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Article

THE SINE QUA NON OF COPYRIGHT IS UNIQUENESS, NOT ORIGINALITY

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***328 I. Introduction**

The 1976 Copyright Act limits copyright to “original works of authorship.”¹ The Supreme Court tells us that originality is the sine qua non of copyright² and that it has two components: independent creation by the author and a modicum of creativity.³ I argue that uniqueness is the true sine qua non of copyright and that the two components are rough heuristics for uniqueness. When we focus directly on uniqueness, many puzzles melt away. More melt away when we supplement uniqueness with a dominance principle, which limits protection for a work whose social value is due largely to inputs from parties other than the work’s author.

A. Select Puzzles in Copyright Doctrine

1. Curious Features of the Limiting Doctrines

A student of copyright may notice three curious features of the limiting doctrines. The first is their large number. A non-exhaustive list includes the idea-expression dichotomy, fact-expression dichotomy, merger doctrine, useful article doctrine, scènes à faire, and regulations against protecting names, titles, single words and short phrases, blank forms, familiar shapes and designs, simple dance steps, and government works.

The second curious feature of the limiting doctrines is their mutual overlap.⁴ Cases that involve a limiting doctrine implicate more than one. For example, the *329 famous case of *Baker v. Selden*⁵ implicates at least the idea-expression dichotomy,⁶ merger doctrine,⁷ useful article doctrine,⁸ and the blank forms doctrine.⁹ Likewise, the well-known case of *Brandir v. Cascade* implicates at least the idea-expression dichotomy, merger doctrine, useful article doctrine, and the bar against copyrighting familiar symbols and designs.¹⁰

The third curious feature of the limiting doctrines is that they overlap both the threshold requirement of originality¹¹ and the infringement standard of substantial similarity,¹² which also overlap each other.¹³

***330 2. Dubious Assertions about Creativity**

A student of copyright may also notice strained claims about creativity. The courts tell us, for example, that raw footage of an event is creative enough for copyright *331 even if captured by a bystander or planted camera--¹⁴ despite the fact that such footage seems wholly uncreative under the lay standard of creativity.¹⁵ Also, the courts insist both that creativity is absolutely essential and that a tiny amount will suffice.¹⁶ Why are they so confident that creativity is absolutely essential if a tiny amount will suffice, and why are they so confident that a tiny amount will suffice if creativity is absolutely essential?¹⁷

Also puzzling are the cases in which courts not only protect a work of dubious creativity, but they protect it robustly. They robustly protect raw footage of an event though it not only seems devoid of creativity under the lay standard but also barely meets the very lax standard courts purport to use. The mismatch--between the robust protection for such footage and its (at best) minimal creativity--seems to belie the common notion that the degree of protection tracks the degree of creativity.

This mismatch also belies the common notion that the degree of protection tracks the degree to which the work is fact-based. Courts and commentators say that work at copyright's core (such as fiction) is more protected than work at copyright's *332 periphery (such as fact-based work).¹⁸ But footage of an event is fact-based work: it faithfully records historical fact, it accurately documents the state of the world that existed at a certain time and place. The same is true of still photographs of events, which courts likewise protect robustly.

3. Inconsistent Assertions about Novelty

Another curiosity is the inconsistency in the cases and commentary with respect to whether a work must be novel to be copyrighted. Many courts say a work need not be at all novel.¹⁹ Some say a work need not be especially novel.²⁰ At other times, courts in both camps say or hold that a work must be readily distinguishable from prior work, whether still under copyright or in the public domain,²¹ which *333 implies that a work must differ appreciably from work that precedes it; in other words, that P's work must be novel in a non-trivial way. In any event, courts never award damages to P when P's work lacks appreciable novelty or when the only material common to P's work and D's work lacks appreciable novelty. In such cases, courts always find some route (through a limiting doctrine, fair use, or a finding of no originality or no substantial similarity) to avoid awarding damages to P--even if D actually copied subject matter from P that P may have independently created.²²

*334 Furthermore, policy seems to militate against protecting work that lacks novelty.²³ Why would we want to use the lure of legal monopoly to induce the re-creation of work that already exists?

4. Non-unified Observations about the Level of Granularity

Yet another curiosity is the failure of courts and commentators to notice or cleanly unify two seemingly diametric observations. Many have observed that no work is protectable when defined at a high level of abstraction²⁴ - the "bird's eye view." When we ascend too far up the ladder of abstraction from the literal work, we are left with an "idea"²⁵ that is unprotectable regardless of whether P independently created it.²⁶ For example, the play *Abie's Irish Rose* is considered an unprotectable idea when defined broadly as "a quarrel between a Jewish and an Irish father, the marriage of their children, the birth of grandchildren and a reconciliation."²⁷

Yet commentators have also observed that no work is protectable when parsed very finely²⁸ - the "bug's eye view." When we subdivide a work into small sub-elements, and focus on each individually, we are left with granules that are unprotectable regardless of whether P may have independently created them. For example, a single phrase from a novel is unprotectable on its own.²⁹

Are the bird's eye view and the bug's eye view uncopyrightable for the same reasons, or are the reasons for each distinguishable?

B. Uniqueness Resolves the Puzzles

Copyright protects only unique work: work that no one created before (novel) and that no one could independently create after (unrepeatable). Next is a very brief summary of how this insight resolves the foregoing puzzles. More detailed explanations appear in later sections.

*335 1. Regarding Curious Features of the Limiting Doctrines

The limiting doctrines overlap each other heavily because they all enforce the requirement of uniqueness. The same goes for originality and substantial similarity. The originality requirement screens out work so lacking in uniqueness that it merits no protection. The substantial similarity standard screens out causes of action against a D who either copied nothing unique from P's work or nothing valuable enough to warrant the administrative and transaction costs of protecting it.

2. Regarding Dubious Assertions about Creativity

The second component of originality, creativity, is both under-inclusive and over-inclusive. It is over-inclusive because some

creative work is non-unique (and thus unprotectable). Specifically, creative work may be non-unique if it is non-complex (it has few elements), only moderately unconstrained, or both. Creativity is under-inclusive because some non-creative work is unique (and thus protectable). A work can be unique because it is complex and unconstrained or because it is complex and uniquely constrained. Unique creative work is unique because it is complex and unconstrained. Unique non-creative work is unique because it is complex and uniquely constrained.

The clearest example of unique non-creative work is video footage of an event captured by a planted camera or by a bystander who happened to be at the right place and time. This footage entails no creativity. It is unique because it uniquely records an event no one else captured before and no one else could capture after. Even if multiple parties recorded the event, in the vast majority of cases P will have recorded it at a readily distinguishable vantage point, angle, focus, resolution, and duration. In contrast, a plain photo of a stable, commonplace object (such as a bottle of a well-known brand of vodka)³⁰ is not unique. Because the photo is plain and the object is stable and commonplace, someone else could have created an indistinguishable image before or could create it after.

The degree of protection for a work matches its degree of uniqueness³¹ more closely than its degrees of creativity, factuality, or functionality. Again, consider footage of a spontaneous event: the footage is unique and robustly protected though it is both non-creative and factual.

3. Regarding Inconsistent Assertions about Novelty

The first component of originality, independent creation by P, is over-inclusive because it demands less than novelty when copyright actually demands novelty and more. If copyright only required independent creation by P, copyright would protect a second creator's work even if it were identical to a first creator's, *336 so long as the second did not copy from the first. But in practice copyright does not protect such non-novel work.

The mistaken view that copyright requires no novelty arose because it is an easy mistake to make and because it was reinforced early on by erroneous³² dicta from esteemed judges. It is an easy mistake to make because the novelty requirement is subsumed within the uniqueness requirement.³³ Unlike patent, copyright requires no formal or affirmative finding that work is novel. Instead, by protecting only unique work, copyright implicitly excludes non-novel work.

Not only is independent creation necessary but insufficient for novelty, novelty is necessary but insufficient for uniqueness. All unique works are novel, but some novel works--namely, the repeatable ones--are non-unique. Thus, copyright plaintiffs sometimes lose even when their works are novel,³⁴ and this observable phenomenon can reinforce the hasty conclusion that novelty has no bearing on copyright. Further clouding the copyright landscape is that in a small minority of cases plaintiffs lose even when their works are unique.³⁵ To explain this minority of cases we must look to the dominance principle.³⁶

4. Regarding Non-unified Observations about the Level of Granularity

Work is uncopyrightable when we define it very broadly for the same reasons that it is uncopyrightable when we focus tightly on its individual sub-elements. That is, a general idea abstracted from a work is uncopyrightable for the same reasons a tiny literal fragment of the work is uncopyrightable. What the bird's eye view and the bug's eye view have in common is that both exclude so much of the work that what is left in view is too simple to be unique or too simple to be valuable *337 enough to justify the administrative and transaction costs of protection.³⁷ In essence, bird's eye works and bug's eye works are both "microworks."³⁸

II. Uniqueness

A. Unique Works Are Free of Shared Constraints

P's work is unique if it was never independently created before (novel) and if it will never be independently created after (unrepeatable).³⁹ A work is novel and unrepeatable if it is (at least modestly) complex and either unconstrained⁴⁰ (e.g., random or whimsical) or uniquely constrained (e.g., dictated by circumstances exclusive to P). In either case, there are no shared constraints to guide another to independently create work not readily distinguishable⁴¹ from P's.

***338** Suppose you make a list of your 100 favorite movies. Your list is protectable⁴² because it is unique. That is, we are inclined to think no one before independently created, and no one after will independently create, a list with the same movies in the same order. We think this because the content and order of your list depends on your peculiarities, not on shared constraints that could have driven or that could later drive another creator to make the same list. Hence other creators' lists of their 100 favorite movies will differ appreciably from your list and from each other's.⁴³

***339** P's work is non-unique if it was guided by constraints that could guide another to create work not readily distinguishable from P's. Copyright does not protect an accurate list of the 100 top-grossing movies. This list is non-unique because it is dictated by shared constraints, namely, historical records of box office receipts, DVD rentals, and so forth. These constraints would likewise dictate the content of another creator's accurate list of the 100 top-grossing movies. Hence, if you independently make an accurate list of the 100 top-grossing movies, and if I independently make an accurate list of the 100 top-grossing movies, our lists will not be readily distinguishable.

Creative work tends to be novel and unrepeatable because it is relatively unconstrained. The more unconstrained the work, the less likely it is to take a form others could independently create.⁴⁴ Nevertheless, creativity is both an over-inclusive and under-inclusive measure of uniqueness.⁴⁵ It is over-inclusive because even wholly unconstrained work, if it has few elements, may be non-novel or repeatable. For example, a string of numbers (3423749274) I banged out randomly on my keyboard shows up in thirty search results on Google®.⁴⁶ A string of randomly banged out letters (mfgpwoedfiuwon) shows up in one search result.⁴⁷

On the other hand, creativity is under-inclusive because some non-creative work is uniquely constrained and thus unique. The clearest example is event footage captured by a bystander who happened to be at the right place and time. This footage is clearly protected by copyright.⁴⁸ It is a stretch to argue it is creative.⁴⁹ Indeed, even if we assume it entails a trace of creativity, we are left wondering why it is so thickly protected given its mere trace of creativity.

How thickly a work is protected depends more on how unique it is than on how creative it is.⁵⁰ Event footage is thickly protected because it is very unique. It ***340** is very unique because no one else could ever independently create it--the event has come and gone. The main exception to thick protection for event footage applies when the footage is dominant; in other words, when it records an event of such historic or cultural importance that fully protecting the footage against all types of unauthorized use would over-reward the creator and deter socially beneficial use of the footage by others.⁵¹

Unlike footage of a spontaneous event, a photo of a stable object accessible to others is usually non-unique. In *Ets-Hokin v. Skyy Spirits*,⁵² a case of no liability, P photographed Skyy's blue vodka bottle for use in Skyy's marketing campaign. Skyy later hired other photographers to photograph the bottle and used the new photos instead of P's; the lighting, angles, shadows, and background of the new photos differed from P's.⁵³ The only constant was the unadorned bottle, which is stable and widely accessible and thus something others could independently photograph.⁵⁴

Consider also *Meshwerks v. Toyota*.⁵⁵ Meshwerks used special machines and techniques to painstakingly create digitized images of Toyota cars.⁵⁶ The court held Meshwerks's "slavish copies" unprotectable.⁵⁷ Yet slavishness is not dispositive. ***341** Event footage is protectable though it slavishly copies the event that unfolds before the lens. What distinguishes Meshwerks's slavish copies of Toyota cars from photographers' slavish copies of events is that someone else could independently create slavish copies of the same Toyota cars, whereas no one else could independently create slavish copies of events that have come and gone.⁵⁸

A non-slavish copy of a stable, widely accessible thing is protectable insofar as no one could independently recreate the non-slavish copy. For example, a translation of a well-known work from one human language to another is likely to be protectable⁵⁹ unless the translation is extremely short.⁶⁰ Consider a translation of a novella from Spanish to English. This translation is clearly unique--no one will ever independently make an indistinguishable translation. Even a translation of a single page of the novella might be unique, because English allows for some variety in syntax and contains many synonyms.⁶¹

B. Uniqueness as a Function of Three Variables

Uniqueness is a matter of degree, not an absolute or binary quality like pregnancy.⁶² Every work is unique in trivial ways. No two works have exactly the same ***342** molecules arranged exactly the same way. Every work is created with some freedom from constraint or under some unique constraints. For our purposes, a work counts as unique if it has salient features unique

enough to lead us to conclude that the work is readily distinguishable from all independently created work that came before and all that will come after.

The thickness of protection for a work tracks the degree to which the work is--or at least seems to be--unique.⁶³ A work as unique as *Alice in Wonderland* receives very thick protection. A typical list of 100 favorite movies is moderately unique and thus receives moderately thick protection. A mannequin head with stylized features suggestive of a hungry high-fashion look and with an inadvertent flaw in its hairline is unique enough to receive at least thin protection.⁶⁴ An accurate list of the 100 top grossing movies is non-unique and receives no protection.

To estimate or characterize the degree to which a work is unique, we can frame uniqueness as the probability that no one before independently created, and that no one after will independently create, work indistinguishable from P's. The higher that probability is, the more unique P's work is. The variables on which that probability depends can be defined in various ways. The following is one way.

The probability that P's work is unique depends on:

(1) Added Complexity: the number of elements⁶⁵ in P's work-including combinations, arrangements, highlights, and omissions⁶⁶-not manifestly devoid of novelty⁶⁷;

*343 (2) Viable Alternatives: the number of alternative works⁶⁸ with which independent creators could, with equal or greater efficiency, achieve ends equivalent⁶⁹ or superior to those achieved by P's work; and

(3) Contenders: the number of other creators (past, present and future) with the ability, opportunity, and incentive to independently create work indistinguishable from P's.

The uniqueness of P's work rises with increases in added complexity, with increases in the number of viable alternatives, and with decreases in the number of contenders. Thus, a work is very unique when it has high added complexity, many viable alternatives, and few contenders.

*344 Yet, the variables often offset each other, so a work may still be unique despite low added complexity or few viable alternatives or many contenders. Conversely, a work may be non-unique despite high added complexity or many viable alternatives or few contenders. Note, however, that if the number of contenders is zero, it cannot be offset. If there are no contenders-- if P was and always will be the only party who could create the work--the work must be unique.⁷⁰

Event footage is factual work that has no contenders. It has no contenders because it is constrained by an “exclusive reality” that is fleeting and localized or otherwise inaccessible to others. In contrast, unprotected factual work is constrained by a shared reality that is stable and accessible to others. A factual work constrained by shared reality tends to have many contenders over the long run because the facts are accessible to others and because consumers foreseeably value such work as a guide to action.⁷¹ Works constrained by shared reality also have few viable alternatives, because works not constrained by shared reality make poor guides to action.⁷²

Consider an unprotected factual work such as P's accurate list of the 100 top grossing movies. P's list has few viable alternatives, not only because it is accurate but also because it is accurate about something about which other creators can likewise be accurate.⁷³ In addition, 100 is a common list number, and shorter lists (e.g., the 50 top grossing) and longer lists (e.g., the 200 top grossing) will be indistinguishable from the corresponding portion of P's list.

There are many contenders for a list of the 100 top grossing movies because many people could access the information needed to independently create it. Also, for many in the film industry, the utility of such a list is foreseeably much greater than the cost of compiling it.

Finally, such a list has, at best, low added complexity. The movie titles, their number, and their arrangement (in descending order by earnings) are manifestly devoid of novelty. The only salient element not manifestly devoid of novelty *345 seems to be the combination of all of the manifestly non-novel elements together in one list.⁷⁴

C. How Thickly a Work is Protected Depends on How Unique It Is

The limiting doctrines overlap not only each other but also the originality requirement and the substantial similarity standard,⁷⁵ which also overlap each other.⁷⁶ All of these doctrinal tools overlap because they all enforce the requirement of uniqueness.

To satisfy the threshold of copyrightability, a work must possess a threshold degree⁷⁷ of uniqueness. That is, there must be some salient, non de minimis⁷⁸ feature of the work that no other creator has or will independently create. How thickly a work is protected depends on how far its uniqueness exceeds the threshold; when P's work is very unique, courts are more likely to protect not only relatively small fragments of it but also moderately detailed patterns abstracted from it.⁷⁹

A work is most unique in its most complex form: the entire literal work verbatim. When we subdivide a work into tiny sub-elements, and focus on a sub- *346 element in isolation, it seems too simple to be unique.⁸⁰ Rarely is an individual word in a book unique, and any unique word (such as “supercalifragilisticexpialidocious”) can be subdivided into non-unique syllables and letters.⁸¹ The same holds true for a small piece of an image and its pixels, indeed for sub-elements of any type of work.⁸² Yet a very unique work can remain unique even after some degree of subdividing. A small fragment of a very unique work is more likely to be unique than an equally small fragment of a marginally unique work.

Similarly, when we abstract far away from a work and collapse its many elements into a handful of meta-elements we are left with a broad summary of the work that seems too simple to be unique.⁸³ A very unique work can remain unique even after some degree of abstracting. Thus, a moderately detailed summary of a very unique work is more likely to be unique than an equally detailed summary of a marginally unique work.

When the issue is whether P's work is copyrightable at all, courts usually view P's work at the level at which it is mostly likely to be unique. If the work is only marginally unique at this verbatim level, courts may also tacitly ask whether the benefits of protecting it seem to outweigh the transaction and enforcement costs.⁸⁴ When the issue is whether D's work infringes P's, courts usually identify the most detailed subject matter common to both works, tacitly ask what features of that subject matter are unique to P's work at that level of detail,⁸⁵ and, if D's taking is small, ask whether those features are so trifling that the benefits of protecting them seem to outweigh the costs. Sometimes courts perform these steps in different order.⁸⁶

***347** The tacit goal is to match the degree of protection to the work's degree of uniqueness. The less unique P's work, the more similar to it D's work must be to infringe. If P's work is modestly unique, D's work must be more than modestly similar to it to infringe. To put it another way, if P's work is modestly unique, D's work infringes only if D's work includes either a large fragment of or a markedly detailed pattern in P's work.

Compare Rosenthal Jewelry v. Grossbardt (Rosenthal I)⁸⁷ with Rosenthal Jewelry v. Kalpakian (Rosenthal II)⁸⁸. In each of those cases, both parties made jeweled pins shaped like bees.⁸⁹ In Rosenthal I, D had used one of P's pins to make a mold to produce a pin that was identical to P's except for inferior gems.⁹⁰ The district court found infringement and the appellate court affirmed.⁹¹ In Rosenthal II, D produced its own pin from its own mold, resulting in a bee pin moderately similar to P's.⁹² The district court found no infringement and the appellate court affirmed.⁹³

The key distinction between Rosenthal I and Rosenthal II is that only in Rosenthal I did D's pin include subject matter unique to P's work. Given that insect-shaped pins have long been popular and given that bees are well-known insects, many independent creators have created and will create bee pins. To be recognized as a bee pin, it must approximate a real bee. The appearance of a real bee is a shared constraint that channels independent creators toward similar bee pins.⁹⁴ P has no cause of action against a D whose bee pin has no more than this convergent similarity.⁹⁵ P has a cause of action only against a D whose pin is so similar to *348 P's that a court can assume not only that such close similarity was due to D's copying but also that no one else has or will independently create a pin as similar to P's as D's pin is.

Suppose similarity could be measured in percentages between 0 and 100, with 0% representing no similarity and 100% representing perfect identity. Suppose P's pin is 80% similar to the appearance of a real bee, and D's pin is 75% similar to P's pin. The 75% similarity may be due to both independently tracking a real bee. Accordingly, a court is unlikely to find that D infringes. Compare a case in which D's pin is still 75% similar to P's but that P's is highly stylized and only 30% similar to a real bee. In this case, a court is far more likely to find that D infringes.

We are now in a position to see why graphic characters are usually protected more thickly than non-graphic characters.⁹⁶ Graphic characters tend to be more unique because they tend not to closely approximate things on which others could

converge. Mickey Mouse does not closely approximate a real mouse, a fact which is readily apparent to courts. In contrast, non-graphic characters tend to possess known traits and to face the recurrent problems of humankind.⁹⁷ This is not to say graphic characters are always more unique than non-graphic characters: graphic *349 characters that are relatively banal or undetailed may be less unique than non-graphic characters that are extra fanciful or richly delineated.⁹⁸

D. Why Uniqueness?

A work is unique if it is a one-of-a-kind: novel and unrepeatable. Neither copyright nor patent protects work that lacks novelty because there are costs to protection but no benefits from inducing the re-creation of work that already exists.⁹⁹ One such cost is duplication of effort: for example, the expenditure of time and resources that could have been used to bring something new to the world. Other costs include the problems of proof and notice and the high costs of transaction and administration that result when multiple parties claim ownership of the same work.

The conventional wisdom is that copyright requires no novelty.¹⁰⁰ Taking the conventional wisdom as true, Roger Schechter and John Thomas suggest two reasons why copyright requires no novelty.¹⁰¹ The first is that in many areas of pop culture works inevitably will resemble each other because of the limits of the genre and other conventions. For instance, a “comic book about a superhero will resemble many previous works of the same sort . . .”¹⁰² My response is simply that copyright does not protect a work insofar as it will inevitably resemble other works. Indeed, courts have refused to protect such features in superhero works.¹⁰³

The alleged second reason why copyright requires no novelty is that “a novelty test can work only if there is some formal way--as in patent law--to compare newly created material with the body of previously existing work so that we can determine if it is genuinely novel.”¹⁰⁴ My response is that no formal test or examination for novelty is needed so long as copyright only protects works very likely to be novel and only to the extent they are very likely to be novel.

***350** Unlike copyright, patent protects some works that are novel but repeatable.¹⁰⁵ There are benefits from inducing the creation of work that is novel but repeatable; namely, the benefits of getting the work sooner rather than later. However, there are substantial costs. Utility patents, with their shorter term and formal screening process, seem to provide a better balance of benefits to costs for work that is novel but repeatable.

We reserve the long and easily obtained monopoly of copyright for work that is unique (novel and unrepeatable).¹⁰⁶ The benefit of liberally protecting unique work exceeds the benefit of liberally protecting work that is novel but repeatable. A particular unique work is made by a particular party. If the law fails to incentivize that particular party, and if that party has no other incentives to make the work, the work is lost to the world forever. In contrast, a non-unique work can be made by multiple parties. If the law fails to incentivize all but one of them, the world still gets the work. In sum, liberal protection ensures creation of unique work more effectively than it ensures creation of non-unique work.

