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Product Design: the Misfit of Intellectual Property Law

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The collection of legal rights commonly labeled “intellectual property” does not reflect any comprehensive master plan. Indeed, the label itself does a disservice in suggesting a set of laws with some coherence, cohesion, or at least commonality.¹ In fact, the various laws governing so-called intellectual property have evolved to address disparate concerns, at different times, and through distinct legal tools.² As a result, the canvas of intellectual property laws looks more like a messy collage – with overlaps, unmarked or blank spaces, and jagged edges – than a neat landscape characterized by careful planning and harmony.

If there is any commonality in the IP tangle, it’s the notion that *patterns* matter: patterns of words, sounds, colors or other indicia. At issue in most parts of IP are rights and liberties to copy or duplicate patterns that someone has developed, arranged, or given some value.³ An intangible pattern, if given breath or performance or durable form, makes something we can see or hear or touch, such as the sound of a symphony, a design for a chair, a book filled with vampire stories, or a machine for processing rubber.

¹ The name “intellectual property” raises other concerns as well. Scholars have suggested, for example, that the widespread use of the moniker “property” has led courts and others to overlook the inherent limitations built into copyright, patent, and trademark rights. *See, e.g.,* Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873, 895-96 (1997) (reviewing JAMES BOYLE, *SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY* (1996)) (attributing at least part of the recent trend toward “propertization” of information to a “fundamental shift in the rhetoric of intellectual property law,” including the recent adoption of the term “intellectual property”); [collect other citations on the rhetoric of property – maybe Jessica Silbey?]; JESSICA REYMAN, *THE RHETORIC OF INTELLECTUAL PROPERTY: COPYRIGHT LAW AND THE REGULATION OF DIGITAL CULTURE* 59 (2009) (describing the “property stewardship narrative” of copyright law).

² Stallman

³ Gordon, “IP” in Oxford.

Initially, the landscape of legal rights in such patterns was largely open, in the sense that virtually anyone could copy anything without legal restraint. Over time, however, copyright, trademark, patent, trade secret, and state publicity laws have stretched to cover new subject matters and to afford new private rights. More and more intangibles—some created, some preexisting but given new and valuable meanings-- have become susceptible to multiple forms of exclusive or non-exclusive right.

Some works, even now, resist overlap, and fall exclusively into one or another of the intellectual property ^{silos} ~~buckets~~. Most expressive literary and musical works, for example, enjoy exclusivity only under copyright; non-creatively arranged customer lists receive protection against copying, if at all, under trade secret law; and short logos, names, and most other marketing devices rely on trademark laws for protection against infringement or dilution. But despite these islands of calm, the overlap has become more frequent and pronounced. As a result, it has become increasingly important to define the nature of the contested spaces, where a subject matter *could* be embraced by more than one doctrine, but one of the doctrines would give a treatment different than the other. Particularly key are the patterns that patent law would put into the public domain—into an ‘unmarked space’-- but that another species of IP law might restrain the public from copying. In such cases, judges and policymakers have to decide which interest should prevail – patent law’s interest in preserving ^{access to its open space} ~~as open its areas that are “blank”~~ of ~~exclusion rights~~, or copyright or trademark law’s interest in furthering their own normative goals by granting exclusivity. Courts must decide, in other words, what *kind* of blank space they’re dealing with. Patent’s public domain could be what we call a “negative commons” – a space that’s free by default, but permeable to governmentally-approved private acquisition. Or it could be a “positive commons,” affirmatively guarded against intrusion, either conditionally or

absolutely.⁶ The choice between these polar conceptions of the public domain will dictate the extent to which copyright and trademark law defer to patent law's decision to leave certain patterns free for copying.

Against this background we encounter the much-litigated hotbed known as design protection. ~~Much of~~ ^{sketch} design protection depends for its existence ~~in part~~ on whether patent law's 'common' is positive or negative. Early on in the life of copyright, patent, and unfair competition law, the design or pattern of functional product features – the features responsible for making products work – were thought to be governed exclusively by patent law.¹¹ Neither copyright nor trademark law had developed with the goal of incentivizing or rewarding functional innovation. Both had developed to protect symbols and patterns whose role was expressive or informational rather than utilitarian – whose purpose was to stimulate the intellect ~~or aesthetic sense~~ ^g and promote knowledge (in the case of copyright) or to mark the source of the product (in the case of trademarks). Copyright law, in this view, protected pure expression; trademark law protected distinctive names and symbols; but inventors had to look to patent law to protect objects that played actual functional roles in the physical world. Copyright initially contained no protection for three-dimensional designs, even as sculptures,¹² and early unfair competition laws rarely extended to the shape or features of products.

Over the course of the twentieth century, however, copyright's conception of "works of authorship" began to broaden into the realm of three-dimensional applied art. At the same time,

⁶ On the permeability of commons see Frischmann, Strandburg, Madison; Elinor Ostrom.

¹¹ If they could be kept secret they could also be governed by trade secrecy laws, but most product features are visible "on their face", Samuelson et al, MANIFESTO CONCERNING COMPUTER PROGRAMS. Visible features as non-secrets are ineligible for trade secrecy protection.

¹² The first United States Copyright Act, in 1790, limited itself to any "map, chart, book or books already printed." 1 Stat. 124.

courts began to treat product shapes and features as characteristics that could indicate product source, and thus qualify for trademark protection. Both of these developments raised difficult questions about the relative domains of patent, copyright, and trademark law.

Some of these questions were what we call “intrinsic” to one intellectual property regime. Courts had to ask whether extending protection to a particular product or feature would promote trademark or copyright law’s own internal goals. Would granting copyright protection to a decorative lamp base advance copyright law’s goal of promoting progress in “Science and the Useful Arts”?¹³ If the shape of a truck became so widely known that truckers viewed any truck with that distinctive shape as coming from a single source, did the interests of fair competition¹⁴ justify an injunction against imitation?¹⁵ As we discuss below, even these intrinsic questions proved surprisingly challenging.¹⁶

The more intractable questions, however, involved the relationship between and among trademark, copyright, and patent law. As copyright and trademark law crept into patent’s space,

¹³ See *Mazer v. Stein*, 347 U.S. 201 (1954) (finding the utilitarian goals of copyright law promoted by recognizing copyright protection in sculptural lamp base).

¹⁴ Because trademark law is a species of the broader law of unfair competition, the resolution of trademark policy questions require attention to competitive concerns. See Stacey L. Dogan & Mark A. Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUSTON L. REV. 777, 788 (2004) (“Trademark law ... aims to promote rigorous, truthful competition in the marketplace by preserving the clarity of the language of trade.”); see generally Graeme B. Dinwoodie, *The Story of Kellogg Co. v. National Biscuit Co: Breakfast with Brandeis*, INTELLECTUAL PROPERTY STORIES (Jane C. Ginsburg & Rochelle Cooper Dreyfuss eds., 2006) (discussing unfair competition foundations of trade dress protection).

¹⁵ See *Truck Equipment Service Co. v. Freuhauf Corp.*, 536 F.2d 1210 (8th Cir. 1976) (Finding trademark protection in truck design: “Full and fair competition requires that those who invest time, money and energy into the development of goodwill and a favorable reputation be allowed to reap the advantages of their investment.”); *Shredded Wheat Co. v. Humphrey Cornell Co.*, 250 F. 960, 963 (2d Cir. 1918) (“If the public has come so to associate [a product] with a single maker, he is, we think, entitled to some protection, as much when the association be through mere appearances as when it be wrapped up in a name.”); cf. *Wal-Mart v. Samara Bros., Inc.*, 529 U.S. 205, 213 (2000) (noting anti-competitive risks of broad product design protection).

