COMMENT

TO COPY OR NOT TO COPY, THAT IS THE QUESTION:
THE GAME THEORY APPROACH TO PROTECTING
FASHION DESIGNS

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INTRODUCTION

Fashion designers in the United States, unlike those in many foreign jurisdictions, enjoy only limited intellectual property protection for their creative endeavors. The American patent, copyright, and trademark systems each present obstacles to obtaining protection for fashion designs. Copyright and trademark law protect certain elements of fashion designs, such as unique fabrics and logos, but the protections do not extend to the general shape and appearance of a fashion design. Moreover, copyright and trademark law do not grant protection to products and features that serve a utilitarian purpose. On the other hand, patent law presents difficult statutory barriers; a design must be novel and nonobvious, and can only gain protection after a lengthy litigation process. The result is a gap in intellectual property protection that leaves fashion designers vulnerable to a stitch-by-stitch, seam-by-seam replication of the designs they labor to create.

While the duplication of fashion designs is not a new phenomenon, the practice has recently received increased attention due to high-profile lawsuits by famous designers including Anna Sui and Diane von Furstenberg against low-end, mass retailers such as Forever 21. The defendants in these cases are known as “fast-fashion” firms for their ability to replicate original designs at alarming speed, on a large scale, and at low cost. Many fashion designers disapprove, claiming

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that fast-fashion firms’ capabilities of quickly copying original designs and bringing those copies to market deprive original designers of profits and stifle design firm creativity. The fashion industry, represented by the industry group Council of Fashion Designers of America (CFDA), has sought Congress’s assistance to rectify the longstanding dearth of intellectual property protection for fashion designs. The Senate introduced a proposal to amend the copyright statute known as the Innovative Design Protection and Piracy Prevention Act (IDPPPA) last session, and the House of Representatives recently introduced the same proposal.

In this Comment, I address the normative question of the optimal scope of intellectual property protection for fashion designs through game theory’s unique perspective of law and economics. I do so by developing a game theoretic model that evaluates the impact of greater legal protection on the incentives of fashion designers to bring lawsuits to protect their designs and of fast-fashion firms to make replicas of these designs. Analyzing the incentives at play will allow me to predict whether the IDPPPA in its current form will deter fast-fashion firms from replicating designs, encourage innovation, and maximize welfare in the fashion industry.

Part I of this Comment offers a detailed overview of the current state of intellectual property protection for fashion designs in the United States and compares U.S. protection with the legal regimes of foreign jurisdictions. Part II discusses the recent developments in the fashion industry that have triggered an outcry against copying and

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2 Arguing in support of the Innovative Design Protection and Piracy Prevention Act (IDPPPA), the CFDA asserted that “[p]iracy can wipe out young careers in a single season” and that “[w]ithout this legislation, the creativity and innovation that has put American fashion in a leadership position will dry up.” Innovative Design Protection and Piracy Prevention Act: Hearing on H.R. 2511 Before the Subcomm. on Intellectual Prop., Competition, and the Internet of the H. Comm. on the Judiciary, 112th Cong. 7, 9 (2011) [hereinafter IDPPPA Hearing] (statement of Lazaro Hernandez, Designer & Cofounder, Proenza Schouler).

3 S. 3728, 111th Cong. (2010). This bill unanimously passed the Senate Committee of the Judiciary before the congressional session ended in December 2010. See BRIAN T. YEH, CONG. RESEARCH SERV., RS22685, COPYRIGHT PROTECTION FOR FASHION DESIGN: A LEGAL ANALYSIS OF LEGISLATIVE PROPOSALS 1, 3 (2011) (providing a legislative history of S. 3728).

4 H.R. 2511, 112th Cong. (2011). As of January 2012, the most recent action taken for the house bill was its introduction and referral to the Committee on the Judiciary for a hearing before the Subcommittee on Intellectual Property, Competition, and the Internet on July 13, 2011. For detailed tracking information on this bill, see 2011 Bill Tracking H.R. 2511, 112th Cong. (LEXIS). See infra Section I.B. for a detailed analysis of the provisions of this legislation.
summarizes the scholarly views on the normative question of which legal regime, if any, should exist for the protection of fashion designs. Part III provides background on the law and economics approach to intellectual property protection and explains the relevance of game theory, a law and economics tool, to the analysis of copying fashion designs. Part IV lays out the assumptions and the structure of a game theoretic model and applies this model to different legal regimes aimed at protecting fashion designs. Finally, Part V examines the findings of the game theory analysis in Part IV, evaluates the efficacy of the Innovative Design Protection and Piracy Prevention Act as a policy choice, and introduces possible alternatives.

I. INTELLECTUAL PROPERTY PROTECTION FOR FASHION DESIGNS

A. Current Protections for Fashion Designs

American law offers what has been described as a “patchwork of protection” for fashion designs. That is, American intellectual property laws provide neither a specific nor a comprehensive scheme of protection for fashion designs. Instead, fashion designers must seek protection from the existing institutions of trademark, patent, and copyright law for relief from copying. However, each of these sources of law presents obstacles to a plaintiff fashion designer.

1. Trademark

Trademark law protects “any word, name, symbol, or device, or any combination thereof . . . used by a person . . . to identify and distinguish his or her goods . . . .” Trademark can thus protect certain elements of a fashion design, such as a designer’s logo. However, trademark protection does not extend to the entire fashion design. For a fashion designer to gain protection for the entire design, he may have to turn to trade dress, an extension of trademark that the United States Code does not explicitly define. The Supreme Court has recognized trade dress:

The breadth of the definition of marks registrable under § 2 [of the Lanham Act] . . . has been held to embrace not just word marks . . . and

symbol marks . . . but also “trade dress”—a category that originally included only the packaging, or “dressing,” of a product, but in recent years has been expanded by many Courts of Appeals to encompass the design of a product.\(^7\)

With this broader definition of trademark, fashion designers can try to register their designs as trade dress, but they will have to demonstrate distinctiveness, which is an “explicit prerequisite for registration of trade dress.”\(^8\) Designers may establish distinctiveness of a trademark or a trade dress in one of two ways: a mark can either be inherently distinctive, or it can gain secondary meaning.\(^9\) A trademark or trade dress is inherently distinctive if its “intrinsic nature serves to identify a particular source.”\(^10\) A mark gains secondary meaning when “in the minds of the public, [its] primary significance . . . is to identify the source of the product rather than the product itself.”\(^11\)

In practice, “[t]he more easily visible the logo is,” the more protection there will be afforded for a design.\(^12\) While an exact copy of a handbag design with prominent identifiers—such as a Louis Vuitton bag—presents a case for trademark infringement, a uniquely tailored item of clothing without such identifiers does not. A fashion designer therefore would have to protect an item without logos and identifiers by trying to protect the entire design through trade dress. This is a tall task, as it is not easy to prove inherent distinctiveness and secondary meaning, especially for a fashion designer with limited resources. More importantly, the functionality doctrine poses an enormous hurdle in that it denies trademark protection to any “useful product feature.”\(^13\) The shape and form of an article of clothing are generally considered essential to use or purpose and thus fall outside the scope of trademark protection.\(^14\) The fear is that if a trademark protects use-

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\(^8\) Id. at 210.

\(^9\) See id. at 210-11.

\(^10\) Id. at 210 (quoting Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 768 (1992)).

\(^11\) Id. at 211 (quoting Inwood Labs., Inc. v. Ives Labs., Inc., 456 U.S. 844, 851 n.11 (1982)).

\(^12\) See Scafidi, supra note 5, at 121 (suggesting that legal concerns incentivize designers to incorporate logos into their designs and make those logos as conspicuous as possible); see also Kal Raustiala & Christopher Sprigman, The Piracy Paradox: Innovation and Intellectual Property in Fashion Design, 92 VA. L. REV. 1687, 1701-02 (2006) (arguing that copyright provides little protection overall because “[f]or the vast majority of apparel goods . . . the trademarks are either inside the garment or subly displayed on small portions such as buttons”).


\(^14\) See Lisa J. Hedrick, Note, Tearing Fashion Design Protection Apart at the Seams, 65 WASH. & LEE L. REV. 215, 227 (2008) (noting that “trademark cracks the door to protec-
ful elements of a product, “a monopoly over such features could be obtained without regard to whether they qualify as patents and could be extended forever (because trademarks may be renewed in perpetuity).”\textsuperscript{15} Given these obstacles, most fashion designers are unlikely to receive significant protection from trademark.

2. Patent

Utility and design patents theoretically are available to fashion designs as a form of intellectual property protection. A utility patent can be obtained by “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.”\textsuperscript{16} In addition to this subject matter requirement, an invention must be truly novel\textsuperscript{17} and nonobvious\textsuperscript{18} to qualify for patent protection. The nonobviousness requirement presents a roadblock to fashion designers because an eligible design must be so original that another fashion designer, or someone similarly engaged in the fashion industry, would not have thought of it.\textsuperscript{19} Given the relatively standard shape and form of articles of clothing and the industry practice to “quote, comment upon, and refer to prior work,” designers cannot easily, if at all, show nonobviousness.\textsuperscript{20} A fashion designer may also consider applying for a design patent, which is provided to “[w]hoever invents any new, original and ornamental design for an article of manufacture.”\textsuperscript{21} While this language seems sufficiently broad to encompass fashion designs, the novelty and nonobviousness requirements still apply.\textsuperscript{22}

Even if a fashion designer can meet the statutory requirements, the patent system presents a further obstacle to protecting fashion designs: timing. The patent system takes too long to grant protection.\textsuperscript{23} In 2010, the average time for an initial determination of patentability

\textsuperscript{15} Qualitex Co., 514 U.S. at 165 (citations omitted).
\textsuperscript{17} See id. § 102.
\textsuperscript{18} See id. § 103(a).
\textsuperscript{19} See id.
\textsuperscript{20} Hemphill & Suk, supra note 1, at 1160.
\textsuperscript{21} 35 U.S.C. § 171.
\textsuperscript{22} See id.
\textsuperscript{23} See Scafidi, supra note 5, at 122 (“By the time a fashion designer could obtain either a utility patent or a design patent the item at issue . . . would already be passé.”).
was 25.7 months—an eternity in the fashion industry.\footnote{US Patent 
& Trademark Office, Performance 
and Accountability Report 
Fiscal Year 2010, at 18 (2010), 
available at 
http://www.uspto.gov/about/stratplan/ 
ar/2010/USPTO FY2010PAR.pdf.} Within one 
year a designer may release several seasons of clothing exhibiting rapid 
changes in style. Given the short life cycle of any given fashion design, 
it is grossly impractical for a fashion designer to seek such a patent and 
then enforce it against alleged violators. Copyright protection in con-
trast begins upon fixation in a tangible medium and does not require 
registration.\footnote{See U.S. Copyright Office, Circular 1: Copyright Basics 3 (2011), available at 
http://copyright.gov/circs/circ01.pdf (“No publication or registration or other action in the Copyright 
Office is required to secure copyright.”).}

3. Copyright

Copyright would seem to apply to fashion designs because by statu-
tory definition its subject matter includes “original works of authorship 
fixed in any tangible medium of expression.”\footnote{17 U.S.C. § 102(a) (2006).} Copyright protection 
would also seem advantageous because it is easy to obtain and subsists 
from the time of creation.\footnote{See id. § 302(a).} However, an article of clothing, which 
represents an original design in a fixed form, cannot receive copyright 
protection because clothing is “utilitarian” in nature.\footnote{See Scafidi, supra note 5, at 122 (explaining 
that the functionality exception has largely excluded clothing from subject matter eligible for copyright).} Copyright law 
in the United States treats nonfunctional creative works as the true 
domain of copyright.\footnote{See id. (“The somewhat artificial distinction . . . between nonfunctional literary 
and artistic works, which are the subject matter of copyright, and useful inventions, 
which are the domain of patents, has generally excluded clothing from the subject matter of copyright . . . .”).} Some useful articles can receive copyright pro-
tection, limited to their artistic elements, but the entire article cannot 
qualify. The Supreme Court’s decision in \textit{Mazer v. Stein} extended 
copyright to a mass-produced item, a lamp, but the copyright only 
attached to the aesthetic form of the lamp and not its mechanical or 
utilitarian aspects.\footnote{See 347 U.S. 201, 217-18 (1954) (“Unlike a patent, copyright gives no exclusive 
right to the art disclosed; protection is given only to the expression of the idea—not the 
idea itself . . . . The copyright protects originality rather than novelty or invention.”).} Despite its narrow scope, \textit{Mazer} paved the way for 
extending copyright protection to a broader array of products, includ-
ing fashion-related items such as artistic jewelry and dress fabrics. Nevertheless, fashion designs have not yet fallen within the ambit of copyright.

B. Congressional Efforts to Extend Copyright Protection to Fashion Designs

The latest effort to grant intellectual property protection to fashion designs is the IDPPPA. The IDPPPA proposes to amend Title 17 of the United States Code to extend a specialized form of copyright protection to fashion designs. Under IDPPPA:

A “fashion design”—

(A) is the appearance as a whole of an article of apparel, including its ornamentation; and

(B) includes original elements of the article of apparel or the original arrangement or placement of original or non-original elements as incorporated in the overall appearance of the article of apparel that—

(i) are the result of a designer’s own creative endeavor; and

(ii) provide a unique, distinguishable, non-trivial and non-utilitarian variation over prior designs for similar types of articles.

