to the requirement of independent creation, the emphasis is on the personal discovery of a subjective problem, issue, or theme that artists express in their work. Justice Oliver Wendell Holmes recognized as much in one of the U.S. Supreme Court's most notable copyright decisions, *Bleistein v. Donaldson Lithographing Co.*[170] In holding a color poster advertising a circus to be copyrightable,[171] Justice Holmes wrote that creation of an artistic work "is the personal reaction of an individual upon nature. Personality always contains something unique. It expresses its singularity even in handwriting, and a very modest grade of art has in it something irreducible, which is one man's alone. That something he may copyright . . . ."[172]

As Judge Learned Hand observed, "[I]f by some magic a man who had never known it were to compose anew Keats's Ode on a Grecian Urn, he would be an 'author,' and, if he copyrighted it, others might not copy that poem, though they might of course copy Keats's."[173] It is thus the rare work that will not meet the low threshold of originality and thus the rare creator that will not be awarded copyright protection. For example, the Court held that the telephone directory in *Feist* was not original because its factual raw data did not owe its existence to the

163. *Id.* § 106.
164. *Id.* § 302(a).
165. 499 U.S. 340, 342 (1991).
166. *Id.* at 345.
167. *Id.*
168. *Id.* at 362 (internal marks omitted).
169. *Id.* at 345–46.
170. 188 U.S. 239 (1903).
171. *Id.* at 251.
172. *Id.* at 250. For an exploration of how this understanding coincides with psychological findings on creativity in artistic production, see Jeanne C. Fromer, *A Psychology of Intellectual Property*, 104 NW. U. L. REV. 1441, 1456–59 (2010).
173. Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 54 (2d Cir. 1936).

directory creator and the selection and alphabetical arrangement of the directory entries was not creative enough.[174] The originality threshold for copyright protection is thus minimal but not absent.

Copyright law's understanding of originality suggests that as long as a creator is not copying existing work and there is at least a spark of creativity, the creator is the first to possess that creation and thus gets copyright protection for it. The terminology of "originality" might suggest to a layperson that it is harder to be first to possess a work under copyright law than is actually the case given the legal understanding of "originality." The actions that copyright law requires to deem someone to be first are therein more welcoming than patent law.[175]

Seen through another lens, copyright law might even be seen to reject a rule of "first" by allowing almost all independent creators of fixed works of authorship—even the same work—to claim rights. If everyone can be a "first" possessor, perhaps no one at all is truly first. By allowing so many to be first possessors so long as they do not copy from another, it feels just right for this era of the participation trophy. That is, everyone who participates gets an award of copyright regardless of the place in which they create. There can be valid copyrights in each of five creepy-doll horror movies or thousands of pop songs about heartbreak, so long as the creators do not copy from another.

Taking a wider view, however, copyright law exalts "first" in the sense of establishing that an author can get protection at a very early stage in their work's creation. Specifically, current federal copyright law protects works as soon as they are "fixed in any tangible medium of expression."[176] By contrast, before 1978, federal copyright law did not generally protect unpublished works even if they were fixed.[177] Protection could generally commence only after a work's publication,[178] moving back how soon an author of an unpublished work could claim to be in possession of the work. To avoid the vagaries of deciding when a work is published, copyright law thus makes an expansive choice in this regard as well as to which actions qualify to be deemed to be first possession.[179]

Similarly, as with patent law, copyright law deems the creator of an original work of authorship to be the first possessor not just of that work, but also of other works that might not yet have been created by treating them as fictional firsts. Specifically, a copyright holder possesses a number of exclusive rights, including a right to reproduce the copyrighted work and to prepare derivative works.[180] A third party is found to have infringed a copyright holder's reproduction right when they have copied someone's copyrighted work in a way that constitutes

174. *Feist*, 499 U.S. at 361–64.

175. *Supra* Section III.A.

176. 17 U.S.C. § 102(a).

177. JEANNE C. FROMER & CHRISTOPHER JON SPRIGMAN, COPYRIGHT LAW: CASES & MATERIALS v.6.0, at 170 (2024). Before 1978, unpublished works could be protected under copyright law if they were registered. *Id.* at 171 tbl.1.

178. *Id.* at 170.

179. H.R. REP. NO. 1476, 94th Cong., 2d Sess. 47, at 129–30 (1976).

180. 17 U.S.C. § 106.

improper misappropriation.[181] To determine whether there has been infringement of the copyright holder's reproduction right, courts ask not whether two works are identical, but whether they are substantially similar.[182] And there can be infringement of the right to prepare derivative works if the third party's work is "a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted."[183] Both the copyright holder's expansive reproduction right and the right to prepare derivative works thus confer upon the rightsholder first possession of never-created works: those that are not identical to, but are substantially similar to or derivative of the rightsholder's created works, if they are copied.[184] In so doing, copyright law creates a fictional first—or can be understood to be providing a right of accession based on the creation of the initial work.[185]

Copyright law also dismisses some first possessors from its ambit as erased firsts. Most prominently, copyright protection extends to the expression of particular ideas rather than to the ideas themselves.[186] For example, the expression in a play about star-crossed lovers would be copyrightable, but the idea of star-crossed lovers would not be.[187] As the U.S. Supreme Court has explained—and similar to patent law's ban on protecting abstract ideas—ideas are excluded from the scope of copyright protection so that they can be left free for all to use as building blocks to create further expression.[188] U.S. courts attribute this principle

181. *See, e.g.*, Boisson v. Banian, Ltd., 273 F.3d 262, 267–68 (2d Cir. 2001).

182. *See id.* at 268; *see also* Rentmeester v. Nike, Inc., 883 F.3d 1111, 1117 (9th Cir. 2018). Another vantage point to situating substantial similarity and other intellectual property tests of infringement is courts' focus on cardinality rather than ordinality. Ordinality asks about the order in which things occur—first, second, and so on—whereas cardinality focuses on how many objects there are in a collection or set. *See, e.g.*, Hippolyte Gros, Jean-Pierre Thibaut & Emmanuel Sander, What *We Count Dictates* How *We Count: A Tale of Two Encodings*, 212 COGNITION 104665 (2021). This Article focuses primarily on ordinality, with its explorations of "first" and "later." By contrast, infringement determinations decide how many embodiments are similar enough to a protected work to count as infringing, which affects the number of protected embodiments for that work. *Cf.* Fromer, *supra* note 62, at 725 ("With intellectual property, the thing upon which the legal right operates—the invention or the original work—is not typically a single unit. Rather, it is usually a set comprised of multiple embodiments. For example, a patent in the field of reclined seating might exclude others from using without license a leather recliner, a microfiber recliner, a sofa recliner, a home-theater recliner, and many other reclining seats."). Infringement can therefore be viewed as being about cardinality. Even so, constituting the set of embodiments for a protected work is ultimately a relationship between ordinality—what counts as first possession—and cardinality—how large is the set of embodiments belonging to the first possessor by virtue of their protection.

183. 17 U.S.C. § 101; *accord* Warner Bros. Ent. Inc. v. RDR Books, 575 F. Supp. 2d 513, 538 (S.D. N.Y. 2008).

184. *See* Fromer, *supra* note 62, at 743–48.

185. Merrill, *supra* note 38, at 468.

186. 17 U.S.C. § 102(b); *See* Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930).

187. *Nichols*, 45 F.2d at 121–22.

188. Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349–50 (1991).

to protecting free-speech values.[189] In this way, first possessors of ideas do not qualify for copyright protection and can get its shelter only if they transform the idea to expression.

As a form of a leapfrogging first, copyright law also sometimes deems latercomers, even if they have copied from a protected work, to be different enough—or perhaps better—to be deemed to be worthy firstcomers in their own right.[190] Most meaningfully, copyright law enables fair use for works that make an important contribution beyond that of an earlier work from which it has copied. Specifically, copyright law excuses some latercomers' uses of others' works that would otherwise be infringing by deeming them to be fair use, thereby also allowing those latercomers' works to be protected by copyright themselves.[191] As the U.S. Supreme Court has explained, crucial to a fair use investigation is whether a later work is transformative:

> The central purpose of this investigation is to see . . . whether the new work merely supersedes the objects of the original creation or instead adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message . . . . [T]he goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works . . . . [T]he more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.[192]

That is, the fair use doctrine is thought to stimulate the production of new creative works that contribute to cultural progress but do not undercut the value of the original copyrighted work too much.[193] It does so by enabling third parties to create these valuable works that must borrow from the original work in some capacity in order to succeed, often transforming it,[194] such as a (crude) rap version of Roy Orbison's "Oh, Pretty Woman,"[195] low-resolution thumbnail images presented in Google search results,[196] and a reproduction of Grateful Dead concert posters in a visual history book of the band.[197] More broadly, as suggested by

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189. *See* Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 556 (1985); *cf.* Jeanne C. Fromer, *An Information Theory of Copyright Law*, 64 EMORY L.J. 71, 98 (2014) ("[T]he basic building blocks of expression ought to be left freely available . . . . It would be both inefficient and unfair to grant rights in these basic components . . . just because one person happened to employ them first. Doing otherwise would ultimately be detrimental to generating a robust body of authored works.").

190. Most directly and obviously, a latercomer whose work is not substantially similar to a firstcomer's work—even if the latercomer copied from the earlier work—is not an infringer. *Supra* text accompanying note 182. But that is trivially true of any non-infringement finding.

191. 17 U.S.C. § 107.

192. Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 579 (1994) (citations and internal marks omitted).

193. Andy Warhol Found. for Visual Arts, Inc. v. Goldsmith, 598 U.S. 508, 527–28 (2023); *Campbell*, 510 U.S. at 577.

194. *See* Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105, 1111 (1990).

195. *See Campbell*, 510 U.S. at 571–72.

196. *See* Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1155 (9th Cir. 2007).

197. *See* Bill Graham Archives v. Doring Kindersley, Ltd., 448 F.3d 605, 607 (2d Cir. 2006).

statutory directives on fair use and elaborated in case law, some prototypical examples include news reporting, critical reviews, and parodies.[198] Not only might these uses not undercut the market for the original work, but they might stimulate it, and they definitely contribute to the cultural storehouse.[199] In all, fair use provides a leapfrogging first in copyright law.

This description of copyright law shows its capacious understanding of "first," but also its use of fictional firsts, erased firsts, and leapfrogging firsts. With that, we turn to trademark law's deployment of "first."

C. TRADEMARK LAW

While trademark law is grounded in different principles than patent and copyright laws, it shares the difficulty of translating traditional property law's principle of first possession to the intangible world. By contrast with patent and copyright laws, trademark law protects symbols that signify a source of goods or services. Trademark protection strives to bolster trade, as Frank Schechter explains, by "identify[ing] a product as satisfactory and thereby . . . stimulat[ing] further purchases by the consuming public."[200] Scholars theorize that producers of trademarked goods will thus have the incentive to invest in the goods' quality, thereby benefiting society.[201] Protecting against trademark infringement, from this vantage point, thus prevents third parties from trading on the goodwill represented by the trademark.[202]

Words, symbols, logos, and sometimes a product's design or packaging may be protected under trademark law.[203] According to the Lanham Act, these are protectable under federal law in the United States so long as they are "used by a person" in commerce "to identify and distinguish his or her goods from those manufactured or sold by others and to indicate the source of the goods, even if that source is unknown."[204] Federal law similarly protects marks that designate services.[205] The law protects trademark registrants against another's "use in commerce [of] any reproduction . . . of [their] registered mark in connection with the sale, offering for sale, distribution, or advertising of any goods or services on or

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198. *See* Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 561 (1985) (news reporting); Sundeman v. Seajay Soc'y, Inc., 142 F.3d 194, 206 (4th Cir. 1998) (critical literary review); *Campbell*, 510 U.S. at 578–85 (parodies).

199. *See* Jeanne C. Fromer, *Market Effects Bearing on Fair Use*, 90 WASH. L. REV. 615, 621 (2015); *cf.* Amy Adler, *Fair Use and the Future of Art*, 91 N.Y.U. L. REV. 559, 567–68 (2016).

200. Frank I. Schechter, *The Rational Basis of Trademark Protection*, 40 HARV. L. REV. 813, 818 (1927).

201. *See, e.g.*, Landes & Posner, *supra* note 79, at 269–70.

202. *See* Robert G. Bone, *Hunting Goodwill: A History of the Concept of Goodwill in Trademark Law*, 86 B.U. L. REV. 547, 549 (2006).