¹⁶ See *infra* __.

policymakers had to decide how to accommodate the sometimes-conflicting policy goals of each of the three intellectual property regimes. In particular, courts had to decide how to respond when protecting a particular product or feature might serve copyright or trademark law's objectives, but could interfere with patent law and what judges saw as patent law's carefully calibrated system for incentivizing innovation.¹⁷ Because copyright and trademark law have less demanding standards and longer terms than patent, the availability of legal protection under these regimes might encourage innovators to opt for them – rather than the shorter-term, more exacting regime of patent – to protect their useful innovations in product features. The threat is that patent law might grow rusty with disuse.

Imagine, for example, a chair that is both gorgeous and elegant, with innovative ergonomic features that blend seamlessly with its aesthetic aspects. Imagine further that the overnight success of the chair makes its shape immediately recognizable to the public within weeks of its first sale. Viewed from within the individual silos of copyright, trademark, and patent law, one might conclude that the policy goals of each form of intellectual property law justify protecting this piece of furniture. Copyright protection would reward the creative vision reflected in its gorgeous shape; trademark protection would ensure that the public had confidence

¹⁷ *Cf.* *Baker v. Selden*, 101 U.S. 99 (1879) (“The claim to an invention or discovery of an art or manufacture must be subject to the examination of the Patent Office before an exclusive right therein can be obtained; and it can only be secured by a patent from the government.”). Of course, critics contend that the United States patent system is anything but carefully calibrated these days. *See, e.g.*, JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* (2009); MARK A. LEMLEY & DAN L. BURK, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* (2009). But at least in theory, the patent system has qualitative requirements of novelty, utility, and invention that allow exclusive rights only to those who have advanced the technological arts in an identifiable way. *See, e.g.*, *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) (“[T]he results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts.”); *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

that chairs resembling this one came from a consistent and reliable source; and patent protection would reward the nonobvious innovation that made the chair so comfortable. But granting simultaneous (and sequential)¹⁸ protection under each regime could well result in perpetual protection against copying, and defeat the patent system's "ultimate goal" of "bring[ing] new designs and technologies into the public domain through disclosure."¹⁹ To avoid this result, the law has long denied copyright and trademark protection for demonstrably superior functional designs.²⁰

But what if the design offers no obvious utilitarian advantage, so that giving the manufacturer exclusive rights under copyright or trademark law would have no apparent impact on competitors' ability to offer competing products? In such a case, it might seem logical to recognize copyright or trademark rights in the design. Because the product appears to have perfect substitutes (at least in function), it arguably doesn't trigger patent law's interest in incentivizing valuable new functional innovations and then releasing them to the public domain promptly. And because the design has both aesthetic and source-identifying features, there is some cost to denying exclusive rights under copyright or trademark law. Logically, then, should

¹⁸ Because trademark protection arises only after the product shape becomes recognizable as a source indicator, a manufacturer generally must wait until the shape acquires such "secondary meaning" to claim legal rights under trademark law. *See Wal-Mart Stores, Inc. v. Samara Bros., Inc.*, 529 U.S. 205 (2000). If sellers could claim both patent and trademark protection for the same feature, they could use their patent term to establish secondary meaning, and then claim protection under trademark law for as long as they continued to sell the product with the source-indicating feature. *See generally Viva R. Moffat, Mutant Copyrights and Backdoor Patents: The Problem of Overlapping Intellectual Property Protection*, 19 BERKELEY TECH. L. J. 1473 (2004).

¹⁹ *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151 (1989).

²⁰ This threat to patent's core principles does not depend on whether the chair-maker tries its luck with a patent or, indeed, on whether the chair is patent-eligible. If the chair is *not* eligible for a patent – if, for example, it fails the novelty or non-obviousness requirements – then granting trademark or copyright protection for it could achieve something even worse than extending a patent: it could enable the chair-maker to obtain exclusivity in features that patent law would have insisted on dedicating to the public.

copyright and trademark law both extend such rights in this case? It might seem so. This kind of reasoning suggests deference to patent only when necessary to prevent a claim of exclusivity in functionally superior designs.

In practice, however, both copyright and trademark law have doctrines that deny private rights to a much broader range of designs than this logic would suggest. First there are channeling doctrines, which want to direct certain products away from one kind of private right to someplace else: a sister legal doctrine. Second there are doctrines of self-discipline, where copyright and trademark do not *want* to extend private rights for reasons of those doctrines' own internal coherence and purpose, and *want* a public liberty to copy. For example, copyright aims to promote knowledge; it could hardly do so if people were not permitted to repeat and discuss, or learn and apply, the ideas they learn from reading copyrighted books. And trademark aims to shelter a fair competitive process; it could hardly do so if it fostered functional monopoly. Such self-discipline doctrines together with channeling doctrines exclude trademark and copyright from granting private rights even where the danger seems low of those rights generating a monopoly in a superior functioning product.²¹ *Cases in some disarray*

Remember We see these broad prohibitions on exclusivity operating in copyright's "separability" doctrine, which denies protection to any design that cannot be conceptually separated from the product's function, largely without regard to whether that function confers any advantage over its

²¹ NOTE: We need to discuss further whether channeling doctrines are intrinsic or extrinsic. At least arguably, "intrinsic" applies to doctrines about what copyright and trademark CAN and SHOULDN'T do. "Channelling" involves copyright and trademark making judgments not only about their own proper sphere, but also about the superiority or better 'fit' of patent. It's hard to pin down what aspects of case opinions distinguish between patent's OWN demands, and copyright or trademark's views on what those doctrines WANT to cede to patent.

competitors.²² To similar effect is the existing rule against using copyright to protect “methods of operation” or architecture “dictated by function”;²³ it does not matter if the “method” or architectural shape has any advantages over alternatives. And trademark law’s “functionality” doctrine at least arguably excludes any feature that performs a utilitarian role within the product.²⁴ Both the separability requirement (in copyright) and the functionality rule (in trademark) have been something of a mess since their conception, and both have led to substantial doctrinal disagreements among the lower courts. Some courts attempt to gauge the threat to patent law on a case-by-case basis, extending trademark or copyright protection when they do not perceive a tension with patent law’s public domain. Other courts – including the Supreme Court in its recent trademark jurisprudence – choose to steer well clear of patent law’s space, rather than engage in a case-by-case balancing act.²⁵ *an intrinsic shift*

In our view, the disarray of separability and functionality analysis has resulted, in large part, from the absence of *not recognizing intrinsic + extrinsic reasons* ~~a normative defense of broad subject matter~~ *reference to patent*. SD

LEFT OFF HERE SEPT 7 The Supreme Court and countless commentators have pointed out that the areas of liberty that federal copyright and patent leave for the public “right to copy” are not mere afterthoughts but are essential to the statutory scheme.²⁶ Our question is whether patent guarantees “rights to copy” strong enough to push back against copyright and trademark, and *how these interact in reason how*

²² See 17 U.S.C. §§ 101 (definitions of “useful article” and “pictorial, graphical, and sculptural works”), 102(a) (listing categories of copyrightable subject matter).

²³ {We might also explore the usefulness for our project of design patent’s employment of similar test}

²⁴ *TraFFix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23 (2001). A separate strand of functionality prohibits trademark rights in features that are essential to compete in a market due to aesthetic or other competitive considerations. See *infra* ____.

²⁵ We need to bracket off for further discussion whether and why categorical analysis is linked with ‘extrinsic’ and case-by-case analysis linked with ‘intrinsic’ analysis.

²⁶ *Harper & Row, Bonito Boats*, Kaplan on copyright; etc.