The IDPPPA provides only three years of protection, much less than the standard lifetime of copyright and the term of copyright available to other forms of design. Under the IDPPPA, the copyright infringement standard is “substantially identical,” which is different from the “substantial similarity” standard prevalent in copyright law.
As the IDPPPA has not been enacted, there is no judicial authority on the interpretation of the language of “substantially identical” in the context of copyright.\(^{39}\) The IDPPPA defines the term as “an article of apparel which is so similar in appearance as to be likely to be mistaken for the protected design, and contains only those differences in construction or design which are merely trivial.”\(^{40}\) A plain reading suggests that “substantially identical” presents a higher threshold than the standard of “substantially similar,” as the resemblance between the original design and the copy has to be close to complete.

The IDPPPA also includes a pleading standard, which would require plaintiffs to show that the protected fashion design was available in such a manner that the court can infer that the defendant had knowledge of the design.\(^{41}\) The current 17 U.S.C. § 1323 would govern remedies for infringement, entitling a plaintiff to recover either “damages adequate to compensate for infringement,”\(^{42}\) or the “infringer’s profits resulting from the sale of the copies.”\(^{43}\) In addition, under the statute, a court may also award attorneys’ fees.\(^{44}\)

It bears emphasis that Congress has pushed toward legislation providing design protection. From 1980 to 2006, at least ten bills concerning design protection were introduced in Congress.\(^{45}\) While many of these bills did not expressly address protection of fashion designs, they set the stage for an older incarnation of the IDPPPA, the Design Piracy Prohibition Act (DPPA).\(^{46}\) The DPPA, like the IDPPPA,

\(\text{Elman, Note, From the Runway to the Courtroom: How Substantial Similarity is Unfit for Fashion, 30 CARDozo L. REV. 683, 700-08 (2008).}

\(^{39}\) It is a widely held view that the “substantially identical” standard is a more stringent standard of liability. See, e.g., IDPPPA Hearing, supra note 2, at 15 (testimony of Jeannie Suk, Professor of Law, Harvard Law School) (“Deviating from the ordinary copyright infringement standard with a much narrower substantially identical standard for infringement, the Act allows plenty of room for designers to draw inspiration from others.”).

\(^{40}\) H.R. 2511 § 2(a).

\(^{41}\) Id. § 2(g)(2).

\(^{42}\) 17 U.S.C. § 1323(a) (2006). A court may increase damages up to the greater of $50,000 or $1 per copy. Id.

\(^{43}\) Id. § 1323(b).

\(^{44}\) See id. § 1323(d).

\(^{45}\) Raustiälä & Sprigman, supra note 12, at 1756. However, many of these general design bills would have exempted apparel. Id.

\(^{46}\) Introduced in 2006, House Bill 5055 was the initial proposed extension of the Copyright Act. H.R. 5055, 109th Cong. (2006). An identical bill, House Bill 2035, was introduced the following year. H.R. 2035, 110th Cong. (2007). For general background on and summary of the debate surrounding this legislation, see JESSICA G. JACOBs, CONG.}
attempted to extend copyright protection to fashion designs by amending Title 17 of the United States Code. However, the substance of the DPPA differed in a few important respects. First, the DPPA defined the term “fashion design” to include specific articles of clothing and accessories. Second, the DPPA used “substantially similar” as the standard for legal liability, which is the common standard for copyright infringement and likely a lower standard than the “substantially identical” standard found in the IDPPPA. Third, the DPPA lacked a pleading standard. Fourth, the DPPA suggested increasing the statutory damages available for infringement under 17 U.S.C. § 1323(a) to the greater of $250,000 or $5 per copy—significantly more than the damages available under the IDPPPA. Like the IDPPPA, the DPPA provided a three-year term of protection. The use of the “substantially identical” standard rather than the “substantially similar” standard, no increase in statutory damages, and the inclusion of a pleading standard seem to suggest that the IDPPPA takes a softened and more compromising approach than the DPPA toward infringement of fashion designs. Despite these compromises, the passage of the IDPPPA is anything but assured.

C. Foreign Approaches to Copying in the Fashion Industry

Some scholars criticize the American intellectual property scheme for lagging behind other countries’ schemes in extending protection
to fashion designs. In fact, the gap between American and foreign protections for fashion designs has often been cited as a reason for the necessity of immediate legislative action. France offers the strongest and most explicit form of protection for designs, while England and the European Union provide legal protection that more closely resembles the legislative proposals that have been and are currently being considered in Congress. The features of these foreign approaches to fashion design protection will be important to keep in mind and will be revisited in Part V, which evaluates the IDPPPA as a legal regime.

1. France

Certain countries have taken an uncompromising stance toward the duplication of fashion designs and have provided specific rights to fashion designers to protect their creations. France arguably provides the most comprehensive protection and has quashed the practice of copying in the fashion industry by explicitly providing copyright protection to fashion. Long ago the Copyright Act of 1793 classified fashion as applied art. Now, French copyright law expressly provides protection for fashion designs. As is the case with copyright in the United States, no registration is required, and protection attaches upon creation. The term of protection is the lifetime of the author of the work plus “70 years thereafter.” Remedies for infringement of fashion designs include damages and “infringement seizure,” whereby “the courts shall be required, at the request of an author of a work protected . . . to seize copies constituting an unlawful reproduction of

54 See infra Part II.B.3.
55 See infra text accompanying notes 110-13.
56 See Scafidi, supra note 5, at 117 (“While French intellectual property law has by no means eliminated design piracy . . . the protection enjoyed by designers working in Paris contributed to the strength of the industry and its global influence throughout the 20th century and into the 21st.”).
60 See Intellectual Property Code art. L111-2 (Fr.) (“A work shall be deemed to have been created, irrespective of any public disclosure, by the mere fact of realization of the author’s concept.”).
61 See id. art. L111-1 (“The author of a work of the mind shall enjoy in that work, by the mere fact of its creation, an exclusive incorporeal property right . . . .”).
62 Id. art. L123-1.
It bears mentioning that there is substance to these copyright laws and that French courts have treated violations of intellectual property rights in fashion designs with care.64 This rigorous approach to intellectual property protection for fashion designs has been credited for the strength and prominence of the French fashion industry.

2. United Kingdom

The United Kingdom also provides legal protection to fashion designs. Under British law, a designer can seek protection either through registered or unregistered design rights.65 A registered design right is the “total right of ownership to the appearance of a product or part of a product.”66 Protection is granted in the form of an exclusive right of use, which lasts for five years and may be extended up to a maximum of twenty-five years.67 To qualify for this protection, the design must be novel, meaning that “it must not be identical to a design which has already been made available to the public,” and it must possess individual character, meaning that “the overall impression that [the design] produces must be different from [that of] any other design which has been made available to the public.”68 Scholars have noted that fashion designers do not embrace registered design rights because of “the complex and unclear law and registration requirements.”69 Designers in the United Kingdom instead seem to prefer the unregistered right.70 This form of design right “is not a total right of design ownership” and only protects against copying; it does not

63 Id. art. L332-1.
64 In a famous case “that riveted the French fashion community,” French fashion designer Yves Saint Laurent successfully sued American designer Ralph Lauren for copying a black tuxedo dress, winning $395,090 in damages. Amy M. Spindler, A Ruling by a French Court Finds Copyright in a Design, N.Y. TIMES, May 19, 1994, at D4.
65 See Copyright, Designs and Patents Act, 1988, c. 48, § 213 (Eng.) (providing unregistered design protection); id. §269 (providing registered design protection); see also Erika Myers, Justice in Fashion: Cheap Chic and the Intellectual Property Equilibrium in the United Kingdom and the United States, 37 AIPLA Q.J. 47, 63 (2009) (explaining the process for claiming unregistered and registered design rights, all of which are “stronger than the proposed protection in the United States”).
67 Id.
68 Id. at 5.
69 Myers, supra note 65, at 63.
70 See id. at 64 (“The unregistered design right, on the other hand, appears well suited to the needs of the fashion industry.”).
grant exclusive use to the designer. The unregistered design right grants protection for up to fifteen years. In addition, the design “must be of the shape or configuration of an item” and “must not be commonplace.”

3. European Union

Beyond the jurisdiction-specific legal protection available in Europe, a designer may obtain what is known as a Community design right, which provides protection across all of the member states of the European Union. This design right is applicable to “the outward appearance of a product or part of it, resulting from the lines, contours, colours, shape, texture, materials,” and ornamentation. A plain reading suggests that a fashion design qualifies for protection. The Community design right is available in registered and unregistered forms. Similar to the registered and unregistered design rights in the United Kingdom, a registered Community design right, upon application and approval, grants the designer an exclusive right to use a design for up to twenty-five years. An unregistered Community design right automatically grants protection against copying for three years. Because of the Community design right’s expansive definition and geographic breadth, it is an attractive candidate for affording protection to fashion designs.

That being said, the Community design right has existed for less than a decade, and there is still much debate about its effectiveness. Scholars believe that regulation in the European Union is underutilized, citing the limited number of apparel designs in the design regis-

71 INTELLECTUAL PROP. OFFICE, supra note 66, at 9.
72 See id. (explaining that the unregistered design right extends ten years from when the designer first marks an item and is limited to fifteen years from the design’s creation).
73 Id.
74 See General Questions, OFFICE FOR HARMONIZATION IN INTERNAL MARKET, http://oami.europa.eu/ows/tw/pages/RCD/FAQ/RCD1.en.do (last visited Jan. 15, 2012) (“Community design protection is directly enforceable in each Member State and it provides both the option of an unregistered and a registered Community design right for one area emphasizing all Member States.”).
75 Id.
76 Id.
77 Id.
Moreover, these scholars argue that despite the intellectual property protections available in the European Union, there is still widespread copying of fashion designs and “fashion firms do not exhibit marked differences in behavior despite these very different legal environments” in the United States and the European Union. However, a recent article has observed that “the new E.U. unregistered design right is becoming ‘extremely useful for fashion designers,’ prompting a spate of recent suits and settlements.” Therefore, any conclusions as to the success or failure of the Community design right may be premature. What is clear, however, is that given the many similarities between the unregistered Community design right and the DPPA and IDPPPA, the European Union’s system will, over time, provide key insights into domestic legislation for protecting fashion designs.

II. COPYING WITHIN THE FASHION INDUSTRY

While different forms of copying are commonplace in creative industries, including the fashion industry, it is important to distinguish what “copying” specifically refers to in intellectual property terms. The media’s coverage of government and private corporations’ successful policing against counterfeiting and knock-offs does not include the form of copying that this Comment addresses. The widely acknowledged legal victories against counterfeiting concern the infringement of well-known trademarks—that is, of logos or symbols that identify the source of an item and denote quality and prestige. Counterfeiting is clearly legally actionable and thus these victories

79 See Raustiala & Sprigman, supra note 12, at 1742 (stating that searches in the European Union-wide registry as of June 24, 2006, “yielded 296 designs in the ‘undergarments, lingerie, corsets, brassieres, nightwear’ category; 960 in ‘garments’; 313 in ‘headwear’; 2311 in ‘footwear, socks and stockings’; 197 in ‘neckties, scarves, neckerchiefs and handkerchiefs’; 111 in ‘gloves’; 706 in ‘haberdashery and clothing accessories’; and 14 in ‘miscellaneous’”).

80 Id. at 1743.


82 See Raustiala & Sprigman, supra note 12, at 1743-44 (commenting that “[t]his cross-jurisdictional comparison has important implications” for the DPPA, which “would mimic prevailing EU law in some important ways”).

83 See, e.g., Meredith Derby & Liza Casabona, Counterfeiting Wars Heat Up for Shoe Players, FOOTWEAR NEWS, Oct. 2, 2006, at 2, 10 (describing the successes of shoe manufacturers such as New Balance and Asics in policing their trademarks against infringers).
come as no surprise.\footnote{See \textit{The Spread of Counterfeiting: Knock-Offs Catch On}, \textsc{Economist}, Mar. 6, 2010, at 81 (discussing the current surge in counterfeiting and detailing technological, legal, and regulatory efforts to combat it).} By contrast, there have been few notable legal victories against the duplication of the exact shape and appearance of fashion designs. This is most likely due to the lack of intellectual property protection for these elements. Fashion designers have used the limited forms of legal protection available to seek redress against copiers—through trade dress claims, for example—and have only achieved limited success.\footnote{See Irene Tan, \textit{Note, Knock It Off, Forever 21! The Fashion Industry’s Battle Against Design Piracy}, 18 J. L. \\ \\ & Pol’y 893, 920-21 (2010), for a discussion of litigation between fashion designer Trovata and Forever 21. The events ended in a mistrial because the jury could not agree on whether Forever 21 had committed a trade dress violation. \textit{Id.} The parties settled rather than retry the case. \textit{Id.}} This kind of copying has not achieved the same social disapprobation in the public’s mind as counterfeiting has.\footnote{Cf. Alexandra Steigrad, \textit{Luxury Counterfeiters Found Guilty}, \textsc{Women’s Wear Daily} (June 11, 2010), http://www.wwd.com/business-news/legal/counterfeiters-found-guilty-3113789 (reporting on the convictions of two New York importers for trafficking and smuggling counterfeit luxury goods worth more than $100 million).} Nevertheless, developments in the fashion industry point both to a growing copying threat that needs to be addressed and to Congress’s heightened awareness of the current dearth of legal protection.

