HIROSHIGE VS. VAN GOGH: RESOLVING THE DILEMMA OF COPYRIGHT SCOPE IN REMEDYING INFRINGEMENT

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To say that copyright is "property," although a fundamentally unhistorical statement, would not be baldly misdescriptive if one were prepared to acknowledge that ... in practice the lively questions are likely to be whether certain consequences ought to attach to a given piece of so-called property in given circumstances.¹

This Article addresses the question: What should be the scope of copyright protection? Part I will consider a hypothetical case to dramatize this question. Part II will explain how attempts to determine the scope of protection lead into a dilemma basic to all copyright laws. Part III will reframe infringement analysis with an eye to resolving the dilemma. Part IV will apply the newly reframed analysis to the task of fashioning remedies.

I. A THOUGHT-EXPERIMENT

In the latter half of the nineteenth century, European literati and artists became captivated by Japanese art, especially prints. When in Paris, Vincent van Gogh, a collector of Japanese prints himself, painted the Portrait of Père Tanguy. Tanguy had an art-supply

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¹ BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 74 (1967).
shop in which he often displayed the works of avant-garde painters. The background of the Portrait of Père Tanguy is covered with Japanese prints.²

In the Fall of 1887, Van Gogh painted his Japonaiseries.³ The most notable are based on a pair of works by Utagawa Hiroshige from the One Hundred Views of Famous Places in Edo.⁴ Hiroshige, in his wood-block prints, composed in clearly delineated levels of space and subtly gradated colors; Van Gogh, in his oil paintings, pushes and pulls our vision with agitated brush-strokes and boldly opposed colors. In the first exhibit of this Article, we see one of Hiroshige's pair of prints, The Plum Garden at Kameido; in the second, Van Gogh's study of that print, The Tree.⁵

How would Hiroshige have responded had he known what this foreign enthusiast, Van Gogh, had made of his works? It might be a mistake to attribute to Hiroshige our litigious impulse to dispute Van Gogh's decision to make studies of his graceful prints in viscous oils.⁶ While traditional Oriental culture might have demanded that a student acknowledge a master for creating models worthy of imitation, it did not threaten the student with legal sanctions for copying such models, even badly. Hiroshige might have thought, like the Chinese scholar Shen Zhou before him, "if my poems and paintings, which are only small efforts to me, should prove to be of some aid to the forgers, what is there for me to grudge about?"⁷

Assume that Hiroshige's prints were protected by copyright in France toward the end of the nineteenth century.⁸ Suppose, more hypothetically, that one of Utagawa Hiroshige's heirs, holding his rights, then sued Vincent van Gogh for making studies of the prints and Vincent's brother Theo, or another of his heirs, for offering these studies to the public. This hypothetical suit is not posited to test the state of French copyright law over a century ago, but rather as a thought-experiment to elucidate the dilemma which arises with the basic

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³ See id. at 282-85 (also including Oiran, after Kesaï Eisen).
⁴ See MATTHI FORRER, HIROSHIGE, PRINTS AND DRAWINGS, prints 93-95 (1997) [hereinafter FORRER, HIROSHIGE].
⁵ [Along with the works mentioned here, the exhibits at the end of this PDF version show another Hiroshige print and Van Gogh study, all discussed in the text accompanying notes 81-86 infra. These exhibits were found at http://www.hiroshige.org.uk/hiroshige/influences/VanGogh.htm. Note that these works vary in their customary designations, for example, here and on that site.]
⁶ However, Van Gogh himself did have "scruples of conscience" that his elaborating on prior artists' works "might be plagiarism." THE LETTERS OF VINCENT VAN GOGH 477 (Ronald de Leeuw ed., Arnold Pomerans trans., 1996).
⁷ Quoted in WILLIAM P. ALFORD, TO STEAL A BOOK IS AN ELEGANT OFFENSE: INTELLECTUAL PROPERTY LAW IN CHINESE CIVILIZATION 29 (1995).
⁸ For the state of relevant French copyright law in the nineteenth century, see ALAIN STROWEL, DROIT D'AUTEUR ET COPYRIGHT: DIVERGENCES ET CONVERGENCES 141-42, 598-99 (1993).
question: What is the proper scope of copyright? Since this dilemma is common to all copyright laws, the attempt to resolve it here will make use of comparative legal analysis.  

II. THE DILEMMA: COPYRIGHT SCOPE

The field of copyright has distinct dimensions. On one dimension, authors create works. Here a court has to ask: Is copyright in one work infringed by another work? On the other dimension, works are disseminated to the public. Here the question becomes: What remedies should the court grant against the dissemination of an infringing work? Our dilemma will be considered on both dimensions.

A. The Rate of Cultural Feedback

These dimensions, though distinct in theory, are intertwined in practice. Creators elaborate works in communicating with colleagues and critics, patrons and promoters, and larger publics. Technology has progressively globalized the communication networks into which creators have fed, and feed, their works. To assess this progress, start with the fact that, two millennia ago, the Roman Empire and the Han Dynasty of China did no more than sporadically trade with each other. Only later did Greek art forms, previously brought by Alexander to the frontiers of India, filter into the Far East over the Great Silk Road. Still later yet, Chinese inventions essential to globalization, such as the magnetic compass and paper, reached the West.

Creations are thus fed back into communication networks at varying rates. To take an example closer to our time, the art worlds of modern Japan and Europe initially learned each other's rapidly developing styles with significant delays. The Japanese art of the

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9 Analysis will here focus on economic rights that vary far less in scope from system to system than do moral rights, which raise a comparable, but more acute dilemma. For further analysis, see Paul Edward Geller, Must Copyright be For Ever Caught Between Marketplace and Authorship Norms?, in OF AUTHORS AND ORIGINS: ESSAYS ON COPYRIGHT LAW 159, 194-98 (Brad Sherman & Alain Strowel eds., 1994) [hereinafter Geller, Copyright Between Marketplace and Authorship Norms?], abridged and revised in Paul Edward Geller, Toward an Overriding Norm in Copyright: Sign Wealth, 159 REV. INTERNAT'LE DU DROIT D'AUTEUR [RIDA] 2, 73-93 (1994) [hereinafter Geller, Sign Wealth].

10 See GEORGE KUBLER, THE SHAPE OF TIME: REMARKS ON THE HISTORY OF THINGS 94-95, 115-16 (1962); HOWARD S. BECKER, ART WORLDS, chs. 7, 8, 10 passim (1982).


12 See 1 JOSEPH NEEDHAM, SCIENCE AND CIVILISATION IN CHINA, ch. 7 (1954); LUCIEN FEBVRE & HENRI-JEAN MARTIN, L'APPARITION DU LIVRE 40, 102-09 (2d ed. 1971).
"floating world" had already produced such greats as Utamaro in the eighteenth century, but it most notably synthesized Oriental and Western models of landscape art in the work of Hokusai and Hiroshige in the early nineteenth century. While Europe had only fragmentary contacts with the full range of artistic developments in Japan before the middle of the nineteenth century, European access and response to this art had expanded greatly by the time Van Gogh reached Paris in 1886.

This rate of feedback is critical to the rationale of intellectual property. Farmers would be reluctant to market produce that was promptly stolen once it went on sale. But the law recognizes property in the fruits of the farmers' labor and polices the marketplace for thieves. Authors and inventors would lose incentives to release their products of mind to the world if, in the process, they found such public goods pirated by free-riders. Instead, armed with intellectual property, they are supposedly induced to feed more works and inventions back into communication networks, in turn further stimulating culture and technology. As the rate of feedback increases, so do the chances that new ways to create, for example, new plot lines, musical harmonics, artistic techniques, etc., come to light.

Such feedback helps to achieve policies that motivate intellectual property. The Constitution of the United States speaks of promoting "the Progress of Science and useful Arts." Starting in the French Revolution, Continental European doctrine posited authors' rights as "sacred" natural rights, but the Revolutionary legislators understood full well that such rights had to be codified with an eye to enhancing culture. [p. 43]
B. Infringement Analysis or Exceptions?

