Utilitarian Design Features and Antitrust Parallels: An Economic Approach to Understanding the Functionality Defense in Trademark Litigation

M. A. Cunningham
Utilitarian Design Features and Antitrust Parallels: An Economic Approach to Understanding the Functionality Defense in Trademark Litigation

by

M.A. Cunningham*

Table of Contents

I. Trademark Economics .................................. 572
II. Formulations of the Functionality Doctrine ............ 574
   A. Mechanical Functionality ........................... 575
   B. Aesthetic Functionality ............................. 578
   C. The Qualitex Standard of Functionality .......... 581
III. Antitrust and Functionality Parallels ................. 582
   A. Market Power ..................................... 582
   B. Market Definitions ................................. 584
   C. Application of Antitrust Analysis to the Defense of Functionality ........................................ 585
IV. Conclusion—Modifying the Nomenclature .............. 588

Introduction

The design features of a product include attributes such as the product's composition, size, shape, color, color combinations, graphics, labels, and packaging. Manufacturers use design features to accomplish various objectives. A design feature or combination of design features may be desirable because it is essential to a product's use or because it enhances the product's performance. A particular design feature or combination of design features may also reduce the cost of manufacturing a product, or it may add to the beauty, charm, and overall appeal of a product. Finally, design features can also act as source indicators by providing manufacturers with a means of distinguishing their products from their competitors.

Using design features as a means of conveying information to consumers about the source of a product has become an important marketing tool for industry. The law has sought to accommodate the efforts of these manufacturers by recognizing that a combination of design features, which is either inherently distinctive or which has acquired secondary meaning, is entitled to protection as trade dress under the Lanham Act. Apart from the requirements of the Lanham Act, the only further limitation on the protectability of design features is that the combination of design features claimed as trade dress must be non-functional.

Drawing the line between functional and non-functional design features is often an elusive and frustrating task. By definition, functional means "of or relating to the special purpose for which something exists." As a starting point, it is therefore relevant to ask in what ways design features relate to the special purposes for which products exist. Common sense dictates, for example, that the shaft of a lacrosse stick and the string on a bow are functional because they are essential components of the product. Similarly, the layout of the

1. See, e.g., Nutrasweet Co. v. Stadt Corp., 917 F.2d 1024, 1027 n.7 (7th Cir. 1990), cert. denied, 499 U.S. 983 (1991); Vision Sports, Inc. v. Melville Corp., 888 F.2d 609, 613 (9th Cir. 1987); LeSportsac, Inc. v. K Mart Corp., 754 F.2d 71, 75 (2d Cir. 1987).
4. See, e.g., Abbott Labs., 971 F.2d at 6; Wallace Int'l Silversmiths, Inc. v. Godinger Silver Art Co., 916 F.2d 76 (2d Cir 1990), cert. denied, 299 U.S. 976 (1991); W.T. Rogers Co. v. Keene, 778 F.2d 334 (7th Cir. 1985); see also RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 16-17 (1993).
letters on a keyboard seems functional because it increases the efficiency of the product. However, is the aluminum in a soft drink can functional because it allows soft drink manufacturers to produce and transport their products less expensively than if they used heavier and more cumbersome materials such as glass? What if the manufacturers could show that by using aluminum they are able to reduce the price of their product?

From the earliest cases, the courts have struggled to define the parameters of the concept of functionality with limited success. Their failure is attributable in large measure to their approach, which has been an attempt to define a point on an imaginary continuum where design features stop functioning as indicators of source and begin functioning as one of the features inherent to the product being sold. In an effort to provide further guidance, the Supreme Court recently refined the principles underlying the functionality doctrine in *Qualitex Co. v. Jacobson Products, Inc.*

This Article analyzes the *Qualitex* decision and then offers an approach for determining when design features are functional under the *Qualitex* standard by drawing parallels between the economic principles behind the functionality doctrine and antitrust law. Substantive discussion begins in Part I with a brief overview of the economics of trademark law. Part II introduces the concepts of mechanical and aesthetic functionality, traces their development in the lower courts, and then discusses the functionality standard established in *Qualitex*. In Part III, the Article draws parallels between the functionality doctrine as defined under *Qualitex* and the economic analysis frequently employed in antitrust litigation. Finally, in Part IV, the Article concludes

---


7. See Fabrication Enters., Inc. v. Hygenic Corp., 64 F.3d 53, 59 (2d Cir. 1995) (suggesting that functionality should be considered along a continuum with unique arrangements of purely functional features at one end, and distinctive and arbitrary arrangements of predominantly ornamental features on the other end); Stormy Clime, Ltd. v. Progroup, Inc., 809 F.2d 971, 977 (2d Cir. 1987) (same); see also Brunswick Corp. v. British Seagull, Ltd., 35 F.3d 1527, 1531 (Fed. Cir. 1994) (drawing a distinction between de jure and de facto functional features); In re R.M. Smith, Inc., 734 F.2d 1482, 1484 (Fed. Cir. 1984) (“In essence, de facto functional means that the design of a product has a function, i.e., a bottle of any design holds fluid. De jure functionality, on the other hand, means that the product is in its particular shape because it works better in this shape.”).


by suggesting that courts recognize the convergence of functionality doctrine analysis and standard antitrust analysis.