A. The Current Trend of Duplication in the United States

The scale at which the duplication of fashion designs takes place has dramatically increased, while the cost of such copying has decreased. Globalization and the rapid pace of electronic communication have enabled the transmission of designs to low-cost manufacturers overseas and the production and sale of copies in a time frame so short that designers may not yet have received orders on their own designs.\footnote{See Hemphill \\ & Suk, \textit{ supra note 1, at 1171 (detailing the speed with which a design can be electronically ordered overseas for mass production); see also IDPPPA Hearing, \textit{ supra note 2, at 99 (testimony of Lazaro Hernandez, Designer \\ & Cofounder, Proenza Schouler) (discussing the rise of websites “where [copiers] get a runway show, and they can literally zoom in to the garment front and back, copy stitch for stitch . . . and ship it before [designers] can even take orders on the product”); cf. Alessandra Galloni, \textit{Faked Out: As Luxury Industry Goes Global, Knock-Off Merchants Follow}, \textsc{Wall St. J.}, Jan. 31, 2006, at A1 (“Some fashion houses also have moved parts of their production to Asia in order to trim costs. The proximity to actual luxury goods has enabled counterfeiters to raise quality and copy products faster.”).} These changes in the production process have been accompanied by a revolution in the relationship between retailer and consumer. A startling consequence of the large-scale, low-cost
A model of fast-fashion firms is the ability it gives these firms to quickly adjust the portfolio of designs offered to the consumer and push out only the most popular products. These changes in the fashion industry have enabled the dawn of the fast-fashion firm. Thus, a fast-fashion firm is able to copy an original design, produce it abroad, bring it to market, see if it succeeds, and then quickly copy another design if the first does not sell. This combination of trendiness, diversity, and low cost provides an attractive value proposition to consumers.

This Comment argues that this large-scale, low-cost rapid copying is eliminating any opportunity for fashion designers to recoup their investment and benefit from the fruits of their labor. The most notorious fast-fashion firm is Forever 21, which, according to one study, was a defendant in fifty-three suits for copyright and trademark infringement between 2003 and 2008. It is important to note that while low design expense is a central component of the fast-fashion model, not every fast-fashion firm creates replicas of original designs; in fact, two other well-known fast-fashion firms—H&M and Zara—have attracted almost no litigation because they avoid exact copying by reinterpreting and adapting popular designs.

To complicate the situation further, it appears that fast-fashion firms do not target luxury designers that have great brand recognition, but prefer budding or mid-range designers that lack the clout of luxury designers in the marketplace. As these budding designers’ pieces often do not exhibit complex tailoring, use exotic fabrics, or incorporate the identifiers of a luxury brand, trademark law does not provide a potential legal remedy. Consequently, these designers are particu-
larly vulnerable to copying and can conceivably have their profits eroded by copiers who bring exceedingly similar, if not identical, designs so rapidly to the marketplace.\textsuperscript{35}

B. Academic Debate on the Duplication of Fashion Designs

Given the recent developments and accompanying lawsuits in the fashion industry, it comes as no surprise that the question of whether fashion designs should receive intellectual property protection has attracted much scholarship and debate. The prevailing views can be separated into three distinct camps.

1. Low Intellectual Property Protection

Professors Kal Raustiala and Christopher Sprigman first promulgated the idea that the fashion industry operates in what they describe as a “low-IP equilibrium,” meaning that intellectual property law provides little protection to fashion designs and “yet this low level of legal protection is politically stable.”\textsuperscript{94} Raustiala and Sprigman argue that a low-IP equilibrium is “paradoxically advantageous” to fashion designers because the lack of protection allows for the accelerated diffusion of designs.\textsuperscript{95} Thus, in this process of what they call “induced obsolescence,” fashion designs have a very short lifespan and the cycle of innovation is driven faster than it would otherwise be.\textsuperscript{96} They recognize the fashion industry as an “important anomaly in American law” and as a new paradigm of sorts.\textsuperscript{97} The amount of innovation that exists within the industry despite the lack of protection contradicts the standard


\textsuperscript{35} \textit{See IDPPPA Hearing, supra note 2, at 4-5 (testimony of Lazaro Hernandez, Designer & Cofounder, Proenza Schouler) (“The most severe damage from lack of protection falls upon emerging designers, such as ourselves, who everyday lose orders and potentially our entire business. . . . [Piracy] makes it harder for young designers to start up their own companies. And isn’t that the American Dream?”).}

\textsuperscript{94} Raustiala & Sprigman, supra note 12, at 1699.

\textsuperscript{95} \textit{See id. at 1722 (arguing that stiffer protections would slow the pace of the fashion cycle); see also Cherie Yang, The IDPPPA: A Cure Worse Than Its Illness?, COLUM. BUS. L. REV. ONLINE (Nov. 28, 2010, 2:45 PM), http://cblr.columbia.edu/archives/11401 (noting that Jennifer Jenkins, an intellectual property expert, believes the right to copy benefits the fashion industry by making original designs trendier and more affordable to a group of individuals who could not have bought the original).}

\textsuperscript{96} Raustiala & Sprigman, supra note 12, at 1722 (internal quotation marks omitted).

\textsuperscript{97} \textit{Id. at 1762.}
account of intellectual property rights, which predicts that lack of intellectual property rights destroys innovation.  

While the low-IP equilibrium provides a compelling description of the fashion industry in the United States, this theory does not answer the normative question of the optimal scope of intellectual property protection for fashion designs, especially given the advent of the fast-fashion firm. Raustiala and Sprigman’s presumption seems to be that value to society is measured in terms of innovation, so if there is no innovation problem in a low-IP equilibrium, there need not be protection for fashion designs. As empirical support, they note that although the legal regimes of the European Union generally protect fashion designs, there are few lawsuits, much copying, and underutilized legal protection. This evidence is probative but inconclusive. For example, one commentator has noted that intellectual property protection “does seem to have led to more innovation in U.K. cheap chic, as the chains have found ways to design around the legal protection.”

Also, since the publication of Raustiala and Sprigman’s article, there have been many high-profile lawsuits concerning fashion designs, casting doubt on the argument that providing copyright protection in the United States would follow the unsuccessful path of the European experience.

Moreover, in a recent hearing before the House Subcommittee on Intellectual Property, Competition, and the Internet, Professor Christopher Sprigman testified against the passage of the IDPPPA, again emphasizing that copying “does not deter innovation,” but “speeds it up.”

To support his argument that the fashion industry is currently more robust than ever, he presented data showing that for women’s dresses from 1998 to the present, the top two deciles—that is, the most expensive garments in the industry—experienced 250% price growth while the rest of the industry got cheaper or stayed at stable prices. One explanation for the price growth in the top deciles is that copyists

98 Id.
99 Id. at 1740-45.
100 Myers, supra note 65, at 74.
102 IDPPPA Hearing, supra note 2, at 75 (testimony of Christopher Sprigman, Professor of Law, University of Virginia School of Law).
103 Id. at 76.
have forced mid-range designers out of the market, leaving only the most expensive dresses at the high end.\textsuperscript{104} However, Professor Sprigman cites this data as evidence of a “healthy competitive industry,” as designers are able to consistently increase prices.\textsuperscript{105} While the data may be subject to different interpretations, the widening gulf between high- and low-end designers does suggest that the dynamics of fashion are changing and require a legal response.

2. High Intellectual Property Protection

On the other side of the debate lie the proponents of extensive intellectual property protection for fashion designs. Supporters of this approach consist mainly of fashion designers and industry insiders who believe that fashion designs, like any other creation, merit explicit protection under intellectual property laws. The premise of this view is the conventional economics argument that intellectual property protection is necessary to foster innovation because without such protection, designers will not be able to receive adequate returns or rewards for their creativity. Thus, on behalf of over four hundred American designers,\textsuperscript{106} the CFDA has lobbied to extend copyright to designs\textsuperscript{107} and to pass proposed legislation like the DPPA and now the IDPPPA.\textsuperscript{108}

Speaking on behalf of the CFDA, designer Jeffrey Banks testified before the Subcommittee on Courts, the Internet, and Intellectual Property, describing the plight of young designers and the economic harm that copying has caused:

\begin{quotation}
With each new season, designers put their imagination to work, and they put their resources at risk. . . . It takes tens of thousands of dollars to start a business. And every season when you go out to create . . . you are talking about thousands and thousands of dollars. Then if you go to put on a show, you can spend anywhere from fifty thousand dollars to a million dollars . . . .\textsuperscript{109}
\end{quotation}

\textsuperscript{104} See id. at 97 (testimony of Jeannie Suk, Professor of Law, Harvard Law School) (arguing that the data reflect “producer desperation rather than a sign of health” because mid-range designers are forced to exit the market).

\textsuperscript{105} Id. at 75 (testimony of Christopher Sprigman, Professor of Law, University of Virginia School of Law).


\textsuperscript{107} See Raustiala & Sprigman, supra note 12, at 1756.


\textsuperscript{109} A Bill to Provide Protection for Fashion Design: Hearing on H.R. 5055 Before the Subcomm. on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary, 109th
Banks pleaded for the passage of the DPPA, emphasizing in particular how American intellectual property law has lagged behind other jurisdictions. It is clear that despite the CFDA’s support for the DPPA and the IDPPPA, these pieces of legislation are viewed as concessions of sorts, given that the proposed term of protection for fashion designs is only three years.

Lazaro Hernandez, a designer of the brand Proenza Schouler, also recently testified in favor of the IDPPPA, echoing many of the arguments advanced by Banks. Hernandez emphasized that designers spend significant sums of money before a first order is received and that because of a lack of intellectual property protection for fashion designs, “the U.S. has become a haven for copyists who steal designers’ ideas . . . and the first if not only market for Chinese exporters of pirated designs.”

Thus, the CFDA and the fashion designers it represents firmly believe that the United States is lagging behind the rest of the world in intellectual property protection and that immediate action is necessary. They gladly would push for even more protection were Congress receptive to such pleas. Recent events and the extensive media coverage of lawsuits against fast-fashion copiers have helped proponents of high intellectual property protection gain some traction in the debate.

3. Intermediate Intellectual Property Protection

There is middle ground between the low-IP equilibrium endorsed by Professors Raustiala and Sprigman and the “more protection, the better” approach favored by fashion industry insiders. This intermediate view is characterized by the argument that copyright should be extended to fashion designs, but that these protections should be limited and carefully crafted to preserve innovation. The proponents of this view have assisted in drafting the DPPA and the IDPPPA and have


See id. at 11 (“I will note . . . that in Europe most member states protect fashion for a term of 25 years, with registration. In Japan, it is 15.”).

See id. at 13 (“Europe grants designs 25 years of protection. Boat hulls in this country receive 10. We only ask for three.”).

IDPPPA Hearing, supra note 2, at 4 (testimony of Lazaro Hernandez, Designer & Co-Founder, Proenza Schouler).

See The IDPPPA—Is The Third Time A Charm?, Colum. Bus. L. Rev. Online, http://cblr.columbia.edu/archives/11357 (last visited Jan. 15, 2012) (“For now, it seems like the IDPPPA is likely to pass, given that unlike the first two tries, it now has the support of both the CFDA and AAFA.”); see also supra note 53.
worked to ensure that the suggested forms of protection promote innovation in the fashion industry.

Professor Susan Scafidi advocated for the DPPA and currently supports the IDPPPA. In her written statement on the DPPA to the House Subcommittee on Courts, the Internet, and Intellectual Property, Professor Scafidi contended that a limited form of copyright protection is well suited to the dynamics of the fashion industry and that copyright legislation would best preserve innovation.\footnote{DPPA Hearing, supra note 109, at 79 (statement of Susan Scafidi, Associate Professor, Southern Methodist University).} She explained:

> The fashion industry’s decision not to seek full copyright protection, but instead to request only a limited three-year term, is particularly appropriate to the seasonal nature of the industry. This period will allow designers time to develop their ideas in consultation with influential editors and buyers prior to displaying the work to the general public, followed by a year of exclusive sales as part of the designer’s experimental signature line, and another year to develop diffusion lines or other mass-market sales.\footnote{Id. at 84.} Scafidi also stressed that “[a]s with other forms of literary and artistic work, copyright law is clearly capable of protecting specific expressions while allowing trends and styles to form.”\footnote{Id.}

Professors Scott Hemphill and Jeannie Suk also support the use of copyright to protect fashion designs, but from a slightly different perspective. They engage in a cultural analysis and draw a fine distinction “between close copying on one hand and participation in common trends on the other hand.”\footnote{Hemphill & Suk, supra note 1, at 1153.} Hemphill and Suk argue that the kind of exact copying that some fast-fashion firms engage in is extremely detrimental to innovation.\footnote{Id. at 1170.} Essentially, they contend that exact copying reduces the profits of the original designer and diminishes demand for the original design.\footnote{See id. at 1176 (“In addition to replacing sales, the prevalence of cheaper copies also may reduce demand for the original design. This ‘snob’ effect may reflect a consumer’s desire for distinction from lower-status consumers or from other consumers more generally.” (internal footnotes omitted)).} As a result, designers who are “unprotected against design copying see a disproportionate effect on their profitability, and hence are discouraged from innovating.”\footnote{Id.} The lack of protection from copying further results in a shift toward the “creation of designs that are legally more difficult to copy” and “creation of
goods that are naturally (as opposed to legally) more difficult to copy... for example, goods involving unusual or expensive materials or difficult workmanship.” These shifts are unfavorable because they move fashion toward the “high-end realm of status and luxury” and away from innovation.122