Our hypothetical case squarely raises questions of copyright scope. Should the law entitle Hiroshige or his heirs to stop Van Gogh from making studies of Hiroshige's prints? To stop Van Gogh's heirs from feeding resulting new works back into world culture? To impose liability for making or exploiting these works? Such questions lead into the following dilemma:

If, on the one hand, creators had no legal control over the fate of their products of mind, they would lose reasons to input such public goods into communication networks. On the other, with too much control, they could stop others from elaborating on their creations and from releasing still further products of mind to the world. If the rules on point are too lax, copyright becomes ineffectual for accelerating the feedback of new works. If the rules are too stringent, copyright becomes counter-productive by burdening such feedback.¹⁹

This dilemma may be reconceptualized in doctrinal terms. Copyright arises out of creative acts: Hiroshige has copyrights in the prints he creates, and Van Gogh has them in the studies he creates. In principle, copyrights, so-called properties, entitle creators to dispose of their respective works at will; however, in our hypothetical suit, such rights could well conflict. That is, Hiroshige's right in a print, if given force without regard to other creators' rights, could lead to stopping Van Gogh or his heirs from exercising this later creator's right to dispose of his study of that print. But the fact that Hiroshige's work comes first ought not be decisive for the simple reason that, unlike patent law, copyright law does not favor works or authors because of priority in time. The follower, Van Gogh, may further invoke freedoms of creation and expression.²⁰

Courts, when faced with such dilemmas or conflicts, want to find equitable and just solutions. They are like Goldilocks who, in the home of the three bears, wanted porridge that was neither "too hot" nor "too cold." While acknowledging Hiroshige's work as calling for protection, a court might sympathetically hear counter-arguments. Van Gogh could claim that his works are only private studies, or his heir could argue that his works ought not be kept from the public. The court may well ask: Does any equitable or policy-based defense, sometimes a provision setting forth [>] p. 44] an apparent exception, excuse arguable infringement? In the United States there is the doctrine of fair use, and Germany allows

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¹⁹ Cf. Ejan Mackaay, An Economic View of Information Law, in INFORMATION LAW TOWARDS THE 21ST CENTURY 43, 57-61 (Willem Korthals Altes et al. eds., 1992) (pointing out that the default position, absent intellectual property, is the free flow of information).

²⁰ For further analysis, see François Dessemontet, Copyright and Human Rights, in INTELLECTUAL PROPERTY AND INFORMATION LAW: ESSAYS IN HONOUR OF HERMAN COHEN JEHORAM 113, 116-20 (Jan J.C. Kabel & Gerard J.H.M. Mom eds., 1998) [hereinafter ESSAYS IN HONOUR OF COHEN JEHORAM].
transformative uses under the narrower doctrine of free utilization (freie Benutzung). Other jurisdictions permit such transformative uses as parody under specific exceptions, while still others subject such uses to general infringement analysis. But in hard cases, it often becomes difficult to distinguish fair uses, or even specifically exempted uses, from those which are arguably infringing.

True dilemmas are never fully resolved by Goldilockean compromises. Rather, courts have to resolve our dilemma consistently with basic copyright rationales. Unfortunately, the judicial maneuver of seeking ad hoc compromises can scramble the lines between true exceptions and infringement analysis and, at the same time, make a muddle of underlying rationales. In a seminal case in the United States, suit was brought for abridging George Washington's writings, and the [c]ourt asked whether this arguably transformative use was "a justifiable use of the original materials, such as the law recognizes as no infringement of the copyright." It is symptomatic of subsequent confusion that the court's [> p. 45] decision is now seen as significant for the evolution of the so-called exception of fair use, even though the decision merely upheld a finding of infringement. One of the four criteria set out in the statutory provision for fair use continues to invite courts in the United States to re-test

21 Compare Pierre N. Leval, Fair Use or Foul? The Donald C. Brace Memorial Lecture, 36 J. COPR. SOC'y 167, 170-75 (1989) (arguing that fair use properly excuses transformative uses), with IVAN CHERPILLOD, L'OBIET DU DROIT D'AUTEUR 143-81 passim (1985) (comparing German doctrine of free utilization with other approaches to transformative uses).

22 Compare, e.g., Alain Strowel, Belgium § 8[2][a][v], in 1 INTERNATIONAL COPYRIGHT LAW AND PRACTICE at BEL-48 to BEL-49 (Paul Edward Geller & Melville B. Nimmer eds., 1998) [hereinafter INTERNAT'L COPR. LAW & PRACTICE] (noting that Belgian law excuses parody and like uses under exception if they comply with "fair practice"), and André Lucas, France § 8[2][a][iii], in 1 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at FRA-121 to FRA-122 (explaining that French law exempts "parodies, pastiches, and caricatures" if they fall into an exception specific to "this genre"), with Mario Fabiani, Italy § 8[2][a], in 2 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at ITA-59 to ITA-60 (indicating that Italian law subjects such uses to general infringement analysis).


24 Folsom v. Marsh, 9 F. Cas. 342, 348 (1841).

infringement by asking: Does the copying in question lack "substantiality"?\(^{26}\) It also remains unclear in German and Swiss law whether the doctrine of free utilization serves as an exception or does anything other than limit infringement analysis.\(^{27}\)

Most importantly, infringement analysis is common to all copyright laws. By contrast, such doctrines as fair use and free utilization are idiosyncratic to particular copyright laws, and specific exceptions vary considerably between all these laws. In approaching the common dilemma of copyright scope, only infringement analyses common to the major copyright systems will here be considered: no further analytic tools will be used.\(^{28}\) It should be stated upfront: it will not suffice to clarify criteria for determining when copyright infringement does or does not take place. For purposes of resolving the dilemma of copyright scope, such all-or-nothing determinations will prove to be too crude. Rather, as explained in the next step of the argument here, courts need to reach more finely differentiated findings of infringement. After that, it will be a matter of \[> p. 46\] calibrating such findings with the different remedies available for infringement.\(^{29}\)

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26 See United States, Copyright Act, 17 U.S.C. § 107(3) (1998). But see 2 Paul Goldstein, Copyright §§ 10.2.2.1.c, 10.2.2.3, at 10:42-10:44, 10:54-10:58 (1998) [hereinafter Goldstein, Copyright] (arguing that the "nontransformative" character of a use need not preclude finding it to be a fair use and that "substantiality" need not be the same in infringement and fair-use analyses).

27 See Eugen Ulmer, Urheber- und Verlagsrecht 275-78 (3rd ed. 1980) (distinguishing the free use of public-domain materials from free utilization so transforming plaintiff's protected materials that these "fade away" [verblasen] in defendant's work); also Switzerland, Loi fédérale sur le droit d'auteur et les droits voisins du 9 octobre 1992 (Federal Act on Copyright and Neighboring Rights of Oct. 9, 1992), RS 231.1, as amended effective July 1, 1995, ROLF 1995 1776 (deeming non-infringing the use of "existing works for the creation of parodies or other analogous versions of the work" under article 11(3), but doing so outside the "limitations on copyright" set out in chapter 5).

28 Purely local analyses, for example, guiding courts in only one or few U.S. circuits or other isolated jurisdictions, will not be considered. See, e.g., 4 David Nimmer & Melville B. Nimmer, Nimmer on Copyright § 13.03[A][1][c]-[d], at 13-36 to 13-44 (Dec. 1998) (critiquing criteria of certain U.S. circuits, such as "total concept and feel" and "structure, sequence, and organization"). Furthermore, not only doctrines such as fair use, but more basic constitutional principles remain outside the analysis undertaken here.

29 It is assumed here that both tasks, analyzing infringement and fashioning remedies case by case, remain judicial rather than legislative responsibilities in all copyright systems. See Paul Edward Geller, Legal Transplants in International Copyright: Some Questions of Method, 13 UCLA Pac. Basin L.J. 199, 221-23 (1994).
III. CREATING WORKS: INFRINGEMENT?

Asking when infringement takes place engages analysis along the dimension of creation. It focuses on pairs of works: on the one hand, the work of a prior creator, in our case Hiroshige; on the other hand, the work of a later alleged copier, in our case Van Gogh. In such a case, infringement analysis compares the prior and later works.

A. Complementary Doctrines for Hard Cases

Our hypothetical suit poses a hard case of infringement to dramatize our dilemma. Let us start by sorting such hard cases out from easy cases and by broaching the complementary doctrines that help courts to decide hard cases. Such doctrines, developed in different copyright systems, guide the analysis of protectability and, after that threshold issue, of infringement itself.

1. Sorting Out the Hard Cases

Courts avoid our dilemma in easy cases, where they are faced with only literal or close copies. Such copies, displaying little or nothing new above and beyond the works copied, cannot in themselves enrich the creativity that feeds culture. The dilemma becomes acute, however, when prior works are admitted to be the bases of later works that are therefore alleged to be infringing.30

In the eighteenth century, copyright was instituted to deal only with easy cases, the pirate reprinting of books or restaging of plays. At the start of the nineteenth century, courts typically found no infringement in what leading French commentary called "[t]he transmutation of form that the translator causes the original to undergo."31 But in the course of that [⩾ p. 47] century, as trade in books became increasingly globalized, authors and publishers started to claim rights to stop translations in foreign markets. Ultimately, the right of translation was subsumed under the more general right to control the making and exploitation of derivative works. The scope of copyright was effectively expanded beyond protecting prior works against substitution by later works in the markets that the prior works...

30 By hypothesis, in this universe of cases, there is always access to plaintiff's prior work, which is posited as consciously taken by defendant as a basis for a later work. See generally Alan Latman, "Probative Similarity" As Proof of Copying: Toward Dispelling Some Myths in Copyright Infringement, 90 COLUM. L. REV. 1187, 1204-14 (1990) (distinguishing criteria of access from criteria of infringement proper).