I

Trademark Economics\textsuperscript{10}

Trademarks and trade dress are valued in society because they "reduce the costs of information to consumers by making it easy for them to identify the products or producers with which they have had either good experiences, so that they want to keep buying the product (or buying from the producer), or bad experiences, so that they want to avoid the product or the producer in the future."\textsuperscript{11} To ensure that consumers enjoy the benefits of trademark and trade dress protection, the Lanham Act makes it unlawful for firms to adopt trademarks or trade dress so similar to those of other firms that their concurrent use would likely confuse, mislead, or deceive consumers as to the true source of the goods.\textsuperscript{12} This protection reduces the likelihood that free-riding competitors will attempt to capture profits by passing their goods off as those marketed by the owner of the mark or trade dress.\textsuperscript{13} Trademark and trade dress owners therefore have an incentive to maintain and improve the quality of their products.\textsuperscript{14}

Since manufacturers can choose from nearly an infinite number of names, symbols, and design features by which to distinguish their own products, it is widely accepted that granting them the exclusive right to market their products under a particular name or combination of design features does not normally hinder the ability of potential competitors to enter a product market.\textsuperscript{15} However, the existence of


\textsuperscript{11} W.T. Rogers Co. v. Keene, 778 F.2d 334, 338 (7th Cir. 1985) (citing Scandia Down Corp. v. Euroquilt, Inc., 772 F.2d 1423, 1429-30 (7th Cir. 1985), cert. denied, 475 U.S. 1147 (1986)).

\textsuperscript{12} Mishawaka Rubber & Woolen Mfg. Co. v. S.S. Kresge Co., 316 U.S. 203, 205 (1942) ("The protection of trademarks is the law's recognition of the psychological function of symbols. If it is true that we live by symbols, it is no less true that we purchase goods by them."). For useful background, see Landes & Posner (I), supra note 10, at 270-71; Economides, supra note 2, at 524.

\textsuperscript{13} See Landes & Posner (I), supra note 10, at 270-72.

\textsuperscript{14} Id. at 271.

effective competition in a trademark system presupposes that trademark protection will be granted only to those words and designs capable of acting as a source indicator.\(^{16}\) The courts have thus fashioned various safeguards to distinguish between words and design features capable of acting as source indicators and those that are not.

One safeguard is the well-established prohibition against the registration or protection of generic words.\(^{17}\) Under the generic word doctrine, commonly-used words that describe a product cannot be appropriated as trademarks for that product.\(^{18}\) The doctrine also revokes trademark protection for marks that lose their significance as source indicators because they have been adopted by the public as the generic word for the product.\(^{19}\) In the absence of the doctrine, the owner of the generic word for a product could prevent other manufacturers from identifying their products to consumers.\(^{20}\) As a result, the trademark owner would receive rents either in the form of licensing fees or added costs to competing manufacturers, who would have to find alternative ways of describing their products.\(^{21}\) Although the value of the rents would not necessarily force firms out of the relevant product market, the rents would nevertheless reduce the “competitive effectiveness” of such firms.\(^{22}\) Moreover, consumers would suffer a corresponding welfare loss because the absence of clear indicators would increase the likelihood that consumers will at least occasionally purchase a product in the mistaken belief that it is something else.\(^{23}\)

Similar concerns underlie the functionality doctrine. Like words or symbols, design features capable of identifying and distinguishing a firm’s products from the products of other manufacturers are not in short supply.\(^{24}\) However, some design features are necessary components of the product being marketed and therefore cannot act as source indicators.\(^{25}\) For example:

[A football’s oval shape is “functional” in the following practical sense: it would be found in all or most brands of the product even if

\(^{16}\) King-Seely Thermos Co. v. Aladdin Indus., 321 F.2d 577, 581 (2d Cir. 1963).
\(^{17}\) See, e.g., id. at 579; Dupont Cellophane Co. v. Waxed Prods. Co., 85 F.2d 75 (2d Cir. 1936).
\(^{19}\) See Landes & Posner (I), supra note 10, at 291-94.
\(^{20}\) Id.
\(^{21}\) Id. at 290.
\(^{22}\) Id. at 290-91.
\(^{23}\) Some consumer goods, like airplanes and automobiles, could be easily identified by sight. In the absence of any identifying features, other products, such as pharmaceuticals, could only be identified through trial and error. Id. at 293-94.
\(^{24}\) See W.T. Rogers Co. v. Keene, 778 F.2d 334, 339-40 (7th Cir. 1985).
\(^{25}\) See id.
no producer had any desire to have his brand mistaken for that of another producer. A feature functional in this sense—a feature that different brands share rather than a feature designed to differentiate the brands—is unlike those dispensable features of the particular brand that, like an arbitrary identifying name, rivals do not need in order to compete effectively.\(^{26}\)

Allowing a manufacturer to exercise monopoly control over functional design features would therefore be the economic and legal equivalent of granting the manufacturer a patent on a product for an indeterminate period of time.\(^{27}\) Other firms would be precluded from competing in the same product market as the firm that already has a property right in the design features.\(^{28}\) Put slightly differently, a functional feature does not qualify for trademark protection because it does not serve the identifying purpose for which trademarks were designed.\(^{29}\) Rather, the design feature is part of the product and will be associated by consumers as one of the attributes for which they are searching.\(^{30}\)

## II

**Formulations of the Functionality Doctrine**

The functionality doctrine received little attention from the United States Supreme Court prior to its 1995 unanimous decision in *Qualitex Co. v. Jacobsen Products Co.*\(^{31}\) In fact, the Court's only guidance had been offered in dictum and limited to the observation that something is functional when "it is essential to the use or purpose of the article or if it affects the cost or quality of the article."\(^{32}\) Accord-

---

\(^{26}\) Id. at 339.