Liberal protection for unique work also costs less than liberal protection for non-unique work. Protection for unique work does not encourage duplicative creation of the same thing; that is to say, no independent creator will repeat a unique work. By definition, a unique work--a one of a kind work--cannot be independently repeated by others. In contrast, protection for non-unique work can encourage duplicative creation of the same thing because non-unique work can be independently repeated by others.

To be sure, weak protection for non-unique work allows for free riding, which reduces the incentive for creators of non-unique work to be the first to create it. The choice of whether we should protect non-unique work requires a trade-off between the social costs of free riding and the social costs of duplicative creation. If we refuse to protect non-unique work, there is more free riding but less duplicative creation. If we protect non-unique work, there is less free riding but more duplicative creation. However, the main point to note here is that the choice of whether we should protect unique work does not entail this trade-off. If we refuse to protect unique work, there is more free riding and zero duplicative creation; if we protect unique work, there is less free riding and still zero duplicative creation.

Third-and tipping the balance affirmatively against copyright protection for non-unique work-is that copyright for non-unique work would generate problems *351 of proof,¹⁰⁷ problems of notice and overlapping claims of ownership,¹⁰⁸ high transaction costs,¹⁰⁹ and rent seeking.¹¹⁰ If copyright protected non-unique work, multiple parties would often claim copyright in the same work and many more independent creators would get sued.¹¹¹ Some first creators would sue second creators, *352 some

second creators would sue first creators, or both might sue or be sued by third creators. On occasion, independent creators would be sued by parties who had not independently created but had copied from the public domain, from other copyrighted works, or even from D's work.¹¹²

Independent creation is a defense to copyright infringement, but we could not rely entirely on this defense were we to extend copyright to non-unique work. Some bona fide independent creators would be unable to prove independent creation, because courts rely on similarity as proof of copying.¹¹³ Courts would come to rely less on similarity and to more often require direct evidence of copying,¹¹⁴ but then copiers would often escape liability because direct evidence of copying is seldom available.¹¹⁵

***353** Further, if multiple parties claim ownership of the same works, potential users of the works will find it more difficult to clear rights. How does a potential user know who is a bona fide independent creator with the power to assign or to license? If the work is repeatable, multiple parties can plausibly claim to have independently created it. Given the high costs of clearing rights and the residual risks, potential users might forego clearing rights in favor of independently creating the works themselves or by commissioning others to do so. But in cases in which potential users find it less costly to create work from scratch than to buy or license it, the law should probably let them freely copy it¹¹⁶ and thereby avoid wasteful duplication of effort.

E. Repeatability Forms the Line Between Patent and Copyright

Had the Wright Brothers not invented the powered airplane, someone else would have,¹¹⁷ and soon.¹¹⁸ In contrast, had Lewis Carroll not written Alice in Wonderland, no one would have ever written it.

The line between patent and copyright is the line between repeatable subject matter and unrepeatable subject matter. Contrary to popular opinion,¹¹⁹ the line is not between subject matter with practical utility and subject matter without it. The entertainment and diversion provided by movies, music, and literature is a practical utility. In any event, copyright also protects "dry" works that we are more apt to label as practical, for example, maps, blueprints, technical manuals, price guides, textbooks, encyclopedias, and computer code.

***354** As discussed previously, liberal protection for non-unique work generates little social bang for the social buck. Thus we rely on the shorter and harder to obtain monopoly of utility patent¹²⁰ to protect a subset of non-unique work: non-symbolic work that is novel but moderately repeatable and that efficiently exploits physical principles ("invention").

Patent allows a degree of repeatability that copyright forbids. Hence most patent infringement suits are against inventors who independently created the invention, not against pirates.¹²¹ When an invention is very repeatable, however, even patent withholds protection-typically on the ground that the invention is "obvious"¹²² but occasionally on the ground that the invention is an "abstract idea."¹²³ An uncopyrightable idea is a repeatable pattern, whereas an unpatentable abstract idea is a very repeatable pattern.

Inventions are repeatable because they are constrained by shared reality.¹²⁴ More specifically, they are dictated by the laws of physics, by requisites of safety and compatibility, by costs of production, and by foreseen demand for solutions to well-defined problems. These shared constraints channel independent inventors toward the same inventions.¹²⁵ Furthermore, the costs of invention fall with time.¹²⁶

Patents reward inventors enough to accelerate invention. A patent rewards an inventor not for bringing us an invention that would never have come absent the promise of exclusivity but for bringing us the invention sooner than it would have ***355** come absent the promise.¹²⁷ In a world with no patents, most inventions would still come, but they would be postponed until they could be invented more cheaply.¹²⁸

Because most inventions would eventually arrive even without the promise of exclusivity, and because protection for them generates substantial social costs, we protect them for less time (20 years from filing) than we protect copyrighted work (~120 years on average). Also, we examine patent applications to see whether applicants actually invented that which they claim and to see whether their claimed inventions are so repeatable that they would have been created soon even without the promise of exclusivity.¹²⁹

F. Related Theories from Other Commentators

The main claims of this paper are repeatable because they are constrained by shared reality. Fortunately, most of them are novel in all but their most abstracted forms.

Khong, writing in the economic literature, very briefly sketches a theory similar to uniqueness.¹³⁰ His theory is that the originality requirement screens out work that has a high probability of being coincidentally similar to the work of another, thereby avoiding erroneous findings of infringement and related proof problems.¹³¹ According to Khong, originality requires more than independent creation by P because, by itself, independent creation by P would fail to screen out some works that are coincidentally similar.¹³² To serve as an effective screen, originality also includes creativity, which requires that a work contain elements unlikely to coincide with other works.¹³³ Khong's theory is essentially correct, but he does not elaborate or show how it unfolds in the case law or commentary.

Byron proposes a theory that, though informed by intuitions similar to mine, falls short of uniqueness.¹³⁴ Byron's theory is that a work tends to be copyrightable *356 when it is very unlikely to be created.¹³⁵ In contrast, under the uniqueness theory, a work is copyrightable when it is very unlikely to be created more than once. The difference is bigger than it seems. Byron's theory is very sensitive to the way we conceive of the probability that a work will be created. If we assess probability using our hindsight knowledge about the state of the world that existed when the work was created-including the existence of the creator with his individual attributes and circumstances as well as his expectation of copyright protection-then the creation of the work always seems likely. For instance, in determining whether *Alice in Wonderland* is copyrightable, if we assume the existence, attributes, and circumstances of Lewis Carroll, the creation of *Alice in Wonderland* seems likely and thus uncopyrightable under Byron's theory. In contrast, if we ask whether *Alice in Wonderland* is unlikely to be independently created more than once, the right answer jumps out at us: it is clearly copyrightable.

Byron's theory diverges further from mine in that he proposes a Goldilocks-like middle ground in which works are maximally protected when they are moderately unconstrained.¹³⁶ That is, protection decreases toward both ends of the spectrum of constraint, such that works are unprotected when either very constrained or very unconstrained, and most protected when moderately constrained.¹³⁷ Byron's aim here is to account for cases in which courts refuse to protect arbitrary codes, which are very unconstrained.¹³⁸

If Byron were correct that very unconstrained works are uncopyrightable, we might expect Lewis Carroll's poem *Jabberwocky* and Jackson Pollock's paintings to be less copyrightable than more constrained works, but that does not appear to be the case. In any event, Byron's middle-ground does not explain cases, such as *Lotus v. Borland*,¹³⁹ in which courts refuse to protect moderately constrained works. I look to a distinct principle to explain cases in which courts refuse to protect works along the entire spectrum of constraint: dominance.

Other commentators with theories or arguments that overlap the uniqueness theory include Michael Green,¹⁴⁰ David McGowan,¹⁴¹ Doug Lichtman,¹⁴² and Alan Durham.¹⁴³

*357 III. Dominance

Uniqueness explains most but not all of the cases that involve the limiting doctrines. More can be explained by supplementing uniqueness with dominance, which is akin to antitrust. Courts limit protection for a dominant work even if it is unique. A work is dominant if the work has itself become a lasting constraint on other parties for reasons apart from the work's intrinsic merit or P's contribution to it, especially if the social value of the work is due largely to inputs from other parties.¹⁴⁴ When the success or social value of a work clearly outweighs its merit or P's contribution--because of, for instance, lock-in through path dependence, network effects, chance, or adoption as law or industry standard--imposing liability against everyone who engages in any copying of the work over-rewards P, deters efficient use of the work by others, and generates wasteful litigation and high transaction costs.¹⁴⁵ Conversely, it is efficient to allow others to engage in at least some unauthorized copying of a dominant work.

Consider *Lotus v. Borland*.¹⁴⁶ Lotus's 1-2-3 spreadsheet software had become the de facto standard.¹⁴⁷ After laboring for three years to develop spreadsheet software *358 superior to Lotus 1-2-3, Borland released Quattro.¹⁴⁸ To enable users familiar with the Lotus menu to use Quattro, Borland included an option to operate Quattro through an emulation of the Lotus menu command hierarchy.¹⁴⁹ Lotus claimed the emulation infringed its copyright.¹⁵⁰

The appellate court held the Lotus menu command hierarchy unprotectable.¹⁵¹ The reason was not lack of originality or creativity; with 469 commands arranged into more than fifty menus and submenus, the Lotus menu entailed a litany of evitable choices.¹⁵² Nor was the reason that Lotus's idea of spreadsheet software had merged with Lotus's expression.¹⁵³ From the standpoint of technology and intrinsic utility, innumerable other menu trees would have served equally well¹⁵⁴ in a counterfactual world in which the Lotus menu did not exist. Indeed, Borland claimed that its own menu was superior.¹⁵⁵

The majority reasoned that the Lotus menu was a "method of operation" and thus barred by 17 U.S.C. 102(b).¹⁵⁶ The majority's stated reason is dubious.¹⁵⁷ As *359 the concurring opinion suggests, the real reasons Lotus lost were: (1) the Lotus menu had become the de facto standard (much like the QWERTY keyboard layout);¹⁵⁸ (2) Borland could not compete with Lotus unless it provided the emulation as an option for users who had invested in learning the Lotus menu; and (3) Borland limited its free-riding by designing its own spreadsheet and by not copying any of Lotus's code to create the emulation.¹⁵⁹ In other words, the Lotus menu had become dominant and thus unprotected against uses like Borland's.

The dominance principle may express itself at the threshold of copyrightability¹⁶⁰ through a limiting doctrine or the originality requirement, at the infringement stage through a finding that the accused work is too dissimilar or the taking too de minimis to infringe, or at a later stage through the affirmative defense of fair use.¹⁶¹ Where a work falls into a category of works that seem clearly dominant at the outset, a court is likely to hold the work unprotectable at the threshold of copyrightability.

Names, titles, and other pure designators usually seem dominant at the outset.¹⁶² They tend to get locked in. Indeed, their social value depends on their getting locked in through the inputs of other parties--through their learning and using the names and titles (and only those names and titles) to refer to the persons and things named and titled.¹⁶³ Unique names and titles--such as Moon Unit Zappa and I Heart Huckabees--are just as dominant as non-unique names and titles. Whether or not unique, allowing people to freely use names and titles tends to be efficient,¹⁶⁴ so they are uncopyrightable.¹⁶⁵

*360 Codes for parts and procedures can qualify as dominant for the same reasons names and titles do.¹⁶⁶ That is, such codes qualify as dominant when most of their social value is due to input other than their creators'. If a code is arbitrary, most of its social value is likely due to the inputs of others because an arbitrary code is a pure designator that costs very little to create.¹⁶⁷ Hence courts tend to find arbitrary codes uncopyrightable¹⁶⁸ even though they are unique at least when aggregated together.¹⁶⁹ Arbitrary codes are unique when aggregated together precisely because they are arbitrary--in other words, unconstrained.¹⁷⁰ That courts nonetheless find them uncopyrightable strongly suggests uniqueness must be supplemented by a distinct principle.¹⁷¹ This is harder to see in close cases involving non-arbitrary codes that are borderline unique, borderline dominant, or both.

Government works are another category of works that seem dominant at the outset; hence, they are unprotected.¹⁷² A traditional rationale is that the public has *361 already paid for government works through taxes.¹⁷³ One problem with this rationale is that it fails to explain why privately funded works, such as model codes, also tend to lose protection when the government adopts them without compensating the private party.¹⁷⁴ A better rationale is that works adopted by the government seem dominant at the outset. A privately-funded work adopted by the government is just as likely to be dominant as a government-funded work adopted by the government.¹⁷⁵

Where the dominance of a work is a close call, the dominance principle is more likely to express itself through a finding of fair use. For example, unauthorized use of footage of a spontaneous event could qualify as fair use if the event is important and if the footage is the best or sole record of it.¹⁷⁶ In such cases, fully protecting the footage against any and all forms of unauthorized use could bestow a large windfall¹⁷⁷ on P while deterring efficient use of the footage by others. Accordingly, courts may protect footage of important events against some but not all unauthorized uses.¹⁷⁸

*362 IV. The Limiting Doctrines Unified

Copyright's many limiting doctrines largely reduce to the uniqueness requirement. What remains largely reduces to the dominance principle.

A. Useful Article Doctrine

Examples of useful articles include belt buckles, ashtrays, furniture, dinnerware, candle holders, lighting fixtures, and automobile bodies. In an attempt to codify¹⁷⁹ the useful article doctrine, the copyright statute instructs courts to protect the design of a useful article “only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article.”¹⁸⁰ This instruction is a source of great confusion¹⁸¹ that has spawned ten or so “separability tests.”¹⁸²

In reality, the useful article doctrine does not limit protection only to those features of a useful article separable from its utilitarian features. Separability *per se* is irrelevant, which is why most of the so-called separability tests actually ignore separability *per se*.¹⁸³ Copyright protects unique features regardless of whether they are separable from utilitarian features.¹⁸⁴

***363** Compare *Pivot Point v. Charlene*¹⁸⁵ with *Carol Barnhart v. Economy Cover*.¹⁸⁶ In *Pivot Point*, P hired an artist to create a stylized mannequin head used by beauty schools to teach make-up application.¹⁸⁷ Dubbed “Mara,” the head included distinctive angular features such as an upturned nose and almond-shaped eyes.¹⁸⁸ The production version included hair with an inadvertent double hairline.¹⁸⁹ P sued D for selling a nearly identical mannequin head complete with double hairline.¹⁹⁰ The court protected P’s work, dismissing the argument offered by the district court¹⁹¹ and by the dissent that Mara served a utilitarian function as a teaching tool and that separating her aesthetic features would leave a useless egg on a stick.¹⁹²

In *Carol Barnhart*, P’s works were four unstylized male and female mannequin torsos with hollow backs that were used by stores to display clothing.¹⁹³ Two of the four were nude, the third was contoured to resemble a generic button-down men’s shirt, and the fourth was contoured to resemble a generic blouse.¹⁹⁴ P sued D ***364** for selling nearly identical mannequin torsos.¹⁹⁵ The court held that P’s mannequin torsos were unprotectable.¹⁹⁶

The key distinction between *Pivot Point* and *Carol Barnhart* is one of degree: P’s work in *Pivot Point* was more unique. In *Pivot Point*, the probability was very low that an independent creator of a mannequin head would create one not readily distinguishable from Mara. To put it another way, anyone who created a mannequin head without knowledge of Mara would be very likely to create one differing from Mara more than D’s mannequin head did. Because Mara was only moderately stylized, she was protected only within a thin range, but D’s nearly identical mannequin head fell within it.

Recall the three variables summarized in Part II (B). The uniqueness of a work rises with increases in added complexity, increases in the number of viable alternatives, and with decreases in the number of contenders. Mara’s added complexity was moderately high, in part because of her flawed hairline.¹⁹⁷ The number of viable alternatives to Mara was also moderately high: a variety of mannequin heads can serve as props for teaching make-up application.¹⁹⁸ The number of contenders who could independently create indistinguishable work was moderately low, because Mara’s particular design required an artist’s skill and months of effort and because the commercial value of her particular design was not widely foreseeable. Together, our three variables suggest Mara is unique enough to be protected against works as close as D’s.

In *Carol Barnhart*, P’s torsos were straightforward representations of average, lean torsos with generic contours.¹⁹⁹ Together, our three variables suggest that P’s torsos, especially the nudes, were not unique enough to be protected even against works as close as D’s. P’s torsos include little added complexity. Their contours ***365** seem to lack novelty-somewhere in the world there were already indistinguishable contours on a mannequin, doll, statue, mold, or other depiction of a body, shirt or blouse. The only salient added complexity seems to be the combination of these contours with a hollow back, and only then if hollow backs were not already widely known in the industry.

While the inclusion of a hollow back may provide some added complexity, it reduces the number of viable alternatives. Hollow backs have distinct, predictable advantages: they economize on material, on weight, and on costs of manufacture and shipping. They are also more maneuverable and can be stacked, which economizes on costs of use, storage, packing, and packaging. Another reason to think there are few viable alternatives to P’s torsos is that clothing must fit them, which means they must approximate the average size and shape of human torsos.²⁰⁰ The torsos contoured to resemble a shirt and blouse have more viable alternatives than the nude torsos, but the number still seems low.

The number of contenders also seems higher than in *Pivot Point*. The market for clothing displays is larger and more foreseeable and the skill required to independently create torsos like P’s seems lower than the skill required to independently create a mannequin head like Mara.

We can likewise distinguish *Kieselstein-Cord v. Accessories by Pearl*²⁰¹ from *Brandir v. Cascade*.²⁰² In *Kieselstein*, P’s work was a highly stylized belt buckle sold at high-fashion jewelry stores and that had been included in museum collections.²⁰³ P

sued D for selling a similar buckle.²⁰⁴ The appellate court protected P's buckle, rejecting D's argument that its aesthetic features were inseparable from its utilitarian features that served its utilitarian function of holding up pants.²⁰⁵

Contrary to the court's reasoning in Kieselstein, it is not clear that the unique features of P's buckle are separable from the utilitarian features. From a photograph *366 of P's buckle²⁰⁶ it appears that at least some of the unique features are seamlessly intertwined with and reinforce the structural integrity of the non-unique features.

The underlying reason P prevailed in Kieselstein was that P's buckle was sufficiently unique.²⁰⁷ In terms of our three variables, P's buckle had high added complexity, many viable alternatives, and few contenders with the skill and foresight to create the particular design. Thus anyone who independently created a buckle (e.g., created a buckle without knowledge of P's) would be unlikely to create one that resembled P's as much as D's did.

In Brandir, P's work was the "Ribbon Rack," a bike rack consisting of a metal tube undulated from end to end like a series of waves (sinusoidal).²⁰⁸ P sued D for selling a very similar bike rack.²⁰⁹ The appellate court held that P's rack was unprotected because its aesthetic features were inseparable from its utilitarian features and function.²¹⁰

The underlying reason P lost in Brandir was that P's rack was not unique; specifically, it was repeatable. Had P never invented a sinusoidal bike rack, it is not unlikely that someone else eventually would have. Again, consider our variables. The added complexity in P's rack consists solely of the combination of a bike rack and a basic sinusoid shape. As separate elements, they clearly lack novelty. Bike racks are commonplace and the sinusoid, like other unprotectable basic shapes,²¹¹ is ubiquitous in art, nature, and technology.

The number of viable alternatives to a sinusoidal rack is low because a sinusoidal rack provides benefits other shaped racks do not. Compared with a cornered rack, for instance, a sinusoidal rack is more durable, lacks sharp edges, and can be made of a single metal tube in a few steps with few or no welds, bolts or brackets. A sinusoidal rack also fits bikes alternately over the troughs and under the adjacent crests, thereby supporting and separating each bike along its entire height and on *367 both sides. This shape allows for twice the storage of conventional racks and accommodates all types of bikes and mopeds.²¹² Insofar as a sinusoidal rack best provides these benefits, the path toward a sinusoidal rack is a path upon which others could plausibly converge.

Likewise, the number of contenders in Brandir is relatively high. The market for bike racks is large and known, and a sinusoidal rack can be made in one step by heating a pipe and thus requires no great skill or resources.

We are now in a position to solve the main puzzles surrounding the useful article doctrine. The first puzzle concerns the statute's definition of a useful article as "an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information."²¹³ Why does the statute define a useful article as excluding a work that merely conveys information or portrays its own appearance? Lack of usefulness is not the reason. Many copyrightable works that merely convey information or portray their own appearance are plenty useful. Some are even useful in a way we are apt to label as utilitarian: blueprints, technical manuals, dictionaries, textbooks, encyclopedias, and architectural models.

The underlying reason the statute defines a useful article as excluding a work that only conveys information or portrays its own appearance is that, as a rough rule of thumb, such a work is likely to be unique more or less from its top to its bottom. Such a work is likely to be unique from its top to its bottom because there tend to be many alternative ways (viable alternatives) to convey information about or to portray any given subject and because such a work often has relatively high added complexity. So, as a rough rule of thumb, the odds are low that more than one creator would independently convey the same information about the same thing in the same way,²¹⁴ or independently portray the appearance of the same thing in the same way.

Works that courts and commentators have labeled as useful articles are sculptural (three-dimensional) works with a large proportion of non-unique features, non-unique because they are dictated by mechanical principles and because they serve well-defined and common needs, which translates into relatively low added complexity, few viable alternatives, and many contenders. For example, much of a belt buckle consists of non-unique features, including an opening for a belt, a tongue, and a tongue swivel. These features are dictated by mechanical principles and serve the well-defined and common need of securing a belt and holding up pants. Hence a court would neither automatically protect a belt buckle nor protect *368 it in its entirety. Instead, a court would protect only those features of a belt buckle, if any, that are unique.

Unfortunately, the copyright statute does not explicitly instruct courts to protect only the unique features of a useful article. Instead, it instructs courts to protect only the pictorial, graphic or sculptural features that are separable from the utilitarian features.²¹⁵ The statute's language does not faithfully capture the case law it was meant to codify. For example, the term "utilitarian" is somewhat misleading. The term "mechanical" seems to better capture the case law. In most cases, mechanical features are non-unique, because they are constrained by shared reality: the laws of physics, requisites of safety and compatibility, costs of production, and by longstanding demand for specific solutions to defined problems.²¹⁶ Yet, in some cases the work seems unique even though its features seem mechanical. One example is *Lanard v. Novelty*, in which the court protected features of a flying toy that helped it fly and that helped the user to operate it.²¹⁷

The statute distracts and confuses courts.²¹⁸ It should not instruct them to determine whether a work's pictorial, graphic or structural features are separable from its utilitarian features.²¹⁹ It should simply instruct courts to protect only those features ***369** of a work that are expressive or, better yet, unique. This, in the end, is what courts do anyway.

Some of the so-called separability tests look to the number of alternatives to the work.²²⁰ This makes sense for two reasons. First, looking at alternatives is not wholly inconsistent with the statutory language. When we can imagine separating a feature from the work, we implicitly imagine alternatives standing in for the separated feature. The more readily we can imagine such alternatives, the more separable the feature appears.

Second, and more importantly, the number of viable alternatives is a respectable measure of the uniqueness of useful articles and of other works-- such as computer programs--²²¹ that are often constrained by shared reality.

So, should we rely exclusively on the number of viable alternatives to assess the copyrightability of useful articles and other works that are frequently constrained? Probably not. Some works that seem fully constrained by shared reality may not be. Consider a work that is mechanical but whimsical, such as a Rube Goldberg Machine²²² or P's flying toy in *Lanard*. At first glance, P's flying toy seems constrained by shared reality in that its features efficiently exploit physical principles. On closer inspection, its sheer existence--the decision to make this type of flying toy in the first place--does not seem inevitable. Even once that decision is made, the particular shape and size of the toy do not seem inevitable.²²³ Had P never created this particular toy, it seems that no one else would have ever independently created an indistinguishable flying toy. Hence P's toy is probably unique enough for thin protection.