31 2 AUGUSTIN-CHARLES RENOUARD, TRAITÉ DES DROITS D'AUTEURS 37 (1838-39). See also Lionel Bently, Copyright and Translations in the English Speaking World, 12 TRANSLATIO: FIT NEWSLETTER 491, 496-99 (1993) (explaining that the translation right was not clearly recognized in Anglo-American law until the mid-nineteenth century).
targeted. Copyright reached new markets in new media, for example, as literary works were adapted to the stage or film.\(^{32}\)

In hard cases, plaintiffs allege that defendants have derived works from their own. In such cases, courts often resort to complementary doctrines to limit copyright scope. These doctrines operate on theoretically distinct levels of analysis that tend to come together in practice.\(^{33}\) On the level of determining what is protectible, there is the principle that courts may not protect "ideas" or "facts," but rather only "expression" or "forms." On the level of finding infringement, courts ask whether plaintiff's work is copied in defendant's "substantially" similar work or whether "essential" or "characteristic traits" of one work are taken in the other. But such notions as "ideas" defy ready definition, and equally metaphysical notions of "substance" suggest that works of the mind are things like tables and chairs, consistently perceived by all audiences, but none of these doctrines by itself guides courts to consistent decisions.\(^{34}\)

For example, in the United States, the holder of copyright in the novel *Gone with the Wind* brought suit for infringement by the novel *The Blue Bicycle*. But the suit went no further than the court's refusal to grant a preliminary injunction once it found similarities only between idea-determined materials such as stock "characters" and "scenes and the sequence of events."\(^{35}\) In the French case involving the same novels, the court of first instance found infringement in similarities between just such "intrinsic elements," while the intermediate trial court held that such materials, [\(\text{\textit{p. 48}}\)] notably characters and plot, could not be protected.\(^{36}\) Although the highest French court of appeal overturned that intermediate judgment for insufficiently specified findings, the court on remand found that the materials in question had been so creatively transformed that no actionable similarities remained.\(^{37}\)

The right to control derivative works and any limiting doctrine, such as the idea-expression distinction, tend to struggle with each other, like a pair of overly oiled wrestlers. Unfortunately, whether the right or the limiting doctrine wins all too often depends on a

\(^{32}\) For further background, see Paul Goldstein, *Adaptation Rights and Moral Rights in the United Kingdom, the United States and the Federal Republic of Germany*, 14 IIC 43 passim (1983).

\(^{33}\) Compare KAPLAN, supra note 1, at 9-74 passim (analyzing Anglo-American case law), with CHERPILLOD, supra note 21, at 59-108 passim (comparing French and German doctrines).


momentary false step rather than any consistently balanced judgment from case to case. It is relatively easy to ascertain when copyright may be invoked to prevent copies from substituting for a specific work in a given market, but it becomes more difficult to determine when to stop protecting a prior work against later works in other markets that the prior work does not address. Courts and commentators have refined doctrines limiting copyright scope in this regard, but they have done so largely in case-by-case analyses. Basic refinements in major jurisdictions will be touched on schematically here.

2. Creative Options and Protectability

In the case of the play Abie's Irish Rose, Judge Learned Hand formulated these classic, cautionary words concerning the distinction between ideas and expression:

Upon any work, and especially upon a play, a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his "ideas," to which, apart from their expression, his property is never extended.

In hard cases, courts sort out "ideas" and "expressions" with diverse tests and criteria. All these judicial devices will be generically considered here under the rubric of creative options. This term will indicate the range of expressions potentially available to elaborate a given work. Courts in the United States apply the so-called merger test to measure whether sufficient creative options are present. To the extent that an idea can be realized in only one or a small set of expressions, there is merger between the idea and the expressions that, accordingly, are not protected. Continental European doctrines comparably lead courts to grant or withhold protection to the extent that underlying ideas do or do not allow for sufficient creative options to elaborate original works. French jurisprudence refuses protection when "an automated or constraining logic" dictates how the author's mental input (apport intellectuel) is given form, while German doctrine speaks of a more or less open "room for the play" (Spielraum) of creativity.

38 But cf. Paul Goldstein, Copyright: The Donald C. Brace Memorial Lecture, 38 J. COPR. SOC'y 109, 115 (1991) (ostensibly giving the benefit of the doubt to expanding copyright owners' protection "to every market in which consumers derive value from their works").

39 Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930), cert. denied, 282 U.S. 902 (1931).

40 See 1 GOLDSTEIN, COPYRIGHT, supra note 26, § 2.3.2, at 2:31-2:37.

As a corollary, courts may be said to "filter" some expressions, such as scènes à faire, functionally determined software modules, etc., out of the scope of protection. For example, in one French case, a researcher sued a writer for taking expressions from his scholarly works on Cajun culture to use in a novel set in a Cajun locale. But the trial court found no infringement in the use of such culturally typical expressions that it considered to be indispensable to giving the novel "a minimum of verisimilitude." Moreover, to the extent that there is only one way, or very few ways, to convey facts accurately in compilations such as lists, charts, etc., resulting expressions may not be protected. Obviously, there can be just one correct spelling and numbering for each listing in a telephone directory and only a few conventional schema or signals for situating sites on maps. To put the matter more generally, whether idea-determined materials may be protected against copying will turn on how they fare under tests or criteria to which doctrines of creative options lead in the cases. For example, in Romeo and Juliet or Abie's Irish Rose, there were only so many ways that a family feud might have served as background for the particular tragedy or comedy into which each play cast its young lovers.

All these doctrines do not always dictate precise tests or criteria. Courts often glibly assume that we all know ideas when we see them. However, the term "idea" often evokes only evanescent Platonic flashes of insight or mental will-of-the-wisps. As a result, courts often have difficulty specifying at what point a set of creative options is too restricted to allow for protection, that is, how coarsely or finely to filter out idea-determined materials. For example, in one case in the United States, copyright was asserted in a so-called pitching form into which such baseball statistics as game times, betting odds, pitchers' performances, etc., were compiled. But one judge on appeal went to the heart of the matter, effectively asking: What is the "proper level of abstraction" for formulating such categories of data, more generally, for grasping "the ideas which underlay" the expression in the work at issue? Logically, without knowing just how to focus on any idea against which merger or

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45 See Rotstein, supra note 34, at 760-76.
creative options might be measured, it becomes impossible to say when there are too few ways to express that idea to protect corresponding expressions. The ambiguity of the term "idea" also obscures the borderline between copyright law, in which ideas are not protected independently of expression, and patent law, in which they are not protected independently of utility.  

In response to these definitional vagaries, consider the sense of "idea" in the statutory terms of any "procedure, process, system, [or] method" for generating works and thus "embodied" in works. Classically, Aristotle explained the idea of tragedy in such operational terms: have a hero commit an act of hubris, and have him fall and discover his own fall, to accomplish a catharsis of pity and fear in the audience. Contemporary aesthetic analyses have unpacked entire systems of comparable formulae for elaborating different plot lines that appear in genres starting with folk tales and extending to modern stories. Of course, works differ in how they incorporate procedures or methods: for example, a musical score instructs performers on how to play the musical work it represents, in what key, with what timing, etc. In videogames, audiovisual displays are run by interactive software procedures, while paintings embody methods of composition, coloration, etc.

3. The Sliding-Scale Analysis of Infringement

In easy cases, courts find infringement in the full reconstruction of plaintiff's work in a literal or close copy. In hard cases, the question remains open: How much of the creative fabric of a work must be re-generated before there is infringement? Judge Hand warned

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1993) ("there are a limited number of statistics generally considered outcome-predictive by those familiar with the sport"), cert. denied, 510 U.S. 1112 (1994).

48 Cf. State St. Bank & Trust Co. v. Signature Financial Group, 149 F.3d 1369, 1372-76 (Fed. Cir. 1998) cert. denied, 142 L. Ed. 2d 704 (1999) (rejecting prior tests for filtering out "abstract ideas" in applications for software patents, but not fleshing out any new test beyond invoking the general patent criterion of a "useful result").

49 17 U.S.C. § 102(b) (1998). Based on this reading of "ideas" as processes rather than representations, this Article not only expressly reinterprets the "abstraction" analysis of infringement, but implicitly rejects the "pattern" and "total feel" tests. For glosses, see 4 NIMMER ON COPYRIGHT, supra note 28, § 13.03[A][1], at 13-31 to 13-40.


52 Cf. Micro Star v. FormGen Inc., 154 F.3d 1107, 1111-12 (9th Cir. 1998) (comparing musical scores to programs driving video games). For further analysis of basic differences between types of works, see infra text accompanying notes 72-78.
against responding to this question once and for all: "Nobody has ever been able to fix that boundary, and nobody ever can."53 Hard cases are endemically subject to such line-drawing exercises that may well start at the threshold stage of analyzing protectability, but that all too often slip unnoticed into the stage of analyzing infringement itself. Before tightening up analysis, it will be useful to survey how it tends to shift from stage to stage.