75

whether copyright and trademark have ~~their~~ own reasons for not granting exclusivity to functional designs.

To illustrate, reconsider the gorgeous chair. First consider an approach that showed great deference to patent by reserving exclusively for patent everything that had a functional role. We will call this the “categorical” approach, for it looks not at comparisons, but at this particular item: If one took away from the chair everything that had a functional role—the seats, the arms, the back and cushions upon which a guest could recline—there would be nothing left that was source-identifying for trademark purposes, except perhaps any two-dimensional pictorial pattern that might appear on the fabric. Take away those same functional features, and there would again be nothing left that counted as ‘original expression’ for copyright purposes (except perhaps the two-dimensional pattern). But the battle that interests us isn’t over the two-dimensional pictorial patterns- whether they take floral form or paisley or Burberry checks — it’s the battle over the shapes and configuration of the seats, arms, back and cushions-- the functional features. And if everything that *has a function* belongs either to patent’s proprietary component or to patent’s commons component, then we might limit trademark and copyright only to what is left when the seats, arms, backs and cushions are taken away. Then (aside from the two-dimensional markings on the now shapeless and flat fabric) there would be nothing “distinctive” left for trademark to protect and nothing “expressive” left for copyright.

Now consider a less deferential, case-by-case approach that assumes that the only features belonging exclusively to patent are those that give *functional advantages over*

B * Take away the least features— does it still work
Take away the source-features does it still work

*alternatives*³⁰ or were *designed with the purpose of being functional*.³¹ Under such a view maybe much of the chair's shape survives for trademark or copyright to seize upon.

for much longer

The opinions that have adopted the first version of the channeling doctrine we might call “strict” or “categorical”. The opinions that take the strict view in copyright and trademark – such as the Second Circuit’s copyright decision in *Carol Barnhart* or the Supreme Court’s trademark decision in *TrafFix Devices v. Marketing Displays*³⁴ – seem to have adopted a largely categorical, affirmative commons conception of patent’s public domain. But why? Perhaps the courts place patent concerns above copyright and trademark on the grounds that patent is the most important, most carefully calibrated, or *most vulnerable* system. But they do not quite say. So far the courts have failed to justify a rule that neglects copyright and trademark concerns even when the threat to patent law’s interests may appear feeble or absent in a particular case. As a result, we see decisions such as *TrafFix*, which adopted an apparently strict subject matter exclusion, flouted by later lower court opinions that attempt to re-introduce the case-by-case balancing that the strict decisions seemed to foreclose.³⁵ Similarly, in copyright, the Second Circuit provided a less than full explanation for its strict approach in *Carol Barnhart*, and later decisions have retreated from it.^{36 37}

³⁰ *TrafFix*

³¹ *Brandir*; *Pivot Point*

³⁴ *TrafFix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23 (2001).

³⁵ *E.g.*, *Valu Engineering, Inc. v. Rexnord Corp.*, 278 F.3d 1268, 1276 (Fed. Cir. 2002).

³⁶ *Carol Barnhart* emphasized the need the public had for functional objects; in a later case, *Brandir*, the Second Circuit emphasized instead the importance of the aesthetic process. The latter opinion was followed by the Seventh Circuit on facts oddly similar to those in *Barnhart*, with the result that while a mannequin torso in *Barnhart* was denied copyright, a mannequin head in *Pivot Point* retained copyright. In the latter case, the Seventh Circuit gives more force to copyright law’s “proprietary” component than to the commons component of either copyright or patent.

If the process leading to the design feature was subjectively aesthetic, it would not matter (under *Pivot Point*) if the resulting design happened to also convey functional advantages.

This article attempts to offer what we find lacking in the case law: a normative and theoretical defense of the strict version of copyright and trademark law's channeling doctrines. In both copyright and trademark law, we advocate rules that deny protection to product features without which the product could not perform its function. We would exclude, for example, expressive features that are inextricably intertwined with a particular product's function, even when the feature could stand alone as a work of art, and even when the feature has substitutes that could perform its function in an equally satisfactory way. We build in part on a defense of why patent's common is and should continue to be seen as both weighty and positive. We also build on a rough cost-benefit analysis. The key to the latter is error costs.

We acknowledge that there is some cost to denying protection to such works under copyright and trademark law. Sometimes the features of these useful articles come to serve as a brand. When this happens, consumers may sometimes be confused when competitors appropriate the feature, which is exactly the type of harm that TM law seeks to prevent.³⁸ In copyright, denying protection to these works may deny incentives to 'form follows function'-type creativity. It may also, in some cases and depending on the legal standard used, deny incentives to purer, artistic forms of creativity that happen to be blended inextricably into a functional object.

In a world with perfect machinery of justice (including perfect information and no human error), it might be possible to identify the designs that could be locked up without causing any

³⁷ The analysis of separability by *Pivot Point* will be criticized *infra* at __. Further eroding the strength of *Pivot Point* as precedent is the fact that the separability hurdle is inapplicable to sculptural works that are not "useful articles", and the mannequin head may not have been a "useful article" to begin with. After all, the modeled head arguably existed only to "portray appearance," see definition of useful object in 17 USC sec 101, which would make it not a useful article.

³⁸ The magnitude of this cost, however, may be fairly small, as we discuss in more detail below. See *infra* __.

significant harm to the public's interest in having access to the materials from which scientific and industrial progress³⁹ are built. In the real world, however, we often can't know which functional aspects are so trivial that we can ignore them in the service of other goals, like avoiding confusion.

So our institutions have a choice: to try to decide individually, design object by design object, what is trivial (that is, what functional characteristics have no competitive or scientific importance), or rather to adopt a proxy characteristic that is more formal but easier to measure. Both approaches have error risks; the question is whether one or the other is more likely to have the larger costs of error. Errors can be false positives (giving ownership to something that has non-trivial functional advantages, making the mistake of thinking that no harm will be done by giving ownership) or false negatives (denying ownership under copyright and trademark to something with trivial functional significance). Our article suggests that a formal approach—one that ends up with more risk of false negatives than false positives—is the best way to go, at least given the current choices of copyright and trademark.

Why prefer false negatives? We offer a number of reasons, all of which hearken back to the rationales for intellectual property protection and its role in our competitive economy. As the Supreme Court has emphasized for over a century, the United States has a strong heritage of competition, which supports a general presumption that competitors may copy products in order to improve them and reduce their price to consumers. This right to copy is important even when perfect substitutes exist. Courts have recognized that a design that is essential to competition at one point in time might become non-essential at a later time; presumably the converse is also

³⁹ See U.S. Const., Art. 1, Sec. 8, Cl. 8 ("Congress shall have the Power to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.").

true. Similarly, courts have indicated that patent law seeks to encourage a variety of solutions to practical problems, not to select out one particular ‘superior’ route. If a copier bears the burden of establishing its need to copy a feature that might later be essential or a useful variant, only very courageous and deep-pocketed defendants will bear the cost in many cases. The feature may be lost to outsider experimentation.

Perhaps most fundamentally, given the institutional design of both copyright and trademark law, the costs associated with false positives can be both significant and enduring, both in absolute terms and in comparison to the cost of false negatives.

We also put a thumb on the scale where false positives are concerned because of the way the statutes and the courts have implicitly ordered the importance of the three main federal IP doctrines. Patent is undoubtedly king, with copyright subordinate to patent, and trademark subordinate to copyright.