Granted, we might conclude that the *Lanard* toy is protectable even if we consider only the number of viable alternatives. But what counts as a viable alternative ***370** is not always clear and not all viable alternatives are equally likely.²²⁴ It is helpful to also consider the number of contenders. The number of contenders is relatively low in *Lanard* because few independent creators in the toy industry would foresee that creating that particular design--with its particular shape and size--would exceed the opportunity costs of creating a different flying toy.

B. Names, Titles, Phrases, and Other Small Works

Size matters in copyright law.²²⁵ Courts tend to reject claims that very small works merit protection and that very small portions of larger works merit protection independent of the larger works.²²⁶ When withholding protection for very small works ("microworks"²²⁷), courts find them to be unoriginal or uncreative²²⁸ or they invoke the idea-expression dichotomy, the merger doctrine, or the scènes à faire doctrine.²²⁹ This makes sense because smallness correlates with lack of uniqueness.²³⁰

Microworks tend to be non-unique because they tend to have low added complexity, few viable alternatives, and many contenders.²³¹ Consider an answer key for a multiple choice exam with 50 questions, each having one of five possible answers--A, B, C, D, or E. The key is a mere list of 50 numbers paired with 50 letters: 1. D, 2. B, 3. C, and so on. Each answer by itself is a very non-unique microwork that takes one of five alternative forms. For example, "2. B" is very non-novel and ***371** very repeatable. In contrast, the whole key--50 sequential numbers each paired with one of five alternative forms--is very unique. The whole key (a "macrowork") takes one of up to 5^{50} alternative forms.

Yet, some microworks are unique.²³² It is very unlikely that more than one creator would independently create the word "supercalifragilisticexpialidocious," or the name Moon Unit Zappa, or the title *I Heart Huckabees*, or the line "'Twas brillig, and the slithy toves."²³³

Copyright may or may not protect a unique microwork.²³⁴ Copyright withholds protection for a unique microwork when it is

dominant.²³⁵ Names and titles are usually dominant; they get locked in by path dependence and network effects.²³⁶ Further, their social value depends on inputs other than their creators' contribution, specifically, on others learning and using those names and titles--and only those names and titles--to refer to the persons and things named and titled.²³⁷

Unique names and titles are as dominant as non-unique names and titles. Whether or not unique, allowing people to freely use them tends to be efficient. The same holds for slogans that serve as designators in the way names and titles do.²³⁸ Hence the Copyright Office prohibits registration for names, titles, and most short phrases²³⁹ regardless of whether they are "novel or distinctive."²⁴⁰

Even if a microwork is unique and non-dominant, copyright withholds protection when protecting it would generate transaction and administrative costs that seem to well exceed any harm caused by D's unauthorized use.²⁴¹ Using P's *372 microwork tends not to harm P much. Seldom does it cost P much to create a microwork and seldom does a microwork serve as a market substitute for P's macrowork. Furthermore, in most cases we cannot say D would have licensed the microwork from P had D believed he would be held liable for using it without permission. In most cases, D would simply forego use of the microwork rather than incur the transaction costs to get permission.²⁴²

For example, in *Murray Hill v. ABC*,²⁴³ a radio station borrowed from P's movie the line, "This is JP on the JR in the AM. Have a swell day."²⁴⁴ The court held the line unprotectable, saying it had merged with the idea or information it conveyed and that it was constrained by the need to convey "whose morning show, what radio station, and what time."²⁴⁵ The court's reasoning suggests the line is repeatable, but it may not be. Another creator would be very unlikely to independently create the line verbatim. Murray may be an example of a case in which the verbatim work, though unique, is denied even thin protection because the work is so trifling that the costs of protecting it exceed the benefits.

Copyright protects microworks when they are unique, non-dominant and when protection does not generate excessive transaction or administrative costs. For example, copyright protects some short phrases despite the Copyright Office's ostensible prohibition against them. In *Foxworthy v. Custom Tees*,²⁴⁶ P's calendar included 365 one-line jokes all beginning with the phrase "You might be a redneck if . . ."²⁴⁷ The court implied each joke was protected²⁴⁸ and held D liable for copying 11 of them onto 11 T-shirts.²⁴⁹ Other cases in which courts have expressed willingness to protect unique microworks include *Heim v. Universal Pictures*,²⁵⁰ *Warner Bros. v. American Broadcasting*,²⁵¹ *Narrell v. Freeman*,²⁵² and *Life Music v. Wonderland Music*.²⁵³

*373 The sound recording right, a product of acute political compromise,²⁵⁴ is the exception that corroborates the rule that small works are less unique and thus receive less protection than large works. The size of sound recordings matters less. To be sure, a one-second sample of a sound recording is less likely than a one-minute sample of the same sound recording to be unique, to be readily distinguishable from all independently created sound recordings in the past and future. However, under current law, the degree to which copyright protects a sample does not track the degree to which the sample is unique. The sound recording right, as defined in the statute, always affords very thin protection. It protects sound recordings only against the most direct form of copying-mechanical re-capture of "the actual sounds fixed in the recording."²⁵⁵ An owner of a sound recording right cannot through that right prevent less direct copying, such as close imitation.²⁵⁶

So defined, the sound recording right does not conform to my theory of uniqueness. Still, where they can the courts protect samples in a way that conforms to some of the policy rationales for uniqueness.²⁵⁷ Courts are more willing to protect small samples of sound recordings than other works (or portions thereof) that are equally small.²⁵⁸ This disparity probably makes sense. When courts protect small samples, they protect them only against mechanical re-capture and never against imitation or non-mechanical copying. In this sense, protection for small samples is thinner. Courts can partially compensate for this thinner protection by protecting very small samples. Compensation is not problematic because we need not worry that a small sample lacks uniqueness-because we never protect it against independent creators.

*374 Also, a small sample would be very hard pressed to become dominant-in part because others are free to imitate it. In addition, freedom to imitate implies that transaction costs less often justify letting D off the hook for copying a small sample. After all, if D faced high transaction costs to license the sample, D could avoid them by just imitating it. Thus courts can assume D's transaction costs are capped at D's cost of imitating. The smaller the sample, the smaller D's costs of imitating. Further undermining the transaction costs rationale for withholding protection for small samples is that some of them, such as catchy guitar riffs, are valuable despite their smallness.

C. Idea-Expression Dichotomy

An “idea” is a term of art²⁵⁹ in copyright that refers to a pattern so far abstracted²⁶⁰ from P’s work that either it is too simple²⁶¹ to be unique--it could likewise be abstracted from the work of someone (in the past, present or future) who *375 did not copy from P--or it is too simple to be valuable enough to outweigh the transaction and administrative costs²⁶² of protecting it.

Imagine you are a copyright lawyer and a client tells you he is producing a movie in which a prairie dog meets a seahorse on Pluto. The notion of a prairie dog meeting a seahorse on Pluto comes from a book he read to his child. The client would rather not seek a license from the book’s author. He assures you that his movie takes nothing else from the book and that the prairie dog and the seahorse in the movie differ greatly from the prairie dog and the seahorse in the book.

After perusing the book and the movie screenplay, you decide he is correct that the movie takes nothing else from the book and that the characters differ greatly. Can you immediately conclude with confidence that if the book author sues she will lose her *prima facie* case against your client? Perhaps not. The reason to hesitate is that “prairie dog meets seahorse on Pluto” is a unique pattern that would appear only in the work of someone who copied from P.²⁶³

Now imagine your client has decided against producing that movie in favor of a movie in which a boy meets a girl at a dance. You recall that a boy meets a girl at a dance in the same book in which a prairie dog meets a seahorse on Pluto. After perusing the new screenplay and re-perusing the book, you decide that the movie takes nothing else from the book and that the boy and the girl in the movie differ greatly from the boy and the girl in the book. Can you immediately conclude with confidence that if the book author sues she will lose her *prima facie* case against your client? Yes, because “boy meets girl at a dance” is clearly a non-unique pattern that has appeared and will appear in the work of many creators who did not copy from P.²⁶⁴

Although “prairie dog meets seahorse on Pluto” is unique, whether a court would actually protect it by holding D liable for damages is another question. Copyright *376 withholds protection for a unique work if protecting it would generate transaction or administrative costs that seem to exceed the benefits. There is nothing inherently compelling or fitting about “prairie dog meets seahorse on Pluto.” It poses no clear advantage over other random pairings such as “frog meets polar bear in volcano.” Given the low value of “prairie dog meets seahorse on Pluto,” it seems the transaction costs to get permission to use it would exceed the value of using it, which suggests a court is likely to let D off the hook, either by labeling the pattern an unprotectable idea, finding it insufficiently original, finding D’s use fair or *de minimis*, or finding no substantial similarity between D’s work and P’s.

D. Merger of Idea and Expression

There is no important difference between the idea-expression dichotomy and the merger doctrine. Merged expression--expression that has merged with an idea--is a term of art for a pattern that is not unique or not valuable enough to justify protection despite the fact that the pattern is relatively detailed because it includes elements in (or only slightly abstracted from) P’s verbatim work.

The conventional view is that the idea-expression dichotomy differs from merger in that the idea-expression dichotomy turns on whether the work constitutes idea or expression, whereas merger turns on whether the idea or goal behind the work can be conveyed or achieved through alternative expressions.²⁶⁵ This view is incomplete. Both the idea-expression dichotomy and merger turn on whether the pattern in question is unique and non *de minimis*. The conventional view implies that merger turns solely on viable alternatives, but, even when there are no viable alternatives, courts do not always find merger. Again, for example, there are usually no viable alternatives to footage of spontaneous events, yet no court has held that such footage merges with the event it records.²⁶⁶

Like the other limiting doctrines, merger turns on all three variables. Indeed, cases in which courts find that expression has merged with idea appear to be cases in which relatively high added complexity is offset by a low number of viable alternatives and/or a high number of contenders.

Consider *Morrissey v. Procter & Gamble*.²⁶⁷ P was in the business of devising games and contests.²⁶⁸ The work in question consisted of P’s straightforward *377 instructions for a product box-top sweepstakes.²⁶⁹ D’s instructions were identical in parts and very similar overall, differing mainly in that they referred to D’s product and used more standard grammar.²⁷⁰ The

appellate court held P's expression was so straightforward that it merged with the unprotectable sweepstakes idea.²⁷¹

Independent creation of similar instructions seems plausible here because P's instructions are simple, straightforward, and foreseeably valuable. Simplicity, efficiency,²⁷² and foreseeable value constitute--especially in combination--a path of least resistance on which others could converge. Or, speaking in terms of our three variables, we might say that the relatively high added complexity of the work was outweighed by its low number of viable alternatives and moderately high number of contenders.

More relevant than whether someone could independently create instructions similar to P's is whether someone could independently create instructions not readily distinguishable from P's. If no one could create the latter, P's instructions are unique, albeit marginally so. Morrissey may be a case in which the work is unique but not valuable enough to justify the costs of protecting it.

Suppose instead that P had composed his sweepstakes instructions in the form of a colorful and circuitous limerick. Suppose also that D's instructions were as similar to P's limerick as D's instructions were to P's straightforward instructions in the unaltered version of Morrissey. D would be liable in the altered version because P's limerick would seem unique and valuable enough to justify the costs of protection.

E. Fact-Expression Dichotomy

The courts assert that facts--by which they mean representations of facts--²⁷³ cannot be copyrighted.²⁷⁴ That assertion is wrong.²⁷⁵ Representations of facts can *378 be copyrighted when they are unique. At other times, courts and commentators emphasize that it is only representations of "discovered facts,"²⁷⁶ "historical facts,"²⁷⁷ or "hard facts,"²⁷⁸ (what I call "accurate facts") that cannot be copyrighted. That, too, is wrong. Representations of accurate facts can be unique. Raw footage of a spontaneous real world event, for example, is unique and protectable though it represents accurate facts. More generally, representations of accurate facts are unique when they derive from P's unique access to accurate facts. Hence, an accurate list of your 100 favorite movies is unique and protectable though it represents the accurate fact that those are your 100 favorite movies.

There are four things that stymie our recognition that some representations of accurate facts are protectable because they are unique. One is the inexplicable willingness of courts and commentators to ignore the factual nature of some works that are clearly protectable (e.g., event footage, or an accurate list of one's 100 favorite movies).

Another is that unique works that represent accurate facts are more likely than other unique works to be dominant and thus unprotectable despite being unique.²⁷⁹ Consider Feist. There, P's phonebook listings were unique; apparently, P created all of the phone numbers independently,²⁸⁰ not just the fake seed numbers.²⁸¹ The *379 phone numbers were not "preexisting" facts; they were created facts-works.²⁸² Presumably, they were also arbitrary, or the manner in which they were assigned to particular individuals was arbitrary, or at least the initial starting number was arbitrary. When the numbers and names were aggregated, the resulting listings were highly complex. Hence no one could ever independently create the same listings. If a phone company other than Rural had created and assigned phone numbers from scratch, everyone in the area would have ended up with a number different from the one Rural assigned them.²⁸³

P in Feist lost because P's unique listings were dominant,²⁸⁴ dominant for the same reasons names, addresses, and arbitrary part numbers are dominant. Phone numbers are cheap to create and assign and they get locked in. Indeed, their value derives from lock-in and from investments others make in learning and using them.

The third and greatest obscurant to seeing that some representations of accurate facts are unique is simply that a great many representations of accurate facts are not unique. Many are constrained by shared reality and thus have few viable alternatives²⁸⁵ and numerous contenders. These constrained works stand in stark contrast to works that include fictions, inaccuracies, or errors (especially random as opposed to systematic ones²⁸⁶). The latter works deviate from shared reality and *380 therefore usually have many viable alternatives²⁸⁷ (including other inaccurate works as well as accurate works) and few contenders (because no independent creator is likely to be motivated to create P's particular fictions, inaccuracies, or errors).

Consider Einstein's E=MC², which also implicates the idea-expression dichotomy because it is a pattern abstracted from nature. Though a product of genius, this equation is not unique and thus not protected by courts.²⁸⁸ Not only could

independent creators have later formulated mass-energy equivalence as $E=MC^2$, one independent creator, Italian scientist Olinto de Pretto, did so several years before Einstein.²⁸⁹ Furthermore, this equation has no viable alternatives because it cleared the view toward nuclear weapons and because it resolves what would otherwise be lingering puzzles in theoretical physics.²⁹⁰

A work that aims to represent accurate facts but falls short might be described as representing “soft facts,” but it seems clearer to describe such a work as representing “estimates.” Works that represent estimates are both more likely to be unique and less likely to be dominant than works that represent accurate facts tightly constrained by shared reality.

Consider the following excerpts from lists of values of U.S. coins.

B. From a list of the values of U.S. coins in current circulation: “A nickel is worth five cents.”

C. From a list of estimated values of U.S. collectible coins: “A 1924 Denver Mint buffalo nickel in fine condition is worth \$16.09.”²⁹¹

***381** Excerpt A, which represents an accurate fact, is non-unique.²⁹² Independent creators could include--indeed, have included--²⁹³ the same statement in their own work.

Excerpt B, which represents an estimate, is probably unique. Other independent creators of collectible coin valuations are very unlikely to report a value of \$16.09 for a 1924 Denver Mint buffalo nickel in fine condition. Although B has little added complexity, it has many viable alternatives and relatively few contenders. B has many viable alternatives because it is not tightly constrained by a stable, shared reality²⁹⁴ and because alternative valuations (e.g., \$15.68 or \$17.02) are readily distinguishable. Other estimates for this coin are unlikely to converge on \$16.09 because the values of the inputs on which such estimates are based are in constant flux, because different estimators use different inputs, assumptions and methods,²⁹⁵ and because the inputs, assumptions and methods that lead to \$16.09 are unlikely to be manifestly superior²⁹⁶ to those that lead to \$15.68, \$17.02, and so ***382** on. This is especially true of estimates for collectibles, because their values depend not on any intrinsic utility, but on speculation about the expectations of others.²⁹⁷

Even if B were not unique standing on its own, the aggregation of B with other parts of the list from which it came clearly is. As discussed earlier, sub-elements of works are not unique in isolation.²⁹⁸ Uniqueness emerges when sub-elements aggregate to form elements and elements aggregate to form salient features of the work. For work just unique enough to be copyrightable, uniqueness emerges only when all elements aggregate to form the entire work verbatim.

Consider maps. Much of the content of the typical map is unprotectable.²⁹⁹ In the past, geographical maps were more unique because they were more inaccurate, but even then a map’s uniqueness emerged in large part from aggregation of non-unique elements.³⁰⁰ Today, most geographical maps contain few to no individual elements that are unique on their own. For these maps, uniqueness must emerge wholly from aggregation of non-unique elements to form a unique medley of highlights and omissions.³⁰¹

Yet, it is not accuracy per se that creates for these maps an uphill battle for protection. They face an uphill battle because they are accurate about things other map-makers can likewise be accurate about. In contrast, if P creates an accurate map of something to which no one but P will ever have access, P’s map is unique no matter how accurate it is. Consider a map to P’s buried treasure that includes specific directions from or to a non-addressed location.

A detailed fictional map, such as Tolkien’s map of Middle Earth, is probably the most unique kind of map. It may possess some individual elements that are ***383** unique standing on their own. In any event, it will likely emerge as unique well before all of its elements fully aggregate to form the entire work verbatim.

In sum, four types of maps tend to be unique:

(i) estimated maps,

(ii) fictional maps,

(iii) maps that accurately represent things accessible to others but that include evitable highlights and omissions, and

(iv) maps that accurately represent things accessible only to P.

A type (i) map is likely to be a one-of-a-kind because it is not tightly constrained by shared reality or by a reality exclusive to P. No independently created map of the same thing is likely to be inaccurate in the same way.³⁰² A type (ii) map is likely to be a one-of-a-kind for the same reasons a type (i) map is, only more so. A type (iii) map is likely to be a one-of-a-kind because, although some of its elements are tightly constrained by shared reality, some of its highlights and omissions are not.³⁰³ A type (iv) map is likely to be a one-of-a-kind even if tightly constrained, so long as it is tightly constrained by a reality exclusive to P.³⁰⁴

Compare maps to biographies. The vast majority of accurate biographies are analogous to maps of type (iii).³⁰⁵ Suppose Jones plans to write a biography of Napoleon.³⁰⁶ Many biographies of Napoleon have been written and Jones wants to do more than retell in his own words the same series of already-known tales about the Emperor. Jones decides instead to describe a handful of less famous tales in great detail, to summarize others, to pass over others entirely, and to deviate now and again from chronological order.

Suppose Smith reads Jones's biography and then writes a biography that tells, in Smith's own words, the same tales Jones told, with the same degree of emphasis and in the same order. Will a court find Smith to be an infringer? Yes. Had Smith written a biography without first reading Jones's, Smith's biography would have been much less similar to Jones's. More to the point, anyone who writes a biography *384 of Napoleon independent of Jones's is very likely to write one that differs from Jones's more than Smith's does.

Accurate autobiographies are analogous to maps of type (iv). Accurate autobiographies represent some accurate facts that could never be represented by anyone but the autobiographer. When facts are exclusive to P, so that no one else could independently represent them, the number of contenders is zero. This implies that, if all other things are equal, accurate autobiographies are protected³⁰⁷ more thickly than equally accurate biographies.³⁰⁸

The fourth obscurant to realizing that some representations of accurate facts are protectable because they are unique is the apparently persistent but varying influence³⁰⁹ of the sweat of the brow doctrine.³¹⁰ Sweat--effort, skill or resources--is significant not only for its own sake but also because it correlates with the number of contenders. High sweat correlates with few contenders (and thus with uniqueness) because, the more sweat required to create the work, the lower the number of independent creators with the ability and motivation to create it.³¹¹ Conversely, low sweat correlates with many contenders and thus with non-uniqueness.

But this correlation is weak and unreliable. A bystander's event footage requires low to no sweat yet has no contenders. For other factual works, high sweat can translate into many contenders rather than few. When high sweat increases the accuracy of a work--by making it conform more closely to shared reality--high sweat thereby increases the number of other parties who could independently converge *385 on the same work.³¹² In addition, some work that requires high sweat promises very high reward, thereby ensuring that other creators will be motivated to cultivate the skill and obtain the resources to create the work. For example, a work that accurately represents a stable object would require high sweat if the object were very large (e.g., the earth) or very small (e.g., an atom) or if the method of recording were very high tech.³¹³ Yet, the foreseeable value of the work could well exceed the high sweat needed to create it, ensuring many contenders over the long run.

V. Conclusion

Others have observed that there is some common substratum that underlies seemingly disparate copyright doctrines.³¹⁴ Uniqueness is that common substratum, or at least a close heuristic for it. Originality is a rough heuristic. Originality is over-inclusive in that some original work is uncopyrightable. Consider, for example, a colorful turn of phrase independently created by plaintiff.³¹⁵ Though original, the phrase is unlikely to be unique and thus unlikely to be protectable. Where originality is over-inclusive, courts withhold protection via a limiting doctrine or a finding of no infringement.

Originality is under-inclusive in that some unoriginal work (specifically, some non-creative work) is copyrightable. The clearest example is raw footage of a spontaneous event captured by a bystander. When such non-creative work is unique, courts simply declare it creative. That is, they resort to legal fiction.

The current patchwork unduly multiplies doctrine and produces puzzles and paradoxes that distract, confuse, and increase uncertainty about copyright ownership and enforceability. We are puzzled to see limiting doctrines overlapping not only each other but also originality and substantial similarity, also overlap each other. We read dubious assertions about creativity in the case law, for example, that footage taken from a helicopter during the Los Angeles riots is creative. We are puzzled by the mismatch between the (at best) minimum creativity of such footage and the fairly robust protection it receives. This leads some to conclude that the sweat of the brow doctrine must be doing heavy work behind the scenes, but then *386 what to make of cases in which footage captured without sweat is still protected? We also witness inconsistency surrounding the issue of novelty. Some courts say copyright requires no novelty at all. Others say copyright requires no striking novelty. In any event, courts never actually hold defendant liable for damages when plaintiff's work lacks appreciable novelty. Most puzzling of all is the useful article doctrine, for which more than ten tests have been proposed, none of which are reliable.

We can solve these puzzles and streamline doctrine by focusing directly on uniqueness. A work is unique if it is a one-of-a-kind: a work that no one created before (novel) and that no one could independently create after (unrepeatable). A work is novel and unrepeatable when it is (at least modestly) complex and either unconstrained or uniquely constrained.

Why is uniqueness the touchstone for copyright? It makes no sense to protect work that lacks novelty. What would be the point of inducing the re-creation of work that already exists? There is a point to inducing the creation of novel but repeatable work--to get it sooner rather than later--but patent protection better suits such work. Patent law economizes on the costs of protecting repeatable work, such as duplication of effort and problems of proof.

Copyright arises automatically and lasts a long time and is thus a liberal form of protection. Liberal protection suits unique work. For unique work there is no such thing as duplication of effort--by definition, no one can independently duplicate unique work. Unique work also generates few proof problems, because the evidence usually points straight to its true creator. Another reason to protect unique work more liberally is that we get only one chance to incentivize its creation. If we fail to incentivize the one and only creator who can create it, it is lost to the world forever.

Footnotes

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¹ 17 U.S.C. § 102(a) (2006).

² *Feist Publ'n, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991). See also *L. Batlin & Son, Inc. v. Snyder*, 536 F.2d 486, 489-90 (2d Cir. 1976) (quoting 1 Melville B. Nimmer & David Nimmer, *The Law of Copyright* §10, at 32 (1975)) ("[T]he one pervading ... prerequisite to copyright protection' ... is the requirement of originality—that the work be the original product of the claimant.").