Since creativity is protean, standards of protection, such as "originality" or "creativity," are satisfied to varying degrees from case to case. In the United States, the Supreme Court indicated that a minimally creative compilation of facts would attract "thin" protection against literal or close copies.54 By implication, a more creative work would call for "thicker" protection, not merely against literal or close copies, but against translations, adaptations, or other derivative works. Continental European doctrines, typically predating degrees of creativity that can vary from work [> p. 52] to work, comparably allow for the sliding-scale analysis of infringement.55 Courts in diverse jurisdictions may then adjust the scope of protection in the light of the respective creativity of plaintiff's and defendant's works.56

Unfortunately, judicial penchants can at times push and pull such sliding-scale analysis ambivalently. Consider, for example, a pair of cases in Germany where copyright law, in principle, has traditionally set the ostensibly high standard of protecting only "personal intellectual creations."57 In one case, the courts, generous to a plaintiff, seemed to short-circuit that standard by indulging the premise that industrial-drafting techniques of perspective, shadowing, etc., allowed for introducing sufficient personal creativity into a

53 Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930), cert. denied, 282 U.S. 902 (1931).
55 Compare LUCAS & LUCAS, supra note 41, at 101-02, 225-27 (explaining how criteria such as apport intellectuel [mental input] imply infringement analysis à géométrie variable), with Loewenheim, supra note 41, at 98-99 (explaining that criteria such as Gestaltungshöhe [level of formal elaboration] are inevitably satisfied to variable degrees).
57 See Loewenheim, supra note 41, at 90-91. But cf. id. at 99-100 (explaining how German jurisprudence adjusts this standard, along with corresponding tests of protectability, as creative options diminish, for example, in cases of what in German is called the kleine Münze [small change] of copyright); Gunnar W.G. Karnell, European Originality: A Copyright Chimera, in ESSAYS IN HONOUR OF COHEN JEHORAM, supra note 20, at 201 (questioning whether E.C. directives introducing ostensibly different standards for software and other works ought to change the law).
simple technical drawing to protect it against close copying. In another case, judicial sympathies favored the defendant: the image of a female nude ingeniously posed by the innovative fashion photographer Helmut Newton was at issue, but a painting which creatively transformed that image, albeit recognizably, was found not to infringe Newton's copyright.

Realistically viewed, courts can at times be generous toward plaintiffs who face close or literal copies and, at other times, tolerant toward defendants who transform prior works. Professor François Dessemontet [> p. 53] notes the opening for possibly inconsistent results: "The outcome in a given case might well be that, while the plaintiff's work could be protected against outright piracy by a third party, it does not receive protection as against defendant's work that incorporates parts of it less obviously or more creatively than any slavish copy."60

B. Reframing the Doctrines into More Coherent Analysis

To reconcile such judicial approaches, doctrines of creative options will here be more tightly tied into the sliding-scale analysis of copyright infringement. Hopefully, as it is made more coherent, such analysis will guide courts more consistently with underlying copyright rationales. But analysis is here reframed only experimentally; other attempts to pull it together might work as well or better.

1. The Spectrum from Copying to Creation

Our operational definition of "ideas" encompasses a wide range of procedures and methods for generating works.61 At one end of this range, distinguish as routines those information-processing procedures so fixed and detailed that they leave little or no room for creative options in themselves. Moving forward from that starting point, distinguish the following processes along a spectrum from copying to creation:62

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58 The Explosionszeichnungen (Exploded-View Drawings) decision, BGH, Feb. 28, 1991, 1991 GRUR 529. See also Adolf Dietz, Germany § 2[2], in 2 INTERNAT’L COPR. LAW & PRACTICE, supra note 22, at GER-25 (noting the fictive character of this premise of the case, in the light of limitations of German copyright in the designs portrayed in technical drawings).


60 François Dessemontet, Switzerland, § 8[1][a], in 2 INTERNAT’L COPR. LAW & PRACTICE, supra note 22, at SWI-63.

61 For this definition and examples, see supra text accompanying notes 49-52.

62 For analyses on which these distinctions are based, see KUBLER, supra note 10, at 39-53, 62-82; Roland Barthes, Écrivains et écrivants, in ESSAIS CRITIQUES 147 (1964); UMBERTO ECO, A THEORY OF SEMIOTICS 217-76 passim (1976); GEORGE STEINER, AFTER BABEL: ASPECTS OF LANGUAGE AND TRANSLATION 266, 447-49 (2nd ed. 1992).

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a. At the start of the spectrum, rote copying results from applying a single set of identified routines to a work. For example, to copy a text literally, with the same wording, we might change fonts, using as many routines as there are printing symbols, plus some others to reformat the text. Or, to copy an image closely, we might trace it out on transparent paper, or we might photocopy it, laying it into the photocopy machine, setting the desired number of copies and other parameters, and pressing the button. Either way, a given set of identified routines suffices to obtain our copy.

b. There are many different processes in the middle of the spectrum. The rubric of knowledgeable reworking seems to cover most of them. Such processes use routines that are generally known, but not necessarily all identifiable. Nor need the set of such routines used in a given case fully suffice to determine the entire work generated in that case. Consider [> p. 54] translating a French cookbook into English: it is necessary to rely on lexical and syntactic routines known, sometimes only implicitly, by bilingual speakers. For example, while French usage regularly places adverbs between verbs and direct objects, English-speakers most often relocate the adverbs, usually to the beginning or end of clauses. In any event, a straightforward cookbook, if not almost every work-a-day text, is susceptible of only a slightly variable set of translations likely to be acceptable to bilingual speakers. As other examples of mid-range processes, consider selecting and organizing facts into a compilation, or excerpts into an anthology, or recontextualizing a work, as in appropriation art.63

c. At the far end of the spectrum, there is innovative recasting. Here, no known set of routines suffices for moving from one work to another or even to comparable works. Consider the enterprise of translating James Joyce's Ulysses into French: at hundreds of thousands of points, the translators had to make choices that linguistic rules alone could not have dictated.64 The saxophonist Charlie Parker provides another example: starting from the chords of the tune Cherokee, which an accompanying guitarist had inverted just "to keep a beat going," he moved into an entirely new mode of jazz improvisation.65

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63 For an example of appropriation art, see infra text accompanying notes 127-36.
64 For background, see RICHARD ELLMANN, JAMES JOYCE 561-64, 600-04 (rev. ed. 1982); JACQUES DERRIDA, ULYSSE GRAMOPHONE; DEUX MOTS POUR JOYCE 99-100, 121 (1987). For the observation that translating a classic work from its original into another language, for example, Shakespeare from English into German, can creatively enrich the language into which the translation is made, see STEINER, supra note 62, at 270-80.
65 See IRA GITLER, SWING TO BOP: AN ORAL HISTORY OF THE TRANSITION IN JAZZ IN THE 1940S, 69-72 (1985) (quoting the guitarist Biddy Fleet); also NAT SHAPIRO & NAT HENTOFF, HEAR ME TALKIN' TO YA 337 (1955) (quoting Dizzy Gillespie on parallel origins of bebop at Minton's in Harlem in the early forties: "[O]n afternoons before a session, Theolonius Monk and I began to work out some complex variations on chords and the like, and we used them at night to scare away the no-talent guys. After a while, we got more and more interested in what we were doing as music, and, as we began to explore more and more, our music evolved.").
At the start of the spectrum, rote copying can be automated. When a photocopy machine copies an image, a microprocessor in the machine executes a complex set of routines. Rote copying comes about for the simple reason that, before formalizing these procedures in any computer algorithm, the programmer must have identified them all. Imagine a more complex case: a computer, digitally recording audio input, for example, a musical work, converts all the sounds of that work into video output, which is screened as moving visual patterns. The computer program effectively reprocesses the musical work, its rhythms, melodies, chords, timbres, etc., visually by playing these materials out as lines, light and dark, colors and values, etc., all moving in space and time, apparently as an abstract cinematic work. Assume, too, that the algorithm used here is in an off-the-shelf program, which the party making the conversion does not creatively supplement, say, through interactive input. That is, without such input, this party makes a rote copy.

Moving further along the spectrum, mid-range processes such as knowledgeable reworking can only be partially automated. For example, an expert system can be used to help with the translation of a text, but the routines of such systems succeed with variable confidence factors in translating all but the simplest texts. These factors represent the probabilities that the expert system will translate given passages to the satisfaction of bilingual speakers, and they can vary depending on the difficulty of any given passage and the languages in question. Such variability will arise even in using an expert system to translate a work-a-day text like our hypothetical cookbook from French to English, both closely related languages that share largely common roots. It will every so often prove necessary to call upon the implicit knowledge of bilingual speakers to decide between proposed translations that are arguably acceptable or equally debatable.

At the far end of the spectrum, innovative recasting largely defies automation. Suppose that a text to be translated, like our example of James Joyce's *Ulysses*, breaks systematically with most cultural precedents. As Umberto Eco emphasizes, such a work can challenge us "to rethink the whole language, the entire inheritance of what has been said, can be said, and could or should be said." Innovative recasting is needed to translate Joyce's novel into French, since no bilingual consensus provides rules to guide translation at most points in this

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66 For counter-examples, namely of interactive conversions, including the reworking of Van Gogh's studies of Hiroshige, see Lillian F. Schwartz, *Computers and Appropriation Art: The Transformation of a Work or Idea for a New Creation*, LEONARDO, 1996, no. 1, at 43.