203. 15 U.S.C. § 1127 (defining trademarks to include certain "word[s], name[s], symbol[s], or device[s], or any combination thereof"); Wal-Mart Stores, Inc. v. Samara Bros., 529 U.S. 205, 209–16 (2000) (holding that product design or packaging might constitute a protectable trademark). Also potentially protectable are sounds, scents, and colors. Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 162, 174 (1995).

204. 15 U.S.C. § 1127.

205. *Id.*

in connection with which such use is likely to cause confusion, or to cause mistake, or to deceive."[206] Unregistered marks are similarly protected.[207]

In the United States, both registered and unregistered marks are protected because protection is premised upon use in commerce, which is "bona fide use of a mark in the ordinary course of trade,"[208] to be contrasted with token uses to secure protection.[209] As one U.S. court has explained, "advertising or publicizing a service that the applicant intends to perform in the future will not support [protection]."[210] To discern whether the requisite use in commerce is present, U.S. courts look to whether there is use that is sufficiently public.[211] Priority is conferred upon the first to use a mark,[212] signifying trademark law's choice as to which actions qualify for first possession. That said, trademark law allows a business to prevail in a priority dispute using the analogous-use doctrine as a constructive first: use that "create[s] public identification of the [mark] with the [disputant's] product or service," such as advertising, journalistic coverage, social media use, and customer presentations, can confer priority on that business analogously to actual use in commerce.[213]

How geographically broad one's priority—and possession—is depends on whether the mark has been registered. Registered marks—which require a demonstration to the Patent and Trademark Office that the mark is protectable and that an identical or sufficiently similar mark is not already in use in a way that would confuse consumers[214]—get many advantages under trademark law, among them nationwide constructive use conferring priority throughout the country.[215] In this way, trademark law protects fictional firsts. Even if the mark is not being used pervasively throughout the United States, such as for a local chain of restaurants, trademark law deploys a legal fiction construing use, and thus first possession, where nothing has actually been possessed. No such fiction is deployed for unregistered marks. The owner of an unregistered mark has priority only in the geographic area where the marked products or services are being sold or advertised or where the mark's reputation has been established—a minor constructive first.[216] Correlatively, the prior user is also an excused first because they can

206. *Id.* § 1114(1)(a).
207. *See id.* § 1125(a)(1).
208. *Id.* § 1127.
209. *Id.* (describing use in commerce as "not made merely to reserve a right in a mark").
210. Aycock Eng'g, Inc. v. Airflite, Inc., 560 F.3d 1350, 1358 (Fed. Cir. 2009).
211. *See* Planetary Motion, Inc. v. Techsplosion, Inc., 261 F.3d 1188, 1195–99 (11th Cir. 2001).
212. *See id.*
213. T.A.B. Sys. v. PacTel Teletrac, 77 F.3d 1372, 1375 (Fed. Cir. 1996).
214. 15 U.S.C. § 1052(d).
215. *Id.* §§ 1057(c), 1072.
216. *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 30 cmt. a (A.L.I. 1995). An additional question of priority arises in jurisdictions that provide rights in both trademarks and geographical indications, which are signs used to identify a good whose qualities are purported to relate to its geographical region, such as CHAMPAGNE for sparkling wine from the Champagne region of France and PARMA for ham from the Parma province in Italy. *See* Dev Gangjee, *Quibbling Siblings: Conflicts Between Trademarks and Geographical Indications*, 82 CHI.-KENT L. REV. 1253 (2007). In theory, one can acquire trademark rights for roughly the same sign and goods as a geographical indication, provoking potential conflicts. There are

continue using their mark—frozen into their already-established geographic area—against a subsequent trademark registrant who otherwise has nationwide rights.[217]

As with the conferral of nationwide geographic priority on registered marks, trademark law also deems businesses to be firstcomers even when they change their marks over time to rebrand. As long as the modified mark continues to create the "same, continuing commercial impression" as the previous mark such that "consumers generally would regard them as essentially the same," the mark owner gets the benefit of the priority date of the initial mark via a rule allowing fictional firsts.[218] Examples of rebranded marks benefiting from this rule as fictional firsts include iterative modernized versions of the Quaker Oats man since 1895.[219]

By contrast with the United States, many other jurisdictions—including the European Union and the United Kingdom—deem the first possessor of a mark to be the first to file to register the mark in the jurisdiction's trademark office, even if they are not yet using the mark.[220] For example, an "EU trademark registrant enjoys a five-year grace period from the date of registration to make a 'genuine use' of its mark for the goods or services specified in the registration."[221] The United States has recently made a small step to align its trademark law with these first-to-file countries by granting protection to a business's mark if it has a "bona fide intention to use [it] in commerce" and applies to register it, whereupon registration will be completed only when the business files a statement that the mark is actually "used in commerce."[222] In so doing, U.S. trademark law deploys a constructive first by counting the date of an application to register a mark based on an intent to use the mark as the priority date constructively once registration completes upon use even though the actual use on which priority is otherwise based came later.[223]

Unlike patent and copyright laws, trademark rights are not rights in gross; that is, trademark rights exist only in relation to the particular goods or services with which they are used, such as apparel, cars, or software.[224] That is why DELTA can have different rightsholders for airlines, faucets, and consulting services,

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multiple ways to resolve such conflicts, including an award of overarching rights to whichever claimant was first to acquire those rights or coexistence. *See id.*at 1263–64.

217. 15 U.S.C. § 1115(b)(5).

218. Brookfield Commc'ns, Inc. v. W. Coast Ent. Corp., 174 F.3d 1036, 1048 (9th Cir. 1999) (emphasis omitted) (first quoting Van Dyne–Crotty, Inc. v. Wear–Guard Corp., 926 F.2d 1156, 1159).

219. 2 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 17:28 (5th ed. 2025).

220. Barton Beebe & Jeanne C. Fromer, *The Future of Trademarks in a Global Multilingual Economy: Evidence and Lessons from the European Union*, 112 TRADEMARK REP. 902, 924–25 (2022).

221. *Id.* at 924.

222. 15 U.S.C. §§ 1051(b), (d).

223. *See id.* § 1051(c); Lee Ann W. Lockridge, *Abolishing State Trademark Registrations*, 29 CARDOZO ARTS & ENT. L.J. 597, 611 (2011).

224. *See* Abercrombie & Fitch Co. v. Hunting World, Inc., 537 F.2d 4, 9 & n.6 (2d Cir. 1976) (emphasizing that classification is product specific, and that "a term that is in one category for a particular product may be in quite a different one for another," using the example of Ivory, which

respectively.[225] That said, as with patent and copyright rights, a trademark holder's rights extend not just to identical use on identical goods, but more broadly to any third-party use that might create a likelihood of confusion as to the source of goods or services for consumers, even if the mark is somewhat different from the trademark holder's or the goods or services to which they attach are not the same as those of the trademark holder.[226] For example, one court found a likelihood of confusion between MARTIN'S for wheat bran and honey bread and MARTIN's for cheese.[227] The infringement standard creates a legal fiction of broader rights beyond the trademark holder's actual use of its mark, thereby enabling protection of fictional firsts. That said, to some extent, first possession has a narrower scope than analogously in the context of patent and copyright rights because trademark rights remain anchored by the claimant's use as to particular goods and services, even though they may be enforced against a somewhat broader range of uses.[228]

Despite first use in commerce, trademark law erases some firsts by rebuffing legal rights for the use of symbols that are not distinctive.[229] U.S. trademark law's distinctiveness requirement is situated in the Lanham Act's rule that a mark "identify and distinguish [a business's] goods . . . from those manufactured or sold by others and . . . indicate the source of the goods."[230] As Barton Beebe explains, "a trademark is distinctive of source if it is recognized by consumers as a designation of the source of the product to which it is affixed rather than as, say, a decoration on or a description of that product."[231] This source distinctiveness is also known as "secondary meaning," as this association between source and product supplements the mark's linguistic primary meaning as a word, image, or the like.[232] Protectability turns on distinctiveness because consumers would never be

"would be generic when used to describe a product made from the tusks of elephants but arbitrary as applied to soap").

225. Barton Beebe & Jeanne C. Fromer, *Are We Running Out of Trademarks? An Empirical Study of Trademark Depletion and Congestion*, 131 HARV. L. REV. 945, 952 (2018).

226. *See* 15 U.S.C. §§ 1114(1)(a), 1125(a)(1) (tying trademark infringement to a likelihood to cause confusion); Polaroid Corp. v. Polarad Elecs. Corp., 287 F.2d 492, 495 (2d Cir. 1961) ("Where the [parties'] products are different, the prior owner's chance of success is a function of many variables: the strength of his mark, the degree of similarity between the two marks, the proximity of the products, the likelihood that the prior owner will bridge the gap, actual confusion, and the reciprocal of defendant's good faith in adopting its own mark, the quality of defendant's product, and the sophistication of the buyers. Even this extensive catalogue does not exhaust the possibilities—the court may have to take still other variables into account.").

227. *In re* Martin's Famous Pastry Shoppe, Inc., 748 F.2d 1565, 1568 (Fed. Cir. 1984).

228. *See* Rebecca Tushnet, *Registering Disagreement: Registration in Modern American Trademark Law*, 130 HARV. L. REV. 867, 909 (2017) (noting that although registration requires careful identification of the specimen on which the registrant is using the trademark, trademark rights are not necessarily limited to the goods or services for which the mark is registered).

229. *Supra* text accompanying note 204.

230. 15 U.S.C. § 1127.

231. Barton Beebe, *Search and Persuasion in Trademark Law*, 103 MICH. L. REV. 2020, 2028–29 (2005); *accord* Mark P. McKenna, *Teaching Trademark Theory Through the Lens of Distinctiveness*, 52 ST. LOUIS U. L.J. 843, 847 (2008) ("Distinctiveness . . . refers to the extent to which a claimed designation conveys to consumers information about the source of products or services as opposed to merely conveying product-related information.").

232. *See, e.g.*, RJR Foods, Inc. v. White Rock Corp., 603 F.2d 1058, 1059 (2d Cir. 1979).

likely to be confused as to source—trademark's central inquiry for infringement[233]—unless they recognize a particular designation as source-indicating in the first place.[234] Moreover, granting trademark rights for nondistinctive marks would inefficiently prevent other businesses from using terms or symbols that fail to distinguish source as they compete.[235] Generic terms—those that refer to the entire class of goods or services at issue like ESCALATOR for a moving staircase—can never be distinctive.[236] Terms that are descriptive of their goods or services can become distinctive if they acquire secondary meaning, and other terms—coined terms and terms suggestive of or arbitrary in connection to their goods and services—are inherently distinctive.[237] All in all, being the first to use a nondistinctive term like APPLE for apples—as compared with the distinctive mark APPLE for computers—does not give rise to trademark rights.

Conversely, businesses can be deemed to abandon their marks, thereby losing trademark protection. This can happen in the United States if a business discontinues use with an intent not to resume, and "[n]onuse for 3 consecutive years shall be prima facie evidence of abandonment."[238] Or if the mark becomes generic over time.[239] Or if a business engages in naked licensing—as one court explains, a "grant of permission to use [the] mark without attendant provisions to protect the quality of the goods or services provided under the licensed mark."[240] Thereupon, another business can anew become the first possessor of the mark—as some businesses have done with nostalgic but long-dead marks like HYDROX for sandwich cookies and SALON SELECTIVES for hair care products[241]—allowing for a form of leapfrogging firsts—somewhat akin to adverse possession in traditional property law[242]—to qualify for protection.

Finally, dilution, which has become part of trademark law as trademark rights have expanded over time,[243] creates another fictional first with regard to rights. Recall that trademark rights are not rights in gross.[244] However, the doctrine of dilution provides owners of famous marks with protection against others' use of their mark, even if consumers are not confused, so long as the famous mark is

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233. *See supra* text accompanying note 226.

234. *See* Graeme B. Dinwoodie, *Reconceptualizing the Inherent Distinctiveness of Product Design Trade Dress*, 75 N.C. L. REV. 471, 483 (1997).

235. *See* Landes & Posner, *supra* note 79, at 288.

236. *See* Jeanne C. Fromer, *Against Secondary Meaning*, 98 NOTRE DAME L. REV. 211, 220–21 (2022).

237. *See id.* at 221–24.

238. 15 U.S.C. § 1127.

239. *See id.*

240. Exxon Corp. v. Oxxford Clothes, Inc., 109 F.3d 1070, 1075 (5th Cir. 1997).

241. *See* Nyall Engfield, *Zombie Trademarks Coming Back to Life After Death*, TRADEMARKRAFT (June 9, 2024), https://trademarkraft.com/blogs/news/zombie-trademarks-coming-back-to-life-after-death [https://perma.cc/Q6JF-NB2E].