\(^{27}\) See Ferrari S.P.A. Esercizio v. Roberts, 944 F.2d 1235, 1246 (6th Cir. 1991), cert. denied, 505 U.S. 1219 (1992); Warner Bros., Inc. v. Gay Toys, Inc., 724 F.2d 327, 331 (2d Cir. 1984); *In re Morton-Norwich Prods., Inc.*, 671 F.2d 1332, 1339 (C.C.P.A. 1982); Keene Corp. v. Paraflex Indus., Inc., 653 F.2d 822, 824 (3d Cir. 1981) ("The purpose of the rule precluding trademark significance for functional features is to prevent the grant of a perpetual monopoly to features which cannot be patented."); Pope Automatic Merchandising Co. v. McCrum-Howell Co., 191 F. 979, 981-82 (7th Cir. 1911). Patent protection is available for both the design and utility elements of a product that meets the statutory qualifying requirements. See 35 U.S.C. §§ 100-104, 171-173 (1995). Once a patent is issued, the patentee retains the exclusive right to make, use, or sell the patented feature. This statutory monopoly lasts for a period of 20 years in the case of utility patents and 14 years when a design patent is issued. 35 U.S.C. §§ 154(a)(2), 173 (1988 & Supp. 1995).

\(^{28}\) Landes & Posner (I), *supra* note 10, at 296-97.

\(^{29}\) Id.

\(^{30}\) Id.


\(^{32}\) Inwood Labs., Inc. v. Ives Labs., Inc., 456 U.S. 844, 850 n.10 (1982); see also *id.* at 863 (White, J., concurring); *cf.* Kellogg Co. v. National Biscuit Co., 305 U.S. 111, 122 (1938) (holding that the shape of Nabisco's shredded wheat biscuit could not be protected under a likelihood of confusion rationale because their "form [was] functional" in that the "cost of
ingly, the lower courts were left on their own to devise legal standards for determining when a design feature is functional. Their efforts led to general agreement on three points: (1) in determining functionality, design features should not be dissected but, instead, considered in their entirety;\(^3\) (2) the functionality doctrine is designed to prevent manufacturers from obtaining product monopolies;\(^4\) and (3) a determination of functionality entails consideration of the competitive effects of protecting the design features at issue.\(^5\) Despite their agreement on these points, the lower courts have been unable to agree on such issues as who bears the burden of proof when a functionality issue is raised.\(^6\) More significantly, the lower courts have been unable to adopt a single standard for determining when a particular combination of design features stops functioning as a source indicator and begins functioning as part of the product.\(^7\) The inability of the lower courts to agree on a single standard can be attributed in part to the analytical distinctions made in some circuits' between application of the functionality doctrine to "utilitarian" design features and application of the functionality doctrine to "aesthetic" design features.\(^8\)

A. Mechanical Functionality

Traditionally, when courts have been confronted with design features thought to be essential to the efficient operation or production of a product, the biscuit would be increased and its high quality lessened if some other form were substituted for the pillow shape.\(^9\)

33. See, e.g., Fuddruckers, Inc. v. Doc's Bros., Inc., 826 F.2d 837, 842 (9th Cir. 1987); LeSportsac, Inc. v. K Mart. Corp., 754 F.2d 71, 76 (2d Cir. 1985).

34. See Stormy Clime Ltd. v. Progroup, Inc., 809 F.2d 971, 978 (2d Cir. 1987).

35. Id. at 977.


38. See infra notes 62-85 and accompanying text.
of a product, they have described the question before them as one involving "utilitarian" or "mechanical" functionality. The concept of mechanical functionality has been defined in a multitude of ways. Consider, for example, the following formulations of the doctrine:

The essence of the question [of functionality] is whether a particular feature of a product or service is substantially related to its value as a product or service, i.e., if the feature is part of the "function" served, or whether the primary value of a particular feature is the identification of the provider.

[T]rade dress is nonfunctional if it is an arbitrary embellishment primarily adopted for purposes of identification and individuality. But if the trade dress is an important ingredient in the commercial success of the product, it is clearly functional.

If the design of a product or a container for a product is so utilitarian as to constitute a superior design which others in the field need to be able to copy in order to compete effectively, it is de jure functional (functional in law), and, as such, precluded from registration for reasons of public policy.

It should suffice for a finding of functionality if protecting the trade dress threatens to eliminate a substantial swath of the competitive alternatives in the relevant market.