³ *Feist*, 499 U.S. at 346.

⁴ See, e.g., *Dymow v. Bolton*, 11 F.2d 690 (2d Cir. 1926) (equating idea-expression dichotomy with merger); *Whelan Assoc., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222, 1236 (3d Cir. 1986) (equating idea-expression dichotomy both with merger and with useful article doctrine); Edward Samuels, *The Idea-Expression Dichotomy in Copyright Law*, 56 Tenn. L. Rev. 321, 386 (1989) ("[S]ome of the cases which have held that scènes à faire... are not copyrightable based their reasoning upon the theory that the expression of stock scenes is merged with their idea."); *id.* at 440 (useful article doctrine "might be viewed as a subset of a more generalized idea-expression dichotomy"); Alan L. Durham, *Speaking of the World: Fact, Opinion and the Originality Standard of Copyright*, in *Intellectual Property Protection of Fact-based Works: Copyright and Its Alternatives* 133, 142 (Robert F. Brauneis ed., 2009) (mentioning that courts sometimes treat idea-expression and fact-expression dichotomies as a unitary principle); Richard

H. Jones, The Myth of the Idea/Expression Dichotomy in Copyright Law, 10 *Pace L. Rev.* 551, 570 n.100 (1990) (listing cases relating scènes à faire doctrine to idea-expression dichotomy); Thomas M. Byron, Tying Up Feist's Loose Ends: A Probability Theory of Copyrightable Creativity, 7 *Wake Forest Intell. Prop. L. J.* 45, 51 (2006) ("Like merger, scènes à faire is predicated on the limited number of permutations that a work may assume within its general genre."); Justin Hughes, Created Facts and Their Awkward Place in Copyright Law, in *Intellectual Property Protection of Fact-based Works: Copyright and Its Alternatives* 186, 194 (Robert F. Brauneis ed., 2009) (arguing that when judges and copyright scholars say facts are not protected, they are subconsciously applying merger doctrine).

⁵ Baker v. Selden, 101 U.S. 99 (1880).

⁶ See, e.g., Mazer v. Stein, 347 U.S. 201, 217 (1954) (characterizing Baker v. Selden as standing for idea-expression dichotomy); Samuels, *supra* note 4, at 326 ("The idea-expression dichotomy in America is said to have originated in the United States Supreme Court case of Baker v. Selden.").

⁷ See, e.g., Baker, 101 U.S. at 103 ("[W]here the art [that P's book] teaches cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public."); Samuels, *supra* note 4, at 329 ("The Court in Baker invoked a merger theory by focusing upon the utilitarian or practical nature of the original work."). See also William M. Landes & Richard A. Posner, *The Economic Structure of Intellectual Property Law* 97-104 (2003) (discussing Baker v. Selden in context of merger, idea-expression dichotomy, and fact-expression dichotomy); Miriam Bitton, Feist, Facts and Functions: Historical Perspective, in *Intellectual Property Protection of Fact-based Works: Copyright and Its Alternatives* 3, 16 (Robert F. Brauneis ed., 2009) ("Baker v. Selden represents the beginning of the modern fact/expression dichotomy.").

⁸ Cf. Whelan Assocs., Inc., 797 F.2d at 1236 (with reference to Baker, equating idea-expression dichotomy both with merger doctrine and with useful article doctrine); Durham, *supra* note 4, at 147 (Baker gave rise to a "process-expression dichotomy").

⁹ Baker, 101 U.S. at 107 ("[B]lank account books are not the subject of copyright"); Roger E. Schechter & John R. Thomas, *Principles of Copyright Law* 45 (West 2010) ("Baker is also considered to be the genesis for the prevailing rule today that blank forms are not copyrightable subject matter.").

¹⁰ Brandir Int'l, Inc. v. Cascade Pac. Lumber Co., 834 F.2d 1142 (2d Cir. 1987).

¹¹ See Samuels, *supra* note 4, at 386 ("[S]ome of the cases which have held that scènes à faire ... are not copyrightable based their reasoning upon the theory that the expression of stock scenes is merged with their idea. A better analysis would be that the stock treatments are not original"); *id.* at 427-28 ("Some of the originality cases contain language that also refers to the idea-expression dichotomy. Other originality cases seem to be based upon a purpose that overlaps with the purpose of the idea-expression dichotomy.") (footnotes omitted); *id.* at 437-38 (some of the works in Copyright Office's list of unprotectable works seem to lack sufficient originality, some seem to be works of utility, some seem to be ideas rather than expression, and some seem to be de minimis works); Jones, *supra* note 4, at 597 ("Short phrases, general plots and themes, scènes à faire, and other unprotectable expressions are generally unprotectable precisely because they usually do not evidence an original or creative writing."); *id.* ("The merger doctrine is invoked only with an uncreative statement or representation of an idea or fact."); *id.* at 598 ("Factual works are less open to protection only because they usually do not exhibit the requisite originality and creativity of expression."); Craig Joyce, et al., *Copyright Law* 122 (8th ed. 2010) ("Although it is sometimes viewed as a doctrine relating the scope of copyright protection, the idea/expression dichotomy has significant implications for the analysis of copyrightability in general (and originality in particular."); *id.* at 131 ("[N]ot infrequently, the [merger] doctrine has been applied by a court simply as a convenient way to administer the coup de grâce against protection for a work exhibiting dubious originality."); Michael Steven Green, *Copyrighting Facts*, 78 *Ind. L. J.* 919, 939 (2003) ("Many copyright cases that appeal to the idea/expression distinction could have been decided on the basis of a lack of [P's] independent creation."). See also *Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1157, 1168 (9th Cir. 1977) (suggesting that the more original P's work, the less likely the idea behind it will merge with its expression); Leslie A. Kurtz, Speaking to the Ghost: Idea and Expression in Copyright, 47 *U. Miami L. Rev.* 1221, 1255-60 (1993) (arguing that simple, unprotectable ideas are unoriginal because they are derived from experience and direct impressions of world surrounding author); *id.* at 1248 n.159 (ideas unprotected in cases are trite); Edward C. Wilde, Replacing the Idea/Expression Metaphor with a Market-Based Analysis in Copyright Infringement Actions, 16 *Whittier L. Rev.* 793, 802 (1995) (purpose of idea-expression "metaphor" is to distinguish between common and original).

¹² See 1 Melville B. Nimmer, Nimmer on Copyright § 2.03 [D] (1988) (The distinction between idea and expression is “not so much a limitation on the copyrightability of works, as it is a measure of the degree of similarity that must exist between a copyrightable work and an unauthorized copy, in order to constitute the latter an infringement.”) (footnotes omitted); Samuels, *supra* note 4, at 330, 407-13, 419-20; *id.* at 409 (“Probably the greatest number of cases that are improperly or unnecessarily described as idea-expression cases actually deal with, or could have been decided on the basis of, substantial similarity (or lack of substantial similarity) between two works.”); *id.* at 442 n.540 (“Many cases that appear to stand for the proposition that systems are not copyrightable depend to some extent, or could have been decided, on the basis of nonsimilarity.”); Jones, *supra* note 4, at 576-78 (explaining merger is a matter of degree; scope of protection tracks variety of alternative expressions available); William Patry, *Patry on Copyright* § 4.42 (2010) (like *scènes à faire*, merger, if applied at all, should be applied at infringement stage). See also *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1444 (9th Cir. 1994) (“[W]hen an idea and its expression are indistinguishable, or ‘merged,’ the expression will only be protected against nearly identical copying.”); *Reyher v. Children’s Television Workshop*, 533 F.2d 87, 90-91 (2d Cir. 1976), (combining language of merger, idea-expression, and *scènes à faire* with substantial similarity); *Herbert Rosenthal Jewelry Corp. v. Kalpakian*, 446 F.2d 738, 740-42 (9th Cir. 1971) (combining language of merger, idea-expression, and substantial similarity).

¹³ See Jones, *supra* note 4, at 601-02 (“The more markedly creative an expression is, the less of it that needs to be taken to find infringement.”); *id.* at 586 (“Saying that an alleged infringer did not take the expression of Mickey Mouse but took only the idea of a cartoon mouse is a jargon-filled and confusing way of stating that the alleged infringer’s drawing of a mouse does not capture the particular creativity embodied in Mickey Mouse.”); *Henkel KgaA v. Holdfast New Zealand Ltd.*, [2006] NZSC 102 (“In general terms the greater the originality, the wider will be the scope of the protection which copyright affords and vice versa.”); John Shepard Wiley, Jr., *Copyright at the School of Patent*, 58 U. Chi. L. Rev. 119 (1991) (three central elements of copyright doctrine-originality, idea-expression dichotomy, and infringement standards-are closely related placeholders for other considerations). See also *Hart v. Dan Chase Taxidermy Supply Co.*, 86 F.3d 320, 322 (2d Cir. 1996) (Calabresi, J.) (“[T]he merger inquiry asks whether all realistic fish mannequins ... will necessarily be ‘substantially similar.’ And only if this is so, is there no unique expression to protect under the copyright laws.”); *Crume v. Pac. Mut. Life Ins. Co.*, 140 F.2d 182, 183 (7th Cir. 1944) (remarking that matter of infringement is closely related to, if not actually dependent upon, extent of protection to which plaintiff is entitled); *Durham Indus., Inc. v. Tomy Corp.*, 630 F.2d 905, 908-15 (2d Cir. 1980) (basing holdings of unprotectability for some of P’s toys on lack of originality, for others on lack of substantial similarity, and for others under useful article doctrine); Robert A. Gorman, *Fact or Fancy? The Implications for Copyright*, 29 J. Copyright Soc’y 560, 560-61 (1982) (describing idea-expression dichotomy, substantial similarity, and fair use, and stating “[a]lthough there is a natural temptation to think of the three stages of copyright analysis-copyrightability, infringement, and defenses of privilege-as water-tight compartments, they are not; there is a common substratum of social policy under all three of these issues”).

¹⁴ See, e.g., *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130 (S.D.N.Y. 1987) (footage of Kennedy assassination captured by bystander’s planted camera is copyrightable); *L.A. News Serv. v. KCAL-TV Channel 9*, 108 F.3d 1119 (9th Cir 1997) (footage of beating of Reginald Denny during Los Angeles riots protected); *L.A. News Serv. v. Reuters Television Int’l, Inc.*, 149 F.3d 987 (9th Cir. 1998) (footage of Denny beating protected); *L.A. News Serv. v. Tullo*, 973 F.2d 791 (9th Cir. 1992) (footage of train wreck and plane crash protected); *Hyde Park Residence Ltd v. Yelland & Others*, [2000] EWCA (Civ) 37 (U.K.) (images captured by automated security camera protected; publication in newspaper not fair use). See also David McGowan, *Copyright and Convergence: A Pragmatic Perspective*, in *Intellectual Property Protection of Fact-based Works: Copyright and Its Alternatives* 233, 237 (Robert F. Brauneis ed., 2009) (asserting courts would protect footage of Rodney King beating captured by bystander George Holliday); *id.* at 246 (“At some point, we will have an iconic picture taken with a phone camera that gives its owner no choices to speak of at all; courts will still grant the owner rights.”).

¹⁵ *Id.* at 240 (“Many famous tapes [of spontaneous news events] involve nothing that deserves to be called creative at all, even in a trivial, Feist-ian sense.”); *id.* at 243-44 (discussing non-creative acts of those who captured footage of Kennedy assassination, Denny beating, and King beating); *id.* at 246 (The choices courts point to as sources of originality are “window-dressing,” and “the truth of the matter is that the originality requirement does not apply to camera operators [in these cases.”]). Cf. *Jewelers’ Circular Pub. Co. v. Keystone Pub. Co.*, 274 F. 932, 934 (S.D.N.Y. 1921) (Hand, J.) (positing that any photo is affected by personality but that, even if a photo were not, it would still be protected because personality is not a constitutionally mandated prerequisite for copyright protection).

¹⁶ *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991) (“To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice.”); *id.* at 359 (“There remains a narrow category of works in which the creative spark is utterly lacking or so trivial as to be virtually nonexistent.”); *CMM Cable Rep. Inc. v. Ocean Coast Props., Inc.*, 97 F.3d 1504, 1516 (1st Cir. 1996) (“[T]he threshold of creativity ... is very slight.”).

17 See McGowan, *supra* note 14, at 257 (“[T]he claim that creativity is a constitutional mandate seems hollow. What kind of constitutional mandate is it that makes courts announce a doctrine, only to proclaim in the next breath that we should not worry about it too much because in reality it has almost no teeth at all (as all courts do)?”).

18 See, e.g., *Feist*, 499 U.S. at 349 (“[C]opyright in a factual compilation is thin.”); Robert A. Gorman, *Copyright Courts and Aesthetic Judgments: Abuse or Necessity?*, 25 Colum. J.L. & Arts 1, 19 (2001) (courts routinely grant thin copyright protection for maps and functional works); *Jacobsen v. Deseret Book Co.*, 287 F.3d 936, 944 (10th Cir. 2002) (“Because fact-based works differ ‘as to the relative proportion of fact and fancy’ [ranging from ‘sparsely embellished maps and directories’ to ‘elegantly written biography’], the quantum of similarity required to establish infringement differs in each case.”); *A.A. Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 974 (2d Cir. 1980) (“[T]he protection afforded the copyright holder has never extended to history, be it documented fact or explanatory hypothesis.”). But see *Matthew Sag*, *Predicting Fair Use* (Aug. 12, 2011) (working paper), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1769130 (finding no evidence that a borrower of fact-based work is more likely to prevail under fair use than a borrower of fictional work).

19 See, e.g., *Feist*, 499 U.S. at 345 (“Originality does not signify novelty”); *Baker v. Selden*, 101 U.S. 99, 102 (1880) (“The copyright of the book, if not pirated from other works, would be valid without regard to the novelty, or want of novelty, of its subject-matter.”); *Johnson v. Donaldson*, 3 F. 22, 24 (Cir. Ct., S.D. N.Y. 1880) (“If each of two persons should compose a poem identically alike ... copyright would protect each in his own manuscript, but would not prevent either from using his own.”); *Sheldon v. Metro-Goldwyn Pictures*, 81 F.2d 49, 54 (2d Cir. 1936) (J. Hand) (“[I]f by some magic a man who had never known it were to compose anew Keat’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 Keat’s.”); *Mag Jewelry Co. v. Cherokee, Inc.*, 496 F.3d 108 (1st Cir. 2007) (novelty not required); *Jeffreys v. Boosey*, 10 Eng. Rep. 681, 703 (1854) (Erle, LJ) (“[I]f two authors composed originally with the same order of words, each would have a property therein”). See also 1 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 2.01[A] (2007) (separate copyrights would exist in each of two identical, independently created works); *Arnstein v. Edward B. Marks Music Corp.*, 82 F.2d 275 (2d Cir. 1936) (separate copyrights would exist in each of two identical, independently created works); *Schechter & Thomas*, *supra* note 9, at 22 (“The work need not be novel. That something identical or virtually identical to it already was created by another is simply irrelevant so long as the second party did not copy from the first. Originality, as a legal term of art, is not synonymous with novelty.”); *Merriam-Webster*, *Dictionary of Law* (1996) (Originality is “the quality or fact of being the product of individual creation that warrants copyright protection for a particular work regardless of novelty.”); H.R. Rep. No. 94-1476, at 51 (1976) (standard of originality “does not include requirements of novelty, ingenuity, or esthetic merit”).

20 *Lee v. Runge*, 441 F.2d 579, 581 (9th Cir. 1971) (“[N]either great novelty nor superior artistic quality is required.”) (quoting *Doran v. Sunset House Dist. Corp.*, 197 F. Supp. 940, 944, (S.D.Cal.1961) aff’d 304 F.2d 251 (9th Cir. 1962)); *Mattel, Inc. v. Goldberger Doll Mfg. Co.*, 365 F.3d 133, 135 (2d Cir. 2004) (“To merit protection from copying, a work need not be particularly novel or unusual.”); *Alfred Bell & Co. v. Catalda Fine Arts, Inc.*, 191 F.2d 99, 102 (2d Cir. 1951) (“[N]othing in the Constitution commands that copyrighted matter be strikingly unique or novel”).

21 See, e.g., *L. Batlin & Son, Inc. v. Snyder*, 536 F.2d 486 (2d Cir. 1976) (en banc) (Snyder’s replica of public domain “Uncle Sam” bank not different enough from it to be copyrightable); *id.* at 490 (“[I]n order to obtain a copyright upon a reproduction of a work ... the work [must] contain some substantial, not merely trivial originality” beyond the preexisting work.); *id.* at 492 (“To extend copyrightability to minuscule variations would simply put a weapon for harassment in the hands of mischievous copiers intent on appropriating and monopolizing public domain work.”); *Alfred Bell & Co.*, 191 F.2d at 102-03 (author must have “contributed something more than a ‘merely trivial’ variation, something recognizably ‘his own’”); *Bridgeman Art Library v. Corel Corp.*, 25 F. Supp. 2d 421 (S.D.N.Y. 1998), aff’d on reconsideration, 36 F. Supp. 2d 191 (S.D.N.Y. 1999) (holding P’s transparencies of public domain paintings uncopyrightable, likening them to photocopies and arguing that a finding of originality requires distinguishable variation beyond a mere change in medium from painting to transparency); *ATC Distr. Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 712-13 (6th Cir. 2005) (hand-drawn sketches of transmissions parts slavishly copied from photographs cut out of competitor catalogs fall short of “substantial variation” required for copyright); *Bucklew v. Hawkins, Ash, Baptie & Co., LLP*, 329 F.3d 923, 929 (7th Cir. 2003) (no originality present unless distinguishable from prior work); *Graceen v. Bradford Exch.*, 698 F.2d 300, 304 (7th Cir. 1983) (Posner, J.) (“[I]f the difference between [Mona Lisa] and A’s reproduction is slight, the difference between A’s and B’s reproductions will also be slight, so that if B had access to A’s reproductions the trier of fact will be hard-pressed to decide whether B was copying A or copying Mona Lisa itself.”). See also *Michael Green*, *Two Fallacies About Copyrighting Factual Compilations*, in *Intellectual Property Protection of Fact-based Works: Copyright and Its Alternatives* 109, 122-26 (Robert F. Brauneis ed., 2009) (distinguishable variation requirement helps prevent protection for works that could be independently created); *id.* at 123 (“It makes sense not to protect works that have very little added value, since the small economic benefits that result from encouraging their protection will be overridden by the transaction and enforcement costs.”); *Green*, *supra* note 11, at 935-36 (same); *Douglas Lichtman*, *Copyright as a Rule of Evidence*, 52 Duke L. J. 683, 706-07 (2003) (discussing evidentiary benefits of distinguishable variation); 1 Nimmer on Copyright §3.01, at 3-2, §3.03[A], at 3-10

(discussing requirement of distinguishable variation for derivative works).

²² See, e.g., *Laureyssens v. Idea Grp., Inc.*, 964 F.2d 131, 141 (2d Cir. 1992) (protection for P's work withheld where evidence suggested P independently created flat-to-cube puzzle that others had created before); *A.A. Hoehling*, 618 F.2d at 979 (scènes à faire uncopyrightable as a matter of law); 37 C.F.R. § 202.1(a) (familiar symbols or designs are uncopyrightable); *Joyce, et al.*, supra note 11, at 256 (using non-novel elements is less creative); *Alexander v. Haley*, 460 F. Supp. 40 (S.D.N.Y. 1978) (courts must filter out clichés and material traceable to common source or to public domain); *Designers Guild v. Russell Williams*, 3 FSR 113 (2001) n.19, P 39 (U.K.) (similarities may be disregarded if they are commonplace); *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 708-09 (2d Cir. 1992) (explaining that because efficient structure may be independently created by others, efficient structure should be filtered out during substantial similarity analysis); *Gaste v. Kaiserman*, 863 F.2d 1061, 1068-69 (2d Cir. 1988) ("[S]triking similarity between pieces of popular music must extend beyond themes that could have been derived from a common source or themes that are so trite as to be likely to reappear in many compositions."); *Dymow v. Bolton*, 11 F.2d 690, 691 (2d Cir. 1926); *Kurtz*, supra note 11, at 1236-37 and cites therein. Cf. *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 122 (2d Cir. 1930) (Hand, J.) ("Even so, granting that the plaintiff's play was wholly original, and assuming that novelty is not essential to a copyright, there is no monopoly in such a background.").

²³ See *infra* Part II.D.

²⁴ See, e.g., *Nichols*, 45 F.2d at 121 (Hand, J.) ("Upon any work ... 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 [work] 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"); Matthew J. Leary, *Welding the Hood Shut: The Copyrightability of Operational Outputs and the Software Aftermarket in Maintenance and Operations*, 85 B.U. L. Rev. 1389, 1415-16 n.132 (2005) ("Since at the highest level of abstraction there is nothing but the ideas of functions that the program will ultimately perform, there cannot be any copyright protection at that level").

²⁵ See *infra* Part IV.C.

²⁶ See *supra* notes Part I.A.3.

²⁷ *Nichols*, 45 F.2d at 121 (Hand, J.).

²⁸ See, e.g., *Justin Hughes, Size Matters (or Should) in Copyright Law*, 74 Fordham L. Rev. 575 (Nov. 2005); *Green*, supra note 21, at 121 ("[N]o individual component of any aggregate ... looks copyrightable in isolation.").

²⁹ See *Material Not Subject to Copyright*, 37 C.F.R. § 202.1(a) (1988) (excluding protection for names, titles and short phrases).

³⁰ See *infra* Part II.A (discussing *Ets-Hokin v. Skyy Spirits*, 323 F.3d 763, 766 (9th Cir 2003)).

³¹ For our purposes uniqueness is a matter of degree rather than an absolute or binary quality like pregnancy. See *infra* Part II.B.

³² See *supra* Part I.A.3.

³³ See *infra* Part II.D.

³⁴ See *Brandir Int'l, Inc. v. Cascade Pac. Lumber Co.*, 834 F.2d 1142 (2d Cir. 1987) (apparently novel bike rack unprotectable); *ATC Distr. Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 707-13 (6th Cir. 2005) (holding that portions of P's catalog independently created by P were virtually inevitable and thus unprotectable); *Computer Assocs. Int'l v. Altai, Inc.*, 982

F.2d 693, 708-09 (2d Cir. 1992) (because efficient structure may be independently created by others, efficient structure should be filtered out during substantial similarity analysis).

³⁵ See, e.g., *Lotus Dev. Corp. v. Borland Int'l*, 49 F.3d 807 (1st Cir. 1995), aff'd by an equally divided court, 526 U.S. 233 (1996) (discussed infra Part III); *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991) (discussed infra Part IV.E); *L.A. News Serv. v. CBS Broad., Inc.*, 305 F.3d 924 (9th Cir. 2002) (discussing fair use for D to incorporate a few seconds of P's footage of Reginald Denny beating in promotion of D's trial coverage); *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 146 (S.D.N.Y. 1987) (stating forensic use of 22 still frames from film of Kennedy assassination in serious book on the subject was fair use).

³⁶ See infra Part III and Parts IV.B, E and F.

³⁷ See infra Part IV.B and C.

³⁸ See infra Part IV.B; Hughes, *supra* note 28, at 575 (introducing term "microwork").