We have a high degree of confidence in our cost-benefit predictions in the trademark context. The costs associated with denying trademark protection to functional designs – in the form of confused potential purchasers – almost certainly pale in comparison to the costs associated with erroneously recognizing trademark protection in features that are critical to competition or future innovation. And the possibility of labeling exists to remove much of the consumer confusion that allowing the copying of distinctive product shapes might otherwise induce. Moreover, trademark law’s own intrinsic goals suggest a stingy approach to protection of product design.

In copyright, however, the costs of false negatives may well be more substantial. Because copyright, unlike trademark, exists to incentivize creation of intrinsically appealing works, it may well be that denying copyright protection for features that blend form and function

will result in harmful under-investment in aesthetically or intellectually pleasing functional patterns. Perhaps because of this danger, Congress and the courts have designed a two-tier system for copyright. One is called “merger” and the other “separability”.

Merger is a case-by-case comparative approach. It applies to literary works, (including computer programs), architectural works, and many but not all other potentially copyrightable works of authorship that may have functional import. “Merger” asks whether many substitute modes of expressing the functional idea exist. Many works with functional aspects survive the “merger” test and possess copyright—though the courts often sharply constrain the appurtenant exclusive rights. As will appear, we do not challenge the employment of the case-by-case comparative inquiry known as merger, so long as a strong liberty to use the items for functional purposes remains.⁴⁰

In the other copyright tier, the one governed by “separability”, reside pictorial, graphical and sculptural works. The separability test poses a higher hurdle than merger, and makes copyright in product shapes hard to obtain. We think it is no coincidence that the items governed by the demanding “separability” test are the same kinds of things that make up trade dress: pictorial, graphical and 3-dimensional features.

Interestingly, merger is roughly equivalent to the test that some courts use for trademark functionality, namely, inquiring into the number of comparative substitutes available. If a large number are available, then the literary work (in copyright) or the trade dress (in trademark law) is privately ownable in those systems. But trademark does not have the same possibility as copyright does of protecting the feature in some ways but permitting functional use—if a product shape is trademarked, a competitor cannot use it. He is barred from functional use. That

⁴⁰ [Caution: the ‘method of operation’ test of LOTUS v BORLAND is also categorical. See 102(b). We may want to consider it in the copyright section of the paper.]

lack of flexibility in trademark law makes the cost of “false positives” potentially as dangerous as copyright when it comes to protecting design shapes.

We oppose the use of the comparative test for functionality in the trademark context, and instead urge broader adoption of the Supreme Court’s approach from *TrafFix*, asking: “is the feature the reason the thing works.” If the feature is part of the reason the thing works, it cannot be trademarked. We also think a substantive equivalent to the *TrafFix* approach—seen in copyright separability opinions such as *Keiselstein-Cord* and *Carol Barnhart*—should govern copyright in pictorial, graphic and sculptural works. Our contentions are (1) that trademark law should treat the public’s liberty to use unpatented product designs not as “merger” does but as product designs are treated in the special category that product trade dress most resembles in copyright, namely, pictorial, graphic and sculptural works, and (2) that the protection for PGS works should be categorical and strict.

If the shape of thing is the reason the thing works, it should not be protected under copyright or trademark. In short, we argue that both separability in copyright, and the trademark inquiry into functionality, should be governed by a categorical approach which instead of asking ‘do substitutes exist’, asks “is the aspect seeking copyright or trademark protection part of the reason the thing works.”

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If our current legal system provides too few incentives for works perfectly blend form and function, the answer is not to expand copyright law; it is, instead, to reform our system of design patents, or to enact a narrow and short-term sui generis protection for products of industrial design. We close with some observations about the appeal of each of these alternatives.

Part I outlines some general concepts. Part IA begins with a brief discussion of what we mean by “design.” In Part IB we present further discussion of the patent public domain, the role of positive versus negative commons, and the ordering that the statutes and the Supreme Court has implicitly adopted in addressing overlaps and conflicts. In Parts II and III, we describe the treatment of product design under existing trademark and copyright law, respectively, parsing the statutes and cases in an attempt to distinguish between approaches that are formalist (i.e., strict rule-based) and instrumentalist (i.e., cost-benefit weighing). We conclude, as a descriptive matter, that both copyright and trademark law avoid the case-by-case inquiry called for by an instrumentalist approach, in favor of a more formalist inquiry into the role that a feature plays in a product. This approach results in denial of protection to some design features that arguably would promote either copyright or trademark law’s objectives, with little harm to patent law’s interests. We defend this formalism and argue that copyright and trademark law are inherently ill-suited for the protection of functional features of products. Finally, in Part IV we discuss the implications of this conclusion. The fact that copyright and trademark law serve as poor vehicles for protection of product design does not necessarily mean that design should go entirely unprotected. With the possible exception of clothing design, however (and there, we have substantial doubts about the need to protect), we believe that our existing design patent system may well prove up to the task of providing adequate and tailored protection to design. Whether through design patents or through *sui generis* protection, however, any system of design rights should minimize the drag on competition and the public domain. We close with some thoughts about features that a design protection system must have to achieve better balance than that offered by copyright or trademark law.

I. General concepts

A. Product design

By product design, we refer to all of the attributes – the shape, appearance, ingredients, and other features – of an object that performs some function in the physical world. Design can, but need not be, artistic or visually appealing. It sometimes, but not always, involves features that themselves perform a function within the object. Often, however, modern industrial design has as its object the perfect blend of aesthetics, function, and affordability.⁴¹ The economic utility conferred by a useful object comes from a combination of its functionality and its aesthetic appeal. People care not only about how products in their lives function, but also how they look. Thus, although we talk about aesthetics and function as separate attributes, it is sometimes difficult to distinguish between the two. A feature that might be trivial as a matter of physical function (in the sense that lots of alternatives exist, or in the sense that the design aspect gives no significant operating advantage) might not be trivial as a matter of design. Examples of this brand of design abound, across industrial design, architectural design, fashion design, and musical instrument design, among others.

Whether current law protects design depends on the relationship between the design and the product's physical function. Some design features enjoy complete protection against copying, at least for a time. Take a design that embodies a new and non-obvious functionality. The patent system rewards this form of design by providing a relatively short term of protection,

⁴¹ For a terrific introduction to the creative process of modern industrial design, see Janice M. Mueller & Daniel Harris Brean, *Overcoming the "Impossible Issue" of Nonobviousness in Design Patents*, 99 KENTUCKY L.J. 419, 433-445 (2010-11).

and only for inventions satisfying its requirements; but protection is otherwise robust and intended to incentivize investment in such design.⁴²

The other end of the spectrum – design that is purely aesthetic – often (though not always) enjoys protection as well. To the extent that aesthetic flourishes are added to objects, buildings, furniture, and other things, the flourishes (as long as they satisfy minimal requirements of originality) enjoy protection under copyright or design patent law. They may also sometimes obtain trademark protection, if they indicate product source.

The problem comes in the hybrid category – products that blend form and function with varying degrees of success. (Indeed, this category might be broader than first appears, since aesthetic appeal may well influence usability.) These products don't sit squarely in any of the traditional regimes for protection of intellectual works. The following sections will describe the treatment of design under trademark, copyright, and design patent law, and consider whether the current treatment is the right one. But first, a discussion of the commons component of patent law, and the way the Supreme Court seems to order the trademark, copyright and patent doctrines and policies.