Common among these widely recognized definitions of mechanical functionality is that each discusses functionality in light of competition. Also common, unfortunately, is the imprecise use of language and a lack of direction of how to determine when a combination of design features is functional. In response to the increasing confusion, several courts have recently sought to refine their analysis. The leading case of the reform movement is In re Morton-Norwich Products, Inc.

In Morton-Norwich, the Court of Customs and Patent Appeals reversed the Patent and Trademark Office's determination that a container configuration was functional and could not be registered as a trademark. The court began its discussion by noting that most design features are utilitarian in the sense that they are directed at a function:

---

41. Aromatique, Inc. v. Gold Seal, Inc., 28 F.3d 863, 873 (8th Cir. 1994) (quoting Prufrock, Ltd. v. Lasater, 781 F.2d 129, 133 (8th Cir. 1986)).
43. Taco Cabana, Inc. v. Two Pesos, Inc., 932 F.2d 1113, 1119 n.6 (5th Cir. 1991), aff'd, 505 U.S. 763 (1992).
44. 671 F.2d 1332 (C.C.P.A. 1982); see also Brunswick Corp. v. British Seagull, Ltd., 35 F.3d 1527, 1530-31 (Fed. Cir. 1994).
45. Morton-Norwich Prods., 671 F.2d at 1334.
46. Id. at 1338.
We have refrained from using phrases such as "essentially functional," "primarily functional," and "dictated primarily by functional considerations" to denote the legal consequence, all of which use the word "functional" in the lay sense of the term. If, in the legal sense, a particular design is functional, such adverbs as "essentially" and "primarily" are without meaning. Either a design is function (de jure) or it is not.\(^47\)

Therefore, the issue, in the court's view, was not whether a combination of design features had utility, but the degree of utility provided by the design features.\(^48\)

Ultimately, the court found that only those design features which were "superior," in the sense that manufacturers needed to copy them in order to be able to compete effectively, could properly be considered functional.\(^49\) According to the court, evidence relevant to this determination included: (1) whether the design features had been patented; (2) whether the manufacturer touted the utilitarian advantages of the design in its advertising; (3) whether there were equivalent alternatives to the design features; and (4) whether the design features resulted from a simple, cheap method of manufacturing the product.\(^50\)

Finding that the utilitarian functions of the container configuration could be accomplished in a variety of ways, the court held that protecting the product configuration as trade dress would not hinder competition and was therefore non-functional.\(^51\)

Although providing much needed insight into the issue, the Morton-Norwich court's method for determining functionality is subject to criticism on the grounds that the evidence it cited as relevant to a determination of functionality would be insufficient to support such a finding. In many cases, evidence that a particular design feature is one of few alternatives, cheaper to manufacture, patentable, or touted as utilitarian may prove very little beyond the inference that the design features have certain advantages over other design features. The functionality doctrine requires something more—namely, that depriving other firms of the ability to copy the design features would have a materially adverse impact on the ability of those firms to compete. Accordingly, the Morton-Norwich court should have required not only evidence of utilitarian advantages, but also evidence indicating that the cost of using other design features would increase the price of the product above what it would have been had the design features been used, or that consumers or retailers so prefer the design features

\(^{47}\) Id. at 1343 n.4.  
\(^{48}\) Id. at 1343.  
\(^{49}\) Id. at 1339-40.  
\(^{50}\) Id. at 1340-41.  
\(^{51}\) Id. at 1341-42.
claimed as functional that they will not purchase the product without them.

This approach was adopted in *Abbott Laboratories v. Mead Johnson & Co.* In *Abbott Laboratories*, the Seventh Circuit Court of Appeals reversed the functionality determination of a district court when it failed to consider evidence beyond that suggested in *Morton-Norwich*. At issue in the case was whether translucent, square, quart-sized plastic bottles were functional when used as containers for oral electrolyte maintenance solutions. The district court held that the bottles were functional because they were “easier to ship and package,” took up less space on a shelf than comparable containers, and were “more easily handled by consumers.” The appellate court disagreed. In its view, assuming that the district court’s findings were correct, the functionality doctrine additionally required that it also be proven that a monopoly on the utilitarian advantages would negatively and materially impact the ability of other firms to compete effectively in the product market for oral electrolyte maintenance solutions. To aid the district court on remand, the appellate court posed three questions: (1) Do the design advantages impact the retail price of the product?; (2) Would retailers hesitate to display the product without the design features?; and (3) Do consumers so prefer the design features that they would “eschew” the same product if packaged in a different container? With these questions, the Seventh Circuit cast the issue of mechanical functionality in terms of competition. The decision did little, however, to resolve the confusion engendered by the doctrine of aesthetic functionality.