242. *See supra* Part I.

243. *See* Jeanne C. Fromer, *The Role of Creativity in Trademark Law*, 86 NOTRE DAME L. REV. 1885, 1916–18 (2011).

244. *See supra* text accompanying notes 224–28.

blurred or tarnished.[245] As Barton Beebe, Roy Germano, Chris Sprigman, and Joel Steckel explain, dilution "is understood somehow to damage the famous brand name by diminishing the immediacy with which consumers identify the brand name with its source and other preexisting associations."[246] For this reason, Google could likely prevent third parties from selling GOOGLE milk, GOOGLE medication, GOOGLE yarn, and GOOGLE gardening tools, even though Google offers no such goods or anything similar and consumers might not be confused at all as to the source of any of these goods. The rule of dilution thus affords the owners of famous marks something more akin to the rights in gross otherwise denied in trademark law. It effectively treats them as if they were first to use the mark for every good and service rather than just for the actual goods and services as to which they have in fact used the mark. Indeed, Google was never the first to enter these hypothetical spaces, yet it would be deemed to be the first possessor nonetheless under dilution doctrines. Alternatively, dilution might be understood as a right of accession to the famous markholder.[247]

In all, trademark law—like patent and copyright laws—implements a principle of "first" by using fictional firsts, constructive firsts, erased firsts, and leapfrogging firsts. With this synthesis of how notions of first possession are constructed, mutated, and contorted across the laws of property in intangibles,[248] I now turn to underscore the normativity of "first" in intellectual property.

D. THE NORMATIVITY OF "FIRST" IN INTELLECTUAL PROPERTY

The foregoing descriptions of patent, copyright, and trademark laws show how ill-fitting it is to construe them as straightforward rules of first possession. To be sure, these laws intellectually descend from tangible property, where first possession is the paramount rule.[249] Yet by applying this principle to the intangibles of inventions, artistic works, and brands, the rule of first possession—already difficult to construe and apply in certain traditional property scenarios[250]—becomes

245. *See* 15 U.S.C. § 1125(c).

246. Barton Beebe, Roy Germano, Christopher Jon Sprigman & Joel H. Steckel, *Testing for Trademark Dilution in Court and the Lab*, 86 U. CHI. L. REV. 611, 614 (2019).

247. *See* Merrill, *supra* note 38, at 469.

248. Trade secret law is an important body of intellectual property law left unanalyzed herein. There are important questions as to "first" in that body of law, such as whether a departing employee that owes a duty of confidentiality to their former employer is liable for trade secret misappropriation of certain information, which can depend on whether they knew that information before their employment or learned it during employment. *See* UNIF. TRADE SECRETS ACT § 1(2) (amended 1985), 14 U.L.A. 636 (2021). That said, multiple entities can possess a trade secret in the same information simultaneously so long as the information is not generally known or readily ascertainable. *Id.* § 1(4). Though this Article's analysis of "first" can and should be extended to trade secret laws, the analysis is excluded to curtail this Article's length.

249. *See supra* Part I.

250. *Cf.* Lueck, *supra* note 25, at 396 (observing that possession can mean different things in traditional property and can vary in terms of how much one gets to possess).

even harder to conform.[251] This Section exposes the deep normativity that results both from choosing a rule of "first" in intellectual property and then mutating and contorting it.

Deeming first possession to extend beyond anything a creator or initiator has actually done in the physical world is itself an important mutation or contortion of traditional property law's notion of first possession. As discussed in the last three Sections and summarized in Table 1, patent, copyright, and trademark laws each do this in numerous ways. These laws have both constructive firsts and fictional firsts. They also have erased firsts, excused firsts, and leapfrogging firsts—therein dismissing in certain circumstances those that might otherwise be deemed to be first possessors and sometimes even deeming latercomers to be first possessors.

Moreover, the wide variation in the actions that qualify for first possession—"first to do what"—across the different types of intellectual property also suggests how intricate, or perhaps convoluted, it is to translate notions of first possession from tangible property to intangible property. Do independent creators of the same work each qualify for rights as first possessors? Do creators have to ask for government approval to be deemed to be first? How far beyond what a creator has physically made do their rights extend? Patent, copyright, and trademark laws each answer these questions of "first" differently.

The rules of patent, copyright, and trademark laws represent mutations and contortions of how we ordinarily understand the notion of "first," as in first to complete a marathon or first in line. Upon exploration, it causes one to wonder whether "first" in intellectual property laws still has much helpful meaning. Is it stretched too thin to be a helpful concept if one can label constructive firsts, fictional firsts, erased firsts, excused firsts, and leapfrogging firsts as "first"—that is, by including so many non-first behaviors within "first" and excluding so many first behaviors from "first"? Or to be able to define "first" so differently across different categories of intangibles? Indeed, depending on how elastic our understanding of "first" is, I might pronounce with a straight face that the person who performs best over a ten-year competition is the first to be the best and is thus first. That seems to be quite a stretched understanding of "first" as earliest in time—though it does better comport with understanding "first" to be best.[252]

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251. *Cf.* Oliar & Stern, *supra* note 7, at 402 (emphasizing "fundamental similarities with respect to the theory and doctrines of original acquisition," while "not deny[ing] substantial theoretical and doctrinal differences between property and intellectual property").

252. In the context of considering "best," it is helpful to note the polysemy of the word "first," that it means both the earliest in time and the most excellent or important. *See generally* Daniel J. Hemel, *Polysemy and the Law*, 76 VAND. L. REV. 1067 (2023) (providing a comprehensive analysis of the origins, uses, and consequences of polysemy in the legal field). The Oxford English Dictionary weaves both senses together in its overarching definition of "first": "That is before all others; earliest in time or serial order, foremost in position, rank, or importance." *First*, OXFORD ENGLISH DICTIONARY, https://www.oed.com/dictionary/first_adj?tab=meaning_and_use#4246203 [https://perma.cc/4NQH-ZAC2] (last visited Aug. 2, 2025). Of the senses the dictionary then elaborates, one is centered on the most excellent and another is focused on the earliest in time. *See id.* The dictionary elaborates two other senses, which are connected to these two: one attuned to "[o]f something at rest or in motion: foremost

Of course, if one returns to the basic principles of patent, copyright, and trademark laws—encouraging innovation, production of artistic and cultural works, and fair competition, and perhaps protecting creators' moral rights[253]—one sees that these laws have a different occupation than traditional property law. They are generally about providing incentives to individuals and businesses to shape their behavior to encourage the production of certain intangibles, which are different in many important ways from tangibles.[254] As much as patent, copyright, and trademark laws are first cousins to traditional property law, they are trying to accomplish something else, so it might not be surprising how much intellectual property laws have to be distorted to "match" property law's principle of first possession.

All in all, even though at first glance "first" seems to be a simple and straightforward concept, this Part's unpacking of the concept's application across intellectual property laws belies that intuition. Instead, at least within intellectual property laws, choosing who is first is at its core a normative determination. One must decide which actions qualify for first possession, or "first to do what." One also must choose when and how to mutate and contort the concept of "first," as intellectual property laws have done in numerous ways. These are deeply normative determinations, and not as straightforward as glancing at a line to see who is first or assessing who was first to cross a race's finish line.

One might wonder whether a gravitation toward "first" as the deciding factor in who gets awarded intellectual property rights was thought to be so straightforward that it was seen as a way to sidestep making a substantive decision about who is the optimal awardee of rights. Is it the one who would be the fourth to make a type of cancer drug by getting the drug to work on more people with fewest side effects? Is it the 131st story of boy meets girl, boy loses girl, boy gets girl back, that has the largest audience and the highest number of positive reviews? Is it the business that would use a particular mark across the widest market to the greatest consumer recognition? We can invoke many different markers of success. And in some ways, gravitating toward "first" as the determinative marker might seem on the surface to avoid the law having to make a substantive decision about what is good, let alone optimal. Yet the foregoing discussion lays bare that applying a rule of "first" in intellectual property is complex, normative, and hard, perhaps as hard as a rule of "best."[255]

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or most advanced in position," and the other to "[p]receding all others in a series, succession, order, set, or enumeration." *Id.* Another reason we might tangle "first" and "better" in awarding intellectual property rights is because we sometimes use "first" to mean earliest in time and at other times to mean the most excellent and important.

253. *See supra* Sections II.A–C.

254. *See* Fromer, *supra* note 62, at 760; Clarisa Long, *Information Costs in Patent and Copyright*, 90 VA. L. REV. 465, 466 (2004); Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 YALE L.J. 1742, 1744 (2007).

255. *See infra* Part IV. To be sure, there are questions of institutional competence in deciding what is "best." For example, perhaps a legislature deciding on a particular instantiation of a "first" rule is better placed to decide the normative questions underpinning that instantiation than an agency having to choose what is "best" upon application.

Before turning to whether intellectual property is optimally served by a rule of "first," it is worth revisiting the framing of traditional property rights as being about a choice between first possession and a rule of accession. That is, does a firstcomer get rights in something that has never been possessed, or does a previous firstcomer already possess that new thing by virtue of holding prior rights in something related?[256] While there may be real consequences in traditional property to framing rights one way or the other, in the context of an analysis of "first" in intellectual property, the choice of framing is illusory. Both a rule of first possession and a rule of accession are about making a normative judgment that something that was never physically in existence—a set of invention embodiments, a class of creative works, or a set of marks used on goods and services—belongs to someone by virtue of them having done something narrower, be it creating a single machine, writing one book, or selling tissues with a logo. With that, let us turn to how to think about allocating intellectual property.

IV. RESTORING ORDER TO INTELLECTUAL PROPERTY

With the normativity of "first" in intellectual property established, this Part returns in Section A to the purported values that "first" serves in intellectual property by evaluating them through the lens of how "first" actually operates in intellectual property, as just set out in the previous Part. Seen through this enriched perspective, "first" only partly serves and also undermines the purported values of fairness, order, societal benefits, and rhetorical value. Section B then explores how those same important values are also partly served by sometimes awarding rights to those who create later or better. Section C then turns to consider the different verbs of firsts, laters, and betters—that is, which actions undertaken by creators ought to matter in determining possession and rights. Section D concludes by considering what an integration of "first," "later," and "better" might look like in patent, copyright, and trademark laws. In all, this Part explores whether and when intellectual property laws should reward first possession and why an integrated model might be preferable.

A. THE VALUE OF "FIRST" REDUX

With an enriched perspective, this Section now returns to the purported values that "first" serves in intellectual property. In general, some scholars think that the affinity between intellectual and traditional property is critical and that first possession ought to serve as the basis of intellectual property rights. For example, Dotan Oliar and James Stern analyze how first possession principles do and ought to apply to patent, copyright, and trademark laws.[257] They emphasize that "a thorough understanding of the principles of first possession can help us perfect our management of th[e] legal frontier [of intangibles] by implementing the lessons

256. *See supra* Part I.

257. *See generally* Oliar & Stern, *supra* note 7 (developing a model of possession based on time).

from the common law's long experience with the award of rights in physical resources."[258]

While applying notions of first possession from traditional property need not be rejected out of hand, the foregoing explication and analysis already suggest that these notions cannot be applied in any straightforward way to intellectual property. When seen through the lens of the previous Part's thick description of how a rule of first possession in intellectual property operates in practice, it becomes evident that the four key values underpinning a rule of first possession in intellectual property—fairness, order, societal benefits, and rhetorical power—are at most partly served by the operation of this rule and are indeed undermined in important ways.

In particular, the deviations from actual first possession in intellectual property can undermine the value of fairness.[259] While it is arguably fair to award rights to someone in the work they actually labored over to create,[260] intellectual property laws' award of rights for constructive and fictional firsts does not seem as fair, if at all.[261] That is, when these laws award rights for works that have not been created—ones over which the awardee has not labored—that not only does not seem grounded in fairness, but it seems affirmatively unfair to prevent others who might labor to create a work that has not yet been created from doing so or from securing rights for doing so.[262] When intellectual property laws erase firsts or protect leapfrogging firsts, they are also arguably undercutting the fairness rationale by allowing latercomers to secure rights as against an earlier creator. Moreover, while excused firsts do not encroach on the value of fairness to the same degree by enabling actual firstcomers to avoid liability against a latercomer, the actual firstcomers are not awarded rights and in that sense excused firsts carry some unfairness.

This unfairness in the implementation of first possession in intellectual property mirrors crucial injustices of traditional property. Recall the hunted fox in *Pierson v. Post* that launches most studies of traditional property law.[263] The judges in that case debate the relative rights of the chaser and the capturer.[264] Yet they give no voice to the actual first possessor of the fox: the fox itself.[265] Instead, the judges debate which of two subsequent potential (human) possessors is the first possessor.