IB. Supreme Court orderings

[Stacey, this portion is much too rough for you to read yet. It basically argues that the statutes and cases treat the patent policy as more important than copyright or trademark policy, and trademark as the least important of all. This ranking, in my view, reinforces our view that

⁴² Patent protection does not depend on the defendant copying from the plaintiff; if the invention warrants a patent, the patentholder has an exclusive right to make, sell, practice, or import the invention for the statutory term, regardless of whether the defendant even knew about the patented invention. *See* 35 U.S.C. §§ 101-112 (requirements for patentability); *id.* § 271 (defining patent infringement); *see generally* Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421 (2009) (surveying data and concluding that most patent litigation does not involve deliberate copying by defendants).

the courts should take special care to avoid treading on patent's toes, for all the reasons we've discussed]

The commons component of patent law seeks to make sure that designs remain accessible for public use when they are unworthy of patent, or for which patent protection has been secured, or for which a patent has expired or been deemed invalid.⁴³

The pre-emption cases give us valuable information, but they are of only limited use when intra-federal conflicts are concerned. A federal statute can preempt a state law but will not preempt another federal law. But we can use the preemption cases as guide to the strengths. Instead the issue for intra-federal conflicts is statutory construction and comity—and how the Supreme Court and Congress rank the various statutes and policies at issue. We can start with the preemption cases, but not end there.

How do Congress and the Supreme Court “rank” the various modes of federal IP, and the various policies? First, Congress has made clear that trademark's interest in protecting distinctive marks, and copyright's interest in protecting original expression, must defer to patent; this is made clear by Congress enacting the “functionality” exception in trademark, and the “separability”, “idea/expression”, and “method of operation/processes” exceptions in copyright law. Thus, if the doctrines were playing cards, then Patent has the rank of King.

Is there a ranking between copyright and trademark? That is less clear, but the doctrines of ‘aesthetic functionality’ in trademark law seem to suggest that trademark defers to copyright. That would make copyright the Queen, and trademark the Jack. A more important indicator

⁴³ [Stacey, at one point we say that subject matter outside the patent range should be within the patent common, but KEWANEE at 416 US 484 says otherwise. Kewanee is always distinguishable—because of the historic role of trade secrecy—but we may want to reconsider this. Rereading the S Ct cases on preemption is on my agenda. Need full discussion here, including showing how the ‘categorical/formal’ approach we advocate would affect patent law, versus the “alternatives” approach of Valu-Engineering (trademark) and the “look at the art process” approach the Seventh Circuit used in *Pivot Point* 372 F.3d 913]

suggesting that trademark has only the rank of “Jack” is the Supreme Court ruling in *Dastar*.

There the Court gave a restricted meaning to the Lanham Act in order to avoid creating a conflict with copyright law⁴⁴, again suggesting that trademark defers to copyright.

The *Dastar* case is open to another interpretation, however: the force behind the ruling may not have been copyright’s superiority to trademark, but rather the particular policy force of the *limited times* requirement. The limited times requirement is the only part of the “commons component” of copyright and patent that is explicitly laid out in the constitution, and thus may have special force. [Check differences between sears and Compco here; as I recall, one was expiration and one was not—suggesting expiration is NOT the only big gun.] In *Dastar*, the plaintiff sought labeling that could have restrained the duplication of copyrighted works that had fallen into the public domain because of durational expiration. Therefore, the case might be explicable in terms of the special force of the limited times requirement.

Nevertheless, at least as a hypothesis, the ranking of King, Queen, Jack has plausibility. The next question is how strong the commons components of each rank are. [discuss]

Product design and trademark law

A. Trademark law’s goals

Trademarks serve a critical function in a competitive economy. By providing accurate, short-hand information about the qualities and provenance of products, they make it cheaper and

⁴⁴ And note that this occurred in an area where labeling—the usual recourse when conflicts between doctrines occur—would be unavailing. The ruling in *Dastar* explicitly allowed a particular kind of potentially confusing labeling.

easier for consumers to identify and compare goods in the marketplace.⁴⁵ Through advertising, personal experience, and word of mouth, consumers develop associations about the meaning of marks.⁴⁶ BRIO, LEGO, and PLAYMOBIL (at least to certain consumers) convey images of high-priced, well-built and popular toys. TARGET suggests good value. MCDONALDS indicates consistency and reliability in the delivery of cheap burgers and fries. WHOLE FOODS' house brands evoke wholesome foods at a premium price.⁴⁷ The symbols that stir up these associations extend beyond words to logos, packages, sounds, smells, and other branding devices. Even product features – the shape, color, and other physical aspects of a product – can call to mind a brand or a source.⁴⁸ If so, they can serve as trademarks.⁴⁹

⁴⁵ See Stacey L. Dogan & Mark A. Lemley, *The Merchandising Right: Fragile Theory or Fait Accompli?*, 54 EMORY L. J. 461, 466-71 (hereinafter Dogan & Lemley, *The Merchandising Right*) (explaining role of trademarks in promoting competition); Stacey L. Dogan & Mark A. Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUSTON L. REV. 777, 786-88 (2004) (hereinafter Dogan & Lemley, *Search Costs on the Internet*) ("Trademark law ... aims to promote rigorous, truthful competition in the marketplace by preserving the clarity of the language of trade."); cf. Stacey L. Dogan & Mark A. Lemley, *A Search-Costs Theory of Trademark Defenses*, in TRADEMARK LAW AND THEORY: A HANDBOOK OF CONTEMPORARY RESEARCH (Graeme B. Dinwoodie & Mark D. Janis (eds.), Edward Elgar Press, 2007) (hereinafter Dogan & Lemley, *Trademark Defenses*) (discussing role of search costs theory in explaining trademark defenses).

⁴⁶ See Eric Goldman, *Word of Mouth and Its Implications for Trademark Law*, in TRADEMARK LAW AND THEORY: A HANDBOOK OF CONTEMPORARY RESEARCH 404 (Graeme B. Dinwoodie & Mark D. Janis (eds.), Edward Elgar Press, 2007); see also Bone, *supra* note ____.

⁴⁷ Cf. Michael Barbaro, *Whole Foods Talks Dollars and Cents*, N.Y. TIMES, May 10, 2006, avail. at <http://www.nytimes.com/2006/05/10/business/media/10adco.html> (describing Whole Foods' efforts to shed its "Whole Foods, Whole Paycheck" image).

⁴⁸ The pink color of Owens-Corning insulation is a classic example. See *In re Owens-Corning Fiberglas Corp.*, 774 U.S. 1116 (Fed. Cir. 1985) (allowing registration of pink color, based on evidence that it had achieved secondary meaning).

⁴⁹ See Robert G. Bone, *Hunting Good Will: A History of the Concept of Goodwill in Trademark Law*, 86 B.U. L. REV. 547, 555-56 (2006) (identifying three related policy goals promoted by trademark protection: reduction of search costs, incentivizing sellers to maintain product quality, and reducing the risk of consumer deception).

Trademarks, then, convey meaning.⁵⁰ In economic terms, trademarks' informational function leads to more competitive (and efficient) outcomes in product markets.⁵¹ By making it cheaper for customers to locate and compare products, trademarks lead to better-informed consumers. These better-informed consumers can differentiate more easily among products, which should push producers to compete more robustly in quality and price. Trademarks can

⁵⁰ A trademark's meaning includes not only the image deliberately crafted by trademark holders, but also the layers of meaning that come from consumers' participation in shaping brand identity. See, e.g., Jessica Litman, *Breakfast with Batman: The Public Interest in an Advertising Age*, 108 YALE L.J. 1717, 1733 (1999) ("Mickey Mouse,' 'Twinkies,' 'Star Wars,' and 'Spam' are trade symbols, but they are also now metaphors with meanings their proprietors would not have chosen. They got that way in spite of any advertising campaigns because the general public invested them with meaning."); see also Rochelle Dreyfuss, *Expressive Genericity: Trademarks as Language in the Pepsi Generation*, 65 NOTRE DAME L. REV. 397 (1989-90); Rebecca Tushnet, *Gone in 60 Milliseconds: Trademark Law and Cognitive Science*, __ TEX. L. REV. __ (forthcoming 2008); Rebecca Tushnet, *Truth and Advertising: The Lanham Act and Commercial Speech Doctrine*, in GRAEME B. DINWOODIE & MARK D. JANIS (eds.), *TRADEMARK LAW AND THEORY: A GUIDE OF CONTEMPORARY RESEARCH* (forthcoming 2008, Edward Elgar Publishers); cf. Laura A. Heymann, *Metabranding and Intermediation: A Response to Prof. Fleischer*, 12 HARV. NEGOT. L. REV. 201, 218-19 (2007) (In dilution claims, "[t]he brand owner ... is claiming a right to the exclusive mental association with the brand in the minds of the public."). And all of these layers of meaning have relevance to consumers in navigating the informational marketplace.

