Fordham Intellectual Property, Media and Entertainment Law Journal

Volume 34 *XXXIV*
Number 2

Article 2

2024

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Cover Page Footnote

* Judicial Law Clerk, U.S. District Court for the Southern District of Florida. J.D., Yale Law School; M.Phil., Magdalene College, University of Cambridge; A.B. magna cum laude in Government, Harvard College. The Yale University HRPP Institutional Review Board approved this study's experimental design (Protocol 2000035146) on April 27, 2023. I would like to thank the Oscar M. Ruebhausen Fund for its generous financial support of this study; Professor Ian Ayres for supervising this research; Alasdair MacKenzie and Chris Haley for their assistance in preparing the survey instrument and serving as "expert witnesses"; Coleman Strine and the IPLJ editorial staff for their hard work throughout the revision process; Yosvany Terry, Rob Wheeler, and Dave Stejna for cultivating my love of music; and Professor Akhil Reed Amar, Professor Saikrishna Prakash, Professor Jed Rubenfeld, and the Honorable Roy K. Altman for cultivating my love of law. All views expressed are mine and do not represent the opinions of the federal judiciary.

The Notes You Don't Play: An Empirical Analysis of the Ninth Circuit's Filtration Problem in Music Copyright Cases

Robert D. Capodilupo*

The Ninth Circuit's approach to music copyright cases has failed to provide artists with a clear landscape of the boundaries of copyright protection for creative works. Perhaps most disconcerting is the doctrine's lack of rigid guidance as to which elements of a composition are protected by copyright. Since the court's controversial ruling in Williams v. Gaye*, which showcased the court's failure to differentiate between protectable and unprotectable musical elements, the literature has taken a greater interest in analyzing the effects of this muddied doctrine. In their 2019 article, Christopher Jon Sprigman and Samantha Fink Hedrick theorize how the doctrine of the Ninth Circuit creates a "filtration problem" that allows weak copyright claims to pass through the court's analysis and expose juries to irrelevant, potentially confounding, elements of a song. However, no one has yet quantified the effects of the filtration problem.*

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To fill this gap in the literature, this study conducts original quasi-experimental research to observe the extent to which mock jurors' assessments of substantial similarity in musical compositions varies based on the elements included in the audio representations of compositions they listen to. Participants were randomly assigned to assess either a high-similarity song-pair or a low-similarity song-pair. Within each group, different audio representations of the songs were presented, representing varying levels of filtration. Participants who listened to the most-filtered representation, the piano reduction, when assessing the low-similarity song-pair, were less likely to find similarity between the songs that those who listened to the commercial recordings. Conversely, for the high-similarity song-pair, those who heard the piano reductions were more likely to think the songs were substantially similar compared to those in the recording group.

The results of this study suggest that the effectiveness of filtration depends on the relative similarities of the elements filtered and those that remain across audio representations. The piano reduction, as the most-filtered representation, appeared to be a valuable tool for highlighting protectable elements and removing irrelevant factors that could confound jurors' assessments. Based on these findings, this Article recommends that the Ninth Circuit adopt piano reductions as the standard audio representation for compositions played in music copyright trials. By doing so, the court can mitigate the detrimental effects of the filtration problem, making it more difficult for plaintiffs with compositionally dissimilar songs to succeed on copyright claims while simultaneously strengthening the claims of musician-plaintiffs against genuine instances of copying.

INTRODUCTION

Like the singer of Led Zeppelin's 1969 hit, music copyright law in the Ninth Circuit has been "dazed and confused for so long."[1]

[1] LED ZEPPELIN, *Dazed and Confused*, *on* LED ZEPPELIN I (Atlantic Records 1969). Fitting for the subject matter of this Article, Led Zeppelin guitarist Jimmy Page was sued by folk singer Jake Holmes for plagiarizing this song. *See* Sean Michaels, *Led Zeppelin Sued for Alleged Plagiarism of Dazed and Confused*, GUARDIAN (June 30, 2010, 7:11 AM), https://www.theguardian.com/music/2010/jun/30/led-zeppelin-sued-dazed-and-confused [https://perma.cc/4SJM-9BGF]. While this suit settled out of court, it would not be the last

Despite the fact that it presides over the hub of entertainment and musical creation in the United States, the Ninth Circuit has failed to provide artists with a clear landscape of the boundaries of copyright protection for creative works. For the past half century, both the doctrine governing the scope of copyrightable material and the evidentiary standards used to substantiate copyright-infringement claims have proven to be unstable, creating a sense of legal uncertainty that inherently undermines the creative process.[2]

The frustration with the Ninth Circuit's unsettled approach to music copyright reached a fever pitch after its controversial ruling in the 2018 case *Williams v. Gaye*, where the court upheld a verdict that Robin Thicke's "Blurred Lines" illegally copied Marvin Gaye's "Got to Give It Up."[3] Despite these songs having no reasonable similarity in "melody, lyrics, or harmony," the jury found in favor of the plaintiffs, likely based on the audio rendering of the compositions played at trial "which was inappropriately admitted because it contained unprotectable elements."[4] Because these recordings featured both songs' "keyboard parts, bass melodies, and . . . vocals,"[5] "jurors may have inaccurately evaluated the similarity in groove, rather than comparing the protected musical elements."[6] After *Williams*, it became evident that the Ninth Circuit's failure to rigorously police the boundary between the permissible and impermissible musical elements that could be presented to the jury could have drastic implications on songwriting. As entertainment lawyer Edwin F. McPherson wrote soon after the verdict, "[t]his case, which was . . . simply based on a 'groove' . . . will clearly stifle future creativity

time Led Zeppelin was haled into court for alleged copyright infringement. *See* Skidmore v. Led Zeppelin, 952 F.3d 1051, 1056 (9th Cir. 2020) (en banc).

2 *See* Alyssa Chavers, Note, Williams v. Gaye*: Further Blurring the Lines Between Inspiration and Infringement*, 50 GOLDEN GATE U.L. REV. 3, 21 (2020).

3 895 F.3d 1106, 1138 (9th Cir. 2018).

4 Olivia Lattanza, *The Blurred Protection for the Feel or Groove of a Song Under Copyright Law: Examining the Implications of* Williams v. Gaye *on Creativity in Music*, 35 TOURO L. REV. 723, 726 (2019).

5 *Williams*, 895 F.3d at 1126.

6 Lattanza, *supra* note 4, at 726.

[and] will undoubtedly diminish the legacies of past songwriters . . . ."[7]

These concerns stem from what Christopher Jon Sprigman and Samantha Fink Hedrick call the "filtration problem."[8] Under the Ninth Circuit's longstanding two-pronged framework for assessing music copyright claims,[9] a trial judge is supposed to serve as the gatekeeper between the unprotectable elements of a work and the jury. At summary judgment, the court must undertake an "extrinsic" analysis of the works, evaluating whether their "protectible elements, standing alone" could reasonably be considered substantially similar by a jury.[10] To do so, the court is required to actively "filter out and disregard the non-protectable elements" of a composition.[11] But without a definitive understanding of what constitutes an unprotectable element, questionable claims may survive summary judgment and expose a jury to elements that fall outside the legitimate scope of copyright protection.[12] That's because, in addition to assessing extrinsic similarity, the jury must also determine whether the songs are "intrinsically" similar—that is, whether "the ordinary, reasonable audience" would find the songs substantially similar in "total concept and feel."[13] However, the Ninth Circuit has no uniform standard governing which elements can be included in the audio recording played for the jury to represent the composition.[14] According to Sprigman and Hedrick, the intrinsic test's reliance on the

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7 Edwin F. McPherson, *Crushing Creativity: The Blurred Lines Case and Its Aftermath*, 92 S. CAL. L. REV. POSTSCRIPT 67, 81 (2018).