**B. Aesthetic Functionality**

The doctrine of aesthetic functionality is concerned with whether the ornamental design features of a product are necessary for effective competition. Like its counterpart, aesthetic functionality has been articulated in a variety of ways. The broadest statement of the doctrine was adopted by the Ninth Circuit in *Pagliero v. Wallace China Co.*

In *Pagliero*, the Ninth Circuit was asked to determine whether four design patterns of hotel china were functional. In analyzing the functionality defense, the court divided design features into two cate-

---

52. 971 F.2d 6 (7th Cir. 1992).
53. Id. at 20-21.
54. Id. at 21.
55. Id.
56. 198 F.2d 339 (9th Cir. 1952).
57. Id. at 343.
gories: (1) design features that are "an important ingredient in the commercial success of the product," and (2) design features that are arbitrary and "primarily adopted for purposes of identification and individuality."\(^{58}\) The court then held that since the patterns on china were intended to make the product more attractive and were not primarily designed to act as source indicators, they were functional.\(^{59}\) In the court's judgment, the ability to copy ornamental design features, which were proven to be important to consumers, was necessary to avoid giving the originator of the design a competitive advantage in the market.\(^{60}\)

Subsequent courts received the \textit{Pagliero} decision, together with the notion that purely aesthetic features can in themselves confer utilitarian functionality on a proposed mark, with mixed reaction.\(^{61}\) Those courts that condemned the "important ingredient" test argued that \textit{Pagliero} suffered on three counts. First, the important ingredient test was criticized for its failure to recognize that the ability of a design feature to serve as a source indicator is enhanced when it is also designed to make the product more attractive.\(^{62}\) Moreover, the test failed to recognize that "trade dress associated with a product that has accumulated goodwill . . . will almost always be an important ingredient in the salability of a product."\(^{63}\) However, the most serious objection to the important ingredient test was that "by allowing the copying of an exact design without any evidence of market foreclosure, the \textit{Pagliero} test [discouraged] both originators and later competitors from developing pleasing designs."\(^{64}\) The absence of an incentive to develop innovative designs, according to many courts, would have the unintended effect of hindering rather than enhancing competition and product development. Despite the overwhelming criticism of \textit{Pagliero}, the doctrine of aesthetic functionality has remained a viable concept in some circuits, though in modified form.

In \textit{Keene Corp. v. Paraflex Industries, Inc.} \(^{65}\) for example, the Third Circuit Court of Appeals found that aesthetic functionality should be similarly restricted as mechanical functionality by focusing

\(^{58}\) \textit{Id.}

\(^{59}\) \textit{Id.} at 343-44.

\(^{60}\) \textit{Id.}


\(^{62}\) \textit{Roberts}, 944 F.2d at 1246-47 (citations omitted).

\(^{63}\) \textit{Id.} (citations omitted).

\(^{64}\) Wallace Int'l Silversmiths, Inc. v. Godinger Silver Art Co., 916 F.2d 76, 80 (2d Cir. 1990).

\(^{65}\) 653 F.2d 822 (3d Cir. 1981).
on the extent to which an aesthetic design feature is related to the utilitarian function of the product. The court in *Paraflex* then upheld the finding by a district court that the shape of an outdoor lighting fixture was functional because it was one of only twelve or fifteen shapes by which the product could be made and still be compatible with the structures to which the product was attached. In so doing, the court rejected the plaintiff’s complaint that the district court had erred by failing to explicitly find that competition would be substantially hindered by restricting the copying of its design. Rather, the court wrote that “[b]ecause there are only a limited number of configurations . . . [for the product] which are architecturally compatible with the type of structures on which they are placed, the selection of [the product] design does not have the unlimited boundaries as does the selection of a wine bottle or ashtray design.” Other courts, while not explicitly adopting the Third Circuit’s notion of decor compatibility, have similarly held that “where an ornamental feature is claimed as a trademark and trademark protection would significantly hinder competition by limiting the range of adequate design alternatives, the aesthetic functionality doctrine denies such protection.”

A second line of decisions rejected the concept of aesthetic functionality altogether. In the view of these courts, drawing a distinction between aesthetic and mechanical functionality was unnecessary and potentially confusing since the question posed by the functionality doctrine is the same whether the design feature is claimed to be ornamental or utilitarian: Do competitors have to incorporate the feature sought to be protected in their products in order to compete effectively in the market?

The Seventh Circuit Court of Appeals adopted this view when asked to consider whether the hexagonal shape of office stacking trays is functional:

A feature can be functional not only because it helps a product achieve the objective for which the product would be valued by a

---

66. *Id.* at 827.
67. *Id.* at 826-27.
68. *Id.* at 827.
69. *Id.* at 830.
70. The concept of decor compatibility is related to the color depletion theory, which holds that allowing colors to be used as trademarks will deplete the supply of usable colors, placing competitors at a competitive disadvantage. See, e.g., Qualitex Co. v. Jacobson Prods. Co., ___ U.S. ___, 115 S. Ct. 1300, 1305-06 (1995); Brunswick Corp. v. British Seagull Ltd., 35 F.3d 1527, 1531 (Fed. Cir. 1994).
71. Wallace Int’l Silversmiths, Inc. v. Godinger Silver Art Co., 916 F.2d 76, 81 (2d Cir. 1990); see also In re Bose Corp., 772 F.2d 866, 872 (Fed. Cir. 1985).
72. See, e.g., *Brunswick Corp.*, 35 F.3d at 1532-33.
person indifferent to matters of taste, charm, elegance, and beauty, but also because it makes the product more pleasing to people not indifferent to such things. But the fact that people like the feature does not by itself prevent the manufacturer from being able to use it as his trademark. He is prevented only if the feature is functional . . . that is only if without it other producers of the product could not compete effectively.\(^73\)

Although rejecting aesthetic functionality as a doctrine, the effective impact of the approach taken by the Seventh Circuit was similar to that taken by courts accepting the doctrine in its modified form. This is because both views return the focus to the likely competitive effect of not allowing the design features to be copied, and away from whether a particular combination of design features has accumulated good will among consumers.