⁵¹ See William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J.L. & ECON. 265 (1987). Since Landes and Posner's seminal article, most courts and commentators have found the search costs rationale the most compelling explanation for trademark law, and have relied upon it in shaping trademark doctrine. See, e.g., *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 163-64 (noting that trademark law "reduce[s] the consumer's costs of shopping and making purchasing decisions," and "helps assure a producer that it (and not an imitating competitor) will reap the financial, reputation-related rewards associated with a desirable product"); Mark A. Lemley, *The Modern Lanham Act and the Death of Common Sense*, 108 YALE L.J. 1687, 1690-94. Mark McKenna has challenged the prevailing search costs rationale for trademark law, contending that early trademark laws sought to protect producers, rather than consumers or some abstract notion of perfect competition. See Mark P. McKenna, *The Normative Foundations of Trademark Law*, 82 NOTRE DAME L. REV. 1839 (2007) (contending that natural rights, rather than the competition-oriented search costs theory, drove the early development of trademark law).

serve these informational roles, of course, only if consumers can count on them as reliable indicators of source; trademark law exists to protect the integrity of that function.⁵²

Trademark law is thus an aide, rather than an exception, to the general rule that vigorous competition brings about the best results for consumers and optimizes social welfare. The law does not exist to maximize producers' profits, or to provide even temporary relief from competition in order to incentivize product development.⁵³ It exists to promote the accuracy of information in markets, in order to make those markets more perfectly competitive.⁵⁴

Undoubtedly, trademark rights have less desirable effects as well – they can encourage

⁵² Traditionally, the law did this by protecting against third parties' use of trademarks in a way that falsely suggested a connection between their products and those of the trademark owner. See 15 U.S.C. §§ 1114, 1125(a). More recently, Congress provided additional "anti-dilution" protection to famous marks. See 15 U.S.C. § 1125(c). If properly applied, the dilution statute should apply only to uses of trademarks that impair a singular mark's distinctiveness by associating it with multiple or unsavory sources. See Stacey L. Dogan & Mark A. Lemley, *The Trademark Use Requirement in Dilution Cases*, 24 SANTA CLARA HIGH TECH. L.J. 541 (2008); see also Dogan & Lemley, *Trademark Defenses*, *supra* note __, at __ ("Like the more traditional likelihood of confusion analysis, dilution – at least as properly understood – turns on injury to the informative value of a mark."); Stacey L. Dogan, *An Exclusive Right to Evoke*, 44 B.C. L. REV. 291, 320 (2003) (arguing that dilution statute should apply only to uses that dilute the singularity of famous marks).

⁵³ Cf. David Goldenberg, *The Long and Winding Road: A History of the Fight Over Industrial Design Protection in the United States*, 45 J. COPR. SOC'Y 21, 21 (1997) (lamenting the absence of intellectual property protection for industrial design in the United States, in part because of trademark law's stinginess in protecting product design).

⁵⁴ See SEN. REP. NO. 1333, 79th Cong., 2d Sess. 4 (1946), reprinted in 1946 U.S.C.C.A.N. 1274, 1274-75 ("Trademarks, indeed, are the essence of competition, because they make possible a choice between competing articles by enabling the buyer to distinguish one from the other."). Given its objectives, trademark law is more aptly described as unfair competition regulation than as a form of intellectual property. See generally William P. Kratzke, *Normative Economic Analysis of Trademark Law*, 21 MEMPHIS ST. U.L. REV. 199, 202 (1990) (arguing that trademarks are better conceived as a set of entitlements rather than "property"); cf. Wendy J. Gordon, *A Property Right in Self-Expression*, 102 YALE L.J. 1533, 1537 (1993) (contending that, in copyright cases, "[t]he incantation 'property' seems sufficient to render free speech issues invisible"). As Bob Bone has shown, courts adopted the "property" moniker in early cases involving technical marks, largely as a hook to invoke the jurisdiction of courts of equity. See Bone, *Hunting Goodwill*, *supra* n. __, at 566-75. Whatever its genesis, the label stuck.

advertising that persuades, rather than informs, in the quest to develop strong brands that are effectively insulated from full competition.⁵⁵ On balance, however, some level of trademark protection is critical to a well-informed, functioning market.⁵⁶

Many trademark principles follow from the law's competition-focused orientation.⁵⁷ Doctrines such as descriptive fair use and nominative fair use allow competitors to use marks in ways that inform, rather than deceiving.⁵⁸ The law allows comparative advertising as a short-hand way of calling consumers' attention to competing (and often cheaper) products.⁵⁹ The genericism rule ensures that competitors have the linguistic tools to tell consumers what they are

⁵⁵ See Litman, *supra* note __, at 1719 ("Legal protection of the informational function of trade symbols benefited the public; legal protection of the symbols' persuasive power provided no public benefit and some detriment in the form of higher prices and diminished competition."); Ralph S. Brown, Jr., *Advertising and the Public Interest: Legal Protection of Trade Symbols*, 57 YALE L.J. 1165, 1169 (contending that strong trademark rights encourage producers to invest heavily in advertising, "[m]ost [of which], however, is designed not to inform, but to persuade and influence"); Katya Assaf III, *Magical Thinking in Trademark Law*, __ LAW OF SOCIAL INQUIRY __ (forthcoming).

⁵⁶ See Dogan & Lemley, *Trademark Defenses*, *supra* note __, at __ & n.7; cf. Glynn S. Lunney, Jr., *Trademark Monopolies*, 48 EMORY L.J. 367, 370 (1999) ("the only sensible conclusion, and the one eventually reached, was that trademark protection can both advance and disserve the development of an efficient and desirably competitive market").

⁵⁷ For a fuller discussion of these doctrines, see Dogan & Lemley, *Trademark Defenses*, *supra* note __. See also Dogan & Lemley, *Search Costs on the Internet*, *supra* note __.

⁵⁸ *E.g.*, 15 U.S.C. § 1115(b)(4) (codifying the descriptive fair use defense, which applies when a term is used "fairly and in good faith ... to describe the goods or services of [the] party"); *New Kids on the Block v. News Am. Publ'g Inc.*, 971 F.2d 302 (9th Cir. 2002) (recognizing nominative fair use defense); *Century 21 Real Estate Corp. v. Lendingtree, Inc.*, 425 F.3d 211, 222 (3d Cir. 2005) (adopting modified form of nominative fair use test that applies if defendant shows "(1) that the use of plaintiff's mark is necessary to describe both the plaintiff's product or service and the defendant's product or service; (2) that the defendant uses only so much of the plaintiff's mark as is necessary to describe plaintiff's product; and (3) that the defendant's conduct or language reflect the true and accurate relationship between plaintiff and defendant's products or services").