8 *See generally* Christopher Jon Sprigman & Samantha Fink Hedrick, *The Filtration Problem in Copyright's "Substantial Similarity" Infringement Test*, 23 LEWIS & CLARK L. REV. 571, 574–75 (2019) ("Judges typically engage in a process of 'filtration,' by which they separate out ideas and other unprotectable elements of a work . . . . This procedure is useful as a way to efficiently dispose of obviously losing copyright claims that are based entirely (or nearly entirely) on unprotected elements. But it does not, by itself, ensure that the idea/expression distinction plays its intended role in the jury's ultimate decision regarding infringement.").

9 *See* discussion *infra* Section I.A.

10 Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002).

11 Sprigman & Hedrick, *supra* note 8, at 579.

12 *Id.*

13 Kouf v. Walt Disney Pictures & Television, 16 F.3d 1042, 1045 (9th Cir. 1994) (citation omitted).

14 *See* discussion *infra* Section I.B.

"holistic impression of an ordinary listen . . . is precisely the sort of approach least likely to respect the boundary" between protectable and unprotectable elements, especially when courts do not filter the latter from the audio presented.[15]

Filtration could have a drastic impact on the ultimate outcome of a trial. Where songs are only similar in common genre-defining elements not protected by copyright, filtration could make the difference between a judgment for the defendant or millions of dollars in damages awarded to the plaintiff. This Article sets out to empirically examine the extent to which filtration influences findings of substantial similarity in practice.

To do so, I conducted an original quasi-experimental survey to observe whether mock jurors' assessments of extrinsic and intrinsic similarity would vary based on the elements included in the audio representations of compositions they listened to. Participants were randomly assigned to assess either a high-similarity song-pair (George Harrison's "My Sweet Lord" and The Chiffon's "He's So Fine") or a low-similarity song-pair (Robin Thicke's "Blurred Lines" and Marvin Gaye's "Got to Give It Up").[16] Within each song-pair group, participants listened to one of three different audio representations of the two songs, each representing a different level of filtration: (1) the unfiltered commercial recording; (2) a Musical Instrument Digital Interface ("MIDI") reduction that omits any drum grooves, but preserves the recording's lead and backup vocal parts, and presents the bassline and chords on digital instruments,[17]

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[15] Sprigman & Hedrick, *supra* note 8, at 574.

[16] *See* Edward Lee & Andrew Moshirnia, *Do Experts Matter? A Study of the Effect of Musicologist Testimony in Music Cases*, 2022 U. ILL. L. REV. 707, 740 (2022) [hereinafter Lee & Moshirnia, *Experts*] (employing these song-pairs in their empirical study of expert testimony). The "expert testimony" Lee & Moshirnia employ demonstrates the basis for this classification. *See id.* at 791–94. For the *My Sweet Lord* Pair, the expert dispute is directly focused on melodic similarities between the songs. *See id.* at 793–94. In contrast, Lee & Moshirnia's experts, like the experts in *Williams v. Gaye*, *see* 895 F.3d 1106, 1117–18 (9th Cir. 2018), do not make any arguments regarding melodic or harmonic similarity. *See* Lee & Moshirnia, *Experts*, *supra*, at 791. For a more comprehensive discussion of this taxonomy, see discussion *infra* Section II.A.1.

[17] Following the arrangements of the respective recordings, the chords in the MIDI reduction of "Blurred Lines" and "Got to Give It Up" are played on an electric piano patch

standing for an intermediate level of filtration; or (3) a piano reduction, which filters out all non-copyrightable performance elements of the composition, and presents only a song's melody, harmony, and their rhythm. After listening to the songs and watching simulations of dueling expert testimony, participants were then asked to play the role of the jury and conclude whether these songs were extrinsically and intrinsically similar.

The results of these experiments suggest that the effect of filtration may depend on the relative similarities of the elements that are filtered out and the elements that remain across the audio representations. Between the low-similarity songs, the participants who listened to the most-filtered audio representation (the piano reduction), were less likely to find extrinsic and intrinsic similarity than those who listened to the least-filtered recording. Conversely, between the high-similarity song pairs, those who heard the piano reductions were more likely than those in the recording group to find extrinsic and intrinsic similarity. However, no statistically reliable difference between the recording and MIDI-reduction groups was observed in either outcome for either song-pair.

For the *Blurred Lines* Pair (the low-similarity pair), filtering to the piano reduction meant omitting elements like the instrumental timbre, percussion parts, and lead vocals—elements that, though thought to be similar between "Blurred Lines" and "Got to Give It Up," are not protected by copyright.[18] Without these unprotectable performance elements, participants could no longer find similarity. By omitting these confounders, the piano reduction unmasked the marked differences in the songs' harmonies and melodies—the *protectable* elements— leading to a decreased perception of similarity. In the case of the *My Sweet Lord* Pair (the high-similarity pair), the unprotectable performance elements were relatively dissimilar, given the songs' differing instrumentations and the marked contrast between Harrison's and The Chiffons' vocal timbres. Thus, the piano reduction's filtering of these elements deemphasized the

and on an acoustic guitar patch in the MIDI reduction of "My Sweet Lord." The MIDI reduction of "He's So Fine" preserves the harmony-defining background vocals and, like the recording, does not include any additional chordal instrumentation. The bassline in each MIDI reduction is played on an electric bass patch.

[18] *See* Lattanza, *supra* note 4, at 725.

extraneous differences between the songs and focused jurors on their melodic and harmonic similarities in the melody and harmony.

Based on these empirical findings, this Article recommends that the Ninth Circuit adopt piano reductions as the standard audio representation for compositions played in music copyright trials. Under such a regime, the Ninth Circuit would be able to mitigate the deleterious effects of the filtration problem by making it more difficult for plaintiffs to prevail on copyright claims with compositionally dissimilar songs while simultaneously strengthening the claims of musician-plaintiffs against bona fide instances of copying protectable elements.