³⁹ On occasion, courts and commentators refer to uniqueness, though apparently as a casual synonym for originality or creativity. See, e.g., *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 250 (1903) (Holmes, J.) ("The copy is the personal reaction of an individual upon nature. Personality always contains something unique."); *Walt Disney Prod. v. Air Pirates*, 581 F.2d 751, 755 (9th Cir. 1979) ("[A] comic book character ... is more likely to contain some unique elements of expression."); *Carol Barnhart, Inc. v. Econ. Cover Corp.*, 773 F.2d 411, 419 (2d Cir. 1985) ("The unique artistic design was wholly unnecessary to performance of the utilitarian function."); *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, 420 F. Supp. 177, 178 (1976), aff'd, *ABKCO Music, Inc. v. Harrisongs Music, Ltd.*, 722 F.2d 988 (2d Cir. 1983) ("While neither motif is novel, the four repetitions of A, followed by four repetitions of B, is a highly unique pattern."); *id.* at 180 n.11 ("The uniqueness is even greater when one considers the identical grace note in the identical place in each song."); Alan Durham, *The Random Muse: Authorship and Indeterminacy*, 44 *William & Mary L. Rev.* 569 (2002) (indeterminate or randomly-organized works are "inherently unique"); Matthew Sag, *Copyright and Copy-Reliant Technology*, 103 *Nw. U. L. Rev.* 1607, 1629 (2009) ("[I]n most cases, protecting the unique expression of an idea is sufficient to ensure that the author will be able to appropriate a return on her investment."). See also *Hart v. Dan Chase Taxidermy Supply Co.*, 86 F.3d 320, 322 (2d Cir. 1996) (Calabresi, J.) (discussing the novelty and repeatability of fish mannequins); *Ring v. Estee Lauder*, 702 F. Supp. 76, 78 (S.D.N.Y. 1988), aff'd, 874 F.2d 109 (2d Cir. 1989) (discussing the novelty of make-over video); *Marshall & Swift v. BS & A Software*, 871 F. Supp. 952, 960 n.12 (W.D. Mich. 1994) (distinguishing fact tables in case from the listings in Feist largely because they are "unique").

⁴⁰ Cf. Daniel J. Gervais, *Feist Goes Global: A Comparative Analysis of the Notion of Originality in Copyright Law*, 48 *J. Copyright Soc'y. of USA* 949, 976-77 (2002) (defining creativity as choices made free of external constraints); *Byron*, *supra* note 4, at 46 ("Essentially, inherent in 'creativity' is a certain degree of unexpectedness or randomness"); Alan Durham, *Copyright and Information Theory*, 2004 *BYU L. Rev.* 69 (2004) (original work is free of constraint); Hughes, *supra* note 4, at 204 (notion that choices are original when they are not dictated by extrinsic considerations is straightforward copyright doctrine); Matthew Bender v. West, 158 F.3d 674, 682 (2d Cir. 1988) ("[C]reativity inheres in making non-obvious choices from among more than a few options.").

⁴¹ To be readily distinguishable, it is not enough that a work could be distinguished on close inspection; for instance, because the signature on it is different. To be readily distinguishable, the audience for the work must be able to easily recognize that the work has a worth or meaning different from that of other works. Cf. *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960) (Hand, J.) (When considering how similar works must be for infringement "one shall consider the uses for which the design is intended, especially the scrutiny that observers will give to it as used.").

⁴² Cf. Durham, *supra* note 4, at 180 ("Usually a list of the 100 'best' of anything does not purport to reflect a fact, other than the author's feelings; to treat such opinion as copyrightable content does not take anything of 'the real world' into the realm of property."); Gorman, *supra* note 13, at 572-73 (Copyright protection for "one's list of the fifty most livable cities in America, will because of the very subjectivity involved in the compilation, not likely deprive the public of quite as significant information as when the compilation is mechanical, streamlined, and exhaustive.").

⁴³ See, e.g., the two lists to follow, which appeared at the top of search results in a Google® search for "100 best movies."

From 'List of 100 favorite movies' at www.angelfire.com/fl/layeroffilm/topfilms.html, last visited Jan. 25, 2011

1. Annie Hall
2. Vertigo
3. The Godfather
4. The Third Man
5. Gates of Heaven
6. Boogie Nights
7. A Clockwork Orange
8. E.T.
9. This Is Spinal Tap
10. Hoop Dreams
- ...
90. Back to the Future
91. Rosemary's Baby
92. The Last Picture Show
93. Saboteur
94. High Art
95. Paths of Glory
96. Palm Beach Story
97. Apocalypse Now
98. The Red Shoes
99. M*A*S*H
100. Goodfellas

From 'List of 100 best/favorite movies' at www.listology.com/jgandcag/list/100-best-favorite-movies-all-time, last visited Jan. 25, 2011

1. Godfather 2
2. Casablanca
3. Citizen Kane
4. Pulp Fiction
5. Man Who Shot Liberty Valance
6. The Third Man
7. Lawrence Of Arabia
8. Mr. Smith Goes to Washington
9. Singing in the Rain
10. The Magnificent Ambersons
- ...
90. Vertigo
91. Say Anything
92. Z
93. A Face in The Crowd
94. Fargo
95. Great Escape
96. Rio Bravo
97. Gunga Din
98. Adventures Of Robin Hood
99. From Here to Eternity
100. Dazed and Confused

In general, a much shorter list, such as a list of 10 favorite movies, is unlikely to be unique. It could be unique, however, if P had very idiosyncratic tastes and thus chose favorites that no one else would choose.

⁴⁴ Cf. Green, *supra* note 21, at 126 (creative work is not highly susceptible to parallel independent creation); McGowan, *supra* note 14 (the more variation is constrained, the less courts extend protection); Dan Burk, *Method and Madness in Copyright Law*, 2007 Utah L. Rev. 587, 602 (“The common thread here is that of determinism; courts declare that the law of copyright does not protect expression that can only be instantiated in a single, determined way.”).

⁴⁵ Cf. McGowan, *supra* note 14, at 240 (“In some cases in which copyright protection is useful, creativity is undesirable, and perhaps impossible. In some cases where copyright is counterproductive, creativity is possible but irrelevant.”); Marc K. Temin, *The Irrelevance of Creativity: Feist’s Wrong Turn and the Scope of Copyright Protection for Factual Works*, 111 Penn St. L. Rev. 263 (2006).

⁴⁶ See www.google.com (last visited Aug. 1, 2011).

⁴⁷ See www.google.com (last visited Aug. 1, 2011).

⁴⁸ See *supra* Part I.A.2.

⁴⁹ See *supra* Part I.A.2.

⁵⁰ See *infra* Part II.C.

⁵¹ Cf. *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 146 (S.D.N.Y. 1987) (forensic use of 22 still frames from film of Kennedy assassination in serious book on the subject was fair use).

⁵² *Ets-Hokin v. Skyy Spirits*, 323 F.3d 763 (9th Cir. 2003).

⁵³ *Id.* at 766.

⁵⁴ Compare *id.*, with *Schrock v. Learning Curve Int’l, Inc.*, 586 F.3d 513, 519 (7th Cir. 2009). In *Schrock*, P photographed D’s toys for use in advertisement and the court protected P’s photograph. In my view, the reason was that, before taking the photograph, P arranged the toys in a particular way so that the resulting photograph was unique enough to be thinly protected. Compare *Burrow-Giles Lithographic Company v. Sarony*, 111 U.S. 53 (1884), with *Oriental Art Printing v. Goldstar Printing*, 175 F. Supp. 2d 542 (S.D.N.Y. 2001). In *Burrow-Giles* the Court upheld the copyright in P’s photo of a posing Oscar Wilde. Note that other creators could have independently photographed Wilde during his lifetime but the probability was very low that any of them would have created a photograph that was both independent of and not readily distinguishable from P’s. In *Oriental*, the court held that P’s straightforward photographs of food dishes for a Chinese menu were not original enough for copyright. Note that, because P’s photographs were straightforward representations of common items, independent photographers could plausibly create photographs not readily distinguishable from P’s.

⁵⁵ *Meshwerks, Inc. v. Toyota Motor Sales U.S.A., Inc.*, 528 F.3d 1258 (10th Cir. 2008).

⁵⁶ *Id.* at 1260.

⁵⁷ See also *ATC Distr. Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 712 (6th Cir. 2005) (“The illustrations were intended to be as accurate as possible in reproducing the parts shown in the photographs on which they were based, a form of slavish copying that is the antithesis of originality.”). Compare *Bridgeman Art Library v. Corel Corp.*, 25 F. Supp. 2d 421, 427 (S.D.N.Y. 1998), *aff’d* on reconsideration, 36 F. Supp. 2d 191 (S.D.N.Y. 1999), with *Alfred Bell & Co. v. Catalda Fine Arts, Inc.*, 191 F.2d 99, 102-03 (2d Cir. 1951). In *Bridgeman*, D copied P’s transparencies of public domain paintings. The court held the transparencies uncopyrightable, likening them to photocopies and arguing that originality requires distinguishable

variation beyond a mere change in medium from painting to transparency. My take on Bridgeman is that P's transparencies were not unique because someone else could independently make transparencies or other slavish reproductions of the public domain paintings that were not readily distinguishable from P's. In *Alfred Bell*, the court upheld copyright in P's mezzotint engravings of public domain paintings. The mezzotint engraving process is an inexact art requiring skill and judgment and subject to error. *Id.* at 104-05. Insofar as the process was an inexact art, it would seem that P's engravings were readily distinguishable not only from the public domain paintings but also from independently created reproductions of them.

⁵⁸ But see *Alva Studios, Inc. v. Winninger*, 177 F. Supp. 265 (S.D.N.Y. 1959). The court in *Alva* upheld copyright protection for a faithful reproduction of Rodin's famous statue "Hand of God" - a stable object. Are *Alva* and *Meshwerks* in conflict? They may be. If so, *Alva* seems the wrongly decided of the two. There is, however, an argument that *Alva* and *Meshwerks* are not in conflict, and that *Alva* is rightly decided. The argument is that only in *Alva* was P's work repeatable enough to be protected, albeit thinly. Though P's reproduction in *Alva* was faithful to the contours of Rodin's statue, P's reproduction was half as large and the rear of its base was closed rather than open. Another creator who independently created a reproduction of Rodin's statue would be unlikely to create one with dimensions, base and materials indistinguishable from P's. Admittedly, it is questionable whether the likelihood of independent creation is low enough in *Alva*, but it is lower than in *Meshwerks*. Were Toyota to commission someone else to digitize its cars, it seems likely that the resulting images would not be readily distinguishable from *Meshwerks*' images. Furthermore, *Meshwerks*' images might not be readily distinguishable from regular digital photographs of the cars or from various images that Toyota made when it designed the cars.

⁵⁹ Cf. *Landes & Posner*, *supra* note 7, at 110 ("To translate *The Brothers Karamazov* into English is an enormously time-consuming task of the same general character as the expressive activities that copyright protects").

⁶⁰ See *Material Not Subject to Copyright*, 37 C.F.R. § 202.1(a) (1988) (excluding protection for names, titles, and short phrases).

⁶¹ Synonyms for the word *huge*, for instance, include *enormous*, *massive*, *immense*, *very big*, *very large*, *giant*, *gigantic*, *gargantuan*, *jumbo*, *colossal*, *mammoth*, *titanic*, *voluminous*, *vast*, *mega-sized*, *prodigious*, *humongous*, and more.

⁶² See generally James Champlin Fernald, *English Grammar Simplified: Its Study Made Easy* 66-67 (2d ed. 1916) ("Adjectives expressing some quality that does not admit degrees are not compared when used in their strict or full sense, as *square*, *perpendicular*, *circular*, *absolute*, *eternal*, *illimitable*, *complete*, *perfect*, etc. But such adjectives are often used in a modified or approximate sense, and when so used admit of comparison. If we say, 'This is more perfect than that,' we do not mean that either is perfect without limitation, but that 'this' has 'more' of the qualities that go to make up perfection than 'that'; it is more nearly perfect.").

⁶³ See *infra* Part II.C. The sound recording right is an exception that corroborates this rule. See *infra* Part IV.B.

⁶⁴ See *infra* Part IV.A (discussing *Pivot Point Int'l, Inc. v. Charlene Prods., Inc.*, 372 F.3d 913 (7th Cir. 2004)[hereinafter *Pivot Point IJ*]).

⁶⁵ Cf. Dennis W. Khong, *Copyright Doctrines, Abstraction and Court Error*, 3 Rev. L. & Econ. Issue 3, Art. 5, 10 (2007) (pointing out that the probability of coincidental similarity falls as number of elements in work rises); Kurtz, *supra* note 11, at 1253-54 (characterizing ideas in terms of venn diagram, whereby ideas complex enough to be protectable reside only at small area where a number of simple ideas intersect).

⁶⁶ Cf. *Pickett v. Prince*, 207 F.3d 402, 405 (7th Cir. 2000) ("[A]ll works of art are ultimately combinations of familiar, uncopyrightable items."); *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, 420 F. Supp. 177, 180 n.11 (S.D.N.Y. 1976) ("[A]lthough the two motifs were in the public domain, their use here was so unusual that [D's expert witness], in all his experience, had never come across this unique sequential use of these materials."); *Metcalf v. Bochco*, 294 F.3d 1069, 1074 (9th Cir. 2002) ("The particular sequence in which an author strings a significant number of unprotectable elements can itself be a protectable element."); *Warner Bros., Inc. v. American Broad. Cos.*, 720 F.2d 231, 243 (2d Cir. 1983) (finding that individual elements contribute to "expressive aspect of the combination," regardless of whether they are protectable in isolation); *Joyce, et al., supra* note 11, at 692 ("Altai insists that public domain elements of programs should be 'filtered out' of the analysis. Ultimately, however, all copyrightable works, in all media, are simply combinations of public domain elements (be they individual words, or

musical notes, or simple shapes.”); *Roth Greeting Cards v. United Card Co.*, 429 F.2d 1106 (9th Cir. 1970) (explaining that short phrases by themselves are unprotected, but protected in combination with images and with splitting of phrases between front cover and inside of greeting card); *Tufenkian Import/Export Ventures v. Einstein Moomjy, Inc.*, 338 F.3d 127, 134 (2d Cir. 2003) (“[I]nfringement analysis is not simply a matter of ascertaining similarity between components viewed in isolation.”); *Atari Games Corp. v. Oman*, 979 F.2d 242, 247 (D.C. Cir. 1992) (finding combination of standard geometric shapes protectable); *Runstadler Studios, Inc. v. MCM Ltd. P’ship*, 768 F. Supp. 1292, 1298-99 (N.D. Ill. 1991) (finding combination of standard shapes may be protectable); *Green*, *supra* note 21, at 121 (arguing copyrightability is an emergent property that arises out of aggregation of uncopyrightable elements).

⁶⁷ See *supra* Part I.B.3 and Part II.D (explaining that copyright tacitly requires novelty).

⁶⁸ The intuition is that if there are few viable alternatives—if there are few viable ways to achieve the desired effect—the odds are relatively high that eventually someone else would independently choose the same way P chose. Conversely, if there are hundreds of viable ways to achieve the desired effect, the odds are low that someone else would independently choose the same way P chose. Looking to alternatives is not a new idea. See, e.g., *Pivot Point, Int’l, Inc.*, 372 F.3d 913 (discussing the many alternative designs available for mannequin head); *Mattel, Inc. v. Goldberger Doll Mfg. Co.*, 365 F.3d 133 (2d Cir. 2004) (discussing many alternatives to the Barbie design); *Dymow v. Bolton*, 11 F.2d 690 (2d Cir. 1926) (holding that work is protected if same idea can be expressed in totally different manners); *Kregos v. Assoc. Press*, 937 F.2d 700, 704-07 (2d Cir. 1991) (holding P’s combination of data categories protectable because it was drawn from a universe of thousands of alternatives); *Lanard Toys Ltd. v. Novelty Inc.*, 375 Fed. Appx. 705, 710-11 (9th Cir. 2010) (upholding copyright and remarking that P’s designer testified he “could have designed it in ‘a million’ other ways”); *American Dental Ass’n v. Delta Dental Plans Ass’n*, 126 F.3d 977, 979 (7th Cir. 1997) (J. Easterbrook) (upholding copyright in taxonomy of dental procedures and pointing out that “[d]ental procedures could be classified ... in any of a dozen different ways”). See also *infra* Part IV.A and accompanying footnotes. Commentators also look to alternatives. See, e.g., *Byron*, *supra* note 4, at 58-66 (discussing that as the number of possible alternatives increases, the probability of P’s work being created decreases, making P’s work more copyrightable); Thomas M. *Byron*, *As Long as There’s Another Way: Pivot Point v. Charlene Products as an Accidental Template for A Creativity-Driven Useful Articles Analysis*, 49 IDEA 147, 153-54, 165-66, 188-91 (2009) (explaining that in cases involving useful articles courts look to number of viable alternatives, even when they purport to rely on different measures); *Jones*, *supra* note 4, at 576-78 (suggesting that merger is a matter of degree that tracks the variety of alternative expressions available); *Burk*, *supra* note 44, at 606 (discussing that there is only one way Pythagorean theorem will work, and “[t]his is not so for a work of art or of drama, ... many original portraits may be painted [and] many plays can be written on the same themes as contained in those works”).

⁶⁹ Viable alternatives are alternatives that would have been at least as good as P’s work at achieving its ends. For instance, a comedy independently created by P is likely to be unique because myriad alternative comedies can achieve an equivalent effect (laughter).

⁷⁰ Cf. *Hugh Laddie, Peter Prescott and Mary Vitoria, The Modern Law of Copyright and Designs* §3.19 (1995) (stating that a photo can be copyrighted if it captures a scene unlikely to recur); *Khong*, *supra* note 65, at 19-21 (explaining that some facts are single-sourced, or costs of gathering them are highly asymmetrical among producers, and when facts are single-sourced, likelihood of coincidental similarity to other works is low).

⁷¹ See *Green*, *supra* note 11, at 945-46 (“Consumers value factual material as a guide for their action”).

⁷² For example, a road atlas is a poor guide to action insofar as it fails to correspond faithfully to real world locations, distances, and directions.

⁷³ See *infra* Part IV.E.

⁷⁴ There may also be added complexity attributable to the specific date the list was made. That is, an accurate list made in the third quarter of 2011 may differ slightly from an accurate list made in, for example, the first quarter of 2012.

⁷⁵ See *supra* Part I.A.1.

76 See supra Part I A.1.

77 See supra Part II.B (arguing that uniqueness is a matter of degree).

78 Cf. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. at 363 (“[C]opyright protects only those constituent elements of a work that possess more than a *de minimis* quantum of creativity.”); *Ringgold v. Black Entm’t Television, Inc.*, 126 F.3d 70, 74-75 (2d Cir. 1997) (“The legal maxim ‘*de minimis non curat lex*’ (sometimes rendered, ‘the law does not concern itself with trifles’) insulates from liability those who cause insignificant violations of the rights of others”); Robert P. Merges, et al., *Intellectual Property in the New Technological Age* 532 (5th ed. 2010) (explaining that cases applying *de minimis* doctrine tend to use it as a shorthand for lack of substantial similarity); *Tufenkian Import/Export Ventures, Inc. v. Einstein Moomjy, Inc.*, 338 F.3d 127, 135 (implying that if P’s work includes only *de minimis* originality, copying all of work would be a *de minimis* taking); *Intervest Const., Inc. v. Canterbury Estate Homes, Inc.*, 554 F.3d 914, 920 (11th Cir. 2008) (finding that if there is very little protected expression, similarity between works is unlikely to be substantial); *Patry*, supra note 12, at § 4.46 (asserting that to state that an idea has merged with expression because there are only a limited number of ways to express that idea “is, in reality, a statement that the purported copyright owner’s way of expressing the idea contains only a *de minimis* number of non-ideas”); *Sag*, supra note 39, at 1633-34 (2009) (asserting that copyright permits copying of trivial expressive features, because to do so does not unfairly compete with P).

79 Cf. Mark A. Lemley, *Convergence in the Law of Software Copyright?*, 10 High Tech. L.J. 1, 30 (1995) (“Where the alleged similarities occurred at a high level of abstraction, at which the copyright owner is entitled to little protection, she must be able to show more striking similarities between the works than if the copying had occurred at a lower level of abstraction.”); *Kurtz*, supra note 11, at 1260 (asserting that the more extraordinary and nonobvious the work, the more abstract forms of copying it is protected against); *Bucklew v. Hawkins, Ash, Baptie & Co.*, 329 F.3d 923, 926 (7th Cir. 2003) (“[W]hen the similarities concern details of such an arbitrary character that the probability that the infringer had duplicated them independently is remote, an inference of copying may be drawn without any additional evidence.”). See also supra Part I.A.1.

80 See supra Part II.B. See also *infra* Part IV.B.

81 Example: “supercalifragilisticexpialidocious” is composed of non-unique parts such as “super,” “cali,” “frag,” “ilistic,” “expi,” “ali,” “doc,” “ious,” or s, u, p, e, r, c, a, and so on.

82 The sound recording right appears to bend this rule. See *infra* Part IV.B.

83 See supra Part I.B.4.

84 See generally *Green*, supra note 11, at 932 (explaining the *de minimis* doctrine withholds protection when costs of enforcement and transaction exceed reduction in P’s incentive to create); *id.* at 951-52 (pointing out that relative enforcement and transaction costs rise as size of borrowed portion decreases).

85 Cf. *Kurtz*, supra note 11, at 1234 (“We can consider the level of abstraction at which the similarities between the plaintiff’s work and the defendant’s work lie. We can then attempt to determine, in that specific context, whether the similarity lies on the idea or expression side of the line.”); *id.* at 1253 (“The similarity between the plaintiff’s and defendant’s works is more or less saturated with detail. The greater that saturation, the more appropriate a finding of infringement.”); *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930) (Hand, J.) (“[T]he less developed the characters, the less they can be copyrighted; that is the penalty an author must bear for marking them too indistinctly.”).

86 See, e.g., *Runstadler Studios Inc. v. MCM Ltd. P’ship*, 768 F. Supp. 1292 (N.D. Ill. 1991). For purposes of the infringement inquiry, P in *Runstadler* characterized its work at the broad level where D’s work shared the same pattern: a sculpture composed of glass rectangles overlying each other to form a tall spiral. The court elected D’s more specific characterization of P’s work, where D’s work differed from P’s. In my view, the court properly found no infringement, because what was common to both works was not unique.

87 Herbert Rosenthal Jewelry Corp. v. Grossbardt, 1970 WL 10069 (S.D.N.Y. 1970) [hereinafter Rosenthal I].

88 Herbert Rosenthal Jewelry Corp. v. Kalpakian, 446 F.2d 738 (9th Cir. 1971) [hereinafter Rosenthal II].

89 Rosenthal I, 1970 WL 10069; Rosenthal II, 446 F.2d at 739.

90 Rosenthal I, 1970 WL 10069 (“defendants’ pins are exact copies” except made with inferior gems).

91 *Id.*

92 Rosenthal II, 446 F.2d at 741.

93 *Id.* at 738.

94 Also, the number of alternative bee poses for pins is limited compared to, say, the number of alternative animal poses for taxidermy. See *Hart v. Dan Chase Taxidermy Supply Co.*, 86 F.3d 320, 323 (2d Cir. 1996) (Calabresi, J.) (“In taxidermy, by contrast ... the shape, volume, and movement of the animal are depicted by the underlying mannequin. Whether the fish is shown as resting, jumping, wiggling its tail, or preparing to munch on some plankton, is dictated by [P’s choices about the mannequin].”).