⁵⁹ *E.g.*, *Smith v. Chanel, Inc.*, 402 F.2d 562 (9th Cir. 1968) (allowing use of Chanel mark by party selling imitation perfume).

selling.⁶⁰ In each of these cases, trademark law defines the existence and scope of rights with reference to its core goal of promoting well-informed and competitive markets.⁶¹

Indeed, the law sometimes tolerates consumer confusion in the pursuit of its competition-oriented goals. In the context of descriptive fair use, for example, the Supreme Court recently acknowledged that “some possibility of confusion must be compatible with fair use. . . .”⁶² And the all-or-nothing rule regarding generic marks leads inevitably to the risk of confusion for terms that are declared generic, but have brand significance among some subset of consumers.⁶³

⁶⁰ See *Abercrombie & Fitch Co. v. Hunting World, Inc.*, 537 F.2d 4, 9 (2d Cir. 1976) (“[N]o matter how much money and effort the user of a generic term has poured into promoting the sale of its merchandise and what success it has achieved in securing public identification, it cannot deprive competing manufacturers of the product of the right to call an article by its name.”).

⁶¹ See generally Stacey L. Dogan & Mark A. Lemley, *A Search-Costs Theory of Limiting Doctrines in Trademark Law*, in *TRADEMARK LAW AND THEORY: A HANDBOOK OF CONTEMPORARY RESEARCH* (Dinwoodie & Janis eds. 2008), reprinted in 97 TM REP. 1223 (2007) (hereinafter “Dogan & Lemley, *Limiting Doctrines*”).

⁶² *KP Permanent Make-Up, Inc. v. Lasting Impression, Inc.*, 543 U.S. 111, 121 (2004). The Court explained:

The common law’s tolerance of a certain degree of confusion on the part of consumers followed from the very fact that in cases like this one an originally descriptive term was selected to be used as a mark, not to mention the undesirability of allowing anyone to obtain a complete monopoly on use of a descriptive term simply by grabbing it first. . . . The Lanham Act adopts a similar leniency, there being no indication that the statute was meant to deprive commercial speakers of the ordinary utility of descriptive words.

Id. at 122.

⁶³ The risk of such confusion can be substantial, given that genericism turns on whether a “substantial majority of the public” believes the word refers to a type of product, rather than a particular brand. See, e.g., *Murphy Door Bed Co. v. Interior Sleep Sys., Inc.*, 874 F.2d 95 (2d Cir. 1989); *King-Seeley Thermos Co. v. Aladdin Indus.*, 321 F.2d 577, 579 (2d Cir. 1963). This can leave a substantial minority of the public with an assumption that the term has brand-significance – a result that could cause widespread confusion in the marketplace. Mark Lemley and I have argued that the genericism rule may go too far in favoring competitor access over the risk of confusion, and suggest that the law consider an intermediate, standards-based approach that accommodates both concerns. Dogan & Lemley, *Trademark Defenses*, *supra* note __ at __. In any event, the existing rule illustrates the extent to which trademark laws strive to promote a competitive marketplace by ensuring meaningful access to language by competitors.

Trademark law, in sum, is not making accommodations when it elevates the interests of competition over the interests of a particular trademark claimant – it is serving its own *raison d'être*.⁶⁴ Trademark law exists to facilitate the functioning of informed, competitive markets. Rules that further that objective promote trademark law's core values.

B. The “Product-As-Trademark” Conundrum

The challenge of product design trade dress arises when a product feature serves as a brand indicator, but also has some independent, intrinsic value to consumers.⁶⁵ That value can come in different forms. Some features enhance the mechanical or other functional utility of the product – i.e., they make the product work.⁶⁶ Some offer a non-branding informational function, such as enabling easy identification or categorization of the product type.⁶⁷ And some features

⁶⁴ In contrast with trademark law, the other major federal intellectual property regimes serve quite different objectives. Whereas trademark law protects the integrity of information about the source of products, copyright and patent law target their protection to the products themselves. Whereas trademark law aims to promote the default rule of robust competition, copyright and patent law provide exceptions to that rule, at least for a time. And unlike trademark law, copyright and patent laws have a clear, constitutionally-based purpose of incentivizing the creation of works with intrinsic (as distinguished from informational) value. *See infra* __.

⁶⁵ *Cf.* Restatement (Third) of Competition, 1995, § 17 comt. a (“The rule excluding functional designs from the subject matter of trademarks is an attempt to identify those instances in which the anticompetitive consequences of exclusive rights outweigh the public and private interest in protecting distinctive designs.”).

⁶⁶ *See, e.g., Traffix* (dual-spring configuration for highway signs served to make signs sway, but not break or fall over, in strong winds).

⁶⁷ *E.g., Ives Labs., Inc. v. Darby Drug Co., Inc.*, 488 F. Supp. 394 (D.C.N.Y. 1980) (finding color of drug functional when “the colors have come to represent to large numbers of those taking [the drug] not its source but its ingredients and effect”), *rev'd*, 638 F.2d 538 (2d Cir. 1981), *rev'd*, *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844 (1982); *see also* *Falcon Stainless, Inc. v. Rino Companies, Inc.*, 2008 WL 5179037, *7 (C.D. Cal. 2008) (finding part numbering system functional). The informational function that we describe here is distinct from the “descriptive” function of certain word marks. Trademark law allows descriptive words to serve as trademarks if they acquire brand significance – known as “secondary meaning” – in the minds of consumers. *See, e.g., Zatarains, Inc. v. Oak Grove*

offer a non-replicable aesthetic advantage over their alternatives.⁶⁸ These functions, of course, are not mutually exclusive; some features serve more than one of them simultaneously.

Because of the centrality of competition to trademark law, trademark law has long shown skepticism about protecting these intrinsically valuable features. If consumers prefer a feature because it works better or looks better, it would upset the economic playing field to give one party exclusivity in the feature. Protection, in such cases, would frustrate trademark law's own internal goals, even apart from any tension with the patent system. The functionality doctrine has thus evolved in large part to protect against these anti-competitive effects.⁶⁹

Yet product features – even appealing ones – often have plenty of substitutes, making it unlikely that recognizing them as trademarks would lead to any competitive harm. Indeed, we can imagine at least three different variants of the feature-as-trademark paradigm. First, the

Smokehouse, Inc., 698 F.2d 786, (5th Cir. 1983) (finding FISH FRI for fish-frying batter descriptive, but protectable in light of its secondary meaning). Descriptive terms generally have ample substitutes, so competitors can choose some other term to describe features of their products. The type of “informational” marks referred to in the text, however, don't necessarily describe a product, but they serve as an indexing system that consumers use to differentiate among products of a certain type. The trial court in *Ives v. Darby* pointed out some of the ways in which consumers might rely on such a feature – in that case, the color of a drug:

“The court finds that the colors are functional in several respects. First, many elderly patients associate the appearance of their medication with its therapeutic effect. There was testimony that some patients refuse to take equivalent drugs of a different color despite explanation of the equivalence by their doctor. ... Second, some patients co-mingle their drugs in a single container and then rely on the appearance of the drug to follow their doctors' instructions. ... Third, to some limited extent color is also useful to doctors and hospital emergency rooms in identifying overdoses of drugs. ... The functional aspect of the color of the capsules is further evidenced by the fact that the [defendant] discontinued sale of [the drug] in a green capsule because the different color was not accepted by hospitals, pharmacies, and wholesalers in light of the potential for confusion.”

Ives, 448 F. Supp. at 398-99.

⁶⁸ *E.g.*, *Dip 'n Dots* case?