I. "THERE'S SOMETHING HAPPENING HERE, BUT WHAT IT IS AIN'T EXACTLY CLEAR": THE UNSETTLED STATE OF MUSIC COPYRIGHT DOCTRINE IN THE NINTH CIRCUIT

In 1977, the Ninth Circuit announced the test for evaluating copyright claims in the landmark entertainment law case, *Sid & Marty Krofft Television Productions Inc. v. McDonald's Corp*.[19] Although not a music case, *Krofft* established the doctrine that the Ninth Circuit continues to apply today for all cases involving the alleged copyright infringement of creative works.[20] To determine whether two works are substantially similar, the Ninth Circuit applies a two-part test: the first prong is used to evaluate "extrinsic" similarity, and the second prong is used to evaluate "intrinsic" similarity.[21]

Since *Krofft*, the two-pronged extrinsic-intrinsic test has served as the foundation for creative copyright doctrine in the Ninth Circuit.[22] However, while the overall framework for this test has remained constant, the elements of a work that are protected by

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[19] 562 F.2d 1157, 1164–65 (9th Cir. 1977). For Part I's title reference, see BUFFALO SPRINGFIELD, *For What It's Worth*, *on* BUFFALO SPRINGFIELD (Atco Records 1967).

[20] *See* Shyamkrishna Balganesh & Peter S. Menell, *Proving Copying*, 64 WM. & MARY L. REV. 299, 345–47 (2022).

[21] *Krofft*, 562 F.2d at 1164.

[22] *See* Balganesh & Menell, *supra* note 20, at 347 ("The *Krofft* formulation continues to dominate the Ninth Circuit's copyright infringement jurisprudence, although courts have modified some minor aspects of its framework.").

copyright have proven to be unstable. Through judicial pronouncements unmoored from the text of the Copyright Act and other common law infringement protections, the Ninth Circuit's haphazard application of this test has greatly expanded copyright protection beyond its intended scope.[23] An uncertain doctrine has emerged in the wake of these cases, muddled by the Ninth Circuit's failure to clearly articulate which elements of a work are protected by copyright and which are left to the creative commons.

This Part begins by highlighting the initial errors and inconsistencies in the *Krofft* ruling before detailing how *Krofft*'s failure to delineate between protectable and unprotectable elements of a work have led to unworkable applications of both the extrinsic and intrinsic tests. In doing so, Section I.A introduces Sprigman and Hedrick's concept of the "filtration problem," which has arisen from the Ninth Circuit's inadequate treatment of "similarities in elements of a work that are outside the scope of copyright protection."[24] Section I.B then explores how the filtration problem may be exacerbated by unsettled evidentiary standards with respect to what portions of a song a jury may hear in assessing substantial similarity. This Part closes by presenting this Article's hypothesis that the more elements of a song a jury is exposed to, the more likely it is to find substantial similarity and, ultimately, copyright infringement.

A. The Ninth Circuit's Filtration Problem in Music Copyright Cases

For the past half century, the Ninth Circuit has been on a "Highway to Hell" with respect to the workability of its test for determining artistic copyright infringement, albeit one paved with good

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[23] *See* Cecile G. Nicolson, *The Total Concept and Feel Test Does Not Fulfill the Purpose of Copyright Law*, 45 AM. J. TRIAL ADVOC. 477, 489–91 (2023) ("[T]he Ninth Circuit has failed to take the time to explain to the jury how they are supposed to determine if the total concept and feel of protectable elements are substantially similar."); Lawrence Jeffrey Sher, *The Search for a Suitable Standard of Substantial Similarity: The Ninth Circuit's Application of the* Krofft *Test*, 25 U.C. DAVIS L. REV. 229, 241–52 (1991) ("Some decisions faithfully apply the *Krofft* test, while others misapply it, and others seemingly abandon it." (citations omitted)); Lattanza, *supra* note 4, at 726 ("[T]he Ninth Circuit's affirmance of the jury's decision [in *Williams v. Gaye*] inappropriately expanded the scope of copyright protection to the feel or groove of a song.").

[24] Sprigman & Hedrick, *supra* note 8, at 573, 580.

intentions.[25] While the purpose of this doctrine was to reign in copyright law to its statutory limits, the Ninth Circuit's failure to clearly delineate between protectable and unprotectable elements of a song fundamentally frustrated this goal and allowed copyright protection to extend beyond its proper scope to cover substantial similarity in abstract ideas, such as a song's "feel."[26]

In 1977, the Ninth Circuit announced its modern framework for evaluating copyright infringement in artistic works in *Sid & Marty Krofft Television Productions Inc. v. McDonald's Corp*.[27] The case addressed whether the defendant's "McDonaldland" advertising campaign unlawfully violated the intellectual-property rights of the plaintiffs, producers of the famed H.R. Pufnstuf television program.[28] As creators of H.R. Pufnstuf, Krofft Television Productions retained the exclusive rights to the intellectual property of its programs, including its original characters, under federal copyright law.[29] After learning that an advertising agency developed a campaign based on the H.R. Pufnstuf series without permission, Krofft brought a suit alleging copyright infringement.[30]

The *Krofft* court began its analysis of the applicable law by criticizing the approach that other circuits had taken in assessing copyright infringement claims. The court noted that, in the Second Circuit, "to establish copyright infringement a plaintiff must prove

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[25] *See* AC/DC, *Highway to Hell*, *on* HIGHWAY TO HELL (Atlantic Records 1979).

[26] *See, e.g.*, Pasillas v. McDonald's Corp., 927 F.2d 440, 442 (9th Cir. 1991) ("The second part, the 'intrinsic test,' focuses on similarity of expression and asks whether the ordinary reasonable person would find 'the total concept and feel of the works' to be substantially similar." (quoting *Krofft*, 562 F.2d at 1164)).

[27] *See* 562 F.2d at 1164–65.

[28] *See id.* at 1162.

[29] *See id.* at 1161; Copyright Act of 1909, Pub. L. No. 60-349, §§ 1–5, 35 Stat. 1075, 1075–76 (1909); *see also* Roth Greeting Cards v. United Card Co., 429 F.2d 1106, 1108 (9th Cir. 1970) (outlining the process for receiving copyright protections under the Copyright Act of 1909). Because the suit at issue in *Krofft* commenced prior to the adoption of the Copyright Act of 1976, *see* 562 F.2d at 1162 ("Plaintiffs filed suit in September 1971."), the modern legislative framework for copyright protections was not technically at issue here. Still, the relevant provisions across the 1909 and 1976 Acts are nonetheless commensurate in this instance. *See* U.S. COPYRIGHT OFF., CIRCULAR 15A: DURATION OF COPYRIGHT 2 (2011) (explaining the effect of the 1976 Act on copyright law).

[30] *See Krofft*, 562 F.2d at 1161–62.

ownership of the copyright and 'copying' by the defendant,"[31] the latter of which the Second Circuit determined is "shown by circumstantial evidence of access to the copyrighted work and substantial similarity between the copyrighted work and defendant's work."[32] However, making copyright liability turn only on "ownership, access, and substantial similarity . . . would produce some untenable results," as plaintiffs could merely point to broad similarities at the highest level of generality between works.[33] Under such a framework, the *Krofft* court reasoned, copyright law would unjustly extend beyond its purpose of "promot[ing] the [p]rogress of . . . [the] useful [a]rts"[34] and unduly burden artistic creation.[35]

To ostensibly ameliorate this concern, the Ninth Circuit sought to devise a "limiting principle" to articulate the proper bounds of copyright protections, emphasizing the distinction between protectable *expressions* and uncopyrightable *ideas*.[36] Although this dichotomy represented a longstanding "axiom of copyright law,"[37] the *Krofft* court noted that "courts tend to pay only lipservice to the idea-expression distinction without it being fairly descriptive of the results of modern cases."[38] In this sense, the Ninth Circuit's doctrine was intended to be an improvement on that of the other circuits.[39] The goal of the *Krofft* idea-expression distinction was to ensure that copyright law could not be abused to grant first-movers monopolies over unoriginal expressions or general ideas. However, the court's sloppy articulation of the new rule greatly undermined the doctrinal clarity the court hoped to provide.