More broadly, recent scholarship shows the erasure of many actual first possessors of traditional property via violence, racism, and colonialism underpinning the legal rule of first possession in that context. As Bethany Berger and K-Sue Park have each emphasized in their respective studies of how American property

258. *Id.* at 399.

259. That said, the deviations can sometimes support the value, as with leapfrogging firsts in copyright law for *fair* use. *See supra* Section II.B.

260. *See supra* Section II.A.

261. *See, e.g.*, Chatterjee, *Lockean Copyright*, *supra* note 57, at 171–74.

262. *See id.*

263. *See supra* Part I.

264. *See supra* Part I.

265. *Cf.* Drassinower, *supra* note 51, at 193 (describing the fox as "the silent and ignored, yet in my view, indisputable protagonist of the case").

law has been distorted by race, the American colonies and the United States were built by laying claim to land already possessed by Native peoples.[266] In that way, colonists' and later Americans' "first" possession was often not earliest in time at all. Moreover, this not-so-first possession of Native lands was reified by law as proper possession even at the same time as legal institutions like the *Pierson* court were glorifying first possession.[267] Indeed, Berger and Park each theorize that the public land title recording that was an innovation in American property law came about as a way for colonists and later Americans to find ways to legitimate their later-in-time claims to these American lands, as well as to assert jurisdiction over these lands as against Native tribes.[268] Specifically, as Park emphasizes, "claiming property was crucial to English territorial claims because colonists lacked the military might to seize lands from Native nations through raw force. Instead, they adopted the approach of defending the private land claims of individual settlers to establish their settlements."[269] The U.S. Supreme Court's 1823 decision in *Johnson v. M'intosh* recognized—thereby affirming—that "discovery [by Europeans in what became the United States] gave title to the government by whose subjects, or by whose authority, it was made, against all other European governments, which title might be consummated by possession."[270] Moreover, the Court stated that "the nations of Europe, who have acquired territory on this continent, have asserted in themselves, and have recognised in others, the exclusive right of the discoverer to appropriate the lands occupied by the Indians."[271] The Court observed that while Native peoples could be in possession of American lands, private citizens could not buy lands from them, thereby subordinating Native sovereignty to that of the United States.[272] This decision underscores how the law could twist the doctrine of first possession to suit American claims to land over Native ones, thereby condoning racist, unjust, and sometimes violent dispossessions as "first" possession.[273]

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266. *See* Bethany R. Berger, *Race to Property: Racial Distortions of Property Law, 1634 to Today*, 64 ARIZ. L. REV. 619, 627 (2022); K-Sue Park, *Property and Sovereignty in America: A History of Title Registries and Jurisdictional Power*, 133 YALE L.J. 1487, 1493 (2024); *cf.* GREGORY ABLAVSKY, FEDERAL GROUND: GOVERNING PROPERTY AND VIOLENCE IN THE FIRST U.S. TERRITORIES (2021) (detailing the ways in which Native people, French villagers, and Anglo-American settlers turned to the federal government with regard to the Northwest and Southwest Territories to navigate conflicting land claims, including multiple sources of title). Berger and Park each also discuss how American property laws and practices solidified enslavement and continue to perpetuate racism to this day.

267. *See supra* Part I.

268. Berger, *supra* note 266, at 627–28; Park, *supra* note 266, at 1492–93, 1511, 1517–18. It is not that Native peoples lacked records of land transactions. As Berger explains, "Indigenous people had many ways of recording their transactions with the newcomers, including maps, bark carvings, wampum belts, and oral memory so accurate it astounded their English partners. But by claiming that only written deeds recorded in their courts governed, colonists could control and manipulate the record." Berger, *supra* note 266, at 629.

269. Park, *supra* note 266, at 1502.

270. 21 U.S. (8 Wheat.) 543, 573 (1823).

271. *Id.* at 584.

272. *Id.* at 588; Park, *supra* note 266, at 1525.

273. *See* Berger, *supra* note 266, at 631–33; Park, *supra* note 266, at 1493–94, 1502. For an exploration of the discovery doctrine that cemented Christian European supremacy to lands over

This explication of first possession indicates that, as straightforward as the concept of "first" in real property often seems, it has been warped as a way to assert power or yield certain outcomes with regard to property. In that sense, it shares some similarity—at least with regard to the mutations and contortions of "first" for intellectual property.[274] Indeed, Locke's simplistic depiction of first possession[275] masks—and perhaps itself enables—the powerful in perpetuating violence or injustice against the less powerful.

Intellectual property doctrines or practices that erase—or diminish—some actual firstcomers' claims might have great impact on the less powerful.[276] Take copyright law. It has a provision allowing musicians to record cover songs of most works protected by copyright law without having to seek permission from the copyright holder and with payment set by a compulsory-licensing scheme.[277] The law also previously required compliance with a slew of formalities to obtain copyright protection in the first place, serving as a trap for the less sophisticated to accidentally forfeit rights.[278] Scholars have argued that these copyright provisions enabled the covering by white musicians of African-American blues songs without providing credit or fair compensation to the originating artists.[279] Doing so rendered these firstcoming African-American musicians invisible, while also enabling latercomers to claim copyright protection over them.[280] Similarly, patent law typically allows developers of modern chemicals and drugs—like aspirin—to claim rights even when their development relies principally on prior traditional knowledge of indigenous communities.[281] Here too, the actual—and often less powerful—firstcomer is erased and excluded in favor of an outsider latercomer in

non-Christian non-Europeans, see K-Sue Park, *The History Wars and Property Law: Conquest and Slavery as Foundational to the Field*, 131 YALE L.J. 1062, 1091–100 (2022).

274. *See supra* Part III.

275. *See supra* Part I.

276. To be sure, the physical violence that can accompany the erasure of earlier-in-time possessors of traditional property is typically absent in the context of intellectual property. That is largely because the allocation of rights is principally about the first possession of something intangible rather than tangible.

277. *See* 17 U.S.C. § 115(a)(1)(A).

278. *See* Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485, 487 (2004).

279. *See, e.g.*, Olufunmilayo B. Arewa, *Copyright on Catfish Row: Musical Borrowing,* Porgy and Bess*, and Unfair Use*, 37 RUTGERS L.J. 277, 350 (2006) [hereinafter Arewa, *Copyright on Catfish Row*]; Olufunmilayo B. Arewa, *From J.C. Bach to Hip Hop: Musical Borrowing, Copyright and Cultural Context*, 84 N.C. L. REV. 547, 606 (2006) [hereinafter Arewa, *Bach to Hip Hop*]; K.J. Greene, *"Copynorms," Black Cultural Production, and the Debate over African-American Reparations*, 25 CARDOZO ARTS & ENT. L.J. 1179, 1182–1207 (2008).

280. *See* Greene, *supra* note 279, at 1184–85.

281. *See* Aman Gebru, *Patents, Disclosure, and Biopiracy*, 96 DENV. L. REV. 535, 535 (2019); Stephen R. Munzer & Kal Raustiala, *The Uneasy Case for Intellectual Property Rights in Traditional Knowledge*, 27 CARDOZO ARTS & ENT. L.J. 37, 40 (2009); J. Janewa OseiTutu, *A Sui Generis Regime for Traditional Knowledge: The Cultural Divide in Intellectual Property Law*, 15 MARQ. INTELL. PROP. L. REV. 147, 150 (2011); *see also* Vandana Shiva, *The Great Seed Piracy*, TOWARD FREEDOM (June 21, 2016), https://towardfreedom.org/story/archives/environment/vandana-shiva-the-great-seed-piracy [https://perma.cc/U7Z8-R262]; Vandana Shiva, *The Neem Tree—A Case History of Biopiracy*, THIRD WORLD NETWORK BERHAD, https://www.twn.my/title/pir-ch.htm [https://perma.cc/8ZPX-D37P] (last visited Aug. 2, 2025).

a form of "intellectual colonialism."[282] Trademark law can also exhibit similar power dynamics. For example, despite only having used CHANEL as a mark for a constellation of fashion-related goods and services, the luxury fashion company Chanel has used dilution doctrine[283] to stop the registration of CHANEL as a mark for real estate development and construction by an individual who represented himself pro se—despite being an actual firstcomer for that symbol being used to designate those goods and services.[284] Additionally, the fast food chain McDonald's has used dilution doctrine to stop a hotel from being known as McSLEEP INN and has similarly taken action against businesses in distant categories of goods and services from using McHAPPY, McTRAVEL, McDIVOTS, McQUICK, McMAID, and McPRINT.[285] In doing so, the law allows a nevercomer, a business that has never used that signifier for those goods and services, to hoard rights as against an actual firstcomer—and often a less powerful one at that—for that particular mark.

Not only do these deviations from actual first possession undermine the value of fairness, but they also contravene the value of order.[286] This contravention happens when someone is awarded rights for works they have not actually created first via constructive and fictional firsts or a latercomer secures rights over a prior comer via erased, excused, and leapfrogging firsts. Most importantly, the clarity of a rule of first possession is muddied by all of these mutations and contortions of "first." Even so, it is worth emphasizing that these constellations of rules might still centralize rights in fewer creators, thereby promoting order among a society of creators, as per Kitch's prospect theory.[287]

Societal benefits are also put in question by these mutations and contortions of "first." When rights are not awarded to an actual firstcomer or are instead provided to a latercomer, the incentives that intellectual property rights provide to confer benefits as soon as possible on society[288] can be thwarted. These incentives can cease to work if an actual firstcomer does not get rights or a latercomer gets them instead because that might cause would-be firstcomers to decline to create if they cannot reap the benefit of rights from their creations. And if that happens, that can delay how soon society can benefit from creations because the would-be firstcomer does not create, necessitating a would-be latercomer to create instead.

Finally, the rhetorical power of "first" is also undercut by these mutations and contortions of "first." To the extent that this rhetorical power derivatively stems from other values like fairness, order, and societal benefits,[289] its power is

282. This phrase has been used in other contexts, such as Samuel P. Huntington, *The Lonely Superpower*, FOREIGN AFF., Mar.–Apr. 1999, at 44.

283. *Supra* text accompanying notes 243–47.

284. Chanel, Inc. v. Makarczyk, 110 U.S.P.Q. 2d 2013 (T.T.A.B. 2014).

285. Quality Inns Int'l, Inc. v. McDonald's Corp., 695 F. Supp. 198, 213, 221 (D. Md. 1988).

286. *See supra* section II.B.

287. *See supra* text accompanying notes 66–72.

288. *See supra* Section II.C.

289. *See supra* Section II.D.

diminished in correlation to the diminishment of those underlying values.[290] Moreover, once "first" is mutated and contorted, the rhetorical power stemming from its centrality in institutional norms of creation and priority[291] is further weakened. Finally, the weakened rhetorical power in turn can sap individuals of the expressive incentive that would be provided by a more robust implementation of "first."[292]

All in all, the values purported to be served by a rule of first possession in intellectual property are each undermined to some extent by constructive firsts, fictional firsts, erased firsts, excused firsts, and leapfrogging firsts—that is, the mutations and contortions of "first."

B. THE VALUE OF "LATER" AND "BETTER"

The values of fairness, order, societal benefits, and rhetorical power are sometimes better promoted when rights are awarded to those who create later or better. This argument is especially strong because the values purported to be served by a rule of first possession are already undermined by the actual implementation of this rule in intellectual property laws. Indeed, this analysis is ever important precisely because constructive firsts, fictional firsts, erased firsts, excused firsts, and leapfrogging firsts are often about protecting those who create later or better.[293]

1. Fairness

Fairness is sometimes promoted by awarding rights to latercomers over first-comers. In the context of patent, copyright, and trademark laws' grants of rights in intangibles, Madhavi Sunder has emphasized the importance of "law . . . facilitat[ing] the ability of all citizens, rich or poor, brown or white, man or woman, straight or gay, to participate in making knowledge of our world and to benefit materially from their cultural production."[294] In this way, a quintessential facet of fairness is about being attentive to the equities of choosing any rule for allocating rights over another, especially if the law wants to ensure that those that are less powerful have a true chance—or perhaps even a head start—toward obtaining rights.[295]

Take the example of a rule allocating rights to the first filer for the right. In an empirical study, David Abrams and Polk Wagner find that a shift in the patent system from a rule awarding rights to the first to invent to one awarding them to the first to file creates a significant drop in the share of patents awarded to individual

290. *See supra* text accompanying notes 260–87.

291. *See supra* Section II.D.