67 Of course, as software improves, it can accomplish more and more routines, allowing interactively participating authors to focus more and more on creative input. For further issues, see infra note 123.

68 ECO, supra note 62, at 274. Cf. DERRIDA, supra note 64, at 106-07, 137-43 (waxing ironic over a hypothetical project to computerize Joyce studies worldwide).
seminal English text. Of course, run-of-the-mill works can also be innovatively recast, as when popular tunes became fodder for modern jazz.⁶⁹ [> p. 56]

A word of caution is called for at this point. Infringement analysis need not look to the actual genesis of the works in question. It is rather a matter of ascertaining to what extent there were routines available to move from plaintiff's to defendant's work at the time of the later work.⁷⁰ To the extent that available routines did not suffice, it may be inferred that the allegedly infringing work arose thanks to processes that ranged from knowledgeable reworking to innovative recasting. The computer metaphor, just used, provides merely one way to think about such a determination. Expert testimony will often be helpful in making the requisite findings.⁷¹

2. Application to Literary and Artistic Works

Our framework of analysis ostensibly applies no matter what type of work is at issue. But, once again, there is a difficulty that arises from protean creativity, which manifests itself in the ever-proliferating diversity of media and genres. Indeed, some commentators suggest that infringement analysis changes radically from one type of work to another, for example, from literary to artistic works.⁷² Let us then test our framework of analysis by asking whether it can be cogently applied to diverse types of works.

On the one hand, literary works are coded in discrete terms, such as words and phrases, arranged pursuant to grammatical rules. On the other, artistic works are embodied in continuously variable materials such as line, space, light, and color, configured in space. In computer terms, a literary work can be generated using a lexicon like the ASCII code and a sequencing or syntactic program, while an artistic work can be more or less faithfully bit-mapped. The same distinction can be reconceptualized as applying between works repeatably readable from texts and works uniquely embodied in objects.⁷³

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⁶⁹ See, e.g., Gary Giddins et al., liner notes, in CHARLIE PARKER, THE COMPLETE "BIRTH OF THE BEBOP" (Stash Records CD 1991) (indicating some of these tunes).

⁷⁰ Cf. 1 GOLDSTEIN, COPYRIGHT, supra note 26, § 2.3.2.1, at 2:33-2:35 (proposing to analyze merger in terms of options available at the time of the later work).

⁷¹ For further analysis, see infra text accompanying notes 120-36.


⁷³ See generally NELSON GOODMAN, LANGUAGES OF ART: AN APPROACH TO A THEORY OF SYMBOLS 113-122 (2d ed. 1976) (distinguishing between "allographic" and "autographic" works).
This distinction admits of both border-zone and hybrid cases.\textsuperscript{74} For example, a musical work is more like a literary work when it is written down in a score, but it moves into a border zone, where it becomes more [\textsuperscript{75}] like an artistic work, when it is performed. Chinese poetry forms a hybrid case when written in calligraphic form: no translation into an alphabetic language, no matter how creative, can render the resonance of such a poetic text with its visual form.\textsuperscript{76} How can a court assess where works fall along the spectrum of creative processes, given that works tend to be so diversely situated relative to the basic distinction between literary and artistic works?

In a literary work, like a novel, it is a matter of analyzing, most notably, how the text is sequentially translated into another language or sequentially adapted into another medium or genre. For example, Dashiell Hammett's detective story \textit{The Maltese Falcon} was made into John Huston's film by dramatizing it into dialogue, acting instructions, etc., and by visually elaborating it into sets, action, camera work, etc. Making Hammett's text into a screenplay required knowledgeable cuts and adjustments to fit the story into the time, censorship, and cinematic constraints of the motion picture.\textsuperscript{77} Huston's filming of the story moved up the spectrum toward innovative recasting in the ways the motion picture was shot, paced, and edited.

By contrast, it is often a subtle matter to analyze how one artistic work is transformed into another. The materials of such a work, for example, graphics, light and shade, colors and values, etc., can be so packed together, its visual signals so saturated, that they become inextricable to the untrained eye. Nelson Goodman, whose philosophical analysis is seminal here, gives the example of a print by Hokusai, in which "[a]ny thickening or

\textsuperscript{74} For further analysis and examples, see 1 GÉRARD GENETTE, L'OEUVRÉ DE L'ART: IMMANENCE ET TRANSCENDANCE 129-81 \textit{passim} (1994).

\textsuperscript{75} \textit{See} NICHOLAS COOK, \textit{MUSIC, IMAGINATION AND CULTURE} 71-83, 122-52 \textit{passim} (1990) (explaining that scores provide necessary, but not sufficient, instructions for musical performances).

\textsuperscript{76} \textit{See} Arthur Cooper, \textit{Introduction, in Li Po and Tu Fu: Poems} 76-100 \textit{passim} (Arthur Cooper trans., 1973); \textit{also} OSVALD SIREN, \textit{THE CHINESE ON THE ART OF PAINTING: TRANSLATIONS AND COMMENTS} 44, 90 (Schocken Books, 1963) (1936) (quoting Sung art treatises: "There is no difference between the study of painting and the study of calligraphy." "Poetry and painting follow the same laws.").

\textsuperscript{77} \textit{Compare, e.g.,} DASHIELL HAMMETT, \textit{THE MALTESE FALCON} 40-41, 112-16, 195-97 (Vintage Crime/Black Lizard 1992) (1930) (having the hero in the novel, Sam Spade, meet face-to-face with his lawyer, once in an ethically dubious conversation, and later force the heroine to strip naked to see if she was hiding stolen money on her person), \textit{with} \textit{THE MALTESE FALCON} (Warner Brothers 1941) (replacing meetings with telephoning the lawyer and deleting the strip scene).
thinning of the line, its color, its contrast with the background, its size," would change the entire impact of the work.78

Look at the exhibits to this Article, reproducing a pair of works in question in our hypothetical suit. Of necessity, Hiroshige's Plum Garden [p. 58] reappears in Van Gogh's Tree, since the prior print is the subject matter of the later study. Furthermore, the bare similarity of their patterns neither proves rote copying nor disproves knowledgeable reworking or innovative recasting.79 To compare the earlier and later works in this regard, it is necessary to disentangle differences far more tightly woven into their expressive fabrics than overall similarities.

3. Illustration in our Hypothetical Case

Recall the test for sorting out creative processes: Can any one set of known routines suffice to move from a prior to a later work?80 To the extent that routines do not suffice, knowledgeable reworking or even innovative recasting might be at work. Now apply this approach to Hiroshige's Plum Garden and Van Gogh's Tree, which we already contrasted briefly at the start.81 Here is how Klaus Berger, a leading expert on "Japonism" in Western art, focuses on the movement from one work to the other:

... the bright orange framing strip and the added, entirely random Japanese characters point in a new direction that lies beyond both Western and Eastern traditions. The exaggeration of the graphic arabesque, and the dense, ungraded masses of paint, combine to destroy the Japanese equilibrium between drawn framework and rhythmic colour. ... The gnarled black bough screams aloud; the scattered blossoms are trapped between those fateful black tracks and the red wall of the sky. Whereas in the Japanese work everything expands into space, here it is confined, shut off, dramatically exaggerated. The curves and verticals seem to fight each other, and the green configuration below thrusts against the upper red quarter, conveying the suspense of a conflict that still hangs in the balance.82

Starting from Oriental models, Hiroshige's space hints at classic Western perspective and anticipates Impressionism as well.83 His print The Plum Garden moves the eye back from more intensely colored foregrounds to paler backgrounds, while Van Gogh's study The Tree scrambles all such inherited visual signals, for example, drawing our eye under the red sky and bursting yellow blossoms into a constricted space punctuated by

78 GOODMAN, supra note 73, at 229.
79 For example, manually faking art works might well entail knowledgeable reworking. For further analysis and authorities, see RICHARD PRICE & SALLY PRICE, ENIGMA VARIATIONS 67-88, 160-61 (1995). For the basic reason for rejecting any "pattern" test, see supra note 49.
80 See supra text accompanying notes 62-70.
81 See supra text accompanying notes 4-5.
82 BERGER, supra note 14, at 131-32.
83 See FORRER, HIROSHIGE, supra note 4, at 21-22.
angular tree trunks. Our expert is categorical about the revolutionary step Van Gogh is taking beyond the Impressionism which formed the background for his mature work: "The result is a kind of explosion that opens the way to Expressionism."  

Contrast another pair of works [from these artists]: Hiroshige's print *Sudden Shower over the Great Bridge near Atake* with Van Gogh's study *The Bridge*. The older artist clearly blocks out a simple Spring shower which falls on passers-by who are walking across a solid bridge planted in a placid river. The younger artist brushes in driving rain, a bridge uneasily suspended on moody pilings, and a turbulent river, all with the tensions of a raging storm. Our expert wonders "what the unfortunate people in the picture have done to deserve such an elemental onslaught."  