Hemphill and Suk suggest that it is possible to tailor protections to attack exactly the type of copying that is the most detrimental to designers. Rather than relying on the existing legal standard of substantial similarity, they suggest a rule where “showing a substantial difference does indeed excuse the wrong.” This is a rule of “substantial dissimilarity,”124 dictating that “[i]f a designer copies protectable expression from an earlier work, yet also makes significant changes, the designer is no longer liable.”125 This rule of “substantial dissimilarity” is not found in existing law or the IDPPPA, which requires an infringing article to be “substantially identical.”126 However, the IDPPPA does in some respects reflect the reasoning and analysis of Hemphill and Suk.127 In fact, Professor Suk recently testified in favor of the IDPPPA, speaking to the ability of the legislation to effectively target exact copying.128 She explained that the IDPPPA “reflects a judgment that knockoffs are not necessary to the business model of high-volume sellers of on-trend clothing at a low price point” and that fast-fashion firms “would have to innovate and invest somewhat in design rather than only replicate others’ work in full.”129 Therefore, contrary to the view of Professor Sprieman, the IDPPPA can promote rather than stifle innovation.130

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121 Id. at 1179.
122 Id. at 1180.
123 Id. at 1188.
124 Id. (internal quotation marks omitted).
125 Id. at 1187.
126 See supra notes 37-40 and accompanying text.
127 See Christopher Muther, If the Shoe Fits, They’ll Copy It: Should the Law Protect Fashion from Knockoffs?, BOS. GLOBE, Mar. 7, 2010, at A1, available at 2010 WLNR 4750442 (noting that Professor Suk helped Senator Schumer draft the IDPPPA).
128 See IDPPPA Hearing, supra note 2, at 14 (testimony of Jeannie Suk, Professor of Law, Harvard Law School).
129 Id.
130 See id. at 17 (“Indeed, the modifications copyists would be required to make under the IDPPPA would serve to expand consumer choice . . . . ”).
III. HOW GAME THEORY INFORMS INTELLECTUAL PROPERTY PROTECTION

While the academic debate surrounding fashion designs summarized in Part II is lively and insightful, it lacks bottom-up analysis, that is investigation at the level and from the perspective of the fashion designer or fast-fashion firm. Rather than paint in broad strokes and argue whether a legal regime may promote innovation, I draw on game theory to examine, at the most fundamental level, the economic incentives that fashion designers and fast-fashion firms face, as well as the decisions that they would make under different legal regimes.

Law and economics has long provided a perspective into intellectual property law. It is broadly accepted that one of the tenets of intellectual property protection is incentivizing innovation. Therefore, even in the context of the fashion industry, it is easy to suggest that given the value society assigns to fashion designs, it is important to provide an adequate level of intellectual property protection to ensure that fashion designers are able to earn from and sustain their creative activities. Game theory studies the strategic behavior between individuals, which arises when “two or more individuals interact and each individual’s decision turns on what that individual expects the others to do.” Because game theory provides a unique tool to examine individual behavior, it has proven immensely useful in analyzing the impact of laws.

The most basic and common game theory example in legal scholarship is the prisoner’s dilemma, which is an illustration of the problem of joint coordination. The setup of the prisoner’s dilemma involves two criminals who have both committed a serious crime. Without the testimony of the criminals, the police have only enough evidence to charge each of them for a lesser crime. The police inter-

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132 The size of the U.S. fashion industry is currently estimated to be $340 billion, IDPPPA Hearing, supra note 2, at 4 (testimony of Lazaro Hernandez, Designer & Cofounder, Proenza Schouler).


134 See id. at 14-28 (explaining how game theory accurately predicts the impact of different tort liability rules such as no liability, strict liability, negligence, and contributory negligence on the behavior of individuals).

135 This illustration of the prisoner’s dilemma is taken from AVNASH DIXIT & SUSAN SKEATH, GAMES OF STRATEGY 85-87 (Ed Parsons ed., 1st ed. 1999).
rogate the two criminals separately and tell them that they are each looking at three years of jail time for the lesser crime if neither confesses. However, if one of the criminals confesses to the serious crime and tells the truth, his sentence will be reduced to one year, while the other criminal will receive a more severe sentence of twenty-five years. If both criminals confess, they will each receive reduced sentences of ten years. The choices that the two criminals face and the corresponding jail sentences are represented in the matrix below:

**Figure 1: The Prisoner’s Dilemma**

<table>
<thead>
<tr>
<th></th>
<th>Criminal 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Confess</td>
<td>Don’t</td>
</tr>
<tr>
<td>Criminal 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confess</td>
<td>(10, 10)</td>
<td>(1, 25)</td>
</tr>
<tr>
<td>Don’t Confess</td>
<td>(25, 1)</td>
<td>(3, 3)</td>
</tr>
</tbody>
</table>

One way to solve this “game” is to determine what strategies the two criminals would choose such that neither criminal could do better given the strategy the other has chosen. This concept is known as a Nash equilibrium. Applied to the prisoner’s dilemma, a Nash equilibrium requires that each criminal chooses a strategy that is a “best response” to the other criminal’s strategy. From the perspective of each criminal, this makes intuitive sense. It would be irrational to choose any action except the one that is the best response and maximizes individual payoff, which in this case means a lower sentence.

There is only one pair of strategies in the prisoner’s dilemma that creates a Nash equilibrium: when both criminals confess to the crime. This conclusion is reached by considering the “best response” of each criminal to a given strategy. If Criminal 2 confesses, the optimal strat-
egy for Criminal 1 is to confess as well because a ten-year sentence is preferable to a twenty-five-year sentence. Alternatively, if Criminal 2 does not confess, the optimal strategy for Criminal 2 is to confess because a one-year sentence is preferable to a three-year sentence. Criminal 1 will always confess regardless of the actions of Criminal 2. Criminal 2 faces the same choices as Criminal 1 and will pursue the same strategy. If Criminal 1 confesses, Criminal 2 will also confess, and if Criminal 1 does not confess, Criminal 2 again will prefer to confess. Criminal 2’s best strategy is, therefore, also always to confess.

Thus, both Criminals 1 and 2 will choose to confess, as neither can do better and receive a lower sentence given the fact that the other has decided to confess. This results in a Nash equilibrium. However, the key insight from the prisoner’s dilemma is that this one Nash equilibrium, where both criminals confess, is not optimal for the two criminals. If both criminals could coordinate their strategies and jointly decide not to confess, they would secure the optimal outcome in the game: a three-year sentence.

Some structural aspects of the prisoner’s dilemma merit emphasizing. First, the situation presented above assumes that the game is “one-shot,” meaning the two criminals interact on a single occasion and never play the game again. In game theory, repeated interactions are often studied because the equilibrium in a one-shot game may not be the equilibrium in the same game if it were repeated. In the one-shot version of the prisoner’s dilemma, the Nash equilibrium constitutes both criminals confessing and, as a result, serving ten years in jail. Both criminals could receive shorter sentences and be better off if they could coordinate and mutually commit to stay silent, an equilibrium that does not arise in a one-shot setting.

This equilibrium is possible in a repeated setting. Consider the situation in which both criminals agree beforehand that they will not confess and the situation will be repeated. Even though each criminal has the incentive to confess and breach his agreement to the other in order to receive the lightest sentence possible, he will not do so because of the possibility of retribution in the next round. As long as there is uncertainty as to when the game will end, the criminals will have the incentive to adhere to their strategy of not confessing. Once the repetition is certain to end, this finite game unravels into the one-
shot game, and the two criminals return to the original Nash equilibrium, in which they both confess.\footnote{ id. at 258 (noting that when the endpoint of the game is known “[b]oth players cheat right from the start, and the dilemma is alive and well”).} Thus, the distinction between one-shot and repeated games is critical.

A second structural aspect of the prisoner’s dilemma is that it is a simultaneous game, in which two parties must concurrently decide on the best course of action without knowing how the other party will behave.\footnote{ Baird et al., supra note 133, at 21-23.} While this simultaneous game is relevant and applicable to many contexts, other interactions are represented better through sequential games, in which parties move in turns, each one deciding with full knowledge of the other party’s chosen strategy.\footnote{ Dixit & Skeath, supra note 135, at 43.} A common application of sequential games is market entry; for example, when a firm enters a new market, an incumbent firm can choose to compete or to accommodate in response to new competition in the market.\footnote{ See, e.g., Baird et al., supra note 133, at 178-86 (providing an example of a sequential market entry game).} Sequential games are often represented through decision trees.\footnote{ For examples of decision trees in sequential games, see infra Part IV.}

Decision trees begin at an initial node from which branches are drawn to represent the different moves or strategies that players can choose. Whether a game takes a sequential or simultaneous form impacts the strength of the game as a model for real world interactions and affects the insights that can be drawn from it.

Setting aside these structural assumptions of the one-shot prisoner’s dilemma, it is clear that the game provides an elegant and simple illustration of how a coordination failure arises when parties must make simultaneous decisions. In fact, the appeal of the prisoner’s dilemma is so broad that one scholar counted over three thousand law review publications that refer to it.\footnote{ See Richard H. McAdams, Beyond the Prisoners’ Dilemma: Coordination, Game Theory, and the Law 6 (John M. Olin Law & Econ. Working Paper, No. 437 (2d Series), Pub. Law & Legal Theory Working Paper, No. 241, 2008), available at http://ssrn.com/abstract=1287846 (“Legal scholars make great use of the concept, having mentioned it [in] an astonishing number of law review publications—over 3000 according to my Westlaw search—to explore topics ranging from contracts and property, to international law, race discrimination, feminism, social norms, the federal judiciary . . . .” (footnotes omitted))).} Meanwhile, the rest of game theory has been neglected, and simple, more insightful games other than the prisoner’s dilemma are rarely used in analyzing the law.\footnote{ id. at 3.}
fore, the application of game theory to legal scholarship has been somewhat limited in its scope.

One interesting application of game theory to the law is to model how individuals would behave under different standards for legal liability in tort law.\textsuperscript{149} This Comment aims to extend this mode of analysis to intellectual property protection for fashion designs. It uses game theory to predict the behavior of fashion designers and fast-fashion firms in the marketplace under different legal regimes, including the pending IDPPPA.

Game theory rarely has been used to discuss and analyze the optimal scope of intellectual property protection for fashion designs. To date, the only extensive application of game theory to intellectual property protection for fashion designs is a recent article that uses the prisoner’s dilemma to explain and justify the lack of protection within the fashion industry.\textsuperscript{150} The authors suggest that fashion designers prefer an incomplete property regime and enter into a “fashion lottery” each season because they are not sure which designs will become hits.\textsuperscript{151} Thus, designers “participate in a cooperative regime in which tolerated imitation at limited levels operates as a form of collective insurance that mitigates losses from seasonal product failure and the attendant risk of firm insolvency.”\textsuperscript{152} Whereas the article uses game theory to describe the current state of the fashion industry and examine the incentives and the decisionmaking processes of fashion designers under the current intellectual property regime, this Comment engages in a normative analysis, using game theory to evaluate different legal regimes and offer policy insights into the optimal scope of intellectual property protection for fashion designs.

IV. THE GAME THEORY MODEL

This Comment seeks to model the behavior of fashion designers and fast-fashion copiers in order to assess how this behavior changes under a variety of legal regimes. First, I consider the weakest regime, in which there is no legal protection at all for fashion designs. Second, I consider a regime of uncertain legal protection for fashion designs.

\textsuperscript{149} See BAIRD ET AL., supra note 133, at 14-28 (explaining how game theory accurately predicts the impact of different tort liability rules on the behavior of individuals).


\textsuperscript{151} \textit{Id}.

\textsuperscript{152} \textit{Id}. at 161.
designs such as the current American system, under which fashion designers do not know whether a claim of infringement can be litigated successfully. Third, I consider a regime under the proposed Innovative Design Protection and Piracy Prevention Act, which provides explicit copyright protection to fashion designs.

A. Scenario 1: No Legal Protection

In this scenario, shown in Figure 2.1, I assume that no legal protection is available, and thus, a fashion designer cannot obtain any remedy or relief for infringement. Several structural aspects of the model bear emphasis.

First, I assume that there are two players in this game theory model—a fashion designer who creates original apparel (Designer) and a fast-fashion firm that copies those designs (Copier). Second, I assign two different possible choices to Copier and Designer. Copier can choose either “Exact Copy” and make a close, or complete, copy of Designer’s original creation, or choose “Redesign” and incur the costs of reinterpreting Designer’s work such that the copy is now distinguishable from the original design. This decision reflects the two directions that fast-fashion firms seem to embrace. Copier can emulate either Forever 21, which has become a lightning rod for litigation due to its close copying, or firms like H&M and Zara, that reinterpret designs. On the other hand, Designer can either “Enforce” by pursuing litigation against Copier and trying to defend its intellectual property rights, or “Not Enforce” and allow Copier to continue copying without any lawsuit. Third, I make the realistic assumption that the two players engage in sequential decisionmaking, rather than making their decisions simultaneously as the criminals do in the prisoner’s

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153 The term “Exact Copy” is intended to encompass copying activities sufficient to trigger legal liability regardless of the rule. Thus, Exact Copy does not necessarily mean that the copy and the original design are indistinguishable, but rather that the copy is so similar that it is unequivocal that Copier used Designer’s work.

154 It is important to maintain a clear distinction between items that are exact copies of original designs and items that are similar to and draw inspiration from original designs. Exact copying can affect incentives to create in a way that reinterpretation of an original design does not. As Professors Hemphill and Suk explain,

With respect to close copies, there is no reason to reject the standard justification for intellectual property, that permissive copying reduces incentives to create. But this effect must be distinguished from the effects of other trend-joining activities, which enable differentiation within flocking. They foster and constitute innovation in ways that close copying does not.