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31 *Id.* at 1162 (citations omitted).

32 *Id.*

33 *Id.*

34 U.S. CONST. art. I, § 8, cl. 8; *see also Krofft*, 562 F.2d at 1162–63 (discussing the problems of overly broad copyright protections).

35 *See Krofft*, 562 F.2d at 1163 (noting that the idea-expression dichotomy "attempts to reconcile two competing social interests: rewarding an individual's creativity and effort while at the same time permitting the nation to enjoy the benefits and progress from use of the same subject matter").

36 *Krofft*, 562 F.2d at 1163.

37 *Id.*

38 *Id.* at 1163 n.6.

39 *See id.* at 1163–65 ("A limiting principle is needed . . . . [W]e make [the idea-expression dichotomy] explicit today.").

As a threshold matter, the *Krofft* court continued to require a plaintiff alleging copyright infringement to prove "ownership of the copyright," and that the defendant had access to it.[40] However, in order to establish "substantial similarity not only of the general ideas but of the expressions of those ideas as well,"[41] the court outlined the novel two-pronged test that would subsequently establish the underlying framework for all artistic copyright cases in the Ninth Circuit for the next half century.

First, the "extrinsic test," intended by the *Krofft* court to determine the copying of *ideas*, asks whether "specific criteria which can be listed and analyzed" have been copied.[42] Because this assessment requires significant analytical rigor, expert testimony is usually needed to establish the technical similarities between works.[43] Additionally, the objective nature of this inquiry suggests that the court is adequately suited to assess extrinsic similarity "as a matter of law."[44] Therefore, upon a motion for summary judgment, the court must resolve the case in favor of the defendant if expert testimony suggests that "no reasonable juror could find substantial similarity of ideas," as objectively measured by medium-specific criteria.[45] Satisfying the extrinsic test—both at summary judgement and later before the jury at trial—would be a necessary, but insufficient, condition for establishing copyright infringement.

Second, if the claim passed the extrinsic test upon a motion for summary judgment, the challenged work is then analyzed under the "intrinsic test."[46] In evaluating whether the defendant also copied another work's *expression* of an idea, the intrinsic test asks whether "the ordinary reasonable person" would find these two works to be substantially similar.[47] This is an "ad hoc" decision to be made by

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40 *Id.* at 1164.

41 *Id.*

42 *Id.*

43 *See, e.g.*, Swirsky v. Carey, 376 F.3d 841, 845 (9th Cir. 2004) ("The extrinsic test requires 'analytical dissection of a work and expert testimony.'" (quoting Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485 (9th Cir. 2000))).

44 *Krofft*, 562 F.2d at 1164.

45 Kouf v. Walt Disney Pictures & Television, 16 F.3d 1042, 1045 (9th Cir. 1994).

46 *See Krofft*, 562 F.2d at 1164.

47 *Id.*

the trier of fact, rather than by the court as a matter of law.[48] At this stage of inquiry, "analytic dissection and expert testimony are not appropriate."[49] Rather, it is up to the judge or jury—presumably lay observers untrained in the technicalities of the medium—alone to make the determination that the works are substantially similar with respect to their "total concept and feel."[50] Copyright infringement is only established if the trier of fact ultimately finds that the works are both extrinsically and intrinsically similar.[51]

This bifurcated test acknowledged that there is at least some difference between the general idea of a work and the way in which that idea is expressed within the work—with the extrinsic and intrinsic tests respectively serving as the frameworks for answering each distinct question. On the one hand, this framework improved upon the tests applied by other circuits by making substantial similarity of ideas insufficient for liability. On the other hand, the test undermined the rule's ability to clearly delineate between protectable and protectable elements of a work by its consideration of ideas *at all* in evaluating infringement. Therefore, two key doctrinal difficulties emerged from the *Krofft* decision from which the Ninth Circuit's doctrine would never truly recover. First, the intrinsic test's command that the jury should holistically evaluate similarities between the two works based on their "feel" invites the jury to determine liability based on unprotectable elements.[52] Second, the court's consideration of similarities of "ideas" in the extrinsic test erroneously allowed for infringement claims to survive summary judgment despite not being substantially similar with respect to elements of the work that are actually protectable.[53]

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[48] *Id.* (quoting Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960)).

[49] *Id.*

[50] *Id.* at 1167 (quoting Roth Greeting Cards v. United Card Co., 429 F.2d 1106, 1110 (9th Cir. 1970)).

[51] *See id.* at 1164 ("[T]wo steps in the analytic process are implied by the requirement of substantial similarity.").

[52] *See* Nicolson, *supra* note 23, at 489–91.

[53] This tension as to the relevance of similar ideas is present throughout *Krofft*. Although the court recognized that one's "property is never extended" to ideas, *Krofft*, 562 F.2d at 1163 (quoting Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930)), it

From these doctrinal oversights emerges what Sprigman and Hedrick call the "filtration problem."[54] In conducting the extrinsic test at summary judgment, it is the role of the court to identify the elements of the works at issue that are not protected by copyright.[55] However, trial courts appear to have substantial difficulty in drawing the boundary between protectable and unprotectable elements of a work. As Judge Learned Hand famously remarked:

> Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. . . . [B]ut there is a point in this series of abstractions where they are no longer protected, since otherwise the [author] could prevent the use of his 'ideas,' to which, apart from their expression, his property is never extended. Nobody has ever been able to fix that boundary, and nobody ever can.[56]

As the level of generality at which works are compared increases, it becomes easier to find similarities. For example, when compared broadly, The Postal Service's "Such Great Heights" and Owl City's "Fireflies" are similar: they are both examples of the 2000s electropop genre, begin with an arpeggiated-synth intro, and feature electronic instruments, programmed beats, and breathy male vocals.[57] Yet that does not mean that these songs should be

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nonetheless held that similarity in (unprotectable) ideas is sufficient to bring an infringement claim before a jury. *Compare id.* ("It is an axiom of copyright law that the protection granted to a copyrighted work extends only to the particular expression of the idea and never to the idea itself."), *with id.* at 1164 ("*If there is substantial similarity in ideas*, then the trier of fact must decide whether there is substantial similarity in the expressions of the ideas so as to constitute infringement." (emphasis added)).

54 *See* Sprigman & Hedrick, *supra* note 8, at 571.