Is Hiroshige's copyright infringed by Van Gogh? On the spectrum starting at rote copying and including knowledgeable reworking, Van Gogh ultimately reaches the stage of innovative recasting. It would nonetheless oversimplify matters to declare in the abstract which of these processes infringes copyright and which does not. To resolve the dilemma of copyright scope, it will prove necessary to distinguish more finely between the consequences that a court may give to these processes.

**IV. DISSEMINATING WORKS: REMEDIES?**

It is time to change from the dimension of creation to that of dissemination. If the court orders Van Gogh to stop painting his studies, it nips dissemination in the bud. If it orders Van Gogh's heir not to display these studies, it stops dissemination in its tracks. The impact of awarding money to Hiroshige's heir will depend on the amount of the award.

**A. Property versus Liability Remedies**

It is helpful at this point to distinguish between property and liability regimes. When a court is ready to order you off someone else's land, whenever you set foot on it, a property remedy is available. When the court merely holds you liable to pay money after you have already trespassed, a liability remedy is imposed. As Professor Jerome Reichman [p. 60]

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84 BERGER, supra note 14, at 131. See also Schwartz, supra note 66, at 45 (noting that, in "appropriating Japanese woodcuts," Van Gogh changed his "style of painting").

85 For sources, see supra notes 3-4. [These works are shown in the third and fourth exhibits at the end of this PDF version and at http://www.hiroshige.org.uk/hiroshige/influences/VanGogh.htm.]

86 BERGER, supra note 14, at 132.

explains, the optimum mix of property and liability remedies will vary according to the branch of intellectual property and the case.\footnote{88}{See J.H. Reichman, \textit{Legal Hybrids Between the Patent and Copyright Paradigms}, 94 COLUM. L. REV. 2432, 2504-58 \textit{passim} (1994). It has been argued that rights to injunctions, rather than damages, form the optimal framework for negotiating licenses. \textit{See, e.g.}, Robert P. Merges, \textit{Of Property Rules, Coase, and Intellectual Property}, 94 COLUM. L. REV. 2655 \textit{passim} (1994) (making this argument, albeit with caveats). Counter-examples abound, however, showing that reliable prospects for judicial remedies are but some of the miscellany of factors on which any readiness to license might depend. \textit{See, e.g.}, Peter C. Grindley & David J. Teece, \textit{Managing Intellectual Capital: Licensing and Cross-Licensing in Semiconductors and Electronics}, 39 CALIF. MGMT. REV. 8 \textit{passim} (1997) (examining one field in the context of technology licensing over the century).}

Our dilemma arises precisely because Hiroshige may claim property, not merely in the prints he created, but in the later studies Van Gogh created of those prints. Hiroshige's property claim would be most decisively implemented in an injunction to preclude Van Gogh or his heirs from exercising any further property claim to dispose of his later work freely. As already pointed out,\footnote{89}{See supra text accompanying note 20.} however, not only does copyright law not contain any principle, as does patent law, favoring any initial creator because of priority in time, but it is subject to freedoms of creation and expression. In reaching an appropriate mix of remedies, it will be argued, a court may resolve our dilemma in the case before it, while avoiding conflicts between prior and later creators' claims.\footnote{90}{At the time of the French Revolution, when the legislators spoke of author's rights as "sacred" property rights, it was not admitted that any injunction based on such property could lie against derivative works. \textit{See supra} text accompanying note 31. Thus these Revolutionary legislators ignored the doctrinal conflict raised here in its remedial consequences, and their legislative record indicates that they recognized copyright mainly to assure authors of "some fruit of their labors," that is, monetary rewards. \textit{See Le Chapelier, Le Moniteur universel}, Jan. 15, 1791, \textit{quoted in Strowel}, \textit{supra} note 8, at 90.}

Typically, under copyright law, the mix of remedies has erratically varied from case to case.\footnote{91}{\textit{See, e.g.}, LINDEY, \textit{supra} note 35, chs. 9-15 \textit{passim} (giving a wealth of examples from U.S. case law in the first half of the twentieth century); Marci A. Hamilton, \textit{Appropriation Art and the Iniminent Decline in Authorial Control over Copyrighted Works}, 42 J. COPR. SOC'y 93, 115-25 (1994) (analyzing different mixes of property and liability approaches in recent U.S. case law).} This variation has in part arisen because the doctrines limiting copyright scope, such as the idea-expression distinction and substantiality criteria of infringement, have been neither uniform in meaning nor coherently articulated.\footnote{92}{\textit{See supra} text accompanying notes 33-60.} Furthermore, in considering remedies, courts have to take account of equitable considerations that change from case to case, for example, the force of the parties' initial showings, the eventual impact of
It is submitted that courts should fashion and coordinate property and liability remedies within a framework of analysis such as that proposed here. In particular, they would do well to situate where works fall along the spectrum from rote copying to innovative recasting.

The following guidelines are proposed to tighten up present copyright law, with due regard for equitable considerations present in any given case:

1. No injunction or other coercive remedies should be issued against whoever makes a solitary copy exclusively for private enjoyment or study.

2. Courts should (a) always be ready to enjoin and otherwise provide coercive relief against rote copying for the public, (b) exercise discretion in granting injunctions and other coercive remedies concerning works generated by mid-range processes such as knowledgeable reworking, and (c) refrain from enjoining innovative recasting, as well as the dissemination of the new works thus generated, absent strong equitable reasons for stopping them.

3. Courts may (a) impose the full range of monetary awards, including statutory or other special damages used for punitive or deterrent purposes, in cases of rote copies, especially when these are marketed with scienter, but (b) adjust actual or statutory damages, or reasonable royalties or profit shares, to the market interests at stake in any other case.

How would these guidelines apply to our hypothetical suit? Assume that the court finds that Hiroshige's prints are innovatively recast in Van Gogh's Japonaiseries. First, no order would be issued to stop the making of these studies privately; second, no order would lead to seizing these studies or enjoin publicly displaying or marketing them. Third, a money judgment could still be obtained for such marketing, and it would be measured by considering how Hiroshige's prints contributed to the appeal that Van Gogh's studies would hold for relevant audiences. Our dilemma would be resolved: neither creativity nor feedback into cultural networks would be blocked, while both prior and later creators' rights would be protected on the marketplace. Having glanced at how our guidelines come together in our hypothetical case, let us now look at how they may apply more particularly in other hard cases. [> p. 62]

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93 For further analysis, see DAVID VAYER, INTELLECTUAL PROPERTY: COPYRIGHT, PATENTS, TRADE-MARKS 255-68 (1997).

94 See supra text accompanying notes 62-70.

95 This assumption benefits from hindsight. More recent transformations might require closer scrutiny. See, e.g., Schwartz, supra note 66, at 45-47 (reworking Van Gogh's study by computer).

96 For the dilemma, see supra text accompanying notes 18-20.
B. Applications to Different Remedies

Works of authorship display different creative processes in endlessly variable combinations and permutations. As a result, the guidelines just proposed would still lead to different mixes of remedies from case to case, although hopefully with more rhyme and reason than before. Some comments are in order on how to reach optimum mixes in complex cases.

1. Injunctive and Related Relief

At the level of injunctions and other coercive remedies, there is an obvious difficulty. A framework has been proposed for the sliding-scale analysis of infringement. But how does it help in making all-or-nothing decisions, notably whether to enjoin or not? Of course, courts should try to tailor remedies to the cases before them as closely as possible. But all too often, judges are confronted by hard choices, with no Solomonic compromise possible. The guidelines proposed here are clear and bright in some of these cases, but call for refinement in others.

Regarding private copies, a French commentator already explained at the turn of the century: "A copy made as a [private] study is exempt from remedies for infringement."

Courts and legislators have to avoid invading privacy, whether of creators or of end-users of works. Refraining from coercive relief against private copying avoids the risks both of intimidating the timid muse that inspires creation in private and of violating constitutionally protected privacy interests. For example, the law does not stop computer programmers from making private copies of programs to discover methods and codes underlying these programs. Privately made studies are also indispensable for younger artists who conduct research into artistic methods in copying older works. They need to get the knack of such methods manually as well as in inspecting the works visually.

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My terms of use, and texts, at https://pgeller.com/resume.htm#publications
Faced with public dissemination, courts have to decide whether or not to grant injunctions or other coercive remedies. Courts protect copyright owners' markets by stopping copying, by seizing hard copies, or by preventing sales or showings. It has been proposed that discretion to issue such orders be exercised with an eye to where plaintiff's and defendant's works fall along the spectrum of creative processes. Courts are most ready to enjoin or seize rote copies, that most obviously threaten markets the copied work targets but that bring nothing new into the marketplace. In mid-range cases, where knowledgeable reworking generates translations, adaptations, etc., discretion has to be exercised to balance the risk of allowing harm to protected markets against the risk of obstructing the feedback of new content. For example, the Ninth Circuit thought it inappropriate to enjoin the exploitation of the film Rear Window when that work turned out to be subject to renewal rights in the short story on which it had been based. Such an injunction would not have advanced the right-holder's market interests, and it made little sense to deny "the public the opportunity to view a classic film for many years to come."