Hemphill & Suk, supra note 1, at 1153; see also supra text accompanying note 90.
A fundamental assumption of the model is that Copier has greater economic incentive to choose Exact Copy than Redesign because an exact copy will generate more profit than a redesigned item. The reasoning is that fast-fashion firms are attuned to trends in the marketplace and choose to copy designs that are popular and likely to sell well. Moreover, firms that copy do not have to incur the costs in time and money associated with redesign.\textsuperscript{155} Thus, I expect greater profits for Copier, absent enforcement by Designer, when it chooses Exact Copy because the similarity to the original design leads to more sales of the copy while the firm incurs lower costs than the Designer.

\textbf{Figure 2.1: No Legal Protection}\textsuperscript{156} 

\begin{tikzpicture}
  \node (Copier) at (0,0) {Copier};
  \node (ExactCopy) at (1,1) {Exact Copy};
  \node (Redesign) at (1,0) {Redesign};
  \node (Enforce) at (2,0) {Enforce (Litigation)};
  \node (NotEnforce) at (2,1) {Not Enforce (No Litigation)};
  \node (Designer) at (3,0) {Designer};
  \node (A) at (4,1) {A \( (100, -100) \)};
  \node (B) at (4,0) {B \( (90, -110) \)};
  \node (C) at (4,-1) {C \( (50, 0) \)};
  \node (D) at (4,-2) {D \( (45, -5) \)};

  \draw [->] (Copier) -- (ExactCopy);
  \draw [->] (Copier) -- (Redesign);
  \draw [->] (ExactCopy) -- (Enforce);
  \draw [->] (ExactCopy) -- (NotEnforce);
  \draw [->] (Redesign) -- (Enforce);
  \draw [->] (Redesign) -- (NotEnforce);
  \draw [->] (Enforce) -- (A);
  \draw [->] (NotEnforce) -- (B);
  \draw [->] (Enforce) -- (C);
  \draw [->] (NotEnforce) -- (D);

  \node [below=1cm] {Payoff: (Copier, Designer)};
\end{tikzpicture}

\textsuperscript{155} Cf. Hemphill & Suk, supra note 1, at 1172-73 (describing how firms like Zara and H&M employ in-house designers who react to cutting-edge designs with their own adaptations of the trend).

\textsuperscript{156} This two-step game is inspired by a market-entry game, where an incumbent firm must decide whether to engage in predatory pricing against a new entrant to the marketplace. See, e.g., Baird et al., supra note 133, at 178-86.
As Figure 2.1 shows, there are four possible outcomes in the game in the “Payoffs” column. When Copier chooses Exact Copy and Designer opts to Not Enforce, Copier gains 100 while Designer loses 100. When Designer chooses Not Enforce, there is no legal action, and thus, neither party incurs litigation costs. The payoff here is represented as (100, -100). To arrive at this result, I assume that Copier’s exact copy of Designer’s creation results in a redistribution of wealth from Designer to Copier. Copier gains 100 and Designer loses a corresponding 100. In economics parlance, the exact copy and the original good are substitutes.

Even when Copier chooses Exact Copy and Designer chooses Enforce, Copier still gains 100 and Designer still loses 100. There is no remedy for Designer’s decision to Enforce, and thus, no relief for the loss of 100 because the legal regime does not offer protection for fashion designs. However, when Designer chooses Enforce, both parties must incur litigation costs of 10, which is 10% of the amount in controversy of 100. This litigation is fruitless for Designer, as the legal

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157 See supra Figure 2.1, Box A.

158 The exact magnitude of this substitution effect is subject to debate and empirical analysis, which thus far has not produced clear answers. Substantial empirical research on consumer attitudes toward counterfeit goods exists, but the applicability of these studies to this Comment is unclear. These studies do not differentiate between trademark violations—counterfeiting in the strictest sense—and the type of violations at issue here. Nevertheless, some of these studies do support the existence of a substitution effect between counterfeits—however broadly the term is defined—and original goods. See, e.g., Peter H. Bloch et al., Consumer “Accomplices” in Product Counterfeiting: A Demand-Side Investigation, 10 J. CONSUMER MARKETING, no. 4, 1993, at 27, 34-35 (explaining the results of a study finding that consumers sometimes prefer counterfeits). This insight seems to apply equally to the duplication of fashion designs. Cf. Stephanie Clifford, In a Downturn, Even Knockoffs Go Downscale, N.Y. TIMES, Aug. 1, 2010, at A1 (noting that for mid-price goods, consumers can be more easily lured into buying counterfeit goods). But see Jonathan M. Barnett, Shopping for Gucci on Canal Street: Reflections on Status Consumption, Intellectual Property, and the Incentive Thesis, 91 VA. L. REV. 1381, 1382-86 (2005) (providing a theoretical approach that describes when duplication by third-party imitators will increase rather than decrease the innovator’s sales). Barnett argues that exact copies will lead to increased sales of the original only when “(1) the relevant market consists of goods that confer significant status benefits, (2) imitators generally produce imitations of the original that are obviously imperfect, and (3) the legitimate producer cannot introduce imperfect grades of the original without significantly depleting its accumulated brand capital.” Id. at 1383. These three conditions are likely not met in the case of fast-fashion firms, as they are known to take advantage of budding or mid-range designers, whose products do not convey status, and to produce copies that are indistinguishable from originals. See supra notes 91-93 and accompanying text.

159 Litigation costs are not likely to be unreasonably high for infringement cases concerning fashion designs. I assume that litigation costs are 10% of the amount in controversy, estimating roughly from average litigation costs in copyright cases of
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regime does not recognize protection for fashion designs. Ultimately, the payoff to Copier is 90 because Copier gains 100 from copying but pays 10 in litigation costs, while the payoff to Designer is -110 because Designer loses 100 to redistribution and also incurs an additional 10 for litigation costs. This outcome is represented as (90, -110).

When Copier chooses Redesign, Designer faces the same two choices of Not Enforce and Enforce. With Redesign, the original item and the redesigned item are no longer sufficiently identical to support an infringement lawsuit. If the Designer chooses Not Enforce, there are no litigation costs incurred by either party. I assume that Copier achieves a modest gain of 50 while Designer experiences neither a gain nor a loss because Copier’s redesigned item is no longer a direct substitute for the original. Copier’s redesigned item evokes Designer’s original work and participates in the same fashion trend but generates independent profit. The payoff in this situation is (50, 0).

If Designer chooses Enforce, Copier still enjoys a modest gain of 50 while Designer again experiences neither a gain nor a loss. However, both parties now incur litigation costs of 5, which is equal to 10% of the 50 in controversy. Designer’s choice to litigate is even more likely to fail than in the situation in which Copier chooses Exact Copy. The

$700,000 per side when $1 to $25 million is at stake and $1.6 million when over $25 million is at stake. Mark A. Lemley, Should a Licensing Market Require Licensing?, 70 LAW & CONTEMP. PROBS. 185, 186 n.6 (2007) (citing AM. INTELLECTUAL PROP. LAW ASS’N, REPORT OF THE ECONOMIC SURVEY 24 (2005)). This low 10% estimate seems reasonable for a variety of intuitive reasons. First, fast-fashion firms typically copy budding designers, so the retail price of the original item is moderate and the retail price of the copied item even lower. Second, fast-fashion firms turn over styles and inventory quickly, so the manufacturing run for any item is likely low. As such, a fast-fashion firm’s profit from copying any particular good, which is one way to measure damages, is unlikely to reach seven figures. Finally, the fashion designs at the heart of each lawsuit usually do not require the intensive litigation that intellectual property litigation involving science and technology does.

Generally speaking, the payoff to Copier equals the benefit due to copying minus the litigation cost and any damages paid to Designer. At the same time, the payoff to Designer equals the loss due to copying minus litigation cost plus the remedy from Copier. In this instance, where there is no legal protection, Copier chooses Exact Copy, and Designer chooses Enforce, the payoff to Copier = 100 – 10 – 0 = 90 and the payoff to Designer = -100 – 10 + 0 = -110.

Designers have not pursued action against firms that take the Redesign approach. See supra note 90 and accompanying text. I reason that if designers did suffer a meaningful loss from redesigned items, they would have pursued litigation.

See Hemphill & Suk, supra note 1, at 1153 (distinguishing between exact copies and redesigns that participate in a common trend).

See supra Figure 2.1, Box C.
redesigned item provides a weaker claim in a lawsuit, and again, there is no legal protection for fashion designs. Thus, the payoff to Copier is 45 because Copier gains 50 and pays 5 for litigation costs while the payoff to Designer is -5 due to litigation costs.\footnote{165}{See supra Figure 2.1, Box D.}

It is possible to solve this game through a process known as backward induction.\footnote{166}{See, e.g., DIXIT & SKEATH, supra note 135, at 49-53.} This process identifies a Nash equilibrium, which represents the combination of strategies that the players in this game are most likely to adopt.\footnote{167}{BAIRD ET AL., supra note 133, at 63 (explaining that “any solution found through backward induction” is also a Nash equilibrium).} First, I assume Copier chooses Exact Copy and compare the two outcomes now available to Designer: Not Enforce and Enforce. Designer will always choose Not Enforce because the payoff of -100 is preferable to the payoff of -110.\footnote{168}{Compare supra Figure 2.1, Box A, with supra Figure 2.1, Box B.} This makes sense intuitively as well: in a legal regime that openly declines to protect fashion designs, suing Copier and incurring litigation costs serves no purpose. Next, I assume Copier chooses Redesign and compare the two outcomes of Not Enforce and Enforce for Designer. The payoff of 0 is preferable to the payoff of -5, so Designer again will always choose Not Enforce.\footnote{169}{Compare supra Figure 2.1, Box C, with supra Figure 2.1, Box D.} Here, even if my assumption that Copier’s choice to Redesign resulted in neither a gain nor a loss to Designer was wrong, Designer would still choose Not Enforce. If a redesigned item was still a substitute to an original design and Copier gained 50 and Designer lost 50, Designer would still choose Not Enforce because incurring litigation costs when no legal remedy exists makes Enforce an unattractive choice.\footnote{170}{Consider a case in which Box C represented a payoff of (50, -50) rather than (50, 0). When Designer chooses Enforce after Copier chooses Redesign, it would follow that the payoff is (45, -55) because, similar to before, both parties have to incur litigation costs of 5 and there is no remedy for Designer in the legal regime. As a result, Designer will choose Not Enforce because a payoff of -50 is preferable to a payoff of -55.} Thus, I can conclude that regardless of whether Copier chooses Exact Copy or Redesign, Designer always will decide to Not Enforce.

Applying this basic logic, Copier can predict that Designer will always choose Not Enforce. The game can therefore be simplified to the following form:
Thus, all that remains is for Copier to choose between the outcomes of Exact Copy and Redesign. Copier will opt for Exact Copy because it prefers the payoff of 100 to the Redesign payoff of 50. In effect, it is better for Copier to take advantage of Designer’s original work and creative efforts because Designer cannot receive legal relief.

Therefore, the most likely combination of strategies in this game is Exact Copy and Not Enforce, which means Copier gains 100 and Designer loses 100. This outcome indicates that in a legal regime with no legal protection, Copier has no incentive to refrain from copying and Designer has no incentive to police its original work. This outcome also neatly captures the standard economics argument that intellectual property rights are necessary for innovation. Without any form of legal protection, there will be a redistribution of wealth from Designer to Copier because Copier free-rides off of Designer’s innovation. While many fashion industry insiders contend that this scenario captures the current state of affairs, they are mistaken. Some fashion designers have successfully brought suit against copiers and have been able to at least reach a settlement, if not obtain a judgment. To accu-

171 Compare supra Figure 2.2, Box A, with supra Figure 2.2, Box C.
172 It bears emphasizing that the payoff of 50 to the Copier for Redesign is a placeholder. I assume as a basic premise that the profits from copying a work exactly will be greater than the profits from redesigning the work. See supra text accompanying note 155. Thus, in a regime with no legal protection, Copier will always choose Exact Copy and will never choose Redesign.
173 See supra Figure 2.2, Box A.
rately represent the uncertainty in the current legal regime governing fashion designs, I will consider modifications to the basic game presented so far.

B. Scenario 2: Uncertain Legal Protection
(The Current State of the Law)

In this scenario, it is uncertain whether legal protection is available for fashion designs. In other words, it is unclear whether any given lawsuit will succeed. This world of uncertainty closely resembles the current state of intellectual property law in the United States. In the United States, fashion designers do bring trademark and trade dress lawsuits against copiers, but success in a given suit is hardly assured. In a world of uncertainty, Designer does not know whether a court will be receptive to its infringement claim. If Designer believes that prospects are good, Designer will choose Enforce and will try to pursue litigation.

But if Designer believes that prospects are poor, will Designer ever choose to Enforce and bring litigation? The answer is potentially yes. Even if there is a low likelihood of success and the expected recovery from Copier is low because of the uncertain intellectual property regime, Designer will still bring a lawsuit hoping to secure a settlement from Copier and thereby mitigate the loss resulting from Copier’s infringement activities. This type of lawsuit is known as a “negative expected value” suit. To reflect this new dynamic between Designer and Copier, I introduce several modifications to the original game shown in Figure 2.1:

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174 Barnett and coauthors explain that fashion designers devote most of their resources to trademark infringement prosecution but also engage in selective design infringement enforcement based on weak trade dress arguments. See Barnett et al., supra note 150, at 180-81. Such litigation typically achieves settlement and removal of the offending products. See id.