55 *See* Swirsky v. Carey, 376 F.3d 841, 845 (9th Cir. 2004) ("In determining whether two works are substantially similar, we employ a two-part analysis: an objective extrinsic test and a subjective intrinsic test. For the purposes of summary judgment, only the extrinsic test is important because the subjective question whether works are intrinsically similar must be left to the jury.").

56 *Nichols*, 45 F.2d at 121 (citation omitted).

57 *Compare* THE POSTAL SERVICE, *Such Great Heights*, *on* GIVE UP (Sub Pop Records 2003), *with* OWL CITY, *Fireflies*, *on* OCEAN EYES (Universal Republic Records 2009). *See*

considered "copies" of each other as a matter of law. Rather, that analysis must turn on whether a song's "expressions" of genre-characteristic ideas are similar. In the context of music composition, protectable expression is generally understood to cover "rhythm, harmony, and melody."[58] As such, trial judges at summary judgment employ the help of expert testimony to delineate these elements and then must determine whether they, "standing alone, are substantially similar."[59]

This process appears to be insufficient for ensuring that the jury is not exposed to unprotectable elements. As Sprigman and Hedrick explain, "[i]f the court's initial filtration is to have any role in ensuring that infringement is found only on the basis of similarity of protected elements, that information must somehow be communicated to the jury."[60] Often, the recordings played to the jury as evidence of the compositions fail to remove the unprotectable elements.[61] Because jurors are generally not trained in music theory, they are less equipped to distinguish which elements are actually protected.[62] Therefore, even when instructed that certain elements should not factor into their conclusions regarding substantial similarity, jurors may still be influenced by these factors when they are nonetheless included in the expert testimony on (or audio representations of) the compositions played for them at trial. It is from this evidentiary error that the filtration problem emerges to undermine the efficacy of both the extrinsic and intrinsic test.

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also infra notes 73–79 and accompanying text (explaining how the element of genre is treated under the scènes à faire doctrine).

58 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.05 (Matthew Bender rev. ed., 2023) [hereinafter 1 NIMMER].

59 Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002) (emphasis omitted).

60 Sprigman & Hedrick, *supra* note 8, at 575.

61 *See* Jamie Lund, *An Empirical Examination of the Lay Listener Test in Music Composition Copyright Infringement*, 11 VA. SPORTS & ENT. L.J. 137, 140 (2011) [hereinafter Lund, *Examination*].

62 Sprigman & Hedrick, *supra* note 8, at 575.

1. Filtration and the Extrinsic Test

In noting that a court should consider the similarity of ideas while conducting the extrinsic test,[63] the *Krofft* court manifestly erred in making such elements relevant in copyright considerations.[64] By failing to recognize the irrelevance of creative ideas in copyright analysis, the court problematically departed from the text of the Copyright Act and longstanding common law principles regarding copyright's scope.

The principal statutes governing copyright throughout the twentieth century made clear that creative ideas fell outside the scope of protection. Under the Copyright Act of 1909, copyright extended only to writings that were published with notice or a deposit to the U.S. Copyright Office.[65] Specifically for musical works, only those elements of a song that could be "reduced to [the] sheet music" that was deposited with the Copyright Office were protected.[66] In interpreting the 1909 Act, the Supreme Court held in *Mazer v. Stein* that copyright could only cover "the author's tangible expression of his ideas."[67] The Copyright Act of 1976 essentially codified the *Mazer* ruling, emphasizing that "[i]n no case does copyright protection for an original work of authorship extend to any idea . . . regardless of the form in which it [is] . . . embodied in such work."[68] Under this regime, the combination of a song's rhythm, melody, and harmony usually serves as the basis for copyright protection, as those elements represent the foundational components of a composition and can be transcribed on a basic lead sheet.[69]

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63 *See* Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1164 (9th Cir. 1977).

64 *See* Sprigman & Hedrick, *supra* note 8, at 578, 595.

65 Copyright Act of 1909, Pub. L. No. 60-349, §§ 9–12, 35 Stat. 1075, 1077–78 (1909).

66 Lattanza, *supra* note 4, at 728 (quoting 1 NIMMER, *supra* note 58).

67 347 U.S. 201, 214 (1954).

68 17 U.S.C. § 102(b). The Copyright Act of 1976 also expanded protection for sound recordings and relaxed its predecessor's requirement that compositions must be deposited with the Copyright Office to receive protection. *Id.* § 102(a)(7). As such, musical works protected under the 1976 Act may enjoy a broader scope of protection. *See* Lund, *Examination*, *supra* note 61, at 142–44.

69 *See* 1 NIMMER, *supra* note 58 ("As applied to music, the requirement of originality is straightforward. Songs need not be novel to attract copyright protection, but they must

In addition to contravening the statute, the *Krofft* court's recognition of the relevance of ideas departed from the common law's scènes à faire and merger doctrines. The scènes à faire doctrine asserts that because "new expressive work may come from a common idea" that is integral to the medium or its genre, ideas must be allowed to be shared in common by all creators in order to allow expression in that genre to exist.[70] Similarly, the merger doctrine stands for the proposition that where an expression "represents the only—or one of only a few ways . . . to express an underlying idea," that expression cannot be protected.[71] Courts widely applied these rules throughout the twentieth century to limit the scope of copyright.[72]

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reflect the composer's own contribution. It is within the domain of creativity that special considerations rise to the fore. It has been said that a musical work consists of rhythm, harmony, and melody—and that the requisite creativity must inhere in one of these three."); *see also* Skidmore v. Led Zeppelin, 952 F.3d 1051, 1062 (9th Cir. 2020) (en banc) ("Indeed, 'in order to claim copyright in a musical work under the 1909 Act, the work had to be reduced to sheet music or other manuscript form.'" (quoting 1 MELVILLE B. NIMMER & DAVID NIMMER, *Nimmer on Copyright* § 2.05[A] (3d ed. 2017)); *see also* Elizabeth Sawyer, Note, *Dazed and Confused: Copyright Limitation*, 29 DEPAUL J. ART, TECH. & INTELL. PROP. L. 93, 95 (2019) ("To qualify as a musical work, a song must be written by a composer and consist of a 'rhythm, harmony, and melody.' The copyright protection of such a work extends to lyrics that accompany the song." (quoting Bridgeport Music, Inc. v. UMG Recordings, Inc., 585 F.3d 267, 272 n.1 (6th Cir. 2009))); Daniel Abowd, *FRE-Bird: An Evidentiary Tale of Two Colliding Copyrights*, 30 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1331, 1334 (2020) ("[C]ourts [have] increasingly validated infringement claims that extended beyond melody and into melody-adjacent elements such as harmony and rhythm."); Olufunmilayo B. Arewa, *A Musical Work Is a Set of Instructions*, 52 HOUS. L. REV. 467, 498 (2014) ("In analyzing the music composition copyright, consideration of infringement tends to be limited to three principal notated musical features: melody, which is typically given primary consideration, and to a lesser extent harmony and rhythm.").

[70] Torrean Edwards, *Scènes à Faire in Music: How an Old Defense Is Maturing, and How It Can Be Improved*, 23 MARQ. INTELL. PROP. L. REV. 105, 108 (2019).