Of course, how discretion is exercised may vary according to procedural options available in a given legal system. For example, a judge may be more ready to grant a preliminary injunction pending an expedited determination on the merits than the long preparation of a jury trial. At the far end of the spectrum, where a prior work is innovatively recast into a truly different work, there tends to be less risk that markets properly reserved to the prior work might be prejudiced by the later work. At the same time, the argument for declining to enjoin the different and later work becomes all the stronger to the extent it represents new expression to release to the world.

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101 See supra text accompanying notes 94-96.
102 Compare 2 GOLDSTEIN, COPYRIGHT, supra note 26, § 11.0, at 11:2 (contemplating such orders to stop "wholesale piracy" but not infringers who "borrow a few protected elements" to make "original" works of their "own"), with LUCAS & LUCAS, supra note 41, at 608, n. 68 (noting French orders to seize copies in cases of "flagrant" infringement).
103 Abend v. MCA, Inc., 863 F.2d 1465, 1479 (9th Cir. 1988), aff'd, 495 U.S. 207, 236 (1990) (leaving untouched the appellate court's remedial analysis).
104 See, e.g., Herman Cohen Jehoram, Netherlands § 8[5][a][i], in 2 INTERNAT'L CORP. LAW & PRACTICE, supra note 22, at NETH-77 (noting expedited Dutch kort geding procedure).
2. **Damages and Other Awards**

The difficulty at the level of monetary awards is not so obvious. It would seem that such awards can be easily adjusted within our framework of sliding-scale analysis. After all, the court can award more or less money to plaintiff depending on how massive or marginal defendant's taking is found to be. It is not so simple, since the measures of monetary awards are diverse: some are granted for punitive or deterrent purposes; some, to compensate plaintiff for usurped markets or other damages; some, to recover defendant's undue gains. The proposed guidelines suffice to coordinate such measures in simple cases, but they call for refinement in more complex cases.

For punitive or deterrent purposes, many courts may assess monetary awards, especially statutory or other special damages, at levels beyond the market interests at stake in the cases before them. There is no risk that the prospect of paying such extraordinary damages might discourage the release of new creations to the world when they are levied against rote copies, for the simple reason that such copies feed nothing creative into communication networks. Quite the contrary, incentives to release original works run the risk of being blunted unless the unauthorized marketing of rote copies as substitutes for original works is discouraged. But there is the risk that awards out of proportion with market stakes might burden the feedback of new content in cases where reworked or recast works are found to be infringing. Such cases call for purely compensatory awards, notably damages, royalties, or profits, or else statutory damages granted in lieu of such awards. [> p. 65]

The amount of any compensatory award has to be gauged in the light of the relative impacts of plaintiff’s and defendant's works on the marketplace. It is easy enough to measure damages in a case where plaintiff's work finds itself forsaken because defendant's work

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106 Remedies for the violation of moral rights, which lay beyond the scope of the analysis proposed here, require quite different perspectives than do remedies for the economic interests considered here. For further analysis, see II:1 STIG STRÖMHL, LE DROIT MORAL DE L'AUTEUR EN DROIT ALLEMAND, FRANÇAIS ET SCANDINAVE AVEC UN APERÇU DE L'ÉVOLUTION INTERNATIONALE: ÉTUDE DE DROIT COMPARÉE 9-53 passim (1967).

107 For examples, see Miguel A. Emery, *Argentina* § 8[5][a], in 1 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at ARG-56 to ARG-57; James Lahore, *Australia* § 8[5][a], in 1 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at AUS-108; David Nimmer, *United States* § 8[5][a][i], in 2 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at USA-165 to USA-166.

108 For the suggestion that the TRIPs Agreement requires special damages to "constitute a deterrent to further infringements," ostensibly in cases of just such piracy, see Thomas Dreier, *Damages for Copyright Infringement in Germany*, in ESSAYS IN HONOUR OF COHEN JEHORAM, supra note 20, 129, at 134-36.

109 For examples, see David Vaver, *Canada* § 8[5][a][ii][B], in 1 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at CAN-123 to CAN-124; Joshua Weisman, *Israel* § 8[5][a][ii], in 2 INTERNAT'L COPR. LAW & PRACTICE, supra note 22, at ISR-32 to ISR-34.
merely serves as a substitute for it on the markets it addresses. It is then a matter of measuring losses, such as lost sales of copies or of tickets, other lost payments to access or show the work at issue, lost royalties accruing from such uses, or even arguably lost goodwill. 110 In other cases, plaintiff might not yet have put the work at issue on the market or might not have had any market success, or the work might be transformed by defendant into a derivative work that addresses different markets, for example, as when a novel is adapted to film. In neither event has plaintiff had damages in any actual market, so that reasonable royalties or shares of defendant's profits seem to be the only workable forms of monetary compensation. But it cannot be assumed, in conclusory fashion, that plaintiff is entitled to royalties or profits from all the new markets to which defendant's derivative work appeals. That issue turns on the very scope of the copyright which is here in question. 111

The key here lies in apportioning compensatory awards to the extent to which plaintiff's work contributes to the appeal of defendant's on the marketplace. 112 To start, in terms of our spectrum, the court can ascertain the extent to which plaintiff's work is routinely copied, knowledgeably reworked, or innovatively recast in defendant's work. 113 Suppose, for example, quite hypothetically, that no license had been obtained from Dashiell Hammett to film *The Maltese Falcon*, as John Huston did knowledgeably and to some extent innovatively. 114 Not only would it not be equitable, but it would undermine incentives to make and release the film, if the writer were accorded all the film profits that would be otherwise attributable to talented stars, cinematic direction and production, promotion, etc. But the court may award Hammett reasonable royalties or shares of profits for Huston's rather thorough-going use of his story, which partially accounts for the abiding appeal of the resulting classic *film noir*, even while the court factors out creative filming, etc., also contributing to that [> p. 66] appeal. 115 It is not only a matter of the quantity of the

110 Compare 2 GOLDBEIN, COPYRIGHT, supra note 26, § 12.1.1.1, at 12:7 (distinguishing between U.S. measures of actual losses in markets already occupied by claimant and of royalties or profits in other markets), with Dreier, supra note 108, at 130-133 (critically analyzing comparable German measures).

111 See supra text accompanying notes 32-38.

112 Cf. Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960) (Hand, J.) (speaking in terms of the "aesthetic appeal" of the works).

113 See supra text accompanying notes 62-70.

114 See supra text accompanying note 77.

115 See, e.g., Sheldon v. Metro-Goldwyn Pictures Corp., 106 F.2d 45, 50-51 (2d Cir., 1939), aff'd, 309 U.S. 390 (1940) (granting plaintiff only that portion of defendant's profits due to adapting protected parts of his play into a film, but not profits due to exploiting purely cinematic parts of the film).
Finally, there remains the issue of including court costs and attorney's fees in monetary awards. For example, judges might well impose such litigation expenses on pirates selling rote copies without consent but excuse them for parties who sought to obtain licenses for transforming the works at issue. Such options are not easily coordinated with our guidelines, for one thing because legal systems differ considerably in their approaches to litigation expenses. Some might deal with them in their copyright statutes, and others in purely procedural laws.117

3. Proof: the Audience Test

In the United States, juries may find facts, while other systems largely rely on judges for that task. Of course, juries do not decide on injunctive and other equitable remedies that remain the judges' responsibilities. If called in the United States, juries find whether infringement takes place and assess monetary awards if they do so find.118 Judge Jerome Frank left us with the following conventional wisdom on point:

The proper criterion on that issue is not an analytic or other comparison of the respective musical compositions as they appear on paper or in the judgment of trained musicians. The plaintiff's legally protected interest is ... in the potential financial returns from his compositions which derive from the lay public's approbation of his efforts. The question, therefore, is whether defendant took from plaintiff's works so much of what is pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed ....119

Perhaps, all triers of fact are tempted to act as test audiences when hearing infringement cases. Judges in non-jury systems, given their discretion to choose the best methods for

116 *Quaere* how to disentangle essentially copyright-related from publicity-right and trademark-related contributions to market appeal, for example, making and showing the work at issue from advertising well-known authors, stars, etc.?