175 See generally Lucian Arye Bebchuk, Suits with Negative Expected Value (discussing the circumstances in which such a negative expected value suit will lead to a positive settlement award from a defendant), in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 551, 551-54 (Peter Newman ed., 1998).
The basic assumptions of this version of the game theory model are the same as described in Section IV.A. The key difference here is that when Designer chooses Enforce and pursues litigation, Copier must make a subsequent choice: settle the lawsuit with Designer (“Settle”) or continue to litigate until a verdict is reached (“Fight”).

Consider the case where Copier chooses Exact Copy and Designer chooses Enforce. At early stages of litigation, there are negligible costs and Copier can choose Settle and pay Designer 30 to resolve the lawsuit. Thus, Copier’s gain of 100 becomes 70 and Designer’s loss of 100 becomes 70. If Copier instead chooses Fight, things get somewhat more complicated. As there is uncertainty as to whether fashion designs can be protected, I imagine that there are two possible outcomes: “Favorable to Copier” and “Unfavorable to Copier.” These two possibilities represent the level of a court’s tolerance of Copier’s behavior and the strength of Designer’s legal claims that its fashion designs are protected.

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176 Whether the Designer will agree to settle obviously varies. The variables that will affect Designer’s decision include subjective evaluation of the strength of the case, level of risk-aversion, and discount rate. The discount rate may be high for a budding designer with limited funds and limited means of raising capital.

177 See supra Figure 3.1, Box B.

178 See supra Figure 3.1, Boxes C & D.
designs indeed are protectable. The Favorable to Copier outcome means that Designer will not prevail in the lawsuit because a court declines to extend protection to fashion designs. The payoff here is (90, -110) because Copier gains 100, pays litigation costs of 10, and does not pay any remedy, while Designer loses 100 from copying, pays litigation costs of 10, and fails to recoup any damages from the lawsuit.\footnote{See supra Figure 3.1, Box C.}

The Unfavorable to Copier outcome means that a court accepts Designer’s argument and rules against Copier, so Copier must surrender all gains from copying activities and pay for Designer’s attorneys’ fees.\footnote{Indeed, it is possible that the case settles at the last minute before the court reaches an adverse verdict. There are few fashion design infringement cases that have gone through trial and reached a verdict. For an example of a case that failed to get past the jury see Irene Tan, supra note 85, at 920-21. Nevertheless, for the purposes of the game theory model, I consider the remote possibility that a court will rule against Copier and provide a remedy that restores Designer to the rightful position. The requirement that Copier disgorge all profits from copying and pay Designer’s attorneys’ fees is based on the IDPPPA. See supra notes 42-44 and accompanying text.} Therefore, Copier will receive no benefit from copying and pay 20 for both parties’ litigation costs, while Designer will receive zero because Copier fully compensates for any potential losses.\footnote{See supra Figure 3.1, Box D.} Note that if Copier chooses Exact Copy and Designer instead chooses Not Enforce, I again assume that Copier will gain 100 and Designer correspondingly will lose 100, as Designer decided not to bring a lawsuit.\footnote{See supra Figure 3.1, Box A.}

Now consider the case in which Copier chooses Redesign and Designer chooses Enforce. Copier faces the similar choice between Settle or Fight. If Copier chooses Settle, Copier pays Designer 15 to terminate the lawsuit, and Copier realizes a net gain of 35.\footnote{See supra Figure 3.1, Box F.} The incentives to settle seem low because Copier chose Redesign and Designer’s claim is far weaker than in the case where Copier chooses Exact Copy. However, Designer will want to bring this kind of negative expected value suit, hoping to secure settlement.\footnote{See supra text accompanying note 175.} Settlement may be appealing to Copier because it provides certainty and reduces Copier’s expenditure of time and resources on litigation. If Copier chooses Fight, I assume that the lawsuit is fruitless for Designer, as the redesigned item does not support a strong enough claim for Designer to prevail in the lawsuit.\footnote{I make this assumption for the sake of simplification. When Copier chooses Redesign and Designer chooses Enforce, it is again possible to model Copier’s decision...} Thus, as in Figure 2.1, the payoff to Copier is 45, as...
Copier gains 50 and pays 5 for litigation costs, while the payoff to Designer is -5 due to litigation costs. Furthermore, I again assume that if Copier chooses Redesign and Designer chooses Not Enforce, there will be no loss to Designer and no lawsuit against Copier. Copier gains 50, and Designer neither benefits nor loses.

This game also can be solved by the process of backward induction. To simplify matters, it is useful to recognize that whether the outcome is Favorable to Copier or Unfavorable to Copier is dependent on an exogenous probability, which neither Copier nor Designer knows or can control. I will represent the probability of Favorable to Copier as $p$ and correspondingly, the probability of Unfavorable to Copier as $(1 - p)$. Using algebra, I can simplify the game in terms of $p$:

To Fight through two outcomes, Favorable to Copier and Unfavorable to Copier. When the outcome is Favorable to Copier, the payoff will be identical to Box G, where Copier gains 50 and pays 5 in litigation costs to receive a net benefit of 45 while Designer pays litigation costs of 5. Copier has litigated the lawsuit to the end and prevailed, so there is no legal remedy for Designer. When the state of the world is Unfavorable to Copier, Designer prevails in the lawsuit and is entitled to a legal remedy. However, the working assumption is that Designer suffers no loss as a result of Copier's redesigned item, so there is no harm to remedy. See supra note 162 and accompanying text. Thus, there is no need to present two states of the world.

Alternatively, I can consider the situation where Designer does suffer a loss when Copier chooses Redesign. If I assume that the payoff in Box E were instead $(50, -50)$, then when the outcome is Unfavorable to Copier, the payoff would be $(-10, 0)$ because Copier disgorges all gains, fully compensates Designer for its loss and pays for both parties' litigation costs. I can assign the probability $q$ to the payoff of $(45, -5)$ when the outcome is Favorable to Copier and the probability of $(1 - q)$ to the payoff of $(-10, 0)$ when the outcome is Unfavorable to Copier. I opted against this presentation because fast-fashion firms such as H&M and Zara, which offer redesigned items, have attracted almost no litigation, and thus winning a lawsuit against these firms seems unrealistic. See supra text accompanying note 90. If I were to present two states of the world, even when Copier chooses Redesign, the outcome will not necessarily be any different, as it is dependent on $q$, the probability that the court's judgment will be Favorable to Copier, which is likely very high.

$\text{The result shown in Figure 3.2, Box C/D is achieved through a simple expected value calculation: } (90, -110)p + (-20, 0)(1 - p) = (-20 + 110p, -110p).$
Figure 3.2: Uncertain Legal Protection (in terms of $p$)

The solution to the game is highly sensitive to the probability $p$, which defines whether the outcome is likely to be Favorable to Copier or Unfavorable to Copier. With algebra I can show that if $p$ is less than 82%—that is, if courts are favorable to Copier less than 82% of the time—the players’ most optimal strategies will be for Copier to choose Exact Copy, Designer to choose Enforce, and then for Copier to Settle.

I solve the game in Figure 3.2 as follows: Copier will choose Settle if payoff in Box B is greater than in Box C/D, so this means $70 > -20 + 110p$, which implies $p < 82%$. Copier will Settle if the probability of a favorable outcome to it is less than 82%.

First, let’s assume that $p < 82%$. Copier will choose Settle in Box B. Knowing that Copier will Settle, Designer must choose between Enforce and Not Enforce. Designer will choose Enforce because the payoff of -70 is greater than the payoff of -100. Compare *supra* Figure 3.2, Box A, with *supra* Figure 3.2, Box B. Now consider what happens if Copier chooses Redesign and Designer chooses Enforce. Copier will Fight and litigate to the end because the payoff of 45 is greater than the payoff of 35. Compare *supra* Figure 3.2, Box F, with *supra* Figure 3.2, Box G. Knowing that Copier will choose Fight, Designer will always choose Not Enforce because the payoff of 0 is preferable to the payoff of -5. Compare *supra* Figure 3.2, Box E, with *supra* Figure 3.2, Box G. Finally, Copier must decide between Exact Copy and Redesign, knowing that if it chooses Exact Copy, Designer will choose Enforce and they will settle, and that if it chooses Redesign, Designer will choose Not Enforce. Copier will choose Exact Copy because the settlement payoff of 75 is still greater than the payoff of 50 from Redesign. Compare *supra* Figure 3.2, Box B, with *supra* Figure 3.2, Box E. In other words, even though the parties settle, the gains from exact copying still exceed the gains from redesigning the work.
This sequence of events reflects what has transpired in the fashion industry recently. However, if courts are Favorable to Copier at a rate greater than 82%, Copier’s strategy changes and different outcomes can emerge. Given the assumptions of this scenario, it turns out that when courts are Favorable to Copier at a rate greater than 82% but less than 91% (i.e., $82% < p < 91%$), Copier chooses Fight and litigates to the end because the state of the world is so favorable. The outcome here is Box C/D—Copier chooses Exact Copy, Designer chooses Enforce, and Copier chooses Fight—because litigating the case to the end is worth it for Copier and the benefits from Exact Copy still exceed those from Redesign. However, once courts become favorable to Copier over 91% of the time ($p > 91%$), there is a tipping point and Designer chooses Not Enforce, without bothering to bring a lawsuit. This means that the outcome will be Box A—Copier chooses Exact Copy and Designer chooses Not Enforce because the low likelihood of success for Designer in court simply is not worth the trouble of bringing a lawsuit.

The outcomes derived for the game shown in Figure 3.2 are neither meant to be a conclusive explanation of how fashion design litigation would unfold in the real world nor a robust estimation of the threshold conditions for the probability, $p$. Rather, the game is meant to illustrate how uncertainty about the prospects of litigation can
change the incentives of the parties involved and cause them to behave differently than they would in a legal regime where fashion designers are not protected. For example, where $p$ is less than 82% it is possible to arrive at the payoff of (70, -70) with the parties settling and Designer experiencing a mitigated loss. In a legal regime with no protection at all, the outcome would be (100, -100). \footnote{See supra Section IV.A.} Based on the structure of this game, I can say that as the value of $p$ decreases—that is, as the outcome of litigation becomes less favorable to Copier and more favorable to Designer—the likelihood of the outcome in Box B increases, where Copier must Settle and compensate Designer for copying its designs. On the other hand, it becomes evident that as $p$ increases and the outcome becomes more favorable to Copier, the uncertainty over protection for fashion designs decreases and the game in Figure 3.2 collapses into the world with no protections. Essentially, when $p$ converges to 100%, Copier chooses Exact Copy and Designer chooses Not Enforce, just as Figure 2.2 predicted.

The determinants of settlement payments from Copier to Designer also merit discussion. I have not described these determinants in detail because the analysis of settlement strategies is a complex area of research that has garnered much attention and is beyond the scope of this Comment.\footnote{See supra Section IV.A.}

Finally, it is important to consider the effect of repetition, which was discussed earlier in the context of the prisoner’s dilemma.\footnote{See supra text accompanying notes 139-40.} I noted that as long as the parties were uncertain over the number of repetitions of a game, it may be possible to achieve a different equilibrium than in a one-shot setting. I can apply this repeated game analysis to the game with Copier and Designer. So far, I have assumed that Copier and Designer play a one-shot game. If the parties repeated the game shown in Figure 3.2, the question is whether a different equilibrium, such as Redesign in Box E, will result. The answer to this question depends on whether the same Copier and Designer participate in further iterations of the game. If there is a different Copier and Designer in every round, neither party will have any prior information on the other’s behavior and will perceive the game as one-shot and fail to
consider future iterations. In this case, the solution of the game will remain the same. While the fashion industry is very dynamic and consists of many players, there are specific trends that emerge every season, and there are a select few designers who are trendsetters and frequent targets of copying.\footnote{Empirical evidence assembled by Hemphill and Suk suggests that there are repeat plaintiffs and defendants in fashion design infringement cases. See *The Law, Culture, and Economics of Fashion: Intellectual Property Suits Against “Fast Fashion” Firms*, BERKMAN CENTER FOR INTERNET & SOCY, http://hub.law.harvard.edu/fashion (last visited Jan. 15, 2012). For example, between 2003 and 2008, textile manufacturer L.A. Printext Industries filed four suits against Forever 21 and eight against Target. *Id.*} Furthermore, as discussed above, there are certain fast-fashion firms, such as Forever 21, that have attracted many lawsuits and appear to be repeat players.\footnote{See *id.* (showing dozens of lawsuits filed against Forever 21 over a five-year period).} It is possible that a new strategy will emerge in a repeated game, especially for fashion designers. For example, a fashion designer who is a frequent target of copying and a repeat player may play different strategies that would seem irrational in a one-shot setting.\footnote{See, e.g., DIXIT & SKEATH, supra note 135, at 257-66 (discussing how repetition alters behavior in the prisoner’s dilemma).} Although there are different copiers each time, the strategy may make sense because of the repeat nature of the game for the designer. This extended application of my game theory model merits further analysis but is beyond the scope of this Comment.