C. The *Qualitex* Standard of Functionality

In *Qualitex Co. v. Jacobson Products Co.*,\(^74\) the Supreme Court was asked to consider whether colors are registrable as trademarks under the Lanham Act. The plaintiff, Qualitex, manufactured press pads used in dry cleaning and laundry establishments.\(^75\) Since the 1950s, Qualitex had always dyed its press pads a special shade of green-gold.\(^76\) When one of its competitors began using the same green-gold color on its own press pads, Qualitex filed a trademark infringement and unfair competition action, alleging that the competitor was attempting to pawn off its press pads as Qualitex pads.\(^77\) After determining that the Lanham Act did not specifically prohibit the registration of colors as trademarks and that colors were capable of acting as trademarks, the Court considered whether the functionality doctrine posed an impediment to trademark protection.\(^78\)

The functionality doctrine, according to the Court, "forbids the use of a product's feature as a trademark where doing so will put a competitor at a significant disadvantage because the feature is 'essential to the use or purpose of the article' or 'affects its cost or quality.'"\(^79\) The Court further explained that the functionality doctrine "thus protects competitors against a disadvantage (unrelated to recognition or reputation) that trademark protection might otherwise im-

---

73. W.T. Rogers Co. v. Keene, 778 F.2d 334, 338 (7th Cir. 1985).
75. Id. at 1302.
76. Id.
77. Id.
78. Id. at 1302-04.
79. Id. at 1306 (quoting Inwood Labs., Inc. v. Ives Labs., Inc., 456 U.S. 844, 850 n.10 (1982)).
pose, namely their inability reasonably to replicate important non-reputation-related product features. According to the Court, while instances may arise where a certain color is functional when applied to a particular product, the courts will have to determine whether its use as a trademark would permit one competitor to interfere with competition on a case by case basis. When the use of a color as a trademark does not interfere with non-trademark related competition, it is entitled to protection under the Lanham Act.

The Court’s opinion thus clarifies that the considerations relevant to functionality do not depend on whether the feature is classified as an aesthetic or utilitarian design feature. Indeed, the Court wrote that, like its counterpart, the ultimate test of aesthetic functionality "'is whether the recognition of trademark rights would significantly hinder competition.'" This formulation mirrors the general standards adopted by the courts of the reform movement. However, strikingly absent from the decision is an explanation of how to determine when a feature is "'essential to the use or purpose of the article' or 'affects its cost or quality.'"

III

Antitrust and Functionality Parallels

While Qualitex failed to provide lower courts with significant insight into the considerations relevant to determining when a design feature is functional, its formulation of the functionality doctrine suggests a starting point for the application of antitrust principles in functionality analysis. The following section explains two basic concepts of antitrust analysis: market power and market definition. It then examines how these concepts are relevant to functionality analysis.

A. Market Power

The underlying policy of the antitrust laws is to ensure that consumers receive the benefits of a competitive market. It is widely believed that one of the primary benefits of competition is that it forces firms to increase output and sell their goods at prices which

80. Id.
81. Id.
82. Id.
83. Id. (quoting RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 17 cmt. c (1995)).
84. Id.
reflect their lowest marginal costs. In a monopoly setting, on the other hand, the absence of competitors is thought to provide firms with an incentive to maximize their profits by restricting output and setting their prices above marginal costs. Whenever a firm has the ability to raise prices above its marginal costs in spite of competition, that firm is typically said to have market power. If a firm can use its market power to raise prices for a sustained period of time, the firm is then said to possess monopoly power.

Identifying the presence of market power is an inexact process. In antitrust cases, courts generally infer the existence or absence of market power by measuring the concentration of firms within a defined market. The most widely followed method of measuring concentration is the market share test used in United States v. Aluminum Co. of America (Alcoa). Under Alcoa, when the market share of an alleged monopolist is calculated, if it represents less than 33% of the market, monopoly power is assumed not to exist. On the other hand, if the firm holds 90% of the market shares for a particular product, the firm is presumed to have monopoly power. Alcoa designated a 64% market share as the middle ground where whether monopoly power exists depends on what the firm’s conduct reveals. More sophisticated methods of measuring concentration and competitiveness, namely the Herfindahl-Hirschman Index, have also been proposed and are sometimes employed in antitrust analysis to supplement the Alcoa market share test.

However, before concentration and competitiveness can be measured under Alcoa or any other market power test, it is necessary to define the relevant market over which the exercise of monopoly power is possible. Indeed, without an appropriate market definition, there is no backdrop against which to measure economic power.