95 See Rosenthal II, 446 F.2d at 741 (“Any inference of copying based upon similar appearance lost much of its strength because both pins were lifelike representations of a natural creature.”); *id.* at 742 (“There is no greater similarity between the pins of plaintiff and defendant than is inevitable from the use of jewel-encrusted bee forms in both.”). See also *McGowan*, *supra* note 14 (stating that the more convergence is fated, the less courts extend protection); *Ty, Inc. v. GMA Accessories, Inc.*, 132 F.3d 1167, 1170-71 (7th Cir. 1997) (Posner, J.) (stating that if either beanbag pig had resembled a real pig, court would have had a hard time determining whether one pig was copied from other or whether similarity resulted from efforts of both parties to create a pig in beanbag form); *Ets-Hokin v. Skyy Spirits, Inc.*, 323 F.3d 763, 766 (2003) (finding the similarity between D’s photo and P’s photo was inevitable, given constraints imposed by subject matter and conventions of commercial product shot); *Plains Cotton Coop. Ass’n v. Goodpasture Computer Serv., Inc.*, 807 F.2d 1256, 1262 (5th Cir.), cert. denied, 484 U.S. 821 (1987) (finding no infringement because shared constraints-dictates of cotton market-provided a plausible explanation for degree of similarity between D’s work and P’s); *ATC Distr. Grp., Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 707-13 (6th Cir. 2005) (holding portions of P’s catalog independently created by P were virtually inevitable and thus unprotectable); *Computer Assocs. Int’l v. Altai, Inc.*, 982 F.2d 693, 708-09 (2d Cir. 1992) (explaining that because efficient structure may be independently created by others, efficient structure should be filtered out during substantial similarity analysis).

96 See *Joyce, et al.*, *supra* note 11, at 149 (“Courts have had little trouble extending protection to characters in copyrighted cartoon strips or animated films ...[b]ut literary characters are another matter entirely.”); *Jones*, *supra* note 4, at 570-71 n.102-104 (listing cases suggesting protection greater for graphic characters); *Walt Disney Prods. v. Air Pirates*, 581 F.2d 751, 755 (9th Cir. 1978) (“[W]hile many literary characters may embody little more than an unprotected idea ... a comic book character, which has physical as well as conceptual qualities, is more likely to contain some unique elements of expression.”). The court in *Air Pirates* cited *Warner Bros. Pictures v. Columbia Broad. Sys.*, 216 F.2d 945 (9th Cir. 1954). In *Warner*, the Court denied protection for hard-boiled detective character, Sam Spade, as developed in the book *The Maltese Falcon*. Justice Stevens reasoned that it is difficult to clearly delineate a literary character. “When the author can add a visual image, however, the difficulty is reduced.” *Walt Disney Prods.*, 581 F.2d at 755. See also *Landes & Posner*, *supra* note 7, at 94 (“If Homer had not lived, eventually someone else would have written a poem about revenge, gods, and war over a beautiful woman. Yet once the *Iliad* is in existence, it becomes hard to determine whether subsequent authors of works on these themes are copying the *Iliad* or copying life.”).

97 In terms of our three variables, non-graphic characters tend to have lower added complexity, fewer viable alternatives, and more contenders.

98 See, e.g., *Metro-Goldwyn-Mayer, Inc. v. Am. Honda Motor Co.*, 900 F. Supp. 1287 (C.D. Cal. 1995) (protecting combination of non-graphic character and cinematic elements associated with character); *Titan Sports, Inc. v. Turner Broad. Sys., Inc.*, 981 F. Supp. 65 (D. Conn. 1997) (holding that P could pursue copyright action for alleged infringement of professional wrestling character).

99 See infra this section, discussing costs generated by work that is novel but repeatable. Work that is non-novel as well as repeatable generates the same costs but more so.

100 See *supra* Part I.A.3.

101 Schechter & Thomas, *supra* note 9, at 22.

102 *Id.*

103 See *Conan Props., Inc. v. Mattel, Inc.*, 712 F. Supp. 353, 358 (S.D.N.Y. 1989) (finding that cartoonist cannot copyright idea of superhuman muscleman); *Mattel, Inc. v. Azrak-Hamway Int'l, Inc.*, 724 F.2d 357, 360 (2d Cir. 1983) (holding that dolls positioned in crouched fighting stance of a Neanderthal man or that of a latter-day professional wrestler approaching opponent are uncopyrightable). See also *Green, supra* note 21, at 129 (arguing that general idea of superhero is unprotectable in part because it is susceptible to parallel independent creation).

104 Schechter & Thomas, *supra* note 9, at 23.

105 See *infra* Part II.E.

106 I do not argue that the current copyright term is justified. It is too long from a policy standpoint. See, e.g., *Eldred v. Ashcroft*, 537 U.S. 186 (2008) (Breyer, J., dissenting). I argue only that the copyright term should be longer than the patent term (at least if the patent term is not itself too long).

107 See *Lichtman, supra* note 21, at 686-87, 705-07 (2003). According to Lichtman, the creativity requirement screens out works for which courts would be unable to use similarity to infer that D copied from P. If copyright protected uncreative work, two parties would come forward with very similar works, and the court would find it virtually impossible to determine whether one copied from the other or whether, instead, the similarity between them was a natural outgrowth of that both lack creativity. See also *Khong, supra* note 65, at 6-11 (accepting Lichtman's theory); Schechter & Thomas, *supra* note 9, at 27 (rationalizing creativity requirement on ground that, without it, independent creators would be charged with copying and courts would find it difficult to determine whether D's claims of independent creation were true); *Green, supra* note 11, at 926, 931-32, 941-42; *id.* at 934 ("[I]f the work is likely to be created by many people independently, the enforcement costs will be greater because the fact-finder in an infringement case will have to expend time and effort excluding the possibilities that the [D] came up with the work herself and that the plaintiff in fact copied the work from a third party."); *L. Batlin & Son, Inc. v. Snyder*, 536 F.2d 486, 492 (2d Cir. 1976) (en banc) ("To extend copyrightability to minuscule variations would simply put a weapon for harassment in the hands of mischievous copiers intent on appropriating and monopolizing public domain work."); *Landes & Posner, supra* note 7, at 90 ("The main function of conditioning copyright protection on a showing of some originality is ... to lighten the evidentiary burden on the courts of having to decide whether two virtually indistinguishable works ... were independently created or one was copied from the other"); *id.* at 103 ("The more likely independent creation is, the more costly and uncertain the litigation of a claim of copyright infringement will be, and this becomes an argument for denying copyright protection."); *Assessment Techs. of WI, L.L.C. v. WIREdata, Inc.*, 350 F.3d 640, 643 (7th Cir. 2003) (Posner, J.) (describing creativity requirement as a means of identifying P's independent creation). But see *McGowan, supra* note 14, at 255-56 (remarking that "it is easy enough to weed out false positives by requiring strong proof of copying where the baseline probability of coincidental similarity is high"). For partial responses to McGowan, see *infra* text and footnotes to follow.

108 See generally *James Bessen & Michael J. Meurer, Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk* (2008) (explaining importance of property's notice function, and arguing that notice is undermined when, among other things,

multiple parties claim rights in same subject matter); Michael Heller, *The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Lives* (Basic Books 2008) (explaining that property system tends to fail when multiple parties claim overlapping rights to same subject matter).

¹⁰⁹ Cf. Green, *supra* note 11, at 926, 931-32, 941-42; *id.* at 934 (“The likelihood of parallel independent creation also increases transaction costs. If material has been created only once, it is easier to identify the person from whom one should obtain a license. But if there are many creators of the material, someone seeking to insulate herself from an infringement suit must expend a great deal of time and effort tracing the ultimate provenance of the material she borrowed - or obtain a license from every creator.”).

¹¹⁰ Cf. Landes & Posner, *supra* note 7, at 93-96 (arguing that protecting ideas, names, titles, short phrases, and scènes à faire would over-reward first creators, and increase rent seeking, transaction costs, and overall cost of creating works); CCH Canadian Ltd. v. Law Soc'y of Upper Canada, [2004] SCC 13 (Can.) (holding that a robust originality requirement serves as a safeguard against the author being overcompensated for his or her work).

¹¹¹ One reason to think many more independent creators would be sued were copyright extended (like patent) to non-unique work is that the vast majority of patent infringement lawsuits are against independent inventors, not against pirates who actually copied from the patentee. See Christopher Cottropia and Mark A. Lemley, *Copying in Patent Law* (Stanford Public Law Working Paper No. 1270160, Feb. 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1270160 (finding that vast majority of patent infringers independently invented the patented invention).

¹¹² The risk of copiers suing creators exists for unique works too, but the risk is much lower because the evidence will usually point to the true creator of a unique work. For example, if you independently write a novel, there will likely be a paper trail that corroborates your claim that you wrote it.

¹¹³ See, e.g., Green, *supra* note 11, at 934 (“Although independent creation remains a defense against a suit for infringement, juries routinely rely upon similarity when inferring copying”); *Arnstein v. Porter*, 154 F.2d 464, 469 (2d Cir. 1946) (“[A] case could occur in which the similarities were so striking that we would reverse a finding of no access, despite weak evidence of access (or no evidence thereof other than the similarities)”); *Durham Indus., Inc. v. Tomy Corp.*, 630 F.2d 905, 910-18 (2d Cir. 1980) (holding originality requirement and idea-expression dichotomy are necessary because, by itself, test of substantial similarity would as a practical matter subject innocent parties to threat of suit); *A.A. Hochling v. Universal City Studios, Inc.*, 618 F.2d 972, 977 (2d Cir. 1980) (A “series of copyright cases in the Southern District of New York have granted defendants summary judgment when all alleged similarity related to non-copyrightable elements of the plaintiff’s work. These cases signal an important development in the law of copyright, permitting courts to put a ‘swift end to meritless litigation’ and to avoid lengthy and costly trials.”) (citations omitted). In *Sid & Marty Krofft Television Prods., Inc., v. McDonald’s Corp.*, 562 F.2d 1157 (9th Cir. 1977), the court said that limiting doctrines are necessary to prevent copyright from extending too far and that relying solely on the defense of independent invention would not suffice. Absent limiting doctrines, “[f]or example, a copyright could be obtained over a cheaply manufactured plaster statue of a nude. Since ownership of a copyright is established, subsequent manufacturers of statues of nudes would face the grave risk of being found to be infringers if their statues were substantially similar and access were shown. The burden of proof on the plaintiff would be minimal, since most statues of nudes would in all probability be substantially similar to the cheaply manufactured plaster one.” *Id.* at 1162-65.

¹¹⁴ Cf. *Mag Jewelry Co. v. Cherokee, Inc.*, 496 F.3d 108, 119 (1st Cir. 2007) (“[W]here the simplicity of the design makes independent creation highly plausible, similarity alone could not establish access and, in turn, copying.”); *Ferguson v. Nat'l Broad. Co.*, 584 F.2d 111, 113 (5th Cir. 1978) (“If the two works are so strikingly similar as to preclude the possibility of independent creation, ‘copying’ may be proved without a showing of access.”) (emphasis added); *Selle v. Gibb*, 741 F.2d 896, 901 (7th Cir. 1984); *Ty, Inc. v. GMA Accessories, Inc.*, 132 F.3d 1167, 1171 (7th Cir. 1997); *Gaste v. Kaiserman*, 863 F.2d 1061, 1068-69 (2d Cir. 1988) (“[S]triking similarity between pieces of popular music must extend beyond themes that could have been derived from a common source or themes that are so trite as to be likely to reappear in many compositions.”).

¹¹⁵ *Novelty Textile Mills, Inc. v. Joan Fabrics Corp.*, 558 F.2d 1090, 1092 (2d Cir. 1977) (“[D]irect evidence of copying is rarely, if ever, available.”); *Tiffany Design, Inc. v. Reno-Tahoe Specialty, Inc.*, 55 F. Supp. 2d 1113, 1120 (D.C. Nev. 1999) (“[D]irect evidence of copying is rarely available in copyright cases”).

¹¹⁶ Cf. Wendy J. Gordon, *Fair use as market failure: A structural and economic analysis of the Betamax case and its predecessors*, 82

Colum. L. Rev. 1600 (1982).

¹¹⁷ More specifically, someone else would have invented an airplane that operates in the way described and claimed in the Wright Brothers' patent. No one would have invented their exact same working embodiment. Are the exact working embodiments of patentable inventions copyrightable? They are if the inventions are computer programs. For several decades copyright has protected the working embodiments of computer programs (the actual code), while patent has protected both the actual code and more generalized versions of the methods carried out by the actual code. Presumably, however, the exact working embodiments of most patentable inventions are protectable only under patent, which amounts to an exception to the rule that copyright protects unique work. This exception might be justified on the ground that it is preferable, for reasons of clarity and administrative convenience, to protect a work either with utility patent or with copyright and not with both.

¹¹⁸ See Mark A. Lemley, *The Myth of the Sole Inventor*, 110 Mich. L. Rev. 709, *passim* (2012) (discussing the collective nature of the invention of the airplane, the great improvements made by contemporaries of the Wright Brothers, and the fact that nearly all significant inventions are invented near simultaneously by parties working independently of each other). See also Robert K. Merton, *Singletons and Multiples in Scientific Discovery: A Chapter in the Sociology of Science*, 105 Proc. Am. Phil. Soc'y 470 (1961); William F. Ogburn & Dorothy Thomas, *Are Inventions Inevitable?* 37 Pol. Sci. Q. 83 (1922).

¹¹⁹ See Lester Horwitz & Ethan Horwitz, 1 *Intellectual Property Counseling and Litigation*, § 3.03(1)(d) (1999) ("[A] judicial consensus developed that copyright protection of a useful article must end at the realm of utility, where patent protection begins.").

¹²⁰ Cf. Ralph Brown, *Eligibility for Copyright Protection: A Search for Principled Standards*, 70 Minn. L. Rev. 579, 604 (1985) (asserting that the patent/copyright boundary "reflects the policy determination that a seventy-five year monopoly on a useful object would frustrate the policy that seventeen years is long enough for patent protection").

¹²¹ *Cotropia and Lemley, supra note 111.*

¹²² Cf. Tun-Jen Chiang, *A Cost-Benefit Approach to Patent Obviousness*, 82 St. John's L. Rev. 39 (2008) (framing obviousness as a function of how soon the invention would have been created absent the promise of patent protection). We might say that patent protects work that is moderately non-obvious, whereas copyright protects work that is very non-obvious. Cf. Amy L. Landers, *A Promising Field of Endeavor: A Grounded Approach to Patentability* (Aug. 2011) (working paper) (suggesting inventions should be considered obvious when they would occur in ordinary course through a series of mechanical steps).

¹²³ See, e.g., *Bilski v. Kappos*, 561 U.S. ___, 130 S. Ct. 3218 (2010) (confirming longstanding rule that abstract ideas are unpatentable).

¹²⁴ Cf. Burk, *supra note 44*, at 602, 605-08 (arguing that patent law protects highly constrained works). Cf. Lemley, *supra note 118* *passim* (surveying the literature on parallel independent invention and reports that almost all significant inventions have been invented simultaneously or nearly so by inventors working independently of each other, and one reason is that inventions are based on immutable physical principles, that is, independent inventors converge on the same path because there is a stable and optimal (if not inevitable) path for them to converge on).

¹²⁵ In terms of our three variables, inventions have relatively low added complexity, few viable alternatives, and many contenders over the long term.

¹²⁶ For example, it would be much easier to invent the polio vaccine today than it was to invent it in the 1950s.

¹²⁷ See Chiang, *supra note 122*, at 57-58 ("[P]atents create incentives for additional research investment, leading to inventions being made sooner than they otherwise would be." (emphasis added)); Lemley, *supra note 118* (suggesting that a supplemental justification for the patent system is that it encourages patent races and thereby accelerates invention).

¹²⁸ Samson Vermont, Independent Invention as a Defense to Patent Infringement, 105 Mich. L. Rev. 475, 479 (2006); see Chiang, *supra* note 122, at 62-63.

¹²⁹ In general, we do not want to award 20 years of exclusivity for an invention someone else would have independently created in six months absent the promise of exclusivity. See Chiang, *supra* note 122, at 66-67 (using cost-benefit analysis to argue that an invention should not be patented if, even in the absence of patent protection, it would have been created by someone well before the patent would expire).

¹³⁰ See generally Khong, *supra* note 65.

¹³¹ *Id.* at 10.

¹³² *Id.* at 15-16.

¹³³ *Id.* at 6, 16.

¹³⁴ Byron, *supra* note 4, at 46.

¹³⁵ *Id.* at 47 (“[O]nly the work that is unlikely to be created merits copyright protection.”).

¹³⁶ *Id.* at 67, 74. See also Thomas Byron, Of Dancers, Black Panthers, Cheerleaders, and Icons: Reflections of the Idea/Expression Dichotomy in the Relevance Prong of the Rogers Test, 13 Tul. J. Tech. & Intell. Prop. 1, 7-8 (2010) (discussing a continuum of constraint).

¹³⁷ Byron, *supra* note 4, at 95.

¹³⁸ See *supra* Part II.A. See also *infra* Part III.

¹³⁹ Lotus Dev. Corp. v. Borland Int’l, 49 F.3d 807 (1st Cir. 1995), aff’d by an equally divided court, 516 U.S. 233 (1996).

¹⁴⁰ See Green, *supra* note 11, at 936 (arguing that a creativity requirement helps screen out works that have a high probability of being independently created by others); *id.* at 941, 951 (asserting that ideas and facts are susceptible to independent creation); Green, *supra* note 21, at 123 (proposing that distinguishable variation requirement helps prevent protection for works that could be independently created).

¹⁴¹ See McGowan, *supra* note 14, at 233 (the more convergence is expected and useful, the less courts extend protection).

¹⁴² See Lichtman, *supra* note 21, at 686-87, 705-07 (suggesting that the creativity requirement screens out works that could be independently created so that courts could not rely on similarity as strong evidence that D copied).

¹⁴³ See Durham, *supra* note 39, at 638 (suggesting that indeterminate or randomly-organized works are inherently unique, which makes infringing works readily identifiable and which may be one of the reasons for the originality requirement).

¹⁴⁴ The most successful designs are not always the best. Those who would argue otherwise should, for starters, consider the metric system. See also Scott Berkun, *The Myths of Innovation*, 116-21 (2007) (suggesting that HTML and JavaScript are far from best

software development languages); *id.* at 116 (arguing that the Phillips screw is inferior to lesser-known Robertson screw).

¹⁴⁵ See Merges, et al., *supra* note 78, at 459-60 (“Courts have declined to find copyright protection (often on the grounds of merger) in cases where similarity in computer programs has been dictated by (a) standard practices in the industry for which the software programs are designed, (b) methods or practices that a large population has come to rely upon for daily activities, and (c) the need to operate on common hardware or with common software.”); Hughes, *supra* note 4, at 220-21, 225-31 (discussing essential facilities doctrine of antitrust law and other rationales for limiting protection for otherwise copyright-protected work); Peter S. Menell, *An Epitaph for Traditional Copyright Protection of Network Features of Computer Software*, 43 *Antitrust Bull.* 651, 674 (1998); Peter S. Menell, *Tailoring Legal Protection*, 39 *Stan. L. Rev.* 1329, 1343-44 (1987). The dominance principle is also consistent with the European exemption for copying necessary to achieve interoperability. See Directive on the Legal Protection of Computer Programs, 1991, 91/250/EEC, art. 6, O.J. (L 22) (setting forth the exemption).

¹⁴⁶ *Lotus Dev. Corp., v. Borland Int’l*, 49 F.3d 807 (1st Cir. 1995), aff’d by an equally divided court, 526 U.S. 233 (1996).

¹⁴⁷ *Id.* at 821 (Boudin, J., concurring) (“Apparently, for a period Lotus 1-2-3 has had such sway in the market that it has represented the de facto standard for electronic spreadsheet commands.”).

¹⁴⁸ *Id.* at 810.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.* at 819.

¹⁵² *Lotus Dev.*, 49 F.3d at 809, 811, 816.

¹⁵³ Cf. *Apple Computer, Inc. v. Franklin Computer*, 714 F.2d 1240, 1253 (3d Cir. 1983) (achieving compatibility with other programs “is a commercial and competitive objective which does not enter into the somewhat metaphysical issue of whether particular ideas and expressions have merged”).

¹⁵⁴ *Lotus Dev.*, 49 F.3d at 811.

¹⁵⁵ *Id.* at 810.

¹⁵⁶ *Id.* at 815.

¹⁵⁷ The majority’s reading implies not only that software menus are uncopyrightable but that most if not all computer programs are uncopyrightable because they are methods of operation. Yet Congress explicitly decided that computer programs are copyrightable. Hence the majority’s reading of 102(b) essentially conflicts with the definition of “computer program” in 17 U.S.C. § 101: “A ‘computer program’ is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.” The majority’s reading of § 102(b) also conflicts with legislative history stating that § 102(b) was not supposed to change the law. See H.R. Rep. No. 94-1476, at 57, reprinted in 1976 U.S.C.C.A.N. 5659, 5670 (“Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law.”). Finally, the majority’s reading conflicts with other cases. See *Mitel, Inc. v. Iqtel, Inc.*, 124 F.3d 1366, 1372 (10th Cir. 1997) (stating that an element may contain copyrightable expression even if the element can be characterized as a method of operation); *Apple Computer*, 714 F.2d at 1251 (holding that § 102(b) does not bar copyright for software applications or operating systems); *Compaq Computer Corp. v. Procom Tech., Inc.*, 908 F. Supp. 1409, 1419 (S.D. Tex. 1995) (finding method for predicting failure of disk drives is copyrightable where many of P’s

choices were based on opinion and where it was impossible to empirically verify whether P's choices were optimal). But see *Durham*, *supra* note 4, at 176 (arguing Compaq's system is candidate for patent, not copyright). The majority's reading of § 102(b) also lead the majority to conclude that whether the menu could have been designed differently was irrelevant. See *Lotus*, 49 F.3d at 816 ("The fact that Lotus developers could have designed the Lotus command hierarchy differently is immaterial to the question of whether it is a 'method of operation.'"). This conclusion suggests that the number of alternatives is irrelevant, which conflicts with most case law.

¹⁵⁸ *Lotus Dev.*, 49 F.3d at 821. See also *Landes & Posner*, *supra* note 7, at 99, 392 (copyright protection for user interface that has become industry standard would, like copyright protection for QWERTY, generate deadweight costs that exceed costs of reducing incentive to create user interface).

¹⁵⁹ *Lotus Dev.*, 49 F.3d at 821 (J. Boudin concurring).

¹⁶⁰ See *infra* Part IV.E (arguing that dominance explains the outcome in *Feist Publ'n's, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991)). See also *infra* Part IV.B (discussing dominance of names, titles, and part numbers).

¹⁶¹ See, e.g., *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 131-32, 146 (S.D.N.Y. 1987) (noting that bystander's footage of Kennedy assassination was most important photographic evidence and D's book on assassination was a serious analysis of evidence that deserved to be heard); *L.A. News Serv. v. CBS Broad., Inc.*, 305 F.3d 924, 942 (9th Cir. 2002) (finding it fair use for D to incorporate few seconds of P's footage of Reginald Denny beating in promotion of D's trial coverage).

¹⁶² Cf. *Hughes*, *supra* note 4, at 198-203 (discussing copyright protection for names and other designators such as addresses, part numbers, and codes for medical and dental procedures); *id.* at 199 ("[H]aving names for things - both general and proper names - is fundamental to communicating any other facts.").

¹⁶³ Cf. *McGowan*, *supra* note 14, at 250 (noting that variation in names is undesirable even when they are not industry standards because a new set of names, or codes, would impede understanding and raise information and transaction costs).

¹⁶⁴ Cf. *id.* at 248-49 (arguing names are uncopyrightable even when they are creative, because protecting names would be inefficient).

¹⁶⁵ See 37 C.F.R. § 202.1(a) (2007) (excluding protection for names and titles).