119 Arnstein v. Porter, 154 F.2d 464, 473 (2d Cir. 1946). *But see id.* at 480 (Clark, J., dissenting) (warning that the majority was substituting "chaos, judicial as well as musical," for prior precedents); also Latman, *supra* note 30, at 1191-92 (noting that *Arnstein* was one of a series of unsuccessful infringement actions brought by the same composer); LINDEY, *supra* note 35, at 267-71 (critiquing Judge Frank's opinion for lowering the barrier of summary judgment to the then-current wave of "plagiarism racketeers" holding up successful authors with meritless suits).
finding facts, may at times consciously apply audience tests in such cases. Nonetheless, whether applied by judges or juries, audience tests give rise to a pair of related problems: first, not all triers of fact are sure to emulate accurately the responses of the relevant audiences; second, it is not always obvious who should constitute the relevant audience. To take an example of the first problem, imagine a case in which a poem is allegedly translated: to ascertain whether there is translation, much less how the appeal of the original poem finds its way into the translation, the trier of fact must itself be bilingual or hear testimony from an expert who knows the languages of both texts. As to the second problem, it brings us back to the issue of copyright scope: the extent of the markets reserved to plaintiff, along with the markets open to defendant, will depend on just this issue. But collapsing all criteria of relevant audiences into some notion of undifferentiated audience response only obfuscates the issue.

An imaginary case, introduced above, dramatizes the problem of emulating audience response: a computer converts audio input into video output. The computer reprocesses plaintiff's musical work, its rhythms, melodies, etc., into what appears to be an abstract cinematic work, namely moving and colored patterns played out in real time on screen. Since the algorithm running the conversion is assumed to be pre-fixed without regard to the work at issue, the defendant who mechanically uses it to reprocess that work engages in rote copying that should trigger a full panoply of remedies. Nonetheless, the average judge or jury might not hear, and in turn not see, much similarity in appeal between plaintiff's musical work and defendant's ostensible cinematic work, even though the algorithm maps one work onto the other, virtually point by point. As a result, a test merely asking the trier of fact to find infringement on the basis of some lay listener's and ordinary observer's response, but without the benefit of any analytic or expert comparison, might not lead to any finding of infringement at all, much less damages.

Return, for a moment, to the example of the allegedly translated poem: there a bilingual expert could explain to the

120 See, e.g., V.AVER, supra note 93, at 80-82 (noting that Canadian judges may apply audience test); Loewenheim, supra note 41, at 134-36 (indicating that German judges may refer to the perspective of "the average observer" [Durchschnittsbetrachters] in the relevant "circle" [Verkehrskreise] for fact-finding purposes in appropriate cases).

121 See, e.g., 2 GOLDSMITH, COPYRIGHT, supra note 26, § 7.3.1, at 7:32-7:34 (noting that finders of fact tend to ignore doctrines limiting copyright scope, such as the idea-expression distinction, in attending only to average audience response).

122 See supra text accompanying notes 65-66.

123 Quaere whether the author of the conversion algorithm may be deemed to transform the work at issue creatively, albeit indirectly? For further analysis, see Jerome H. Reichman, Electronic Information Tools: The Outer Edge of World Intellectual Property Law, 24 IIC 446, 468-72 (1993).

trier of fact how linguistic rules do, or do not, account for moving from plaintiff's text in one language to defendant's in another.\textsuperscript{125} Similarly, in [our present] imaginary case, an expert could focus the trier of fact on how the conversion algorithm generates, from plaintiff's musical work, the full fabric and potential appeal of defendant's ostensible cinematic work.\textsuperscript{126}

Consider a real case which illustrates the problem of selecting relevant audiences. The artist Jeff Koons instructed an art studio to make a sculpture, in a number of copies, of a photograph of a couple holding a string of cute puppies. The sculpture, Koons claimed, critiqued kitsch sentimentality typified in the photograph, but no defense of fair use was allowed on that basis, and infringement was found on summary judgment.\textsuperscript{127} But from whose perspective would Koons' sculpture so obviously constitute an actionable copy of the photograph, and whose markets would it usurp, if any, for purposes of assessing damages? In the eyes of other artists, Koons' colored, three-dimensional sculpture slyly recontextualized, that is, in our terms, knowledgeably reworked, the black-and-white, two-dimensional photograph at issue.\textsuperscript{128} Still, the court, anticipating on the jury's emulation of an ordinary observer's response, felt compelled to make a "black-and-white" finding of infringement, thus setting the stage [> p. 69] for sweeping remedies.\textsuperscript{129} However, as Robert Rotstein acutely points out, such an audience test unavoidably involves a host of tacit premises about the markets that plaintiff and defendant might be respectively addressing.\textsuperscript{130} In the \textit{Koons} case, such premises seemed to blind the courts to differences between the photograph and the sculpture possibly significant for the art circles constituting one of these markets.\textsuperscript{131}

In the imaginary case of the audio-to-video conversion, expert analysis of the conversion algorithm could explain how plaintiff's musical work was reprocessed into defendant's

\textsuperscript{125} See supra text accompanying notes 120-121.

\textsuperscript{126} Cf. 2 GOLDSTEIN, COPYRIGHT, supra note 26, § 12.1.2.2, at 12:25 ("In cases where the defendant's work literally copies the copyrighted work and adds nothing original of its own, to permit the copyright owner to recover all of the defendant's profits gives the copyright owner no more than its due.").


\textsuperscript{128} See Martha Buskirk, \textit{ Appropriation Under the Gun}, ART IN AMERICA, 1992, vol. 80, no. 6, at 37. \textit{Quaere} who knowledgeably reworked the photograph, Koons and/or the personnel at the art studio? This issue, of course, does not affect infringement analysis.

\textsuperscript{129} Injunctive relief was granted, and plaintiff claimed defendant's profits in six figures. \textit{Koons}, 751 F. Supp. at 480-81.

\textsuperscript{130} See Rotstein, supra note 34, at 779-88; also Alfred C. Yen, Copyright Opinions and Aesthetic Theory, 71 SO. CAL. L. REV. 247, 290-97 (1998) (also analyzing the audience test in the light of recent critical theory).

\textsuperscript{131} The appellate court continued to restrict the audience to that without "any special skills other than to be a reasonable and average lay person." \textit{Koons}, 960 F. 2d at 308.
ostensible cinematic work. In the Koons case, did the instructions for "copying" the photograph as a sculpture amount to such a fully determinative algorithm, or did they leave open enough creative choices to put infringement, or at least the measure of damages, into question? Even if "enough" must ultimately be construed in this context with reference to some audience, it remains to be seen which audience was relevant in the Koons case: plaintiff's popular audience or defendant's artistically sophisticated audience? Plaintiff's popular audience was not relevant to the extent that no significant evidence indicated it to be lost as a market, but defendant's sophisticated audience could be, according to the appellate court, a source for an apportioned award. Following the reasoning outlined above, it would then have made sense in the Koons case to ignore plaintiff's photograph to the extent that it did not account for the appeal of defendant's sculpture on the art market. An expert might well testify that Koons could have appropriated any equally banal image for that purpose. On that basis, only his audience would be relevantly plugged into the compensatory equation.

V. A CAVEAT AND CONCLUSION

We started with a hypothetical suit. At issue were Hiroshige's wood-block prints. Relief was sought against Van Gogh's studies in oils of these prints. This case dramatizes the dilemma implicit in all cases where prior works form bases for later works. On the one hand, denying relief would ignore copyright rationales altogether; on the other, overly stringent remedies could betray these rationales. This dilemma has become all the more critical as copyright has been expanded, for example, with rights to control derivative works and with ever-longer terms. We have here reframed infringement analysis with an eye to resolving this dilemma. But our framework is not definitive, but merely an attempt to pull together various strands of infringement analysis in diverse copyright systems. Furthermore, all infringement analysis has to look to current culture for its premises concerning creative processes, aesthetic perceptions, and economic realities. Indeed, as a creature of our culture, copyright law can

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132 See supra text accompanying notes 122-26.
133 See supra text accompanying notes 127-30.
134 However, once it realized that both royalty and profit measures might leave plaintiff with a negligible award, the appellate court jumped remedial tracks, approving the trial court's order to turn over defendant's sculptures and proposing "enhanced statutory damages." But it gave no thought to the risk that taking sculptures off the market might undercut any award of royalties or profits, much less that such remedies might burden access to new art. Koons, 960 F. 2d at 312-14.
135 See supra text accompanying notes 112-16.
136 See, e.g., the German Alcolix decision, supra note 23, 25 IIC at 609 (holding that plaintiff's comic strip should be compared to defendant's parody from the perspective of readers with "the necessary intellectual understanding" to appreciate the parody).
only proceed critically from just such premises in the light of its own basic rationales. No doubt, future aesthetic and economic insights will help to reconceptualize infringement analysis in new and better forms.

With that caveat in mind, a pair of points should be stressed in concluding. On the level of theory, courts need better analytic tools than shifting sets of vague and disparate tests and criteria of protectability and infringement. The attempt to bring underlying doctrines together into some coherent framework of analysis at least helps to debug corresponding tests and criteria and to optimize infringement findings and remedies in the cases. On the level of practice, courts ought not content themselves with simply finding infringement *vel non* but, in hard cases, would do well to discern more finely how plaintiffs' works are reworked or recast into defendants' works. In that light, it is submitted, they could grant remedies more consistently with copyright rationales.

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137 See Rotstein, *supra* note 34, at 804; Yen, *supra* note 130, at 298-302.
First Exhibit to GELLER, *HIROSHIGE vs. VAN GOGH*

Hiroshige: *The Plum Garden*
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