292. *See supra* Section II.D.

293. *Supra* Section III.D.

294. MADHAVI SUNDER, FROM GOODS TO A GOOD LIFE: INTELLECTUAL PROPERTY AND GLOBAL JUSTICE 2–3 (2012).

295. This focus on allocation of rights leaves aside questions of access to drugs, books, commerce, and other manifestations of the subject matter of intellectual property laws, for a wide swath of people regardless of means. For an overview of many of those issues, see, for example, Margaret Chon, *Intellectual Property and the Development Divide*, 27 CARDOZO L. REV. 2821, 2824–25 (2006), and Anjali Vats & Deidré A. Keller, *Critical Race IP*, 36 CARDOZO ARTS & ENT. L.J. 735, 785 (2018).

inventors as compared to businesses.[296] This finding suggests, rather intuitively, that first-to-file rules favor larger businesses over individual inventors. Specifically, larger businesses can commit greater resources not just to complete an invention but also to put together a compliant patent application and deliver it first to the patent office for examination.[297] To be sure, a first-to-invent rule also favors businesses over individual inventors for similar reasons, but as Abrams and Wagner's findings show, comparatively and significantly less so.[298] This empirical evidence underscores the more general concern that the less powerful are hurt by rules promoting "first."

More broadly, all "first" rules that focus on being earliest in time to do something relatively intensive will likely privilege the powerful over the less powerful because the more powerful can typically race faster with their resources, whatever the race.[299]

How are these observations linked to fairness? A fundamental feature of fairness is equality of opportunity.[300] According to John Rawls, social and economic inequalities ought to be allowed only if, among other things, there is equality of opportunity to compete for desirable positions.[301] Applied to intellectual property, and a reflection of Sunder's thinking,[302] an important aspect of fairness in choosing awardees of intellectual property rights is about equality of opportunity to access those rights. There are multiple ways to promote this equality, including reaching far backward in time to offer consistently robust education across the board to put people in a good position to create works that qualify for intellectual

296. Abrams & Wagner, *supra* note 120, at 517 (using a difference-in-difference study to compare an earlier change in Canadian patent law from a first-to-invent rule to a first-to-file rule against the United States' then-in-place first-to-invent rule). At the same time, they detect no measurable change in patent quality over these different periods in Canada. *Id.* at 551–53.

297. It might be that first-to-file rules advantage more sophisticated businesses over smaller ones or individuals especially when the requirements to be ready for filing are onerous. For example, a first-to-file rule in the context of using a mark in commerce before filing a trademark application might disfavor smaller businesses or individuals less than such a rule requiring reducing an invention to practice—either actually or constructively—before filing a patent application. This is because it typically takes greater resources and time to invent than to use a mark in commerce.

298. Colleen Chien and Mark Lemley find that when the United States had a first-to-invent rule in place with provisions to resolve priority disputes, there were only seventy-six reported opinions over an eleven-year period deciding who the first inventor was, suggesting that there are few incidents in which one might want to challenge the first to file for a patent as not having also been the first to invent. Chien & Lemley, *supra* note 112, at 1305.

299. This is less true of "first" rules like copyright's, which are more akin to participation trophies, so the less powerful can claim them too. *See supra* Section III.B.

300. *See, e.g.*, JOHN RAWLS, JUSTICE AS FAIRNESS: A RESTATEMENT 42–43 (Erin Kelly ed., 2001); Gideon Elford, *Equality of Opportunity*, *in* STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Edward N. Zalta & Uri Nodelman eds., 2023), https://plato.stanford.edu/entries/equal-opportunity; Lee Anne Fennell, *Death, Taxes, and Cognition*, 81 N.C. L. REV. 567, 616–18 (2003); Alex M. Johnson, Jr., *Bid Whist, Tonk, and* United States v. Fordice*: Why Integrationism Fails African-Americans Again*, 81 CALIF. L. REV. 1401, 1463–64 (1993); Thomas Nagel, *Liberal Democracy and Hereditary Equality*, 63 TAX L. REV. 113, 116 (2009).

301. RAWLS, *supra* note 300, at 42–43.

302. *See supra* text accompanying note 294.

property protection.[303] More proximately linked to intellectual property rights in actualizing equality of opportunity is the possibility of awarding rights to those who come into possession later in time merely due to their impoverished opportunity to race to create as fast as those with greater resources. Furthermore, this prospect might be further warranted when such a latercomer creates a better version of what the firstcomer created. In these ways, later or better possession might, in some circumstances, better reflect fairness than first possession.

There are also other ways in which awarding rights for later or better possession might promote fairness. In particular, it might sometimes promote fairness to award rights not only to the first possessor but also to some later possessors. Frequently, one does not create a work deserving of intellectual property rights—such as a drug that treats cancer, a feature film, a graphics software, or a brand of automobile—in a short burst of time with few invested resources. To the contrary, when intellectual property laws award rights to the actual first possessor, there is often a laborious and expensive race to be that first one to possess.[304] In that case, others who might also be racing to the same end but completing the work even days after the first possessor are nothing but first losers, getting no rights at all. Not only is racing wasteful if there is but one winner,[305] but it can also be unfair to others who have invested significant amounts of time and money to walk away with nothing.[306] Broad rights or rights of accession can eliminate some downstream racing,[307] but it can put even more pressure on initial races for even bigger treasure troves of broad rights. Instead, fairness might be better promoted by allowing those who finish the race later to share in some way in the firstcomer's rights—perhaps even more so if they finish with a better drug that treats cancer, graphics software, and so forth.

Moreover, if we envision the societal benefits sought by intellectual property laws to be about producing high-quality works and goods,[308] the incentives

303. *Cf.* Alex Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova & John Van Reenen, *Who Becomes an Inventor in America? The Importance of Exposure to Innovation*, 134 Q.J. ECON. 647, 648 (2019) (studying empirically how there are many "lost Einsteins," people—especially women, minorities, and children from low-income families—that would likely have invented had they been exposed to more innovation in their youth).

304. *E.g.*, Neil C. Thompson & Jeffrey M. Kuhn, *Does Winning a Patent Race Lead to More Follow-On Innovation?*, 12 J. LEGAL ANALYSIS 1, 4 (2020) (showing empirically that patent races are common, particularly in information technology).

305. *See* Lueck, *supra* note 25, at 396; Oliar & Stern, *supra* note 7, at 401. There can also be a winner's curse. If multiple individuals or businesses are racing to be the first, the competitive spirit and other factors can prod them to spend more than the intrinsic value of the resulting work to win the race. While this phenomenon is most famously associated with auctions, Adam Hayes, *Winner's Curse: Definition, How It Works, Causes, and Example*, INVESTOPEDIA (July 21, 2024), https://www.investopedia.com/terms/w/winnerscurse.asp [https://perma.cc/WKR7-A2VM], there is reason to think it can also happen in the context of a more prolonged race. *See id.* Moreover, some suggest auctions of rights to the highest bidder as an alternative to first possession, Lueck, *supra* note 25, at 403, which can also yield the winner's curse. *See* Hayes, *supra* note 305.

306. *See* WILLIAM CORNISH, INTELLECTUAL PROPERTY: OMNIPRESENT, DISTRACTING, IRRELEVANT? 7–10 (2004).

307. *See* Merrill, *supra* note 38, at 482–83.

308. *See supra* Part III.

provided by these laws can—and perhaps should—be seen as contests to produce the best work or good. From that perspective—and hearkening back to Lockean thinking[309]—it is fair to award rights to those that labor to create the best works or goods. Fairness might also counsel in favor of awarding rights to anyone that independently labors to create a work, even if they are later possessors.[310] To the extent that a creator's labor is the basis for the award, as Mala Chatterjee points out, "there is no difference between the earlier and follow-on laborers' *labor itself*."[311]

In all of these instances, there are fairness considerations underpinning sometimes awarding rights to those who come into later possession or to those who create a better version of a work than a firstcomer. In these instances, sometimes fairness might be best served by awarding concurrent rights of some kind to the firstcomer and latercomers and sometimes by awarding rights to the latercomer instead of the firstcomer.

2. Order

Consider now the value of order. It is indeed likely to be easier much of the time to identify firstcomers over later creators and better creators, even in the realm of intangible property.[312] Yet the value of order can also sometimes be served in other ways by granting rights later in time, often to later or better creators. As discussed above, order is thought to be served by laying claim to protected intellectual property early in time to broadcast to the world as soon as possible with whom to negotiate over such rights and which set of works is being claimed.[313] Yet such order is readily undermined if the set of works protected by intellectual property rights are not clearly described.[314] Without sufficiently clear notice, it can become too difficult for government decisionmakers to assess the protectability and scope of rights and for third parties to assess whether they need permission from a rightsholder to venture into a particular domain or to be able to locate that rightsholder—as with orphan works in copyright law.[315]

It can be challenging to provide such clear notice with regard to the intangibles protected by intellectual property laws because we cannot actually point to them or always easily demarcate their bounds or even have good vocabulary to talk about them when they are—often by legal requirement, as in patent law—new things.[316] Perhaps we can show an invention prototype or the hardcover edition of a novel or a logo on a sneaker. But how well does each signal the often-wider

309. *See supra* Part I; *supra* Section II.A.

310. Chatterjee, *Lockean Copyright*, *supra* note 57, at 149 ("[T]he observation that timing is morally irrelevant—such that being 'first in time' does not make earlier laborers morally worthier than later ones—does not depend on any particular view regarding *why* laborers are entitled to their fruits in the first place (be that in virtue of labor-mixing, desert, or workmanship).").

311. *Id.*

312. *See supra* Section II.B.

313. *Supra* Section II.B.

314. *See generally* Fromer, *supra* note 62.

315. *See id.* at 761–68.

316. *See id.*

swath of invisible related matter that is also protected by the same patent, copyright, or trademark right?[317] We often have to extrapolate a broader scope of rights from a limited number of tangible items or turn to fully verbal descriptions of that barely tangible scope.[318]

A related aspect that makes it hard to extrapolate is that it is often far from obvious what the cohort of related things is that might be protected. If someone makes a tornado movie, do they have rights in other tornado movies? Weather disaster films more broadly? Or only tornado movies with a similar geographic location, dialogue, and romantic subplot? Demarcating this invisible cohort is hard but critical.[319]

From the perspective of clearly demarcating this hard-to-describe set of items, allocating rights later in time might lead to more order because greater clarity might derive from greater refinement and development of a variety of tangible instantiations of protected matter.[320] Allocation of rights later in time might also yield a better vocabulary to describe protected works, especially when the underlying works or subject matter is cutting edge and the vocabulary to describe it is in utero. Indeed, awarding rights to someone who has a clear vision for their creation—which might not be the firstcomer—might yield the clearest notice, even if not the earliest. Of course, this advantage will turn in large measure on whether claims to the set of things protected by an intellectual property right are established comprehensively or piecemeal, and earlier or later in time—something that varies across the types of intellectual property.[321]

Moreover, these ways in which early possession can undermine order are compounded by implementations of prospect theory, assigning broad rights to a first possessor to coordinate downstream order among later possessors.[322] Pointedly, there can be no order among creators if they lack good notice of a rightsholder's claim.

3. Societal Benefits

Societal benefits too can sometimes be advanced by awarding rights to those who create later or better. To be sure, it is often to society's benefit to get valuable new creations earlier in time, which rules granting actual first possession can encourage.[323] At the same time, we tend to associate rushed production with shoddy

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317. *See supra* Part III.

318. *See generally* Fromer, *supra* note 62.

319. *See generally* Mark A. Lemley & Mark P. McKenna, *Is Pepsi Really a Substitute for Coke? Market Definition in Antitrust and IP*, 100 GEO. L.J. 2055 (2012).

320. *But cf.* Fromer & McKenna, *supra* note 63, at 170–77 (positing that claiming rights earlier in time can, under some circumstances, force claimants to think ahead to how the claimed works would be commercialized to make some of these vague and far-away aspects more concrete). To promote order, the law might alternatively allow earlier allocations of rights but require the delineation of a certain number of tangible instantiations over time to help clarify the scope of rights.

321. *See generally* Fromer, *supra* note 62; Fromer & McKenna, *supra* note 63.

322. *Supra* Section II.B.