¹⁶⁶ Cf. *Hughes*, *supra* note 4, at 201 (The ADA's code numbers were, in effect, names for dental procedures. "[T]hey are the only practical way to refer to particular medical and dental procedures just as your home address is the only practical way to refer to the particular place where you live."); *id.* at 220 (suggesting that SouthCo part numbers were necessary for carrying out non-expressive activities and that no copyright protection was needed to incentivize SouthCo to create its part numbers); *McGowan*, *supra* note 14, at 247 (discussing a continuum of expression and that numbers that designate parts or medical procedures serve as names).

¹⁶⁷ Suppose that the QWERTY layout were under copyright and that P had slapped it together at low cost. The fact that other keyboard suppliers do not slap together their own non-infringing layouts is evidence that QWERTY is dominant. In general, if P's cost to produce the work was very low, D's cost to produce non-infringing work will also be very low. The fact that D chose to copy P's low cost work rather than to produce non-infringing low cost work is itself evidence that P's work is dominant. As another example, consider the siren sounds that one hears in different countries. Competing siren makers could make different siren sounds at trivial cost but to do so would be futile given the dominance of particular siren sounds in particular countries.

¹⁶⁸ See, e.g., *Mitel, Inc. v. Iqtel, Inc.*, 124 F.3d 1366, 1373 (10th Cir. 1997) (holding command codes uncopyrightable because arbitrary selection of numbers "required de minimis creative effort"); *Toro Co. v. R & R Prods. Co.*, 787 F.2d 1208, 1213 (8th Cir. 1986) (holding arbitrary part numbering system unprotectable).

¹⁶⁹ No single random number that is, say, ten digits long is unique on its own. On the other hand, an aggregation of more than a few random ten-digit numbers is unique, especially when further aggregated with references to specific parts, procedures, or persons.

¹⁷⁰ See Durham, *supra* note 4, at 182 (explaining randomly-organized works are inherently unique).

¹⁷¹ See, e.g., *SouthCo, Inc. v. Kanebridge Corp.*, 390 F.3d 276, 284-85 (3d Cir. 2004) (involving part numbers that denoted functional characteristics of each product, e.g., thread type, grip length, and knob finish, and the court described the part numbers as mechanically produced by the inflexible rules of the SouthCo system). The decision in *SouthCo* implies that SouthCo's numbers were non-unique or at least less unique than arbitrary codes. Yet, SouthCo's mechanical production implies low cost of creation, which is itself evidence of dominance. Moreover, SouthCo's part numbers "had [become] to some degree an industry standard." *Hughes, supra* note 4, at 201, citing *SouthCo*, 258 F.3d 148, 150 (3d Cir. 2001). So SouthCo was a difficult case.

¹⁷² See Copyright Act, 17 U.S.C. § 105 (1976) (stating federal works uncopyrightable); *Wheaton v. Peters*, 33 U.S. 591, 668 (1834) ("[N]o reporter has or can have any copyright in the written opinions delivered by this Court"); *Banks v. Manchester*, 128 U.S. 244, 253 (1888) ("The whole work done by the judges constitutes the authentic exposition and interpretation of the law, which, binding every citizen, is free for publication to all"); *Veeck v. S. Bldg. Code Cong. Int'l*, 293 F.3d 791 (5th Cir. 2002) (en banc), cert. denied, 539 U.S. 969 (2003) (citing 1 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 5.06(c) at 5-92 (2000) ("[S]tate statutes, no less than federal statutes, are regarded as being in the public domain.")).

¹⁷³ *Hughes, supra* note 4, at 209 (noting the view that the expression of government employees has already been bought and paid for by the citizenry).

¹⁷⁴ Cf. *Veeck*, 293 F.3d at 816 (5th Cir. 2002) (en banc), cert. denied, 539 U.S. 969 (2003) (Wiener, J., dissenting) ("[U]nlike judges and legislators who are paid from public funds to issue opinions and draft laws, [defendant] relies for its existence and continuing services, in significant part, on revenues from the sale of its model codes.").

¹⁷⁵ Cf. *New York Mercantile Exch., Inc. v. Intercontinental Exch., Inc.*, 497 F.3d 109, 116, 118 (2d Cir. 2007). The fact that the NYMEX settlement prices were established by committee suggests they were probably unique. But they were probably dominant, as illustrated by the appellate court's point that P was required by law to create them and by the district court's point that NYMEX prices are "widely publicized and used as benchmarks by market participants." *New York Mercantile Exch., Inc. v. Intercontinental Exch., Inc.*, 389 F. Supp. 2d 527, 542 (S.D.N.Y. 2007). See also *CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc.*, 44 F.3d 61, 74 (2d Cir. 1994) (holding Red Book guide to used car prices protectable). Despite the holding in CCC, a court would likely allow some unauthorized use of the Red Book when the use is attributable to the legal requirement in some states to take the average, for insurance purposes, of the value in the Red Book and the value in the Kelly Blue Book.

¹⁷⁶ That a work is important does not by itself make it dominant. Cf. *Harper & Row v. Nation Enters.*, 471 U.S. 539, 559 (1985) ("It is fundamentally at odds with the scheme of copyright to accord lesser rights in those works that are of greatest importance to the public."); *Folsom v. Marsh*, 9 F. Cas. 342, 348 (1841) (holding that D's copying of George Washington's private letters was not fair use where P had already published them in his biography of Washington). To be dominant, the work must be important for reasons other than its merit or P's contribution to it.

¹⁷⁷ Cf. *McGowan, supra* note 14, at 262 (noting that absolute copyright protection would seem to confer an unjustifiable windfall on bystanders who captured footage of Kennedy assassination and Rodney King beating).

¹⁷⁸ Compare *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 131-32, 146 (S.D.N.Y. 1987) (explaining that bystander's footage of Kennedy assassination was most important photographic evidence and D's book on assassination was a serious analysis of evidence that deserved to be heard), with *L.A. News Serv. v. Tullo*, 973 F.2d 791 (9th Cir. 1992) (finding there was no fair use where other versions of newsworthy event were readily available). Compare *L.A. News Serv. v. CBS Broad., Inc.*, 305 F.3d 924, 942 (9th Cir. 2002) (holding it was fair use for D to incorporate a few seconds of P's footage of Denny beating in promotion of D's trial coverage), with *L.A. News Serv. v. Reuters Television Int'l, Ltd.*, 149 F.3d 987 (9th Cir. 1998) (finding no fair use for D to copy and broadcast to news outlets over half minute of P's footage of Denny beating).

179 See H.R. Rep. No. 94-1476 at 54-55 (1976).

180 17 U.S.C. § 101 (2006 & Supp. IV 2010) (stating this proposition under the definition of “Pictorial, graphic, and sculptural works”).

181 Schechter & Thomas, *supra* note 9, at 76 (“[C]ourts and commentators have struggled to define this notion of conceptual separability and it is our sad duty to report that the law is in disarray.”); Matthew C. Broaddus, *Designers Should Strive To Create “Useless” Products: Using The “Useful Article” Doctrine To Avoid Separability Analysis*, 51 S. Tex. L. Rev. 493, 509 (2009) (“The vast array of confusing and potentially conflicting tests for conceptual separability is troublesome on many levels.”); Richard G. Frenkel, *Intellectual Property in the Balance: Proposals for Improving Industrial Design Protection in the Post-TRIPS Era*, 32 Loy. L.A. L. Rev. 531, 545 (1999) (Case law dealing with “useful articles does not reveal any consistency as to what constitutes ‘useful.’”).

182 John B. Fowles, *The Utility of a Bright-Line Rule in Copyright Law: Freeing Judges from Aesthetic Controversy and Conceptual Separability in *Leicester v. Warner Bros.**, 12 UCLA Ent. L. Rev. 301, 322 (2005) (noting that there are at least ten tests for conceptual separability). See also *Byron, supra* note 68, at 171-82 (reviewing many tests of copyrightability of useful articles).

183 See, e.g., *Pivot Point Int’l, Inc. v. Charlene Prods., Inc.*, 372 F.3d 913, 921 (7th Cir. 2004) [hereinafter *Pivot Point I*] (purporting to adopt Denicola test but looking to availability of alternative designs that could serve same utilitarian function as P’s design); *Carol Barnhart, Inc. v. Econ. Cover Corp.*, 773 F.2d 411, 419 (2d Cir. 1985) (suggesting that test is whether aesthetic features are required by utilitarian features); *Kieselstein-Cord v. Accessories by Pearl, Inc.*, 632 F.2d 989, 993 (2d Cir. 1980) (explaining that the test is whether artistic features are “primary” and utilitarian features “subsidiary”); 1 Paul Goldstein, *Goldstein on Copyright*, § 2.7.3 at 2:78 (3d ed. 2005) (“[A] ... feature incorporated in the design of a useful article is conceptually separable if it can stand on its own as a work of art traditionally conceived, and if the useful article in which it is embodied would be equally useful without it.”); Melville B. Nimmer & David Nimmer, 1 *Nimmer on Copyright* §2.08[B][3] (2004) (explaining that the test is whether design would still be marketable to some significant segment of community simply because of its aesthetic qualities even if it served no utilitarian function); William F. Patry, *Copyright Law and Practice* 285 (1994) (explaining that test is whether alternative design choice was available); *Byron, supra* note 68, at 195 (explaining that test is whether alternatives were available at time P created work); Robert C. Denicola, *Applied Art and Industrial Design: A Suggested Approach to Copyright in Useful Articles*, 67 Minn. L. Rev. 707, 741 (1983) (“[C]opyrightability ultimately should depend on the extent to which the work reflects artistic expression uninhibited by functional considerations.”); Barton R. Keyes, *Alive and Well: The (Still) Ongoing Debate Surrounding Conceptual Separability in American Copyright Law*, 69 Ohio St. L.J. 109, 141-42 (2008) (proposing two-factor balancing test in which courts balance degree to which designer’s subjective process is motivated by aesthetic concerns and degree to which design is objectively dictated by its utilitarian function).

184 The House Report teaches away from this point. See H.R. Rep. No. 94-1476 at 55 (1976) (“The test of separability ...does not depend upon the nature of the design ... only elements, if any, which can be identified separately from the useful article as such are copyrightable.”). Former 37 C.F.R. § 202.10(c) (1956) likewise teaches away: “[i]f the sole intrinsic function of an article is its utility, the fact that the article is unique and attractively shaped will not qualify it as a work of art. [The article is protectable only if it has features ... which can be identified separately and are capable of existing independently as a work of art”

185 *Pivot Point I*, 372 F.3d 913.

186 *Carol Barnhart*, 773 F.2d 411.

187 *Pivot Point I*, 372 F.3d at 915.

188 *Id.* at 931.

189 *Id.* at 915.

190 Id. at 916.

191 Pivot Point Int'l, Inc. v. Charlene Prod., Inc., 170 F. Supp. 2d 828, 832 (N.D. Ill. 2001) [hereinafter Pivot Point II].

192 See Pivot Point I, 372 F.3d at 933 (Kanne, J., dissenting) (“Without features, the mannequin’s head and neck would be little more than an egg on a stick, useless for its intended purpose.”).

193 Carol Barnhart, 773 F.2d at 412.

194 Id. at 420.

195 Id. at 413 (internal quotations omitted) (explaining that for purposes of its summary judgment motion, D conceded that it “contracted to have produced for it four forms ... [to be] copied from Barnhart’s display forms and [to be] ... substantially similar to Barnhart’s display forms”).

196 Id. at 418 (“Applying these principles, we are persuaded that since the aesthetic and artistic features of the Barnhart forms are inseparable from the forms’ use as utilitarian articles the forms are not copyrightable.”).

197 See *infra* Part IV.E (arguing that errors translate into more added complexity, more viable alternatives, and fewer contenders).

198 See Pivot Point I, 372 F.3d at 931-32 (“It certainly is not difficult to conceptualize a human face, independent of all of Mara’s specific facial features ... that would serve the utilitarian functions of a hair stand and, if proven, of a makeup model.”). See also Mattel, Inc. v. Goldberger Doll Mfg. Co., 365 F.3d 133, 136 (2d Cir. 2004) (implying that dolls can be made in many ways that differ from Barbie); Hart v. Dan Chase Taxidermy Supply Co., Inc., 86 F.3d 320, 321, 323 (2d Cir. 1996) (J. Calabresi) (concluding that for taxidermy the universe of possible expressions can be broad enough to sustain copyright protection because even realistic animal mannequins can vary sufficiently in artistic details such as pose, attitude, and appearance).

199 See Cohen, et al., *Copyright in a Global Information Economy* 202 (3d ed. 2010) (displaying pictures of torso forms from Barnhart); Joyce, et al., *supra* note 11, at 185, 193-94 (describing torso shapes as constrained).

200 Carol Barnhart, 773 F.2d at 419 (“[A] model of a human torso, in order to serve its utilitarian function, must have some configuration of the chest and some width of the shoulders.”). Compare Carol Barnhart, 773 F.2d 411, with Hart, 86 F.3d at 323 (Calabresi, J.) (distinguishing Barnhart torsos from taxidermy mannequins for mounting fish skins). “In Barnhart, the headless, armless, backless styrene torsos were little more than glorified coat-racks used to display clothing in stores ... In taxidermy, by contrast ... the shape, volume, and movement of the animal are depicted by the underlying mannequin. Whether the fish is shown as resting, jumping, wiggling its tail, or preparing to munch on some plankton, is dictated by the mannequin and its particular form” Hart, 86 F.3d at 323. See also *Superior Form Builders v. Dan Chase Taxidermy Supply Co.*, 74 F.3d 488, 494 (4th Cir. 1996) (distinguishing Barnhart on grounds that Barnhart torsos were used for displaying clothing whereas P’s taxidermy mannequins portray their own appearance).

201 *Kieselstein-Cord v. Accessories by Pearl*, 632 F.2d 989 (2d Cir. 1980).

202 *Brandir Int'l, Inc. v. Cascade Pac. Lumber Co.*, 834 F.2d 1142 (2d Cir. 1987).

203 *Kieselstein-Cord*, 632 F.2d at 991.

204 Id. at 990.

205 Id. at 993.

206 See *id.* at 995 (displaying photographs of P's buckles); Cohen, et al., *supra* note 199, at 199 (same).

207 See *id.* at 994 (stating that the buckles rose to the level of creative art).

208 *Brandir Int'l, Inc. v. Cascade Pac. Lumber Co.*, 834 F.2d 1142, 1147 (2d Cir. 1987).

209 Id. at 1146.

210 Id. at 1146-47.

211 Basic shapes are unprotectable on their own. See, e.g., *John Muller & Co., Inc. v. New York Arrows Soccer Team, Inc.*, 802 F.2d 989, 990 (8th Cir. 1986) (finding that simple arrow shapes are not copyrightable); *Esquire Inc. v. Ringer*, 591 F.2d 796, 801-02 (D.C. Cir. 1978), cert. denied, 440 U.S. 908 (1979) (affirming the view that a simple, elliptical lighting fixture is uncopyrightable because basic geometric shapes are in the public domain); *37 C.F.R. § 202.1(a)* (2005) (barring copyright protection for familiar symbols or designs); *Tufenkian Import/Export Ventures, Inc. v. Einstein Moonjy, Inc.*, 338 F.3d 127, 132 (2d Cir. 2003) (remarking that public domain includes standard geometric forms); *OddzOn v. Oman*, 924 F.2d 346, 350 (D.C. Cir. 1991) (holding that it is not an abuse of discretion for the Copyright Office to refuse to register the applicant's spherical "Koosh ball").

212 *Brandir Int'l*, 834 F.2d at 1147.

213 17 U.S.C. § 101 (2006 & Supp. IV 2010).

214 For the same reason, information in filled-in forms is copyrightable whereas blank forms that "do not in themselves convey information" are uncopyrightable. See *37 C.F.R. § 202(1)(C)* (2005) (stating that blank forms are uncopyrightable).

215 See 17 U.S.C. §101 (2006 & Supp. IV 2010) (stating that pictorial, graphic or sculptural works ... "includes works of artistic craftsmanship ... but not their mechanical or utilitarian aspects").

216 Cf. *Byron*, *supra* note 4, at 66 ("Where a functional or utilitarian constraint dictates the work, the likelihood that the work will result becomes that much higher due to the fact that any choice that the author may have confronted was one of a smaller set of choices.").

217 *Lanard Toys Ltd. v. Novelty Inc.*, 375 Fed. Appx. 705, 709-10 (9th Cir. 2010); *id.* at 714-17 (Clifton, J., dissenting) (arguing that protected portions of toy serve utilitarian function). See also *Spinmaster, Ltd. v. Overbreak LLC*, 404 F. Supp. 2d 1097, 1104 (N.D. Ill. 2005) (finding that motor and main propeller of toy flying saucer were uncopyrightable, but hub, blades, outer ring, separate controller and base station were copyrightable).

218 The Second Circuit, for example, has discussed at least seven different tests for separability and has ostensibly relied on at least three. See, e.g., *Kieselstein-Cord v. Accessories By Pearl, Inc.*, 632 F.2d 989, 993 (relying on whether artistic features are "primary" and utilitarian features "subsidiary"); *Carol Barnhart, Inc. v. Econ. Cover Corp.*, 773 F.2d 411, 419 (2d Cir. 1985) (discussing whether aesthetic features are required by utilitarian features); *Brandir Int'l, Inc. v. Cascade Pac. Lumber*, 834 F.2d 1142, 1144 (purporting to apply Denicola test of whether design has features that reflect "artistic expression uninhibited by functional considerations").

219 Some courts and commentators suggest that we interpret or revise the statute to switch its order of analysis from asking whether the work's pictorial, graphic or sculptural (PGS) features are separable from its utilitarian features to asking whether its utilitarian features are separable from its PGS features. See, e.g., Carol Barnhart, Inc., 773 F.2d at 419 (suggesting that aesthetic features embodied in a useful article are conceptually separable from that article if they are not required by the article's utilitarian features); Goldstein, *supra* note 183, at § 2.76 (stating that PGS feature "is conceptually separable ... if the useful article in which it is embodied would be equally useful without it"); Stacey Dogan and Wendy Gordon, *Functionality, Works in Progress in Intellectual Property Colloquium*, Boston U. School of Law (Oral Presentation, Feb. 11, 2011) (no written version yet available). Switching the order of analysis improves on the order literally recited in the statute. The reason is that if separating features from a work appears to destroy its utility, those features are less likely to be unique. However, merely switching the order of analysis would perpetuate the incorrect view that separability matters and thereby fail to explain some of the case law outcomes.

220 The best reasoned proposal along these lines is Thomas M. Byron, *As Long as There's Another Way: Pivot Point v. Charlene Products as an Accidental Template for A Creativity-Driven Useful Articles Analysis*, 49 IDEA 147 (2009). Yet Byron's alternatives test is slightly off-base because it focuses on the alternatives available to the creator when the work was created. See *id.* at 170-71. His test would be better if it focused on the alternatives available to other creators past, present, and future.

221 See, e.g., *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1253 (3d Cir. 1983), cert. dismissed, 464 U.S. 1033 (1984) (reasoning that computer programs are copyrightable expression of an idea when the idea can be expressed in many ways). *Accord Whelan Assoc., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222 (3d Cir. 1986), cert. denied, 479 U.S. 1031, 1236 (1987); *Dymow v. Bolton*, 11 F.2d 690, 691 (2d Cir. 1926); *Compaq Computer Corp. v. Procom Tech., Inc.*, 908 F. Supp. 1409, 1415, 1418 (S.D. Tex. 1995).

222 See Merriam-Webster Dictionary, <http://www.merriam-webster.com/dictionary/rube%20goldberg> (last visited May 20, 2012) (describing the nature of a Rube Goldberg machine).

223 See *Lanard Toys Ltd. v. Novelty Inc.*, 375 Fed. Appx. 705, 710-11 (9th Cir. 2010) (noting that P's designer testified that he "could have designed it in 'a million' other ways").

224 See *Byron, supra* note 4, at 65 ("Cases might exist where few variations are possible but one of the few variations is of such low probability as to merit copyright protection.").

225 Hughes, *supra* note 28, at 578 (asserting that "a small expression is deemed to lack sufficient originality").

226 See *id.* at 577 ("[T]he smaller the amount copied, the fairer the copying.").

227 *Id.* at 575-76.

228 See *id.* at 605-07. See, e.g., *Magic Mktg. v. Mailing Serv. of Pittsburgh, Inc.*, 634 F. Supp. 769, 772 (W.D. Pa. 1986) (holding "Contents Require Immediate Attention" and other short phrases unprotectable for lack of originality); *Takeall v. PepsiCo, Inc.*, 809 F. Supp. 19, 21 (D. Md. 1992), aff'd, 14 F.3d 596 (4th Cir. 1993), cert. denied, 512 U.S. 1236 (1994) ("[T]he court is not prepared to hold ... that the phrase at issue so lacks originality as to be unworthy of copyright protection."); *Acuff-Rose Music Inc. v. Jostens Inc.*, 155 F.3d 140, 143-44 (2d Cir. 1998) (Calabresi, J.) (holding the phrase "[y]ou've got to stand for something, or you'll fall for anything" unprotectable, and remarking that use of same or similar phrase by Abraham Lincoln, John Cougar Mellencamp, and Martin Luther King Jr. made it very unlikely that P had independently created phrase). See also *Joyce, et al., supra* note 11, at 85 (arguing that phrase in Acuff-Rose did not meet de minimis standard of creativity).

229 Hughes, *supra* note 28, at 605.

230 Cf. *Green, supra* note 11, at 947 (arguing that smaller works are more likely to be independently created because "the shorter the series of letters or numerals, the more likely it is that a number of people will stumble upon it"); *Landes & Posner, supra* note 7, at 89 ("The shorter the phrase, the likelier is independent duplication; and it is difficult by the methods of litigation to distinguish

between it and deliberate copying.”).

²³¹ Cf. Goldstein, *supra* note 183, at § 2.96 (3d ed. 2005) (arguing that the smaller the piece of expression, the less likely it is to have acceptable substitutes and thus the more likely it is to merge with idea it expresses); Hughes, *supra* note 28, at 617-18 (expanding on Goldstein’s point).

²³² Hughes, *supra*, note 28 (“Many very small expressions positively leap over the low threshold of originality”); *id.* at 607 (explaining that there are “thousands or millions of short phrases that are original enough to cross the modicum of the creativity threshold”).

²³³ Lewis Carroll, *Jabberwocky*, in *Jabberwocky and Other Poems*, 17 (Denver Publications) (2001).

²³⁴ Cf. Hughes, *supra* note 28, at 583 (“[T]here are many occasions when courts have succumbed to arguments that very small pieces of expression are worthy of independent copyright protection.”).

²³⁵ See *supra* Part III. See Landes & Posner, *supra* note 7.

²³⁶ See *supra* Part III.

²³⁷ See also McGowan, *supra* note 14, at 248-50 (arguing that it would be inefficient to protect names because the social value of names is predicated on everyone using them to refer to things).

²³⁸ Cf. *id.* at 251 n.100 (noting that some slogans serve as designators in the way that names and titles do).

²³⁹ See Material Not Subject to Copyright, 37 C.F.R. § 202.1(a) (1988) (excluding protection for names, titles and short phrases). Regarding protection for some short phrases, see discussion to follow.

²⁴⁰ See U.S. Copyright Office, Copyright Protection Not Available for Names, Titles, or Short Phrases, Circular 34 (2010).

²⁴¹ Cf. Hughes, *supra* note 28, at 610-19 (discussing transaction costs and other reasons not to protect microworks); Green, *supra* note 11, at 951-52 (relative transaction and enforcement costs rise as size of borrowed portion decreases).