[71] Sprigman & Hedrick, *supra* note 8, at 573 n.2 (citing Morrissey v. Procter & Gamble Co., 379 F.2d 675, 678–79 (1st Cir. 1967)).

[72] *See* Leon R. Yankwich, *Legal Protection of Ideas—A Judge's Approach*, 43 VA. L. REV. 375, 380–84 (1957). For a sampling of courts applying the doctrines in artistic copyright cases, see Seltzer v. Sunbrock, 22 F. Supp. 621, 631 (S.D. Cal. 1938); Cain v. Universal Pictures Co., 47 F. Supp. 1013, 1017 (S.D. Cal. 1942); Warner Bros. Pictures v. Colum. Broad. Sys., 216 F.2d 945, 950–51 (9th Cir. 1954); Herbert Rosenthal Jewelry Corp. v. Kalpakian, 446 F.2d 738, 742 (9th Cir. 1971); Midas Prods., Inc. v. Baer, 437 F. Supp. 1388, 1390–91 (C.D. Cal. 1977); Comput. Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 707–08 (2d Cir. 1992).

These doctrines are especially important in the context of music composition, as the open use of customary musical elements is critical for writing new songs. Virtually every song recorded today is inspired by, or "originated from[,] something or somewhere else."[73] All musical genres have their idiosyncratic elements of harmony, melody, rhythm, and instrumentation: jazz can be recognized by its customary use of swing eighth notes, complex harmonic structures with shifting tonal centers, and non-diatonic "blue notes" played in a dialogue between a rhythm section and horns; rock music, contrastingly, tends to feature a driving backbeat, diatonic melodies, and simpler, repeated chord progressions most frequently played on electric guitars.[74] While none of these features is necessary or sufficient to place a musical work within these two genres, the common employment of such elements together generally allows artists to situate their creation within a broader musical tradition and "thereby link" their work with "previous works in that tradition."[75]

A proper understanding of these common-law rules would recognize that certain "musical elements are essential for evoking a certain genre" and would "prevent copyright infringement [liability] when applying these essential elements."[76] By way of example, perhaps no musical motif is more genre-defining than the twelve-bar blues, the chord progression that creates "the intuitive picture of

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[73] Iegor Bakhariev, Special Approach for Musical Works in Relation to the Idea-Expression Dichotomy in Copyright Law (Spring 2016) (M.S. thesis, Lund University) (quoting Emma Steel, *Original Sin: Reconciling Originality in Copyright with Music*, 37 EUR. INTELL. PROP. REV. 66, 66 (2015)), https://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=8880752&fileOId=8880761.

[74] Diatonic melodies are those that use only the seven notes within the key, while non-diatonic melodies use notes outside of the key. *Compare* THE BEACH BOYS, *Surfin' U.S.A.*, *on* SURFIN' U.S.A. (Capitol Records 1963) (utilizing diatonic melodies), *with* THE BEACH BOYS, *You Still Believe in Me*, *on* PET SOUNDS (Capitol Records 1966) (utilizing non-diatonic melodies).

[75] Evan Malone, *The Ontology and Aesthetics of Genre*, 19 PHIL. COMPASS e12958, at 4 (2024); *see also* Prudence Jones, *Tradition and Originality in the Songs of Bruce Springsteen*, 3 BIANNUAL ONLINE J. SPRINGSTEEN STUDS. 38, 38 (2018) ("Originality . . . can exist within a tradition and can serve to put an artist in dialogue with what has come before.").

[76] Lattanza, *supra* note 4, at 750.

the . . . blues form."[77] It is, in a sense, the "standard treatment" of the blues *idea*[78]—a "template" followed by musicians to capture the essence of the genre for their *expression*, "vocal and instrumental storytelling," within it.[79]

If such a quintessential element of the genre could not be used in new songs, blues music could not be written. While artists could try to emulate the twelve-bar blues through slight harmonic and structural variations,[80] each variation also being rivalrous, in turn, would eventually make it so that the blues form no longer would "retain[] its identity . . . as a foundation on which to build differing musical visions."[81] It is at this point where the idea of the blues and its expressive form have merged, prohibiting any one artist from having a monopoly over either. As such, even if the harmony can be a protectable element of a composition,[82] copyright should not protect chord changes that are essential to the genre's expression.

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[77] Jonah Katz, *Harmonic Syntax of the Twelve-Bar Blues Form*, 35 MUSIC PERCEPTION 165, 172 (2017). The twelve-bar blues progression archetypically consists of four measures of the I chord of the key, followed by two measures of the IV chord, again two measures of the I chord, and a V-IV-I-I turnaround. For examples of popular songs that follow this structure, see BOOKER T. & THE M.G.'S, *Green Onions*, *on* GREEN ONIONS (Stax Records 1962); THE DOORS, *Back Door Man*, *on* THE DOORS (Elektra Records 1967).

[78] *See* Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209 (9th Cir. 1988) ("After careful consideration and viewing of these features, we find that they necessarily follow from the *idea* of a martial arts karate combat game, or are inseparable from, indispensable to, or even standard treatment of the *idea* of the karate sport. As such, they are not protectable.").

[79] Garth Alper, *How the Flexibility of the Twelve-Bar Blues Has Helped Shape the Jazz Language*, 45 COLL. MUSIC SYMP. 1, 2–3 (2005).

[80] *See, e.g.*, MILES DAVIS, *Freddie Freeloader*, *on* KIND OF BLUE (Columbia Records 1959) (resolving to a $\flat VII^7$ chord rather than the I chord at the end of the progression); RAY CHARLES, *What'd I Say*, *on* WHAT'D I SAY (Atlantic Records 1959) (returning to the V chord on the twelfth measure); THE BEATLES, *Boys*, *on* PLEASE PLEASE ME (Parlophone Records 1963) (same); THE WHITE STRIPES, *Ball and Biscuit*, *on* ELEPHANT (Third Man Records 2003) (same).

[81] Alper, *supra* note 79, at 12.

[82] *See* 1 NIMMER, *supra* note 58 ("Courts have hesitated to find the necessary creativity in harmony, and it has been suggested that harmony can never in itself be the subject of copyright. However, at least one court seems to have found sufficient creativity in harmony." (citations omitted)); *see also* Tempo Music v. Famous Music Corp., 838 F. Supp. 162, 169 (S.D.N.Y. 1993) ("We recognize the force of the argument that in most instances, harmony *is* driven by the melody . . . . But an abstract per se rule removing harmonies entirely from the scope of copyright protection would, we believe, be too broad and would perhaps deprive appropriate protection to composition which contains sufficient originality and creativity to warrant such protection.").

Instead, the scènes à faire and merger doctrines would suggest that artists must be allowed to draw from the common vocabulary of the blues form in order to authentically compose within that tradition.