323. *Supra* Section II.C.

production,[324] so having businesses race as quickly as possible to yield new products might not be ideal. Moreover, the first person to have an insight that produces a new product is not always going to make the best version of that product, let alone its numerous possible variations. This observation provides a prominent critique of the prospect theory of intellectual property. As discussed above, this theory suggests that inventors are rewarded with a broad patent right to centralize investment in the patented invention's commercialization and improvement, which in turn benefits society.[325] Yet initial creators are not necessarily going to be the ones with the best ideas for or executions of follow-on works.[326] As I describe with Christopher Spigman, "[m]oreover, there might be inefficient transaction costs for third parties to secure permission to create" follow-on works.[327] As we observe, "[i]nitial creators might also behave strategically and refuse to allow the creation of certain [follow-on] works," even if those works would make society better off.[328] In these ways, society might benefit more from patience and refraining from awarding rights—especially broad ones—to the firstcomer. And even when intellectual property laws do award rights to the firstcomer, they might want to remain mindful of finding ways to provide supplemental or substitutive rights to latercomers, especially those who do a much better job than the firstcomer.

Moreover, just as patent racing to claim first possession can yield unfairness to later and better possessors,[329] it can also generate social harm through wasteful racing by multiple entities toward the same end results—such as a drug, a biopic, or a new branded jeans design—not to mention destructive behavior like corporate sabotage.[330] Awarding concurrent or substitutive rights to later possessors can reduce this harmful racing—even if it cannot eliminate it—thereby producing societal benefit. Moreover, awarding rights to a latercomer who creates a better work than the firstcomer can at least yield the societal benefit of the better work, which might be abandoned in a situation in which only the firstcomer can get rights.

Another way in which societal benefits can be advanced through awards to those who create later or better connects back to the observation that some less

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324. *See, e.g.*, Natalie Kitroeff & David Gelles, *Claims of Shoddy Production Draw Scrutiny to a Second Boeing Jet*, N.Y. TIMES (Apr. 20, 2019), https://www.nytimes.com/2019/04/20/business/boeing-dreamliner-production-problems.html. For a model of this concern, see Christoph H. Loch & Christian Terwiesch, *Rush and Be Wrong or Wait and Be Late? A Model of Information in Collaborative Processes*, 14 PROD. & OPERATIONS MGMT. 331, 334–39 (2005).

325. *See supra* Section II.B; Kitch, *supra* note 66, at 276–77. Related to that theory is advocacy for direct protection of commercialization because of its valuable role in diffusion of inventions. *See, e.g.*, Michael Abramowicz & John F. Duffy, *Intellectual Property for Market Experimentation*, 83 N.Y.U. L. REV. 337, 395–408 (2008); Ted Sichelman, *Commercializing Patents*, 62 STAN. L. REV. 341, 400–11 (2010).

326. *See, e.g.*, FROMER & SPRIGMAN, *supra* note 177, at 289; Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 992 (1997).

327. FROMER & SPRIGMAN, *supra* note 177, at 289.

328. *See id.* For experimental work on sequential creativity in intellectual property, see Stefan Bechtold, Christopher Buccafusco & Christopher Jon Sprigman, *Innovation Heuristics: Experiments on Sequential Creativity in Intellectual Property*, 91 IND. L.J. 1251 (2016).

329. *See supra* Section IV.B.1.

330. *See* Assaf-Zakharov & Herzog, *supra* note 7, at 475; Fromer, *supra* note 82, at 555–56.

powerful individuals or businesses are consistently likely to create later in time than more powerful ones.[331] Colleen Chien, Funmi Arewa, Kevin Greene, Sonia Katyal, and others show that a diversity of inventors, artists, and businesspeople—including diversity by race and gender—yields societal value in terms of the quality and range of inventions, creative works, and goods and services.[332] They can also promote further creation as trailblazers.[333] Oftentimes, this value derives when those in groups less represented among creators—women, minorities, disabled people, and so forth—create based on their particular experiences and interests in a way not reflected by the creative hegemony.[334] As just one example, car designs are 47% less safe for women than men, largely because the female experience is not centered—let alone considered—in car design.[335] If particular car designs that do not consider women's safety are created first—say, by powerful businesses that are less considerate of women's safety—rights in those designs might block rights in later car designs created by women that also consider women's safety and are therefore better designs. In turn, such a situation could undermine the incentive to create these better designs in the first place. More generally, if intellectual property laws are needed to encourage this broad range of creations, it would thereby do well to ensure that important groups of creators or businesspeople do not fall through the cracks of a "first" rule disproportionately, thereby undermining societal benefit.[336]

4. Rhetorical Power

Finally, while "first" can have a great deal of rhetorical power,[337] so can "later" and "better." Though being late to meetings and other engagements is considered rude and reflective of irresponsibility and untrustworthiness,[338] being a later creator can often be a proxy for carefully crafting something better than the rushed first-comer.[339] For example, Apple is often reputed to be a latercoming optimizer—whether for the smartphone, the mouse, or a graphical user interface—leading to strong customer loyalty and a reputation for innovation.[340] To that extent, "later"—

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331. *See supra* Section IV.B.1.

332. *See* Arewa, *Copyright on Catfish Row*, *supra* note 279, at 347; Arewa, *Bach to Hip Hop*, *supra* note 279, at 631; Kristen A. Carpenter, Sonia K. Katyal & Angela R. Riley, *In Defense of Property*, 118 YALE L.J. 1022, 1027 (2009); Colleen Chien, *Redefining Progress: The Case for Diversity in Innovation and Inventing*, 71 UCLA L. REV. 540 (2024); Greene, *supra* note 279, at 1182–207.

333. *Supra* Section II.C (discussing trailblazers' value in innovation).

334. *See* Chien, *supra* note 332, at 552–59.

335. CAROLINE CRIADO PEREZ, INVISIBLE WOMEN: DATA BIAS IN A WORLD DESIGNED FOR MEN 190–91 (2019).

336. *Cf.* Carpenter, Katyal & Riley, *supra* note 332, at 1046–87 (proposing a stewardship model of indigenous people's claims to cultural property because conventional intellectual property rules would not permit their claims, in part because they are a collective rather than individuals).

337. *Supra* Section II.D.

338. *E.g.*, Nicole Bandes, *Being Late Isn't Acceptable, Its Rude (Time Management)*, LEADX (Apr. 30, 2017), https://leadx.org/articles/being-late [https://perma.cc/8QF5-K37D].

339. *See supra* text accompanying notes 324–28.

340. *See* Greg Raileanu, *The Reasons Behind Apple's Customer Loyalty and High NPS*, RETENTLY (Aug. 9, 2024), https://www.retently.com/blog/apple-nps/https://www.retently.com/blog/apple-nps [https://perma.cc/RS7T-DYLA]; Rokon Zaman, *iPhone Innovation from Refinement and Integration*, THE WAVES (Dec. 17, 2022), https://www.the-waves.org/2022/04/06/iphone-innovation-from-refinement-and-integration [https://perma.cc/DWJ3-U4JL] ("[I]nstead of inventing new technologies,

not to mention "better" itself—has strong rhetorical power as a value to reflect in awarding intellectual property rights.

Additionally, just as the rhetorical power of "first" can provide an expressive incentive to create,[341] it very well might be the case that the rhetorical power of "better" can be a valuable expressive incentive. Intuitively, being labeled a better creator than others and being awarded rights on that basis can propel creation itself, just as winning a competitive prize can motivate.[342]

In all, this Section shows that "later" and "better" can propel the same values of fairness, order, societal benefits, and rhetorical power that "first" is purported to advance. At a high level, it may call to mind the children's rhyme, "first is the worst, second is the best, third is the one with the treasure chest" (along with some crasser variations).[343] The foregoing analysis raises the following critical questions: Should intellectual property laws be concerned with awarding rights to a second or third or later comer, say, if they were unfairly disadvantaged in being able to create first? Or should these laws be focused on awards to the creator of the "best" work when they are not the earliest in time to come up with some invention, artistic work, or brand? And what should "best" mean?

Indeed, a well-rounded analysis shows how the values of fairness, order, societal benefits, and rhetorical power can be served in different ways by "first," "later," and "better," as well as undermined by each in their own ways. Combining this analysis with the specific insight that the purported values of "first" are undercut by the ways in which intellectual property laws deviate from actual first possession puts us in position to explore whether and how "first," "later," and "better" should be integrated in intellectual property laws, something to which this Part turns shortly.[344] To do that effectively, this Part first probes the different actions that might be labeled "first," "later," and "better" in the context of intellectual property.

C. THE DIFFERENT VERBS OF FIRSTS, LATERS, AND BETTERS

Just as "first" can be far from straightforward in the context of intangibles protected by intellectual property,[345] the actions—the verbs—that qualify as possession can be equally elusive.[346] Given the importation of the concept of first possession from traditional property, it is hard to decide in any clear-cut way

Steve [Jobs] repeatedly took existing but half-formed ideas—whether mouse-driven computer or multi-touch based user interface for the smartphone. He kept fine-tuning them, often stretching the apparent limit of perfection.").

341. *See supra* Section II.D.

342. *See* Jennifer Bravo, Christopher Frangione & Stephanie Wander, *The Power of Incentive Prize Competitions*, *in* WHAT MATTERS: INVESTING IN RESULTS TO BUILD STRONG, VIBRANT COMMUNITIES 210, 210–14 (2021), https://investinresults.org/chapter/power-incentive-prize-competitions.html [https://perma.cc/JWM8-ZPD8].

343. *Let's See If Any of You Know This Rhyme Called "1st Is the Worst,"* MAMA LISA'S WORLD: MAMA LISA'S BLOG (Sep. 10, 2009), https://www.mamalisa.com/blog/lets-see-if-any-of-you-know-this-rhyme [https://perma.cc/6D7A-NS46].

344. *Infra* Section IV.D.

345. *Supra* text accompanying notes 103–05.

346. *Cf.* Berger, *supra* note 7, at 354 (describing the competing decisions in *Pierson* as both "reaching for a first in time result, the question being first in time to do what?").

what "possession" should mean when intellectual property laws have a different normative underpinning and are about intangibles.[347] Does possession happen when someone originates an idea? Makes a physical and complete version of a work? Commercializes a work? Perfects or optimizes the work—something secondcomers or latercomers are often reputed to do?[348] Files with the government for rights in the work? Makes the best version of a work over a certain period of time?[349]

Importantly, choosing among these different verbs replicates analysis of the same values at issue in assessing "first," "later," and "better." That is partly because some of these verbs tend to occur earlier in time, such as originating an idea; some tend to transpire later in time, such as commercializing a work; and some tend to correlate with an assessment of whether a work is better, such as perfecting a work or making the best version.[350] It is also because each possible action that could qualify as possession contributes to or detracts from these same values, especially the societal benefits or fairness that intellectual property laws seek to promote. For example, if the societal benefit that we want patent laws to encourage is bringing inventions to market, we might want to emphasize commercialization as the critical verb over origination of an idea.[351] Or if we want to emphasize a conscious choice post-creation to exploit exclusive rights in an artistic work, we might want to set filing with the government for copyright registration to be the crucial action instead of merely fixing the work in a tangible medium of expression.[352] Or if we want to elevate the importance of consumers associating a mark with a particular source of goods or services, we might want evidence of or proxies that the business's use of the mark has sufficiently penetrated the marketplace instead of mere application to register the mark.[353]

When intellectual property laws choose certain actions over others to qualify as possession, that can obscure other possible actions in a way that interacts with what society views as first. The mutations and contortions of "first" already explored[354] can readily obscure others that were there earlier in time.[355] By narrowly setting the parameters of what qualifies, previous or other "firsts" might be disregarded. To illustrate, someone crossed the finish line of a race before the

347. *See supra* text accompanying notes 103–05. Of course, difficult questions about what qualifies as possession can come up in traditional property too, *supra* Part I, but the intangibility of intellectual property makes the question characteristically hard.

348. *See supra* Section IV.B.4.

349. For examples of how the law effectuates some of these possibilities, see *supra* Part III.

350. *Cf.* Oliar & Stern, *supra* note 7, at 400 ("One of the clearest ways to make sense of the seeming hodgepodge of possessory rules [across property law] is to think about them in terms of a common metric: time. Each of these possessory practices can usefully be placed on a chronology starting with the first preliminary steps necessary to appropriate the resource at issue and ending when the resource is consumed, commercialized, or otherwise put to use.").

351. *See supra* Section III.A.

352. *See supra* Section III.B.

353. *See supra* Section III.C.

354. *Supra* Part III.

355. *Supra* Sections IV.A–B.

runners running the race—namely, the person who set up the race line. That administrator preceded the first runner in crossing the finish line, but we do not thereby deem the administrator to have won the race because of our erasure of some people from the ambit of those that qualify to be "first" to cross a finish line in a race. This is because we consider only some actions as qualifying—crossing the finish line after a race has begun and after completing the entire race—and not others—setting up a race line, thereby crossing it.