²⁴² See Hughes, *supra* note 28, at 614-16.

²⁴³ *Murray Hill Publ’ns, Inc. v. ABC Commc’ns, Inc.*, 264 F.3d 622, 627-28 (6th Cir. 2001).

²⁴⁴ *Id.* at 627.

²⁴⁵ *Id.* at 633.

²⁴⁶ *Foxworthy v. Custom Tees, Inc.*, 879 F. Supp. 1200 (N.D. Ga. 1995).

²⁴⁷ *Id.* at 1204.

248 See Hughes, *supra* note 28, at 588 n.72.

249 See *id.* at 581-97 (discussing Foxworthy and other cases in which small works were protected or in which dicta suggests they would be).

250 Heim v. Universal Pictures Co., 154 F.2d 480, 487 n.8 (2d Cir. 1946) (remarking in dicta that it may be an infringement were someone to copy a highly original phrase such as “Twas brillig, and the slithy toves” or “Euclid alone has looked on Beauty bare”).

251 Warner Bros. v. American Broad. Co., 720 F.2d 231, 242 (2d Cir. 1983) (suggesting that small, highly original phrases can be protected under copyright law) (“[I]t is to be expected that phrases and other fragments of expression in a highly successful copyrighted work will become a part of the language. That does not mean they lose all protection”).

252 Narrell v. Freeman, 872 F.2d 907, 911 (9th Cir. 1989) (remarking in dicta that Frank Zappa’s “Weasels Ripped My Flesh” is an “original and hence protected phrase”).

253 Life Music, Inc. v. Wonderland Music Co., 241 F.Supp. 653, 655-56 (S.D.N.Y. 1965) (suggesting in dicta that “supercalifragilisticexpialidocious” is protectable). See also Google Inc. v. Copiepresse SCRL, Court of First Instance of Brussels, 13 February 2007, 2007 WL 1623283 (RB (Brussels)), [2007] E.C.D.R. 5 (non-descriptive newspaper headlines could be copyrightable).

254 See, e.g., Merges, et al., *supra* note 78, at 483 (limited protection for sound recordings “reflects the lobbying clout of broadcasters”).

255 Sound Recording Amendment of 1971, 17 U.S.C. § 114(b) (2006 & Supp. IV 2010).

256 See *id.* (stating that copyright does not protect a sound recording against the making “of another sound recording that consists entirely of an independent fixation of other sounds, even though such sounds imitate or simulate those in the copyrighted sound recording”).

257 See *supra* Part II.D.

258 See Hughes, *supra* note 28, at 579. See also Grand Upright Music, Ltd. v. Warner Bros. Records, Inc., 780 F. Supp. 182, 183-84 (S.D.N.Y. 1991) (finding liability for sampling of three words and a short keyboard riff); Bridgeport Music, Inc. v. Dimension Films, 410 F.3d 792, 801 (6th Cir. 2005) (“[A] sound recording owner has the exclusive right to ‘sample’ his own recording.”); Newton v. Diamond, 349 F.3d 591, 592 (9th Cir. 2003), amended 388 F.3d 1189, 1196-97 (9th Cir. 2004), cert. denied, 545 U.S. 1114 (2005) (stating that D’s use of six-second sample did not infringe musical composition, though it may have infringed sound recording had defendant not licensed it).

259 Cf. Jones, *supra* note 4, at 552-53, 569 (“Ideas and expression can merge only if they are the same type of entity. Ideas are themselves expressions. No idea can exist separately from some expression of the idea. The real dichotomy in copyright law is not between idea and expression but between unprotectable expression and protectable expression.”).

260 Cf. Green, *supra* note 11, at 941 (“[T]he more abstract material is, the more vulnerable it is to multiple independent creations. The chance of abstract material being independently created by any one person is the sum of that person’s chances of independently creating each of the concrete examples that fall under it. For example, my chance of independently creating the idea of a superhero is the sum of the chances of my independently creating each particular superhero-my chance of creating Superman plus my chance of creating Aquaman plus my chance of creating the Green Lantern, and so on.”); Kurtz, *supra* note 11, at 1243-44 (“Perhaps we can sort unprotectible [sic] abstract ideas (labeled [sic] ideas) from protectible [sic] concrete ideas (labeled [sic] expression.”); *id.* at 1257-58 (arguing that one reason not to protect a general idea is that it is difficult to determine whether D copied it from P or created it independently); Khong, *supra* note 65, at 7-8, 18-19 (positing that the probability of coincidental similarity is higher at a

higher level of abstraction because “elements at higher levels of abstraction are fewer and more common”).

261 Cf. Durham, *supra* note 4, at 139 (“The difference between unprotectable ‘ideas’ and protectable ‘expression’ is one of specificity.”); Jones, *supra* note 4, at 565-66 (pointing out that courts never define what they mean by an idea, but look to degree of detail and arrangement); IBCOS Computers Ltd. v. Barclays Mercantile Highland Fin. Ltd. [1994] FSR 275 (U.K.) (finding only general ideas are unprotected; detailed ideas may be protected under copyright); Kurtz, *supra* note 11, at 1248 (“The process of abstraction can be seen as involving an omission, a setting aside, as more and more of the detail is left out The more abstract an idea is ... the more it is a part of the culture as a whole.”); *id.* at 1251 (“The ideas left unprotected by copyright ... are reductions from the work, a lessening of its complexity”); *id.* at 1253 (arguing that unprotected ideas are simple, conventional, and, like primary colors or elements of matter, exist in limited number); *id.* at 1253-54 (arguing that ideas complex enough to be protectable reside only at the small area where a number of simple ideas intersect); *id.* at 1255 (“Simple [hence unprotectable] ideas tend to be derived from experience and impressions—from the direct impact of that which exists in the world surrounding the author. More complex [and hence protectable] ideas are more the creation of the author”); *id.* at 1256 (“General ideas are abstract and partial ideas of more complex ones. The idea of ‘horse’ leaves out those particulars in which individual horses differ and retains only those wherein they agree.”); Byron, *supra* note 4, at 73-74 (translating Kurtz’s discussion of Venn diagrams into language of probability); Sheldon v. Metro-Goldwyn Pictures, Corp., 81 F.2d 49, 54 (2d Cir. 1936) (J. Hand) (finding “the more general patterns” of the work are unprotectable).

262 See, e.g., Green, *supra* note 21, at 130 (stating that individual ideas are likely to entail relatively high transaction costs, because they are usable by many parties but of little worth to any single party). See also *supra* text and notes Part IV.B.

263 This pattern has some added complexity, meaning a combination of elements not manifestly devoid of novelty. More importantly, it has innumerable viable alternatives. There is nothing valuable about this particular choice of creatures and meeting place. It reflects no stable features of shared reality. Indeed, in shared reality seahorses are found only where prairie dogs are not, and neither could survive for an instant on Pluto. Finally, this pattern has few contenders. Although it takes no skill to create, no one would foresee any value from creating it as opposed to creating some other random pairing of creatures.

264 In terms of our variables, this pattern has no added complexity. That is, its elements-boy, meets, girl, dance, and the combination thereof—are manifestly devoid of novelty. It also has few viable alternatives. Although there are alternative ways for a boy and girl to meet in an atmosphere conducive to new romance, a dance is more closely associated with new romance than most alternatives. Finally, this pattern has many contenders. Innumerable creators ignorant of P’s work have created and will create this pattern cost-effectively, because it foreseeably achieves valuable ends and because it directly reflects obvious features of shared reality.

265 Cf. Samuels, *supra* note 4, at 382-83 (“Whereas the focus of the idea-expression dichotomy is upon whether the work constitutes idea or expression, the merger doctrine focuses upon whether the work is capable of alternative expressions. Thus, the doctrine requires reference not only to a given work, or to two given works, but to a whole range of works that might use the idea of the original work.”).

266 Cf. *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 146 (S.D.N.Y. 1968) (holding that film of Kennedy assassination did not merge with the event).

267 379 F.2d 675, 675-679 (1st Cir. 1967).

268 *Id.* at 676.

269 *Id.* at 678 (“1. Entrants should print name, address and social security on a boxtop, or a plain paper. Entries must be accompanied by *** boxtop or by plain paper on which the name ***is copied from any source. Official rules are explained on ***packages or leaflets obtained from dealer. If you do not have a social security number you may use the name and number of any member of your immediate family living with you. Only the person named on the entry will be deemed an entrant and may qualify for a prize. ‘Use the correct social security number belonging to the person named on entry ***wrong number will be disqualified.’”).

270 *Id.* at 678.

271 Id. at 678-79.

272 Cf. Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 708 (2d Cir. 1992) ("[E]fficiency concerns may so narrow the practical range of choice as to make only one or two forms of expression workable options.").

273 See Hughes, *supra* note 4, at 193 (suggesting that when judges and copyright scholars refer to facts, they mean representations or statements of facts.); Green, *supra* note 11, at 948-49 (discussing Feist majority's conflation of reality with representations of reality).

274 See, e.g., Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340 (1991) ("[F]acts ... are not original, and, thus, not copyrightable."); Miller v. Universal City Studios, Inc., 650 F.2d 1365, 1369 (5th Cir. 1981) ("[F]acts ... may not be copyrighted.")).

275 Most commentators avidly reject the Court's assertions about facts. See, e.g., Hughes, *supra* note 4, at 186 ("The problem with the Feist analysis is that it is wrong—and that error has produced a decade of distortion in copyright doctrine."); Green, *supra* note 21, at 111 ("[T]he Feist approach is incoherent.").

276 See, e.g., Feist, 499 U.S. at 347 ("The distinction is one between creation and discovery."); CDN Inc. v. Kapes, 197 F.3d 1256, 1259 (9th Cir. 1999) (same); Durham, *supra* note 4, at 142 (same).

277 See, e.g., A.A. Hoehling v. Universal City Studios, Inc., 618 F.2d 972, 974 (2d Cir. 1980), cert. denied, 449 U.S. 841 (1980) ("[T]he protection afforded the copyright holder has never extended to history, be it documented fact or explanatory hypothesis."); CDN, 197 F.3d at 1260-61 (finding coin price guide protectable where coin prices were not historical market prices but imperfect estimates based on author's judgment and expertise); CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc., 44 F.3d 61, 63 (2d Cir. 1994) (holding Red Book used car guide protectable where prices "are not historical market prices but predictions, based on a wide variety of information sources and ... professional judgment."); Nash v. CBS, Inc., 899 F.2d 1537, 1541 (7th Cir. 1990) ("[T]he first person to conclude that Dillinger survived does not get dibs on history.").

278 Durham, *supra* note 4, at 172 n.239 (stating that recent cases distinguish between uncopyrightable hard facts and copyrightable soft facts; hard facts refer to information that is relatively certain and independent of any point of view; soft facts refer to information that is relatively uncertain and "infused with opinion").

279 Cf. Khong, *supra* note 65, at 20 (explaining that when facts are single-sourced, likelihood of coincidental similarity to other works is low) ("However, from a welfare perspective, protecting sole-sourced facts under copyright law may lead to a severe monopolisation [sic] problem necessitating further remedy.").

280 See Hughes, *supra* note 4, at 196; *id.* at 584 n.42.

281 Feist, 499 U.S. at 343-44.

282 See Castle Rock Ent'mt v. Carol Publ'g Grp., 150 F.3d 132, 139 (2d Cir. 1998) (holding that unauthorized trivia book, *Seinfeld Aptitude Test*, infringed *Seinfeld* television series because "facts" appearing in D's book had been created by P).

283 In terms of our variables, P's phonebook had high added complexity and innumerable viable alternatives. Given P's exclusive right to assign phone numbers, P's phonebook also had no contenders. According to Michael Green, facts presented in a phonebook are "likely to be duplicated by anyone who undertakes the same project." Green, *supra* note 21, at 125 n.47. Green is correct insofar as anyone who independently creates a phonebook listing is likely to include most of the same names and addresses in the same order, but he is wrong to imply that anyone would independently create and assign the same numbers to the same people.

²⁸⁴ Cf. *Rural Tel. Serv. Co. v. Feist Publ'ns, Inc.*, 737 F. Supp. 610, 622 (D. Kan. 1990) (finding that Rural had an unlawful purpose to extend its monopoly in phone service).

²⁸⁵ See Hughes, *supra* note 4, at 194 (arguing that there are few ways of expressing facts, particularly quantitative facts); Green, *supra* note 21, at 124 ("The problem of parallel independent creation is surely the main reason that individual facts have been thought insufficiently 'original' to be protected."); Green, *supra* note 11, at 951 (facts are susceptible to parallel independent creation. "That many people are liable to arrive at the same factual representations is particularly true concerning those representations that depend upon simple observation ... People's factual beliefs, unlike their fanciful stories, tend to overlap."); Robert Post, *The Constitutional Concept of Public Discourse*, 103 Harv. L. Rev. 603, 657-58 (1990) (arguing that we treat a statement as factual when we expect reasonable persons engaged in the inquiry to reach same conclusion); Byron, *supra* note 4, at 66 (asserting that accuracy is a constraint that increases probability that the work will be created). See also Landes & Posner, *supra* note 7, at 102-03 ("When the 'originality' of a work consists mainly in the disclosure of facts, it will often be difficult to determine whether a subsequent author's similar work is a copy of the previous work or a work of independent creation because there will be other routes of access to facts besides the previous work.").

²⁸⁶ Cf. *Byron*, *supra* note 4, at 66 (suggesting that perfect copy of a prior work is more likely to be created than any given imperfect copy of prior work); Green, *supra* note 21, at 125 ("[C]reative works can be produced through inadvertence."); *Alfred Bell & Co. v. Catalda Fine Arts, Inc.*, 191 F.2d 99, 105 (2d Cir. 1951) ("A copyist's bad eyesight or defective musculature, or a shock caused by a clap of thunder, may yield sufficiently distinguishable variations. Having hit upon such a variation unintentionally, the 'author' may adopt it as his and copyright it."); Joyce, et al., *supra* note 11, at 632 (discussing a number of cases in which copying could be proved by presence of errors in D's work also present in P's work).

²⁸⁷ Cf. *Khong*, *supra* note 65, at 19-21 (arguing that number of phenomena that have actually occurred--factual phenomena--is smaller than number of possible fictional phenomena. Because factual phenomena are less abundant than fictional phenomena, odds of coincidental similarity are higher for works based on factual phenomena.); Hughes, *supra* note 4, at 215 ("[E]lements of fiction are rarely needed for non-expressive activity."). Hughes' argument implies that a copyright monopoly on fictional work is seldom a meaningful economic monopoly.

²⁸⁸ See *Am. Dental Ass'n v. Delta Dental Plans Ass'n*, 126 F.3d 977, 979 (7th Cir. 1997) (Easterbrook, J.) (referring to E=MC² as unprotectable fact). But cf. Green, *supra* note 11, at 954-57 (proposing alternative reason for lack of protection for explanatory theories: their creators benefit more when they are freely disseminated).

²⁸⁹ See Al Kelly, *Challenging Modern Physics: Questioning Einstein's Relativity Theories* 15 (BrownWalker Press 2005) (discussing Pretto's formulation of the theory of relativity)..

²⁹⁰ *Id.* Given the transcendent importance of nuclear weapons, this equation is also likely dominant.

²⁹¹ Cf. *Durham*, *supra* note 4, at 172-73 (presenting this example of a 1924 nickel).

²⁹² With respect to our three variables, A has no or low added complexity, few viable alternatives, and a moderately high number of contenders. The number of contenders is only moderately high because, although anyone could obtain this information at no cost, few people would expect a reward from stating something so obvious.

²⁹³ See, e.g., *EduTech, What Do You Know About the Penny, Nickel, and Dime?* <http://www.leroy.k12.ny.us/Elementary/LinksPages/money/sld019.htm> (last visited Nov. 9, 2011).

²⁹⁴ Cf. *Durham*, *supra* note 4, at 173 ("Nothing in the world 'out there' compels the choice of exactly \$16.09."); *CDN v. Kapes*, 197 F.3d 1256, 1260 (9th Cir. 1999) (finding collectible coin price guide based on imperfect estimates requiring judgment and expertise); *CCC Info. Servs. v. Maclean Hunter Market Reports*, 44 F.3d 61, 63, 72-73 (2d Cir. 1994) (Red Book used car prices are estimates infused with opinion and "based on a wide variety of information sources and ... professional judgment."); Hughes,

supra note 4, at 204 (suggesting that court in CCC implied that Red Book was original because it was inaccurate); Green, supra note 21, at 119 (“[I]t is common in factual compilation cases for a court to claim that content is protected, even though it is rightly described as factual, because extensive judgment was required for its creation.”). But see Burk, supra note 44, at 607-08 (“The Red Book tables [in CCC] provide testable and falsifiable predictions about the value of used automobiles and a recommendation as to how one ought to act--what one ought to pay--in the market for used automobiles. While the value estimate may have been the result of choices, those choices were profoundly constrained by the logic of science, by the need to conform to the state of the external world.”).

²⁹⁵ Cf. Green, supra note 21, at 124 (stating the more judgment required to create a factual compilation, the less likely it is to be independently created; courts hold factual content unprotectable when it has a high likelihood of parallel independent creation); McGowan, supra note 14, at 259 (“If any reasonable person replicating CDN’s inquiry would ... reach the same price as CDN, then CDN’s price expresses a fact”).

²⁹⁶ In Kregos v. Associated Press, 937 F.2d 700, 702, 704-07 (2d Cir. 1991), D was held liable for producing a virtually identical form used to predict the performance of baseball pitchers matched for an upcoming game. The court pointed out that P’s form was the first ever to list nine particular categories of data concerning the previous performances of pitchers and that P’s combination of nine categories was both drawn from a universe of thousands of alternatives and based on P’s subjective opinion as to the data newspaper readers should consider in making their own predictions. Note that, if Kregos’ compilation of pitching data were the best way to predict outcomes, it would probably be repeatable. However, it is very unlikely to be the best way. See generally Durham, supra note 4, at 167-70 (discussing Kregos). Compare Kregos, with Bibbero Sys., Inc. v. Colwell Sys., Inc., 893 F.2d 1104, 1108 (9th Cir. 1990) (denying copyright in medical claim forms).

²⁹⁷ B also has few contenders because the market for collectible coin valuations is smallish and because other estimators are likely to base their estimates on inputs whose values have changed since B was created.

²⁹⁸ See supra Part II.C (discussing fact that tiny sub-elements of works are not unique).

²⁹⁹ Schechter & Thomas, supra note 9, at 70. See also Gorman, supra note 18, at 19 (suggesting that maps tend to be thinly protected); Merges, et al., supra note 78, at 480 (stating that limited range of expressive choices necessarily limits scope of protection for maps); Darden v. Peters, 488 F.3d 277, 287 (4th Cir. 2007) (upholding refusal of Copyright Office to register standard census maps, finding that adding color, shading and labels with standard fonts and shapes did not render maps sufficiently original).

³⁰⁰ Cf. Gen. Drafting Co. v. Andrews, 37 F.2d 54, 55 (2d Cir. 1930) (“The elements of the copyright [in a map] consist in the selection, arrangement, and presentation of the component parts.”); Joseph Story, *Commentaries on Equity Jurisprudence as Administered in England and America* 243 (1836) (“The difficulty [for maps] is to distinguish, what belongs to the exclusive labors of a single mind, from what are the common source of the materials of the knowledge used by all.”).

³⁰¹ Compare Kern River Gas Transmission Co. v. Coastal Corp., 899 F.2d 1458, 1465-66 (5th Cir. 1990) (concerning the placement on a map of Kern River’s proposed location for a prospective pipeline), with Mason v. Montgomery Data, Inc., 967 F.2d 135, 140 (5th Cir. 1992) (concerning bringing together the available information on boundaries, landmarks, and ownership and choosing locations and effective pictorial expression of those locations). See also Byron, supra note 4, at 51 (analyzing Kern).

³⁰² In terms of our variables, a type (i) map is unique because it has many viable alternatives. It may also have high added complexity and few contenders.

³⁰³ In terms of our variables, a type (iii) map is unique because it has many viable alternatives. It may also have high added complexity.

³⁰⁴ In terms of our variables, a map of type (iv) is unique because it has zero contenders.

³⁰⁵ Any given accurate biography is likely to have many viable alternatives and high added complexity. Cf. Am. Dental Ass’n v. Delta

Dental Plans Ass'n, 126 F.3d 977, 979 (7th Cir. 1997) (Easterbrook, J.) ("There can be multiple, and equally original, biographies of the same person's life, and multiple taxonomies of a field of knowledge.").

³⁰⁶ This hypothetical is based on one in Joyce, et al., *supra* note 11, at 148.

³⁰⁷ See, e.g., *Folsom v. Marsh*, 9 F. Cas. 342, 349 (1841) (holding it was not fair use for D to copy portions of George Washington's private letters owned by P and published in P's biography of Washington); *Harper & Row v. Nation Enters.*, 471 U.S. 539, 540-41 (1985) (finding no fair use for The Nation to scoop former President Ford's autobiography by obtaining pilfered copy of pre-publication manuscript).

³⁰⁸ Suppose an accurate autobiography and an accurate biography about the same person include equally unique highlights and omissions of information accessible to other biographers. The autobiography will be additionally unique insofar as it also includes information accessible only to the autobiographer.

³⁰⁹ See *McGowan*, *supra* note 14, at 237 ("[C]ost recovery-sweat of the brow doctrine-is alive and well."); *id.* at 257 ("Feist rejected the 'sweat of the brow' doctrine in name only. The doctrine lives on in the tacit acceptance that spontaneous news reporting is creative, when much of the time that is not true.").

³¹⁰ See, e.g., *Alfred Bell v. Catalda Fine Arts*, 191 F.2d 99, 104-05 (2d Cir. 1951) (upholding copyright in mezzotint engravings of paintings in public domain, based in part on great skill and effort required to simulate public domain oil paintings via mezzotint process); *Alva Studios, Inc. v. Winninger*, 177 F. Supp. 265, 267 (S.D.N.Y. 1959) (upholding copyright in half-size reproduction of Rodin's statue "Hand of God," based in part on long hours and great skill required to create reproduction); *U.S. Payphone, Inc. v. Execs. Unlimited of Durham, Inc.*, 18 U.S.P.Q. 2d 2049, 2050-51 (4th Cir. 1991) (upholding copyright in publication that distilled complicated payphone tariff information in public domain into a convenient one-page-per-state format).

³¹¹ Cf. *Green*, *supra* note 21, at 125 n.47 ("[T]he difficulty of assembling facts will reduce the extent to which parallel independent creation is a problem.").

³¹² Cf. *Byron*, *supra* note 4, at 66 (suggesting that perfect copy of a prior work is more likely to be created than any given imperfect copy of prior work). See also *supra* Part IV.E.

³¹³ See, e.g., *Meshwerks Inc. v. Toyota Motor Sales U.S.A., Inc.*, 528 F.3d 1258, 1260-61 (10th Cir. 2008) (involving special digital imaging of Toyota cars).

³¹⁴ See *Gorman*, *supra* note 13, at 560-61 ("Although there is a natural temptation to think of the three stages of copyright analysis--copyrightability, infringement, and defenses of privilege--as water-tight compartments, they are not; there is a common substratum of social policy under all three of these issues"). Cf. *Wiley*, *supra* note 13, at 119-20 (positing that three central elements of copyright doctrine--originality, idea-expression dichotomy, and infringement standards--are closely related placeholders for other considerations).

³¹⁵ Though original, the phrase is likely non-unique (and uncopyrightable), because it includes relatively few elements and because it is only moderately unconstrained (assuming it is not a nonsense phrase).