87. Id.
88. See, e.g., SCFC ILC, Inc. v. Visa USA, Inc., 36 F.3d 958, 965 (10th Cir. 1994) (citations omitted).
89. See id. at 966 (quoting United States Healthcare, Inc. v. Healthsource, Inc., 986 F.2d 589, 598 (1st Cir. 1993)).
90. 148 F.2d 416 (2d Cir. 1945).
91. Id. at 424.
92. Id.
93. Id.
95. C.E. Services v. Control Data Corp., 759 F.2d 1241, 1244 (5th Cir. 1985).
B. Market Definitions

The threshold requirement of defining the relevant market is a two-part inquiry, which seeks to delineate the geographical and product parameters of the area of effective competition.96 The test for determining the relevant geographic market is the geographical area "in which the seller operates, and to which the purchaser can practicably turn for supplies."97 The boundaries of a product market, on the other hand, are determined by eliminating from the market all products that are not reasonably interchangeable substitutes for the product manufactured or sold by the alleged monopolist.98 Products are "reasonably interchangeable" only if they compete with one another. In other words, defining a product market is the process of identifying those products which, because of their similarities, have the ability—actual or potential—to take significant amounts of business away from one another.99 This process is undertaken by examining the cross-elasticity of demand between two products.

Cross-elasticity of demand is defined as the degree to which buyers will substitute one product for another in the event of a significant and sustained price increase.100 Data specifically measuring consumer sensitivity to price changes provides the most reliable measure of cross-elasticity of demand. However, such data is difficult to gather and the courts often rely on other evidence as proxies for cross-elasticity data.101 For example, because product substitutes typically share a strong physical and functional relationship, measuring elasticity can be accomplished in a rudimentary way by simply comparing the physical qualities and end-uses of a product and proposed alternative.102


To define a market in product and geographic terms is to say that if prices were appreciably raised or volume appreciably curtailed for the product within a given area, while demand held constant, supply from other sources could not be expected to enter promptly enough and in large enough amounts to restore the old price and volume.

(quoted from LAWRENCE ANTHONY SULLIVAN, ANTITRUST § 12, at 41 (1977)).
97. Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 321, 327-28 (1961); see also FTC v. Elders Grain, Inc., 868 F.2d 901, 907 (7th Cir. 1989) ("A market is the set of sellers to which a set of buyers can turn for supplies at existing or slightly higher prices.").
When two products share common physical qualities and uses, elasticity is high because consumers can freely shift from one product to the other to satisfy their desires. On the other hand, when a product has a distinct quality, characteristic, or end-use specifically desired by consumers, but which cannot be found in a proposed alternative, the proposed alternative will not be viewed by consumers as an adequate substitute for the product. Under these circumstances, elasticity is low because consumers will purchase the product even if the proposed alternative is made significantly cheaper due to a price increase in the product. Other surrogates for elasticity data include industry and public perceptions of the boundaries of the product market, consumer usage patterns, cross-industry price monitoring, as well as the presence or absence of a distinct customer base and specialized vendors.\(^{103}\)

C. Application of Antitrust Analysis to the Defense of Functionality

The process of measuring market concentration and defining markets allows courts faced with antitrust issues to examine competitive conditions in the marketplace. Like the antitrust laws, the functionality doctrine is also concerned with competition in the marketplace. Not surprisingly, therefore, the analytical tools employed in antitrust cases are equally capable of assisting courts in resolving functionality issues.

Under *Qualitex*, the functionality doctrine prohibits trade dress protection for design features when the protection would put competitors at a significant disadvantage because the design feature "is essential to the use or purpose of the article or affects the cost or quality of the product."\(^{104}\) To determine whether protecting design features would put competitors at a significant disadvantage, a court must predict the probable effect that granting such protection will have on the marketplace. As in antitrust cases, this inquiry requires that the court begin its analysis by defining the market. Because the Lanham Act provides national protection to trade dress owners, the relevant geographic market will always be the United States. The product market, on the other hand, must be defined by determining what products are reasonably interchangeable with the product to which the design feature sought to be protected has been attached. After the market has been defined, the court can then assess whether trade dress protection will adversely impact competition by measuring the probable effect trade dress protection will have on market concentration. If trade

\(^{103}\) *U.S. Healthcare*, 986 F.2d at 599; *U.S. Anchor Mfg.*, 7 F.3d at 995.

dress protection would allow the trade dress owner to increase its market share at the expense of competitors, the design feature should be considered functional if the trade dress owner's success is unrelated to recognition or reputation.

For example, imagine a case in which a manufacturer of footballs asserted trade dress rights over the oval shape of its product. To determine whether the oval shape of a football is functional, a court would begin its analysis by excluding all products not reasonably interchangeable in use with footballs. Since the rules of the game of football require that the game be played with a ball that is oval in shape, athletic balls with round shapes are not reasonably interchangeable in use with footballs. The relevant product market would therefore be composed only of oval-shaped balls. Because all the products in the relevant market share the design feature sought to be protected, granting trade dress protection to the manufacturer would be equivalent to granting a product monopoly to the manufacturer. Under these circumstances, trade dress protection would certainly lead to increased concentration in the market, since the trade dress proprietor could prohibit its competitors from making footballs. The court would therefore be expected to hold that the oval shape of a football is functional.