⁶⁹ See *Jay Franco & Sons, Inc. v. Franek*, 615 F.3d 855, 857 (7th Cir. 2010) (“[A] design that produces a benefit other than source identification is functional.”).

feature may serve a strong branding role, and offer consumers some utility that is equivalent to that offered by countless fungible substitutes.⁷⁰ At the other extreme, the feature might serve some minor informational role but offer substantial and non-replicable utility to consumers.⁷¹ Finally – and commonly – the feature might offer doses of both informational and intrinsic value, making it uncertain whether granting protection would, on balance, improve or frustrate competition in the relevant market.

In economic terms, the first two of these scenarios present clear cases with obvious solutions, at least from the perspective of trademark law. In the first case, trade dress protection promotes trademark law's informational goals with little countervailing costs. In the second, the reverse is true: any efficiency gains from protecting the product feature as a source-identifier would be outweighed by the welfare losses resulting from a permanent burden on product competition in the relevant market.⁷² The third case presents a conundrum. Because trademark law, at present, offers a binary choice – a feature either receives protection against copying, or it is “functional” and therefore free for the taking – courts have little freedom to accommodate the competing interests at stake. Absent effective tools for weighing the informational effects against the market-access ones, courts must make a normative judgment that either elevates informational interests over market access ones, or favors access over information.

⁷⁰ An attractive, well-known logo on clothing, for example, may well have intrinsic appeal, but compete in a market filled with equally appealing alternatives; in such circumstances, to the extent the consumers are willing to pay extra for the branded product, they are probably doing so because of the draw of the brand rather than the logo's inherent appeal. The Burberry plaid, *supra* note 4, may be a good example.

⁷¹ The John Deere tractor case illustrates this point. *See Deere & Co. v. Farmhand, Inc.*, 560 F. Supp. 85, 98 (S.D. Iowa 1982) (denying protection for the color green on farm equipment when the evidence showed that farmers prefer to match the color of such equipment with that of their (Deere) tractors).

⁷² Trademark rights last as long as the trademark holder continues using the mark (in this case, the product feature) in commerce. *See Eco Mfg. LLC v. Honeywell Intern., Inc.*, 357 F.3d 649, 652 (7th Cir. 2003) (noting that trademark protection can last “indefinitely”).

In the real world, moreover, even classifying trade dress among the three categories listed above proves daunting. Virtually every feature of trade dress has some appeal to consumers,⁷³ and courts struggle to characterize that appeal and its economic significance. In theory, courts could engage in a detailed market power analysis to determine whether a feature offers economically significant advantages over its competitors – whether, in other words, recognizing rights in it would indeed allow above-cost pricing for more than a transitory period of time.⁷⁴ But as the antitrust experience has proven, market definition inquiries are clumsy and fraught with uncertainty.⁷⁵ In their reluctance to enter that morass, courts fall back on intuitions and instincts about which products can serve as substitutes for the original – a tendency that often results in a broad market definition and a conclusion that competitors do not need access to the particular feature to compete in the relevant market.⁷⁶

⁷³ See *W.T. Rogers Co., Inc. v. Keene*, 778 F.2d 334, 340 (7th Cir. 1985) (“Rare is the manufacturer who will not try to choose a pleasing name, symbol, or design feature as his trademark.”); *Eco Mfg. LLC v. Honeywell Intern., Inc.*, 357 F.3d 649, 654 (7th Cir. 2003) (“‘Beauty lies in the eye of the beholder’ ... cannot by itself establish functionality of trade dress.”).

⁷⁴ See Bone, *Enforcement Costs*, *supra* note __, at 2174-81 (suggesting that one purpose of functionality is to identify features that confer some level of market power, and contending that courts fall upon intuitions because of the uncertainties and enforcement costs associated with a more detailed inquiry).

⁷⁵ See, e.g., George J. Stigler, *The Economists and the Problem of Monopoly*, 72 AM. ECON. REV. (Papers and Proceedings) 1, 8 (1982) (“the typical antitrust case is an almost impudent exercise of economic gerrymandering”); Brown, *The Intellectual Property Antitrust Protection Act of 1987*, 1 HARV. J.L. & TECH. 209, 214 (1988) (describing market power inquiries as “enormously time consuming and expensive, as well as delusive”); William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981) (identifying considerations in evaluating market power for antitrust purposes); cf. Thomas C. Arthur, *The Costly Quest for Perfect Competition: Kodak and Nonstructural Market Power*, 69 N.Y.U.L. REV. 1 (1994) (contending that “nonstructural market power, a power to raise prices despite numerous competing sellers, is not sufficiently substantial to constitute antitrust market power, and therefore should be excluded from antitrust consideration”).

⁷⁶ See Bone, *Enforcement Costs*, *supra* note __.

Courts, in other words, often lack the evidentiary tools to know, with confidence, whether a particular feature confers an economic advantage over its competitors, such that recognizing trade dress rights would cause adverse welfare effects. This reality may, in part, have driven the Supreme Court to show greater solicitude for a functionality doctrine that is less competition-oriented and more willing to exclude certain categories of product features, without regard to competitive need.

C. Trademark law's mixed utilitarian/formalist approach to product design

From the beginning, the functionality doctrine has blended two related but distinct normative concepts. The first concept – which we call the competition concern – dictates that trademark law should not prevent copying of features essential to marketplace competition. This principle is not limited to mechanically or functionally useful features of products; it also includes the aesthetically or informationally essential types of product features discussed above. The competition concern calls for case-by-case adjudication of whether a feature in fact confers a non-reputation-related advantage over its alternatives; at least in theory, it promotes the utilitarian goals of both trademark law (in promoting fair competition) and patent law (in ensuring that valuable inventions are disclosed and ultimately reach the public domain). The competition concern thus raises no intra-IP-law conflict; in an ideal world with perfect information and flawless machinery of justice, it should promote trademark law's intrinsic goals with little threat to the patent system.

In contrast to the competition concern, functionality's second core normative concept – what we call the patent-deference concern – appears to push aside trademark law's goals out of deference to patent. The patent-deference concern, which has surfaced only sporadically but resurged with a vengeance in *TrafFix*, denies trademark protection to features that fall within

patent's subject matter, without regard to whether they offer any comparative advantage.⁷⁷ More specifically, it denies protection to any feature that is "essential to the use or purpose" of a product, or that "assures the user the device will work...."⁷⁸ It spurns any inquiry into whether the feature has substitutes that might perform its function equally well; as such, it has faced criticism for being wooden and anti-utilitarian, for creating a false conflict.⁷⁹ Why should patent law care about features that have no economic consequence? According to critics, the patent system should be agnostic about whether another IP system protects features that have no particular economic value; as long as inventors look to the patent system for the truly important advances, trademark protection for insignificant ones should cause neither structural nor economic harm.⁸⁰

In this section, we explore functionality's two core concerns and defend their co-existence. Our discussion of the competition concern is largely descriptive, although not uncritical. The competition concern has generated considerable uncertainty and leaves many questions unresolved, especially for features that have a blend of intrinsic and source-identifying value. Indeed, the clunkiness of functionality's inquiry into competitive need may well lead us to question the whole enterprise of trademark protection for product design. We don't go that far (though it's tempting), at least for features whose purported value is primarily aesthetic; but we

⁷⁷ This includes, but is not limited to, features that were previously the subject of utility patent protection.

⁷⁸ 532 U.S. at 33-34.

⁷⁹ Not all courts view the patent-deference concern this expansively; some would continue to inquire into competitive need even with respect to features that play a utilitarian function within the product. As discussed below, however, a competition-oriented approach stands in considerable tension with *Traffix* and other Supreme Court precedent, and we question its long-term vitality.

⁸⁰ Tom Cotter; maybe Graeme? Other?