The *Krofft* court, however, failed to recognize this compositional reality. By defining the extrinsic test as one to evaluate the "similarity of ideas,"[83] *Krofft* continued to make ideas—to which copyright protection "is never extended"[84]—relevant in determining infringement. Although *Krofft*'s intrinsic test purportedly remained as a backstop to ensure that liability would ultimately require substantial similarity in protectable expression, the fact that broad similarities in ideas could be considered in the judge's exercise of the extrinsic test at summary judgment meant that weaker claims—for example, songs of a similar genre with no reasonably comparable melodies—would be more likely to make it to trial and have its chance before the jury.[85]

Realizing the errors of *Krofft*, the Ninth Circuit eventually did come around to correct its ways by explicitly rejecting the consideration of ideas in the extrinsic test and seemingly adopting the two common law doctrines.[86] In *Shaw v. Lindheim*, the Ninth Circuit took a crucial step in attempting to correct *Krofft* by noting that the extrinsic test should not be seen as a comparison of ideas, but as an "objective . . . analys[i]s of *expression*."[87] Under this new formulation, the extrinsic test would now ask "whether there is enough similarity in *protected elements* of the plaintiff's and defendant's works that a reasonable jury could find that the defendant's work is substantially similar to the plaintiff's."[88] The Ninth Circuit also adopted the scènes à faire doctrine in *Satava v. Lowry*[89] and the merger doctrine in *Data East USA, Inc. v. Epyx, Inc.*,[90] thus barring protection

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83 Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1164 (9th Cir. 1977).

84 Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930).

85 *See* Sprigman & Hedrick, *supra* note 8, at 579.

86 *See, e.g.*, Shaw v. Lindheim, 919 F.2d 1353, 1357 (9th Cir. 1990); Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 208 (9th Cir. 1988).

87 919 F.2d at 1357.

88 Sprigman & Hedrick, *supra* note 8, at 579.

89 323 F.3d 805, 810 (9th Cir. 2003).

90 862 F.2d at 209.

for "elements of expression that necessarily follow from an idea, or . . . expressions that are 'as a practical matter, indispensable or at least standard in the treatment of a given [idea].'"[91]

The Ninth Circuit's departure from *Krofft*'s command that courts must consider similarities in ideas in the extrinsic test appeared to be a welcome improvement on the doctrine. As a consequence of *Shaw*, a court conducting the extrinsic test would have to "filter out and disregard the non-protectable elements in making its substantial similarity determination."[92] This filtration, in theory, would allow for claims to reach a jury only where a reasonable trier-of-fact could find substantial similarity with respect to those protectable elements that could be notated on a lead sheet—harmony, melody, and rhythm[93]— and were not common tropes of the genre.[94]

In practice, however, these reforms appeared to be short lived—especially in the context of music copyright cases. For instance, in *Three Boys Music Corp. v. Bolton*, the Ninth Circuit was tasked with reviewing a jury's finding that blue-eyed soul singer Michael Bolton's 1991 hit "Love is a Wonderful Thing" illegally copied the Isley Brothers' 1964 song of the same name.[95] To assist the trier-of-fact in conducting the "analytical dissection" necessary to undertake the extrinsic test,[96] the plaintiffs offered expert testimony "that the two songs shared a combination of five unprotectible elements: (1) the title hook phrase (including the lyric, rhythm, and pitch); (2) the shifted cadence; (3) the instrumental figures; (4) the verse/chorus relationship; and (5) the fade ending."[97]

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91 *Id.* at 208 (quoting Aliotti v. R. Dakin & Co., 831 F.2d 898, 901 (9th Cir. 1987)).

92 Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002).

93 Lund, *Examination*, *supra* note 61, at 143.

94 *See* Emily Ranger-Murdock, Comment, *"Blurred Lines" to "Stairway to Heaven": Applicability of Selection and Arrangement Infringement Actions in Musical Compositions*, 67 UCLA L. REV. 1066, 1074 (2020).

95 212 F.3d 477, 480 (9th Cir. 2000). *Compare* MICHAEL BOLTON, *Love Is a Wonderful Thing*, *on* TIME, LOVE & TENDERNESS (Columbia Records 1991), *with* THE ISLEY BROTHERS, *Love Is a Wonderful Thing*, *on* LOVE IS A WONDERFUL THING (Veep 1966).

96 *Three Boys Music*, 212 F.3d at 485.

97 *Id*. The court in *Three Boys Music* did not identify any one element that alone was protectable. Rather, "[t]he jury heard testimony from . . . experts and 'found infringement based on a unique compilation of [unprotectable] elements.'" *Id.*

Although the court acknowledged these elements were unprotectable, it drew upon *Krofft* to hold that "a jury may find a combination of unprotectible elements to be protectible under the extrinsic test because 'the over-all impact and effect indicate substantial appropriation.'"[98] Assessing the alleged similarities among these unprotectable elements required analyzing elements of the songs at a rather high level of generality, turning the analysis away from more objective comparisons of harmony and melody.

To begin with, these songs do not follow the same structure—the "verse/chorus" relationship is actually inverted across the two songs.[99] To establish similarities between each song's verses and chorus, the plaintiffs argued that such a relationship exists because the "verse and chorus [in each song] begin with the same or similar pitches,"[100] which is the third note in each song's respective key. Additionally, both songs include short "ornamental musical phrases generally played by horns,"[101] although these phrases seemingly bear little melodic or rhythmic similarity to each other. The "cadence shift" apparently refers to "a change in rhythmic emphasis which occurs in the last statement of a musical section."[102] The repeated title-phrase "love is a wonderful thing" does change in rhythm between its first and last articulation in each song's chorus.[103] However, the Isley Brothers *shorten* the phrase from two measures to one, while Bolton *extends* the original one-measure

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[98] *Id.* (quoting Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1169 (9th Cir. 1977)).

[99] That is, Bolton's song follows the form of verse-chorus, while the Isley Brothers' song begins with the chorus, followed by a verse. *Compare* MICHAEL BOLTON, *Love Is a Wonderful Thing*, *on* TIME, LOVE & TENDERNESS (Columbia Records 1991), *with* THE ISLEY BROTHERS, *Love Is a Wonderful Thing*, *on* LOVE IS A WONDERFUL THING (Veep 1966).

[100] Petition for Writ of Certiorari at 11 n.6, Bolton v. Three Boys Music, Inc., 531 U.S. 1126, 1126 (2001) (No. 00-689).

[101] *Id.*

[102] *Id.*

[103] *Compare* MICHAEL BOLTON, *Love Is a Wonderful Thing*, *on* TIME, LOVE & TENDERNESS, at 00:53–01:19 (Columbia Records 1991), *with* THE ISLEY BROTHERS, *Love Is a Wonderful Thing*, *on* LOVE IS A WONDERFUL THING, at 00:13–00:23 (Veep 1966).

phrase over three measures in the last line of his chorus. And, yes, both songs include a fade ending.[104]

Curiously, the court in *Three Boys Music* considered the title phrase an unprotectable element,[105] despite these phrases sharing the same lyrics and following similar melodic and rhythmic patterns at times. Because these elements are typically considered protectable, the judge could have ruled that a jury could find substantial similarity with respect to the title phrase. Further, the observed similarities of the starting notes and shifting cadences are melodic and rhythmic components of the title phrases, and thus could be relevant in assessing their substantial similarity. But these observations are still anchored to clearly protectable elements.