Moreover, which action one chooses to count can readily affect how many people will qualify for intellectual property rights. If the law chooses the requisite action to be anyone who has fixed an original work of authorship in a tangible medium of expression, which is understood to involve mere independent creation even if an identical work already exists,[356] there are likely to be many more individuals qualifying for rights than if the law chooses reducing to practice an entirely new, nonobvious, and useful invention.[357] Or if the law chooses as the requisite action to be using an absolutely unique term to indicate source of particular goods and services, there are surely going to be fewer businesses qualifying for rights than if the law opts for use of a term that is unique only to the particular goods or services at issue.[358] Wading through these verb choices therein provokes the important question of whether deeming few people in a space, as compared with many, to be "first," or "later," or "better" is helpful in terms of encouraging the works that intellectual property laws deem to be valuable for society.[359] That is, is it better to have broader rights allocated to a few people by deeming them "first," or "later," or "better" to have done something broad? Or to have narrower rights allocated to more people by deeming them to be "first," or "later," or "better" to have done something narrower, thereby leaving more space open for others? The various forms of intellectual property laws make different choices here: patent law trends toward labeling fewer people as "first" with potentially broad rights, copyright law trends in the other direction by having more people qualify as "first" but with typically narrower rights, and trademark law is in between. This difference owes to the varying actions each form of law picks to qualify for rights. If one stands behind prospect theory, one might want fewer but broader rights to centralize investment in commercialization or diffusion of works.[360] But if one does not, one might want the opposite—though some potential effects of a thicket of narrow rights include significant licensing fees for someone working in the domain and potentially expensive litigation for accidental infringement.[361] Relatedly, stated through the lens of expressive incentives, does a

356. *See supra* Section III.B.

357. *See supra* Section III.A.

358. *See supra* Section III.C.

359. Similar to infringement analysis, *supra* note 182 and accompanying text, this lens of how many creators can qualify for rights provokes analysis of the cardinality of the set of creators getting intellectual property protection, as compared with the ordinality of the set of creators.

360. *See supra* text accompanying notes 67–72, 323–28.

361. Fromer, *supra* note 172, at 1448. Relatedly, one might worry how such thickets of rights affect notice of rights as compared to broader but fewer numbers of rights. *See generally* Fromer, *supra* note 62 (analyzing how different types of intellectual property claims affect notice, as well as creation at large).

creator being deemed to be part of a smaller more elite club itself help encourage creation, have no effect on it, or dampen creation? For example, is it more encouraging to allow greater concurrent use of a similar mark in smaller geographic regions or allow one user to have constructive nationwide priority?[362] It is imperative to develop a better understanding of how different legal rules affect how many people qualify and are encouraged to qualify.

In other contexts, we use the phrase "first among equals," such as to refer to the Chief Justice of the United States, who has only one of the nine votes on the U.S. Supreme Court but is also Chief Justice and is accorded additional respect or seniority.[363] The phrase has an Orwellian quality—how can one both be "first" and "equal"? But the notion provides a schema about possible simultaneous glorifications for and awards of work for "first" in a similar space, by choosing which actions qualify. For example, one can imagine parallel or concurrent rights, such as for near-simultaneous inventions, which occur with sufficient frequency, including for the light bulb, telephone, and airplane.[364] Parallel rights might reduce the risk of investing in research and development, fuel cooperation and sharing, and reduce litigation.[365] Or because of the smaller and parallel reward, they might instead reduce investment in creation in the first place.

While this Article cannot do a thorough exploration of the impact of different verb choices on the values of intellectual property, this Section highlights how the choice can matter and the critical ways that the choice interacts with a choice of "first," "later," or "better."

D. INTEGRATION OF "FIRST," "LATER," AND "BETTER"

This Article has thus far shown how normative, mutated, and contorted "first" is in intellectual property, with its constructive firsts, fictional firsts, erased firsts, excused firsts, and leapfrogging firsts.[366] The purported values a rule of first possession is designed to serve—fairness, order, societal benefits, and rhetorical power—are effectuated only in part by the actual implementation of this rule across patent, copyright, and trademark laws and are also indeed undermined by the mutated and contorted forms of "first."[367] Moreover, a rule rewarding later possession or better possession might instead or in addition serve those same four values.[368] The choice of action deemed to be possession will also affect those values.[369] This inquiry puts us in a position in this Section to think through whether

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362. *See* Beebe & Fromer, *supra* note 225, at 1037 (exploring these possibilities).

363. *See* DENIS STEVEN RUTKUS & LORRAINE H. TONG, CONG. RSCH. SERV., RL32821, THE CHIEF JUSTICE OF THE UNITED STATES: RESPONSIBILITIES OF THE OFFICE AND PROCESS FOR APPOINTMENT, at CRS-4 (Sep. 23, 2005), https://www.everycrsreport.com/files/20050923_RL32821_95bf847e26a09cb286295dbeae8a11f76d39f5e0.pdf [https://perma.cc/U94E-J2N7].

364. *See generally* Lemley, *supra* note 111 (rebutting the myth of the sole inventor, and considering its implications for patent law).

365. *See supra* Sections IV.A–B.

366. *Supra* Part III.

367. *See supra* Section II.A.

368. *See supra* Section IV.B.

369. *See supra* Section IV.C.

and how "first," "later," and "better" ought to be integrated within intellectual property in terms of rights allocations. In some ways, the mutations and contortions of "first" highlight that there already is some fusion of these concepts within intellectual property laws, which this Section also emphasizes. While this Section is more illustrative than exhaustive in its evaluation of integration of "first," "later," and "better," it accentuates some of the important ways this integration might and might not make sense.

The following subsections consider patent, copyright, and trademark laws in turn. The most critical point woven throughout these subsections is that an integration of "first," "later," and "better" should fuse the aspects of each that maximize fairness, order, societal benefits, and rhetorical order so as to optimize these values overall.

An overarching integration point worth noting before delving into each of these laws separately is about rhetorical power. One might wonder if integrating awards of rights to first possessors, later possessors, and better possessors within one body of law might diminish the rhetorical power that each possesses on its own. That might indeed be the case. As previously discussed, the rhetorical power of "first," "later," and "better" can be legitimating and helpful.[370] That said, as that discussion shows, it is principally a value that is derivative of its underlying values of fairness, order, and societal benefits, rather than much of a primary value in and of itself. To the extent rhetorical power is undone by integrating "first," "later," and "better" to effectuate the other three values, that should be acceptable.[371] Indeed, diminishing rhetorical power through integration of "first," "later," and "better" would have the advantage of providing society with a more honest framing of how intellectual property laws allocate rights: sometimes to a firstcomer, sometimes to a latercomer, and sometimes to a latercomer who has done something better. Seen through this lens, the current rhetorical power of "first" in the face of both mutations and contortions of "first" and competing values advanced by "later" and "better" suggest that rhetorical power might be more of a problem and distraction than an important independent value to preserve.

1. Patent Law

Consider how patent law might integrate "first," "later," and "better" more optimally. The two industries that most frequently come to mind these days in thinking about patent law—pharmaceuticals and software—conjure up very different images of the pace and shape of innovation. In the pharmaceutical industry, one hears about the painstaking and slow process of drug development. To be more concrete, one recent U.S. study estimated that developing a new drug takes more than ten years

370. *Supra* Section II.B.4.

371. Relatedly, it can be better to diminish the current rhetorical power that "first" holds in the face of the actual mutations and contortions of "first" in the implementations of intellectual property laws by integrating "first," "later," and "better."

and $2.6 billion.[372] Moreover, even adjusting for inflation, pharmaceutical industry expenditures have grown tenfold since the 1980s.[373] By contrast, even though this notion is perhaps growing out of favor, Silicon Valley has long suggested to "move fast and break things."[374] Despite the differences, both contexts are very much about racing to be the first to innovate something.

To a large extent, patent law accords with these notions by awarding sole patent rights to the first filer to have completed an invention by having reduced it to practice.[375] One cannot wait too long before heading to the patent office because otherwise they might be preempted by someone else, or even their own activities.[376] The filer must be able to delineate and demonstrate possession of the invention to qualify for the invention, thereby getting rights only so long as they provide clear notice.[377] Yet by allowing filers to rely on constructive reduction to practice as well as prophetic—rather than real—examples, applicants can secure a patent without possessing even a single tangible instantiation of their claimed invention.[378] The invention therefore might not be fully refined, thereby conferring patent rights on someone who has not come far enough along in possessing the invention. Put another way, patent law might block others with the talent and capacity to fully complete the invention from doing so and obtaining rights for doing so. Allowing individuals who have not advanced sufficiently to claim patent rights in the name of first possession and thereby blocking other latercomers who will have advanced further undermines the values of fairness and societal benefits.[379] This situation might be an instance in which the law ought to change the actions that qualify as "first" by removing this constructive first.

In other ways, patent law does try to balance these competing concerns. In an era of patent trolls with regard to software and major—and foundational—scientific advances in genetics, patent law blocks those with only abstract ideas or scientific principles from patenting by deeming these not to be patentable subject

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372. *See* Rick Mullin, *Tufts Study Finds Big Rise in Cost of Drug Development*, CHEM. & ENG. NEWS (Nov. 20, 2014), https://cen.acs.org/articles/92/web/2014/11/Tufts-Study-Finds-Big-Rise.html [https://perma.cc/GN8N-62TW].

373. *See* CONG. BUDGET OFF., RESEARCH AND DEVELOPMENT IN THE PHARMACEUTICAL INDUSTRY 1 (Apr. 2021), https://www.cbo.gov/publication/57126 [https://perma.cc/EUH8-SNJV].

374. *See* Hament Taneja, *The Era of "Move Fast and Break Things" Is Over*, HARV. BUS. REV. (Jan. 22, 2019), https://hbr.org/2019/01/the-era-of-move-fast-and-break-things-is-over [https://perma.cc/2NJV-9377].

375. *See supra* Section III.A.

376. *See supra* Section III.A.

377. *See supra* Section III.A.

378. *See generally* Christopher A. Cotropia, *The Folly of Early Filing in Patent Law*, 61 HASTINGS L. J. 65 (2009); Freilich, *supra* note 118; Mark A. Lemley, *Ready for Patenting*, 96 B.U. L. REV. 1171 (2016); Lisa Larrimore Ouellette, Pierson*, Peer Review, and Patent Law*, 69 VAND. L. REV. 1825 (2016).

379. An exception might be when the creation is sufficiently costly to commercialize, such as semiconductor fabrication. SolutionBuggy, *Setting Up a Semiconductor Fabrication Plant: Cost, Infrastructure, and Best Practices*, SOLUTIONBUGGY (Apr. 15, 2025, at 16:31 ET), https://www.solutionbuggy.com/blog/semiconductor-fabrication-plant-setup [https://perma.cc/B6XV-BQCY] (estimating the cost of a semiconductor fabrication plant as between $5 and $20 billion).

matter.[380] It concludes that an invention is not useful until it has a specific and substantial utility.[381] These doctrines send a message that if one wants to get a patent on software or genetic technologies, one must advance the work beyond an abstract idea or scientific principle to an application: a machine, a composition of matter, or a process.[382]

At the same time, aspects of patent law tacitly move the law away from just "first" by allowing multiple creators in an inventive space each to qualify as a firstcomer. Specifically, if someone invents an improvement to an invention, they can separately patent it even if there is a patent on the underlying invention. For example, if I am the first to come up with a rocking chair, I can patent it even if there is a patent that someone else holds on the underlying chair. I cannot make a rocking chair without getting a license from the patentholder for the chair. And that patentholder cannot make a rocking chair without getting a license from me. In this way, we have blocking patents. Economic theory suggests in this situation that we should negotiate a deal to share profits in rocking chairs, allowing each other to proceed.[383] Of course, transaction costs, animosity, or other factors might hold up such a deal.[384] Yet patent law enables blocking patents, moving the law toward a hybrid system of "firsts," "laters," and "betters"—albeit disadvantaging latercomers more on average because they can do nothing without permission from the firstcomer. Patents on later, better inventions can partially disrupt the patent rights of firstcomers. This scenario might not be an ideal way to encourage the creation of better inventions, especially when the improver has to share disproportionate profits with a middling firstcomer, but it is a step in that direction. And it permits those that open up a space for innovation to be rewarded as others build on their cutting-edge work.[385]

Patent law might do well to more broadly reward later "firsts" as ways to complement—or sometimes undo—earlier firstcomers. Beyond blocking patents, it currently does so in limited ways that integrate "first" and "later." For instance, patent law's Hatch-Waxman provisions seek to make low-cost generic drugs more readily available by making it easier for drugs bioequivalent to branded drugs to be approved to enter the market.[386] A maker of a generic drug can file an abbreviated new drug application with the Food and Drug Administration (FDA) with a certification that the patents on the non-generic drug equivalent already

380. *See supra* Section III.A.
381. *See supra* Section III.A.
382. *See* Oliar & Stern, *supra* note 7, at 440–44; 35 U.S.C. § 101.
383. *See* Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 993–1000 (1997); Robert Merges, *Intellectual Property Rights and Bargaining Breakdown: The Case of Blocking Patents*, 62 TENN. L. REV. 75, 75 (1994).
384. *See* Lemley, *supra* note 383, at 998; Merges, *supra* note 383, at 75.
385. *See supra* Section II.C.
386. *See* H.R. REP. NO. 98-857, pt. 1, at 14 (1984) ("The purpose of Title I of the bill is to make available more low cost generic drugs by establishing a generic drug approval procedure for pioneer drugs first approved after 1962."). In furtherance of this goal, the provisions allow generic manufacturers to gain approval of their drugs by submitting an abbreviated application to the Food and Drug Administration. *See* 21 U.S.C. § 355(j).

approved by the FDA are either invalid or not infringed by the generic drug.[387] The patentholder can then sue the generic maker for patent infringement.[388] If the court rules that the patents are invalid or not infringed and the generic drug maker was the first to file this FDA application with this patent certification, the law awards the generic drug maker 180 days of exclusivity to market the generic drug in competition with the patentholder—before the market is opened to any other generic maker of the drug.[389] In this way, patent law grants a form of exclusivity to the first generic manufacturer so long as it successfully challenges the first to invent the drug.[390] More broadly, the law should consider offering rewards or incentives for important actions that postdate a first qualifying invention, even in the face of an existing patent to someone else.