C. *Scenario 3: Innovative Design Protection and Piracy Prevention Act*

I now evaluate the IDPPPA as a potential legal regime. The effect of the IDPPPA on the game theory model is to reduce the uncertainty as to whether legal protection is available to fashion designs. In contrast to the scenario presented in Part IV.B, where protection was uncertain, the IDPPPA dramatically decreases the value of $p$—the likelihood of an outcome favorable to Copier. Thus, when Copier chooses Exact Copy, Designer will have little difficulty demonstrating Copier’s liability because the IDPPPA imposes only a “substantially identical” standard on allegedly infringing items.\footnote{H.R. 2511, 112th Cong. § 2(e)(2) (2011).} Now, when Designer chooses Enforce, the only reasonable course of action for Copier is to settle, as litigating to the end will result in a verdict in favor of Designer. To illustrate the effect of the IDPPPA on the strategies of
Copier and Designer, I assume that $p = 10\%$, that is, courts are only favorable to Copier 10% of the time.\footnote{The value of $p$ is set at 10\% for illustrative purposes. It is possible to solve this game more generally, as was done with Figure 3.2. Copier will choose Settle in Figure 4.1, Box B, as long as the payoff is greater than for Fight in Box C/D. The payoff in Box C/D can be expressed as $(-20 + 110p, -110p)$. See supra note 190. Thus, Copier will choose Settle in Box B if and only if $20 > -20 + 110p$, implying that $p$ must be less than 36\%. As the IDPPPA is crafted to provide additional protection to Designer, it seems very likely that $p$, the likelihood of a favorable outcome to Copier, would fall below this 36\% threshold.}

**Figure 4.1: Innovative Design Protection and Piracy Prevention Act**

Figure 4.1 is identical to Figure 3.2, except for two slight modifications. First, I substitute the value of 10\% for $p$. The payoff in Box C/D represents the expected value of pursuing litigation to the end in this regime, which is very unfavorable for Copier. Second, when Copier chooses Settle, it pays increased amounts in settlement to Designer. As the IDPPPA increases Designer’s rights, it also increases the amount Designer will accept as adequate compensation for terminating a favorable lawsuit.\footnote{Assuming $p = 10\%$, the payoff in Box C/D of $(-20 + 110p, -110p)$ equals (-9, -11).}

\footnote{Compare supra Figure 3.2, Boxes A & B, with supra Figure 4.1, Boxes A & B; compare also supra Figure 3.2, Boxes E & F, with supra Figure 4.1, Boxes E & F.}
This game can be solved through backward induction. If Copier chooses Exact Copy and Designer chooses Enforce, which will most likely happen given the favorable legal regime, Copier will again have to face the choice to Settle and pay to terminate the lawsuit, or Fight and continue with litigation. Copier will always choose Settle because despite the large settlement payment to Designer, the payoff from settling still exceeds the expected payoff from litigation. In effect, the IDPPPA has foreclosed Fight as a viable strategy for Copier. Knowing that Copier will always choose Settle when it has first chosen Exact Copy, Designer is faced with the decision between Enforce and Not Enforce. Designer will always choose Enforce, as the IDPPPA provides a protective regime and increases the magnitude of settlement payments from Copier. For Designer, the payoff of -20 is preferable to the payoff of -100. Thus, when Copier chooses Exact Copy, the likely outcome is that Designer chooses Enforce, and Copier chooses Settle. The payoff to Copier is 20, as the gain of 100 is partly offset by the settlement payment of 80. The payoff to Designer is thus -20, as the loss of 100 from copying is mitigated by the settlement amount of 80.

If Copier instead chooses Redesign and Designer chooses Enforce, Copier again faces a choice to Settle or Fight. Here, the settlement payoff also reflects a higher settlement payment necessary to terminate the lawsuit, as Designer believes that the lawsuit is more meritorious given the IDPPPA. The payoff for Fight is the same as before; Copier’s redesigned item will not satisfy the “substantially identical” liability standard of the IDPPPA, and if litigation is pursued to the end, Copier will prevail. Copier will always choose Fight because the item in question is redesigned and thus not in violation of the IDPPPA. The payoff of 45, representing a gain of 50 and litigation costs of 5, is preferable to a payoff of 10, representing a gain of 50 and a settlement payment of 40. Given that Copier will always choose Fight, Designer must decide between Not Enforce and Enforce. The result is that Designer will always choose Not Enforce because losing nothing is preferable losing 5. Thus, when Copier chooses Redesign, Designer will

\[204 \text{ Compare supra Figure 4.1, Box B, with supra Figure 4.1, Box C/D.} \]
\[205 \text{ Compare supra Figure 4.1, Box A, with supra Figure 4.1, Box B.} \]
\[206 \text{ See supra Figure 4.1, Box B.} \]
\[207 \text{ See supra Figure 4.1, Box F.} \]
\[208 \text{ See supra Figure 4.1, Box G.} \]
\[209 \text{ Compare supra Figure 4.1, Box F, with supra Figure 4.1, Box G.} \]
\[210 \text{ Compare supra Figure 4.1, Box E, with supra Figure 4.1, Box G.} \]
always choose Not Enforce.\textsuperscript{211} I can now simplify Figure 4.1 to represent the two choices Copier faces:

\textbf{Figure 4.2: Innovative Design Protection and Piracy Prevention Act—Simplified Game}

Based on the simplified game shown above, it is clear that Copier will choose Redesign over Exact Copy because the payoff of 50 exceeds the payoff of 20.\textsuperscript{212} Thus, because of the IDPPPA, Copier and Designer will choose strategies that result in Redesign and Not Enforce.\textsuperscript{213} The IDPPPA has decreased the value of $p$ so that the outcome is so unfavorable for Copier that there is no longer any benefit to choosing Exact Copy. In addition, the IDPPPA immunizes Designer from any adverse effects of exact copying and incentivizes Copier to incur redesign costs to create a new product. The outcome of the passage of the IDPPPA in this game is exactly as the CFDA and many legal scholars predict.\textsuperscript{214}

\textbf{V. POLICY INSIGHTS FROM THE GAME THEORY MODEL}

With the game theory model developed in Part IV, I can examine not only the individual choices that designers and copiers face, but also the impact of these choices on society as a whole given different legal regimes. I promote one legal regime as welfare-maximizing for society, but note that there are potential alternatives to the recommended legal regime in achieving this optimum.

\textsuperscript{211} See \textit{supra} Figure 4.1, Box E.
\textsuperscript{212} Compare \textit{supra} Figure 4.2, Box B, with \textit{supra} Figure 4.2, Box E.
\textsuperscript{213} See \textit{supra} Figure 4.2, Box E.
\textsuperscript{214} See \textit{supra} subsection II.B.3.
A. Maximizing Social Welfare and Fostering Innovation

To determine which legal regime best comports with the goal of maximizing social welfare, it is necessary to identify the interests at stake. There are three groups whose interests must be considered: fashion designers, fast-fashion firms, and consumers. I consider seriatim the three outcomes from my game theory model outlined in Part IV: (1) where there is no legal protection and Copier chooses Exact Copy and Designer chooses Not Enforce; (2) where there is uncertain legal protection and Copier chooses Exact Copy, Designer chooses Enforce, and Copier chooses Settle; and (3) where the IDPPPA is enacted and Copier chooses Redesign and Designer chooses Not Enforce. These outcomes represent, in order, the outcomes likely to emerge as the value of $p$ decreases and the courts become less favorable to Copier. These outcomes can be evaluated and compared in terms of the impact they have on the welfare of fashion designers, fast-fashion firms, and consumers.

As discussed in Part IV.B, a regime that has no legal protection for fashion designs pushes $p$ toward 100%. This regime induces Copier to choose Exact Copy and Designer to choose Not Enforce because there is nothing to be gained from bringing suit. Further, there is a net effect of zero on Copier and Designer because I have assumed there is a perfect substitution between the original work and the copied item. However, equitable concerns and consumers welfare are also at stake. Copier is expending resources to deprive Designer of profits from its original design, thereby implementing a redistribution scheme, rather than generating independent profits and value. Under this lawless regime, Copier benefits and Designer obviously suffers. How about consumers? Two competing interests govern consumer welfare in the fashion industry. On the one hand, consumers want to safeguard and promote innovation, a principle which lies at the heart of intellectual property law. But on the other hand, consumers want fashion at cheaper prices. Without any legal protection for fashion

\[\text{\[215\]}\text{ See U.S. CONST. art. I, § 8, cl. 8 (giving Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").}\]
\[\text{\[216\]}\text{ See, e.g., The Copycat Economy, BLOOMBERG BUSINESSWEEK (Aug. 26, 2002), http://www.businessweek.com/magazine/content/02_34/b3796612.htm (commenting on the benefits of copying for consumers); cf. Pankaj Ghemawat & José Luis Nueno, ZARA: Fast Fashion 13 (Harvard Bus. Sch., Case Study No. 9-703-497, 2006) (noting that low prices and rapid turnover of styles draw Zara shoppers to visit the store an average of seventeen times a year, a much higher rate than shoppers of competing retailers).}\]
designs, fast-fashion firms threaten consumer welfare by free-riding off of fashion designers’ innovation and putting original designers at financial risk in the long run. While cheap exact copies of fashion designs may contribute to consumer welfare in the short run, seemingly justifying the lack of legal protection for fashion designers, recent events have shown that at some point this tradeoff becomes detrimental to designers.\(^\text{217}\) As fast-fashion firms copy ever more quickly, the financial threat to fashion designers, especially budding ones, looms large. Should they fail, consumers will suffer from the loss of innovation in design. Extrapolating even further, fast-fashion firms will suffer in the end as well, as they will have fewer innovative fashion designs to copy and limited experience in undertaking independent innovation.

The opportunity for fashion designers to bring suit and secure settlement payments mitigates the problems just discussed. In Part IV.B, I discussed how, for certain values of \(p\), it is possible for Copier and Designer to reach the outcome where Copier chooses Exact Copy, Designer chooses Enforce, and Copier chooses Settle. Based on empirical and anecdotal evidence,\(^\text{218}\) this is an approximation of the current state of the law and the behavior of both fashion designers and fast-fashion firms. Here, there is also a net effect of zero on Copier and Designer, as Copier’s gains and Designer’s losses simply are redistributed. However, in comparison to a regime with no legal protection for fashion designs, Copier gains less and Designer loses less, so there is less inequity. The problem that Copier does not engage in any innovation remains.

As for consumers, there is much uncertainty surrounding the benefits of extending legal protection to fashion designs. In the short run, especially in one-shot games, there is likely to be an increase in consumer welfare because of the availability of cheap exact copies of popular fashion designs.\(^\text{219}\) To the extent that legislation curtails this

\(^{217}\) See sup\(\text{a}\) text accompanying notes 106-11.

\(^{218}\) See Jenna Sauers, Forever 21’s Bizarre Knockoff Empire, JEZEBEL (Jan. 24, 2011, 4:55 PM), http://jezebel.com/5742029/forever-21s-bizarre-knockoff-empire (reporting that designers including Diane von Furstenberg, Anna Sui, and Anthropologie have won settlements against Forever 21); Jenna Sauers, How Forever 21 Keeps Getting Away with Designer Knockoffs, JEZEBEL (July 20, 2011, 4:20 PM), http://jezebel.com/5822762 (noting that Forever 21 continues to copy designs “because all they do is settle”); see also Tan, sup\(\text{a}\) note 85, at 920-21 (detailing the litigation and ultimate settlement process between a designer and a fast-fashion firm).

\(^{219}\) See The Copycat Economy, sup\(\text{a}\) note 216 (noting that consumers do benefit from quick copying by competitors, but that these “benefits can be fleeting”).
copying, there would be a loss in consumer welfare. However, in a long-term repeat game where fast-fashion firms target certain fashion designers over and over again, consumer welfare likely will suffer from the fashion designers’ disincentive to innovate because they cannot protect their original designs. Thus, it seems that in the long run consumers will benefit from the provision of some intellectual property protection for fashion designers.

The current debate turns on whether a regime that provides uncertain legal protection to fashion designs strikes the correct balance. Not only can designers reap some reward from innovation (albeit less than without exact copying), but copiers can offer cheap versions of fashion designs to consumers as well. The idea that the fashion industry exists in a stable, workable, low-IP equilibrium, where fashion designers constantly innovate in response to copiers, is consistent with the argument that there is a working balance among the interests of fashion designers, fast-fashion firms, and consumers. The current regime thus may seem desirable because it results in a net effect of zero on fashion designers and fast-fashion firms, and has a short-term positive effect on consumer welfare because of the availability of cheap copies of fashion designs.

However, this outcome fails to answer the normative question of whether a different regime could enhance welfare. “Low-IP equilibrium” is a diagnosis of the problems that have resulted from past policy choices regarding fashion designs rather than a remedy for the underlying issue. The fashion industry has unified against the current legal regime, and even Professors Raustiala and Sprigman concede that a low-IP equilibrium may be suboptimal. If fashion designers are increasingly placed at financial risk by the rapid copying of fast-fashion firms, regardless of what short-term benefits may accrue to consumers from this copying, the inevitable long-run result will be the loss of innovation and a net negative effect on consumer welfare. Furthermore, another argument against the current legal regime is that the burden is on fashion designers to go to court, plead their case, and suffer the passage of time before a potential settlement is reached. The mitigation of designers’ losses through settlement only occurs after copying

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220 See _supra_ note 197.
221 See Raustiala & Sprigman, _supra_ note 12, at 1699 (defining the concept of a low-IP equilibrium).
222 See _id._ at 1734 (“We . . . do not claim that the current regime is optimal for fashion designers or for consumers.”).
has taken place and litigation has begun, which may be too late for certain designers.