Measuring cross-elasticity of demand to define the product market works equally as well when the design feature at issue is not essential to a product's use, but rather is primarily ornamental. For example, suppose a manufacturer of coats sought trade dress protection on the use of animal fur on coats because he was well-known for making fur coats. The manufacturer might attempt to distinguish his case from the manufacturer who sought trade dress protection on the oval shape of footballs by arguing that coats can be made of out of any number of fabrics and that extending trade dress protection to fur would not prohibit competitors from manufacturing coats or jackets. However, the distinctive price of fur coats and the willingness of consumers to purchase fur coats despite cheaper, available alternatives suggests that fur coats are not reasonably interchangeable with coats made of other material. This conclusion is buttressed by the fact that fur coats are generally sold by vendors specializing in the sale of fur coats. Cross-elasticity of demand evidence would likely also reveal that fur coats are luxury items purchased primarily for status. Under these circumstances, fur coats arguably constitute a distinct product market. Because all products within the relevant product market would share the common design feature of being made from fur, granting trade dress protection on that design feature would lead to a
product monopoly and increased concentration in the marketplace, results prohibited under *Qualitex*. A court would therefore be expected to hold that fur is a functional design feature of coats.

However, in most cases, when a court defines a product market, it will discover that the product having the design feature sought to be protected competes with other products that do not have the design feature. *Qualitex* teaches, however, that a design feature is functional even if the effect of granting trade dress protection would not be equivalent to granting a product monopoly. Rather, trade dress protection is prohibited whenever granting the exclusive right to use a design feature would give the trade dress owner a significant advantage over other manufacturers by prohibiting them from copying important non-reputation-related product features.

When trade dress protection does not result in a product monopoly, the court should predict the probable effect of such protection on market concentration by examining the impact protection will have on cross-elasticity of demand. When trade dress protection would lower elasticity between products having the design feature and other products moving in the same market, a court should infer that trade dress protection will lead to increased market concentration. For example, if a manufacturer can manufacture its product for a lesser cost than its competitors because it gains protection for a cost-effective design feature on that product, the manufacturer can sell the product at a price which is higher than it could if its competitors could utilize that protected design feature, and still undercut its competitors’ prices for alternative products. Thus, even though consumers would pay a higher price for the product with the design feature than they would if the manufacturer’s competitors could compete using the cost-effective design, the consumers would have no incentive to switch to the competitors’ alternative products, because the price of the product with the design feature would be cheaper than the alternatives. The same effect would follow when consumers desire the product having the design feature sought to be protected because the design feature improves the performance or quality of the product. On the other hand, when consumers desire a design feature only for reputational reasons, cross-elasticity of demand would presumably remain unchanged. That is, consumers would be expected to switch to the less pleasing alternative in the event of a significant and sustained price increase in the same degree as they would have prior to the granting of trade dress protection.

It should also be noted that using cross-elasticity evidence to predict the probable effect of trade dress protection on market concentra-
tion alleviates any necessity to specify the smallest projected market-share increase that would raise an inference of functionality. Indeed, increases in market share, with nothing more, do not suggest functionality at all. To the contrary, a court must be able to attribute probable market-share increases to the nonreputational advantages of the design feature before the design feature may be considered functional. Relying on cross-elasticity data eliminates from the equation market-share increases attributable to the good-will advantages of a design feature. As such, any measurable increase in market concentration attributable to shifts in elasticity arising from trade dress protection would amount to a "significant disadvantage" for competitors.

To date, the courts have never formally undertaken the process of defining the relevant market and measuring the probable effect that trade dress protection would have on market concentration when faced with a functionality issue. However, several courts have taken steps toward that end. For example, to resolve the functionality issue raised in Abbott Laboratories, the Court of Appeals for the Seventh Circuit defined the relevant product market (albeit arbitrarily) and remanded the case for the lower court to consider whether the design feature sought to be protected was either demanded by consumers and retailers or whether the feature allowed the product to be marketed at a lower cost. Although the Seventh Circuit did not specifically instruct the lower court to consider the impact of protecting the design features on market concentration, the questions posed by the Seventh Circuit are proxies for cross-elasticity data and were asked because of their ability to assist the lower court in predicting the probable effect of trade dress protection on competition within the relevant market.

IV
Conclusion—Modifying the Nomenclature

In its review of the functionality doctrine, the discussion has from time to time pointed out that many difficulties result from the imprecise use of language and the absence of a single standard to ascertain whether a particular combination of design features is functional. In searching for a standard which could yield consistent results, courts have increasingly turned to the underlying policy of the doctrine, which is to protect competition. By framing the issue in terms of competition, it is a natural progression to turn to the principles of the antitrust laws, where the competitive effects of firm conduct have been

more fully explored. More importantly, framing the question in terms of competition shows that the distinction currently made in some courts between mechanical and aesthetic functionality is unnecessary. Such a distinction confuses the primary question: by receiving a monopoly on the design features, will the proprietor of the trade dress receive an undue competitive advantage in the marketplace? This can most easily be determined by: (1) defining the product market, and (2) examining whether the probable effect of granting trade dress protection would be to increase firm concentration within the market.