Overall, however, with its sterile rules for contributions qualifying for a patent—novelty, utility, and nonobviousness—patent law does not always award patents to the best innovator, but rather sometimes to one who has made a new—even less good—innovative step.[391] While patent law already meters the breadth of patent scope by ensuring that a patentholder does not claim an invention too broadly lest the patent be invalidated for lack of novelty and nonobviousness,[392] patent law might improve by focusing more on adjudging inventions' merit to make sure that the best inventions—or at the very least those that are improvements for society—are being encouraged into existence. Doing so would promote awarding rights to the better comer.

Additionally, patent law could do a better job of not deeming someone to be first when their purported invention rests on biopiracy or other takings from less powerful entities that are actual firstcomers.[393] Even if patent law is not structured to give these less powerful groups patent rights—for not filing for patent rights quickly enough, among other things[394]—the law should be more cautious in giving latercomers rights instead.

Similarly, it might behoove patent law to be more accommodating of those who have raced with more limited resources and therefore completed their inventions or only been in a position to file for rights somewhat later. One way patent law could welcome multiple racers is by having them share in rights, similarly to

387. *See* C. Scott Hemphill, *Paying for Delay: Pharmaceutical Patent Settlement as a Regulatory Design Problem*, 81 N.Y.U. L. REV. 1553, 1564–65 (2006) (citing 21 U.S.C. § 355(j)(2)(A)(vii)(IV)).

388. *See id.* at 1566 (citing 35 U.S.C. § 271(e)(2)(A)).

389. *See id.* (citing 21 U.S.C. § 355(j)(5)(B)(iv)).

390. This is not to say that the first-filing generic drug company will be a good manufacturer, as seems to have been the case with Ranbaxy, which used its first-challenger status to make a generic version of Lipitor, which was found to contain shards of glass. *See* Jonathan Lambert, *'Bottle of Lies' Exposes the Dark Side of the Generic-Drug Boom*, NPR (May 12, 2019, at 12:52 ET), https://www.npr.org/sections/health-shots/2019/05/12/722216512/bottle-of-lies-exposes-the-dark-side-of-the-generic-drug-boom [https://perma.cc/H2BC-XTDL]. In this way, awards to firstcomers can yield poor policy.

391. *See* W. Nicholson Price II, Essay, *The Cost of Novelty*, 120 COLUM. L. REV. 769, 771 (2020).

392. *See* Mark A. Lemley & Mark P. McKenna, *Scope*, 57 WM. & MARY L. REV. 2197 (2016).

393. *See supra* Sections IV.A–B.1.

394. *See supra* note 281 and accompanying text.

how co-authors share in rights in copyright law.[395] Another way is for patent law to wade into the merits of the invention and choose the racer that completed the invention best within a certain range of time. While this evaluation goes beyond the current experiences—and perhaps expertise—of patent examiners, it might be worth further consideration to advance concerns of fairness and societal benefits.

2. Copyright Law

Now consider copyright law. It already mixes "first" with "later" and "better" more than it might have seemed at first glance.[396] As discussed above, copyright law enables latercomers to be deemed to be first possessors so long as they do not copy from prior creators, akin to participation trophies for all creators whenever they create.[397] That is how there can be valid copyrights in each weather disaster movie, romantasy novel,[398] word processing software, and pop song about heartbreak. And their makers can duke it out for best in the marketplace. In this way, copyright law is less afflicted by racing than patent law, ensuring that the law does not penalize latercomers, even those in a race—though these latercomers might suffer from the firstcomer's first-mover advantages in the marketplace.[399]

The biggest deviation from this framework is in the context of copyright's broad rights in derivative works, an instance of fictional first.[400] Because of this broad right, there can indeed be only ten Spider-Man movies[401]—created only pursuant to the permission of the underlying copyright holder of the Spider-Man comic books. This result might be reasonable if we think that Spider-Man might never exist in the first place if the comic book author does not have control over downstream movies, toys, and so forth. And that the ten Spider-Man movies we have gotten are perfect and we would not benefit as a society to have others. Yet we might be enriched as a society by having more such movies, including those created out of the control of the original copyright holder, in a way that is fairer to later creators as well.[402] Though carve-outs for fair use or other infringement exceptions can enable some such films,[403] copyright law otherwise makes this

395. *See* Sarah Polcz, *Co-Creating Equality*, 96 S. CAL. L. REV. 607 (2023); Sarah Polcz, *Loyalties v. Royalties*, 74 U.C. HASTINGS L.J. 765 (2023).

396. *See supra* Section III.B.

397. *See supra* Section III.B.

398. *See* Katy Waldman, *Did a Best-Selling Romantasy Novelist Steal Another Writer's Story?*, NEW YORKER (Jan. 6, 2025), https://www.newyorker.com/magazine/2025/01/13/did-a-best-selling-romantasy-novelist-steal-another-writers-story [https://perma.cc/8XRG-HET7].

399. There are also sometimes first-mover advantages—like lead time—independent of legal rights to the first possessor. *See* Abramowicz & Duffy, *supra* note 325, at 340. Yet there are also later-mover advantages if one can freeride on and refine another's development. *See id.* The law can enhance or undermine these advantages depending on its rules establishing priority and scope of rights.

400. *See supra* Section III.B.

401. Darren Franich & Kevin Jacobsen, *All 10 Spider-Man Movies, Ranked from Worst to Best*, ENT. W. (Jan. 7, 2025, at 09:38 ET), https://ew.com/spider-man-movies-ranked-from-worst-to-best-8770332 [https://perma.cc/9V93-NFN9].

402. *See* Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L.J. 651, 667 (1997).

403. *See supra* Section III.B.

hard to accomplish and therein might be undermining "best." This is plausibly prospect theory at its worst.[404]

As with patent law, to some extent copyright law encourages later, but copied, works when it labels them as transformative, sometimes even implicitly deeming them to be better than the earlier ones from which they derive.[405] In doing so, the latercomers who have created such works are not liable for infringement against an earlier creator.[406] Moreover, the latercomers who have created these works can be copyright owners in their own right.[407] These leapfrogging firsts are a way of awarding rights to those who create later and better. Yet the line between transformative use and insufficient transformation is often blurry.[408] Copyright law might do well to advance greater clarity on frameworks for deeming later copied works to be sufficiently "first" in their own right by virtue of being "better" in some way.

Now that copyright law has removed its formalities, there is less concern than there used to be that less sophisticated parties lose their copyrights in a way that can be exploited by those who are more powerful.[409] Yet because copyright duration is so long, the law might want to be attentive about attribution in situations like whitewashing cover songs that might be exploiting less powerful originators, so that actual firstcomers can get their due.[410]

3. Trademark Law

Trademark law—by disallowing rights in gross and instead linking rights to use with regard to particular goods and services—usually allows multiple businesses to use the same signifier with regard to different categories of goods and services, deeming them each to be first in their subspace.[411] That said, with broad infringement standards and dilution doctrine, trademark rights have become more like rights in gross, thereby also conferring rights on first users beyond their actual uses and yielding fictional firsts.[412]

Moreover, trademark law could be more sensitive to optimizing competition and consumer interests by not merely doling out marks to whichever business happens to get there first. To take one example from the United States, a local limousine service in Gainesville, Florida, had been using UBER as its mark for its services for some time when the ride-hailing service with the same name came on the scene throughout the country.[413] The firstcomer has a plausible claim under trademark law for infringement due to the likelihood of "reverse confusion," which is when consumers become confused that the firstcomer is actually the secondcomer, rather than

404. *See supra* text accompanying notes 67–72, 323–28.
405. *See supra* Section III.B.
406. *See supra* Section III.B.
407. *See supra* Section III.B.
408. *See, e.g.*, Gideon Parchomovsky & Kevin A. Goldman, *Fair Use Harbors*, 93 VA. L. REV. 1483, 1495–97 (2007) (describing the "murkiness" of the fair use doctrine).
409. *See supra* Sections III.B, IV.A–B.1.
410. *See supra* Sections IV.A–B.1.
411. *See supra* Section III.C.
412. *See supra* Section III.C.
413. Uber Promotions, Inc. v. Uber Techs., Inc., 162 F. Supp. 2d 1253, 1259–60 (N.D. Fla. 2016).

the other way around as is usually the case with trademark infringement.[414] On the one hand, this is at it should be: firstcomers get trademark rights and they should not be stomped out by later megabusinesses. On the other hand, it would not be out of line to ask whether it might be more efficient for the UBER ride-hailing service to be able to use its mark everywhere because it is actually using the mark more broadly and successfully to societal benefit, while compensating the firstcomer to rebrand or coexist. Similarly, in an age of trademark depletion—in which we are running out of competitively-effective trademarks[415]—one might ask whether markets might be subdivided to allow even more concurrent use of marks and whether marks being ineffectively used might be reappropriated to a more effective user. That is, "later" might sometimes be better than "first."

Similarly, trademark law would be well-advised to reconsider protecting those with descriptive marks who are the first to establish secondary meaning.[416] As I explore in other work, there are competitive concerns with protecting marks that bear a close semantic connection to the associated good or service, even if consumers associate the mark with a particular source.[417] Moreover, awarding rights to the firstcomer to develop secondary meaning in a descriptive term gives outsized influence to businesses with greater means to spend on advertising to achieve secondary meaning and monopolize a competitively-important descriptive term.[418] That is, firstcomers ought to be given less power under trademark law when they undermine competition in claiming rights.

In all, these Sections illustrate how patent, copyright, and trademark laws can build on the values underlying "first," "later," and "better" to award—or withhold—rights to advance interests in fairness, order, societal benefits, and sometimes rhetorical value.

CONCLUSION: LAST, BUT NOT LEAST

In conclusion—last, but not least—intellectual property laws would do well to come to terms with the fact that they are implementing a deeply normative principle of first possession, one that is complex and laden with value determinations. Patent, copyright, and trademark laws implement this principle in different ways, but what they share in common is that they each mutate and contort "first" to have constructive firsts, fictional firsts, erased firsts, excused firsts, and leapfrogging firsts. These mutations and contortions undermine to some extent the values that a rule of first possession is purported to serve: fairness, order, societal benefits, and rhetorical value. Indeed, awarding rights to a later possessor or a better possessor can instead promote these same four values. As such, intellectual property laws ought to grapple further with more careful integration of awards for first, later, and better possession to promote the progress of innovation, knowledge, arts, culture, and commerce that these laws seek to promote.

414. *Id.* at 1271.

415. *See* Beebe & Fromer, *supra* note 225; Beebe & Fromer, *supra* note 220.

416. *Cf.* Oliar & Stern, *supra* note 7, at 444–46 (exploring how secondary meaning doctrines are a form of first possession in trademark law).

417. *See generally* Fromer, *supra* note 236.

418. *See id.*