Professors Raustiala and Sprigman suggest that additional innovation may derive from more differentiation among designers.\textsuperscript{223} I agree that, in a different legal regime, there could be even greater innovation. Essentially, I argue that fashion design legislation should seek to stimulate fast-fashion firms—not fashion designers—to undertake independent innovation by using their existing infrastructures, which thus far have been devoted to copying. In other words, secondary designers like Forever 21 can contribute to innovation, rather than take advantage of it, by drawing inspiration from primary fashion designers and reworking their designs into original creations at low price points. This form of condoned copying finds support in the fashion industry because it does not encroach upon designers’ profits and sense of ownership over their original designs.\textsuperscript{224} Hemphill and Suk provide further support for this approach. They argue that by incentivizing fast-fashion firms to reinterpret and redesign original works, legal protection for fashion designs helps individuals both differentiate themselves through fashion and “flock” to participate in common trends.\textsuperscript{225}

The game theory model demonstrates that the IDPPPA is a means to achieve this optimal outcome, as represented by Copier’s choice of Redesign and Designer’s choice of Not Enforce.\textsuperscript{226} Instead of a net effect of zero on Copier and Designer, there is a net positive effect when Copier chooses Redesign because this scenario requires some level of fast-fashion firm innovation. Rather than deprive Designer of income from a fashion design, Copier engages in independent innovation and creates a redesigned item that can be consumed apart from the original design. Designer is not worse off, and Copier is still able to generate gains. This outcome is not only equitable, because Copier no longer benefits at the expense of Designer, but is also efficient, 

\textsuperscript{223} See id. at 1744.

\textsuperscript{224} Some commentators have observed:

\[T\]he mass-produced fashion goods industry is about copying, or less contentiously, simplifying current designs to make available products in high volume at low prices. . . . This copying is accepted not only because the fashion houses benefit from the publicity, but also because the copying legitimates their designs as ones that are desirable and worth copying.


\textsuperscript{225} Hemphill & Suk, supra note 1, at 1152-53.

\textsuperscript{226} See supra Section IV.C.
because both sides gain. From the perspective of the consumer, there is a positive impact on welfare because of increased innovation from fast-fashion firms redesigning works rather than copying them exactly. Arguably, legal protection for fashion designs decreases consumer welfare by eliminating cheap copies of desirable fashion designs. However, it bears emphasis that any such negative impact will likely be mitigated or obviated by the affordable and trendy redesigned items offered by fast-fashion firms. Future empirical studies may resolve the uncertainty as to whether the relative loss to consumer welfare is offset by the gains from innovation. For the time being, I assume that the gain to consumer welfare exceeds the loss given the ascent of fast-fashion firms such as H&M and Zara that specialize in redesigned items. Therefore, I posit that legislation like the IDPPPA is welfare maximizing because fashion designers are able to enjoy the fruits of their labor, fast-fashion firms can continue to use their business model by taking inspiration from original designs and offering innovative redesigns, and consumers will enjoy greater diversity in the fashion industry without sacrificing clothing at attractive price points.

B. Alternatives to the IDPPPA

I have argued that the IDPPPA enables a legal regime that maximizes social welfare by fostering innovation. While the IDPPPA definitely achieves a desirable result, it is important to question whether the Act itself provides the best means of encouraging innovation. Moreover, given that past attempts to extend copyright protection to fashion designs have failed, the IDPPPA very well may meet the same fate. I discuss two alternatives to a legislative solution.

1. Private Enforcement Through an Industry Guild

While the dynamics of the fashion industry are unique, parallels have often been drawn to other creative industries, such as music and film. It is conceivable that fashion designers could band together in an industry group and exercise self-help to protect against the duplica-

227 See IDPPPA Hearing, supra note 2, at 81 (comments of Kal Raustiala, Professor, University of California at Los Angeles School of Law, and Christopher Sprigman, Professor, University of Virginia School of Law) (“Indeed, if Congress acts to hinder design copying [by enacting the IDPPPA], it may succeed only in depressing demand for new styles, slowing the industry’s growth, enriching lawyers, and raising prices for consumers.”).

228 See generally Ghemawat & Nueno, supra note 216 (discussing the growth and success of Zara and the competitive landscape of the fast-fashion industry).
tion of fashion designs. The fashion industry can look to the music and motion picture industries, which have undertaken significant antipiracy and anticounterfeiting campaigns and initiatives in recent years.\(^{229}\) Other industries facing piracy and counterfeiting have also increasingly embraced private measures.\(^{230}\)

Better yet, history provides an example of private enforcement of intellectual property rights in the fashion industry itself. In the 1930s, American clothing manufacturers attempted to organize a private system of self-help, the Fashion Originators’ Guild of America.\(^{231}\) The Guild achieved great success in policing the designs of its constituents by threatening a group boycott against any retailer that sold copied fashion designs.\(^{232}\) One commentator argues that the Guild’s private intellectual property rights regime was consistent with and responsible for driving innovation in the fashion industry during that time.\(^{233}\) But the Guild’s success was short lived; the Supreme Court found that the Guild violated antitrust laws by restricting competition.\(^{234}\)

I would argue that, under special circumstances, a modern guild can incentivize fast-fashion firms to redesign original creations and shift the fashion industry toward the same outcome that the IDPPPA would achieve. I assume that fast-fashion firms and fashion designers are engaged in repeated interactions and that there is no legal protection for fashion designs similar to the scenario shown in Section IV.A. If a fast-fashion firm copies a design exactly, a fashion designer could

\(^{229}\) See Raustiala & Sprigman, supra note 12, at 1715 (“Unlike the music and motion picture industries, the fashion industry has not embarked on any substantial anti-piracy initiative.”).

\(^{230}\) See Nicholas Schmidle, Inside the Knockoff Factory, N.Y. TIMES, Aug. 22, 2010, § 6 (Magazine), at 38 (providing an account of how some firms have hired international private investigators to combat counterfeiting and intellectual property infringement).


\(^{232}\) See Scafidi, supra note 5, at 119.

\(^{233}\) See Randal C. Picker, Of Pirates and Puffy Shirts: A Comment on “The Piracy Paradox: Innovation and Intellectual Property in Fashion Design” 3 (John M. Olin Law & Econ. Working Paper No. 328 (2d Series), 2007), available at http://ssrn.com/abstract=959727 (suggesting that contemporaneous observers of the Guild understood that antipiracy measures caused manufacturers to shift production from copying to original design (citing Dress War, TIME (Mar. 23, 1936), http://www.time.com/time/magazine/article/0,9171,930861,00.html)); see also Hemphill & Suk, supra note 1, at 1194 (“Moreover, contemporaneous observers understood that the prohibition of piracy caused manufacturers to shift production from copying to original design.” (footnote omitted)).

\(^{234}\) Fashion Originators’ Guild of Am., Inc. v. FTC, 312 U.S. 457, 467-68 (1941).
join an industry guild rather than bringing a lawsuit. To join a guild, a fashion designer would pay membership dues, the price of which would depend on the number of members. Assuming that a modern guild would be as popular as the Fashion Originators’ Guild in the 1930s, these dues would be de minimis because the guild’s operating costs would be spread across a large membership. The industry guild would police the duplication of designers’ works, undertake publicity campaigns to denounce the practice of blatant exact copying, and target the fast-fashion firms responsible for the duplication. While the benefit of these initiatives may not materialize at the first instance, repeat offenders who try to copy designs belonging to members of the guild would over time suffer reputational harm due to the anticycopying initiatives and advertisements the guild would launch. As a result of this reputational harm, fast-fashion firms that make exact copies of original designs would gain less from the practice since the public’s perception would have shifted. If the guild were sufficiently influential, the fast-fashion firm would be forced to target another designer not protected by the guild or to simply redesign and innovate. Assuming more and more fashion designers join this industry guild and it reaches a critical mass, fast-fashion firms would no longer be able to engage in exact copying.

The IDPPPA achieves precisely this result. A couple of conditions must be met for such a guild to be effective. First, the industry must solicit enough fashion designers to commit to a stable guild in order to sufficiently lower the guild’s costs. Second, the guild must ensure that its policing efforts remain within the bounds of the law and are sufficiently detrimental to a fast-fashion firm to cause it to commit to redesigning or independent innovation. How a modern guild can go about meeting these conditions merits separate investigation, but it is clear that the fashion industry can exercise self-help, which may prove as effective as legislation. Passing the IDPPPA obviates the need for the fashion industry to undertake private enforcement and launch an offensive against copying. If the IDPPPA does not pass, it will be interesting to observe whether industry groups such as the CFDA will grow and develop into private enforcement authorities, paralleling mechanisms that already exist in the music and film industries.
2. Reputation

Another way to induce Copier to choose Redesign over Exact Copy is for Designer to develop a reputation for being "aggressive." This means that rather than behaving rationally and objectively evaluating payoffs in the games described in Part IV, Designer derives utility from choosing Enforce and pursuing litigation to the end. Designer experiences disutility from not doing so, as failing to litigate would constitute a loss of face. This reputation for being aggressive will result in different payoffs to Designer in a game. Consider the following game:

Figure 5: Uncertain Legal Protection—Aggressive Designer

Figure 5 is similar to Figure 3.2, where I assumed uncertain legal protection, but is different in two key respects. First, Copier does not have the opportunity to act after Designer chooses Enforce. Designer will not entertain the prospect of settling and will see litigation to the end. The result of the lawsuit will again depend on whether the outcome defined by $p$ is Favorable to Copier or Unfavorable to Copier. Second, Designer enjoys an incremental gain of 10 when it chooses Enforce and an incremental loss of 10 when it chooses Not Enforce.

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235 See BAIRD ET AL., supra note 133, at 178-86 (providing a model for reputation, where certain players are aggressive in that they "suffer a loss of face if they fail to carry out a threat and the profits they would earn from accommodating are not enough to make up for it").

236 When Copier chooses Exact Copy and Designer chooses Not Enforce, Copier gains 100 while Designer loses 10 in "face" in addition to the standard loss of 100. See supra Figure 5, Box A. When Copier chooses Exact Copy and Designer chooses En-
These incremental gains and losses reflect Designer’s aggressive nature and the utility it derives from pursuing litigation.

Regardless of the value of \( p \), it is clear that when Copier chooses Exact Copy, an aggressive Designer will prefer Enforce due to the utility it derives from pursuing litigation. Similarly, when Copier chooses Redesign, an aggressive Designer will now always choose Enforce. Copier must choose between Exact Copy and Redesign, and depending on the value of \( p \), it is possible that even under this regime, with uncertain legal protection, Copier will prefer Redesign. Specifically, as long as \( p \) is less than 59%, Copier will always choose Redesign. By virtue of the payoffs that an aggressive Designer experiences, the outcome under a regime with uncertain legal protection for fashion designs is entirely different and better.

However, certain circumstances must exist for Designer to successfully acquire a reputation for being aggressive. First, reputation is most relevant in a repeated setting against the same player or in a repeated setting against different players who are able to observe the games played with others. That is, a reputation is not useful to Designer unless it can be used against Copiers in the industry to deter them from choosing Exact Copy. Second, Designer must commit to its reputation for being aggressive. The reasoning here is similar for achieving cooperation among repeat players in the prisoner’s dilemma.

237 I reach this conclusion by examining Designer’s choice if Copier chooses Exact Copy. Compare supra Figure 5, Box A, with supra Figure 5, Box B/C. Designer will prefer Enforce whenever \( 10 - 110p > -110 \), which is the case for all values of \( p \), where \( 0 < p < 1 \).

238 Compare supra Figure 5, Box B/C, with supra Figure 5, Box D.

239 Copier will choose Redesign when \( 45 > -20 + 110p \), which means when \( p < 65/110 \), or \( p < 59\% \). Compare supra Figure 5, Box B/C, with supra Figure 5, Box E.

240 DIXIT & SKEATH, supra note 135, at 310.

241 See supra notes 141-42.
only if the other does the same. Copier will only keep choosing Re-design if Designer lives up to its reputation by consistently choosing Enforce. Once Designer decides to Not Enforce in one interaction, Copier and all other Copiers in the industry will have reason to believe that Designer is no longer aggressive and will update their strategies for the next game to reflect the fact that Designer is rational.

CONCLUSION

Congress has not yet extended new protection to fashion designers in the United States. However, the American fashion industry now occupies a precarious position, because the duplication of fashion designs has been occurring at an unprecedented pace across global markets. The industry has spoken out and expressed great concern. Whether the IDPPPA will progress further in Congress cannot be predicted, but it is certain that fashion designers are suffering as a result of a gaping hole in American intellectual property law. This gap is an embarrassment in comparison with the regimes of France, the United Kingdom, and the European Union.

This Comment enters the debate and suggests a new tool, game theory, to evaluate the IDPPPA and its potential policy implications. Based on simple economic assumptions, basic empirical evidence, and intuitions about the incentives and decisions of fashion designers and fast-fashion copiers, I constructed a game theory model that explains the recent, widely publicized litigation over the duplication of fashion designs. The model predicts that these suits will persist, as fashion designers struggle to extract as much recovery as possible through settlement. While there is still innovation taking place within the fashion industry, it is not maximized by the current legal regime of uncertainty. In agreement with Professors Hemphill and Suk, the model suggests more innovation is possible and that it can be derived from incentivizing fast-fashion copiers to steer clear of exact copying, and instead to redesign and reinterpret original works. In effect, the fast-fashion copiers are encouraged to become secondary designers, who follow closely in time behind the primary designers.

The IDPPPA is one means to achieve this optimal state of innovation and thus, Congress should pass it. The IDPPPA bears a resemblance to the European Union’s Community design right, which was enacted recently and could, with the passage of time, provide a

242 See supra Part III.
glimpse into the IDPPPA’s future successes and failures. At the same time, it bears emphasis that the IDPPPA, whether it passes or not, is only one means to achieving the ends of maximizing innovation and protecting original fashion designs. It is important to look at alternatives such as the formation of a fashion guild and reputation mechanisms, which, under certain circumstances, could stimulate innovation and move the fashion industry toward a more optimal state.