A combination of unprotectable elements is relevant for copyright liability "only if those elements are numerous enough and their selection and arrangement [are] original enough that their combination constitutes an original work of authorship."[106] That the songs also include genre-characteristic horn stabs, verses that begin on the same note as the chorus, and a fade out provides very little additional evidence that Bolton copied The Isley Brothers' work. The issue with the *Three Boys Music* treatment of unprotectable elements is not that there is nothing independently original about common elements like fade outs or background horns; the issue is that even when *combined*, these elements only signal that the songs are in the same genre (that is, ideas indicative of scènes à faire) or used similar production techniques not relevant to composition copyright.[107] Because "[t]rivial elements of compilation and arrangement . . . fall below the threshold of originality,"[108] the court should not have recognized these potentially spurious similarities of common elements as relevant to the analysis of extrinsic similarity.

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104 *Compare* MICHAEL BOLTON, *Love Is a Wonderful Thing*, *on* TIME, LOVE & TENDERNESS, at 04:21–04:42 (Columbia Records 1991), *with* THE ISLEY BROTHERS, *Love Is a Wonderful Thing*, *on* LOVE IS A WONDERFUL THING, at 01:46–01:55 (Veep 1966). Of course, so too does Rick Astley's "Never Gonna Give You Up." *See* RICK ASTLEY, *Never Gonna Give You Up*, *on* WHENEVER YOU NEED SOMEBODY (RCA Records 1987).

105 *See* Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485 (9th Cir. 2000).

106 Satava v. Lowry, 323 F.3d 805, 811 (9th Cir. 2003).

107 *See* Lund, *Examination*, *supra* note 61, at 146.

108 United States v. Hamilton, 583 F.2d 448, 451 (9th Cir. 1978).

By broadening how such elements factored into copyright protection, the Ninth Circuit essentially revived *Krofft*'s incorrect observation that unprotectable ideas should bear on extrinsic similarity, even when they have no reasonable relation to the work's protected elements or to each other. If the presence of common arrangement choices like a fade out could be used as further evidence of copying, it is unclear why other general similarities—like the songs' common time signatures; instrumentation of guitars, keyboards, bass, and drums; use of male lead vocalists; presence of backup singers; eight-bar phrase structures; and diatonic melodies—should not also be considered as a combination of additional unprotectable elements similar between both songs.

The reason they cannot is because these elements are so ubiquitous in compositions "that to recognize copyright protection in their combination" would wrongly grant a monopoly over the basic building blocks of contemporary western music.[109] While a combination of unprotectable elements may evince copying—as the rhythmic and melodic similarities in the songs at issue in *Three Boys Music* arguably did—there must be some "quantum of originality" in their employment beyond "standard" practice.[110] That simply is not the case for the fade out or horn parts in (either) "Love Is a Wonderful Thing," which do not interact with each other or uniquely color the other elements of the work. In recognizing that these general, commonplace similarities should be considered in the extrinsic test, the court in *Three Boys Music* effectively abdicated its duty of "vigorously policing the line between idea and expression. . . ."[111]

If any combination of unprotectable elements could be sufficient for liability, then the court's filtration between protectable and unprotectable elements before the case reaches the jury would not be possible because any element of a song could then be an ingredient in a "constellation of unprotectable constituent parts" together showing substantial similarity,[112] even if many of the constituent

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109 *Satava*, 323 F.3d at 811–12.

110 *Id.* at 812.

111 *Id.* at 813.

112 Allen Madison & Paul Lombardi, *Blurred Justice*, 39 LOY. L.A. ENT. L. REV. 145, 162 (2019).

parts of that combination are simply common genre-defining tropes. Without some limiting principle justifying why a particular combination is relevant, liability would be possible when a work displays only "basic similarities" with another.[113]

The residual effect of *Krofft*'s errors were further compounded in the Ninth Circuit's 2004 ruling in *Swirsky v. Carey*,[114] a case considering substantial similarity between Xscape's "One of Those Love Songs" and Mariah Carey's "Thank God I Found You."[115] There, the Ninth Circuit reversed the district court's grant of summary judgment for the defendant and its holding that the claim failed the extrinsic test.[116]

The *Swirsky* court's muddled application of the extrinsic test in this case is emblematic of the sheer doctrinal uncertainty in the Ninth Circuit with respect to the relevance of unprotectable elements in this analysis. In a fleeting moment of reassurance, the court began its extrinsic test by reiterating *Shaw*'s correct assertion that "[b]ecause the requirement is one of substantial similarity to *protected* elements of the copyrighted work, it is essential to distinguish between the protected and unprotected material in a plaintiff's work."[117] Unfortunately, much like the other circuits maligned in *Krofft*, the Ninth Circuit in *Swirsky* only paid "lipservice" to this principle.[118] In granting summary judgment, the district court

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113 Pasillas v. McDonald's Corp., 927 F.2d 440, 443 (9th Cir. 1991).

114 *See* 376 F.3d 841 (9th Cir. 2004).

115 *See id.* at 843. For the songs at issue, compare XSCAPE, *One of Those Love Songs*, *on* TRACES OF MY LIPSTICK (Sony Music Entertainment 1998), with MARIAH CAREY, *Thank God I Found You*, *on* RAINBOW (Columbia Records 1999).

116 *See Swirsky*, 376 F.3d at 849.

117 *Id.* at 845 (citing Apple Comput., Inc. v. Microsoft Corp., 35 F.3d 1435, 1443 (9th Cir.1994)). *Apple Computer*, in turn, relies on *Shaw* for the proposition that "the extrinsic test now objectively considers whether there are substantial similarities in both ideas and expression, whereas the intrinsic test continues to measure expression subjectively." *Id.* at 1442–43 (citing Shaw v. Lindheim, 919 F.2d 1353, 1357 (9th Cir. 1990)).

118 *See Swirsky*, 376 F.3d at 848–49 (considering unprotectable elements in its analysis); *see also* Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1163 n.6. (9th Cir. 1977) ("The idea-expression dichotomy has been criticized by some commentators . . . . We have surveyed the literature and have found that no better formulation has been devised. Moreover, most of these criticisms are directed at the fact that the courts tend to pay only lipservice to the idea-expression distinction without it being fairly descriptive of the results of modern cases.").

"discounted any similarity between the two [songs] based on key, harmony, tempo, or genre," as these were unprotectable elements.[119] However, in an about-face from its statement made a few pages earlier that liability could only be based on protected elements, the Ninth Circuit criticized the district court's filtration, proclaiming that "to disregard . . . key, tempo, rhythm, and genre is to ignore the fact that a substantial similarity can be found in a combination of elements, even if those elements are individually unprotected."[120] The court then went on to further postulate that vague musical elements like "timbre, tone, spatial organization, consonance, dissonance, accents, note choice, combinations, interplay of instruments . . . and new technological sounds" could all potentially be relevant for satisfying the extrinsic test.[121] The absurd logical ends of *Three Boys Music*'s failure to draw a limiting principle as to the validity of combinations had been reached. Though these elements could coalesce in an "original" manner to merit protection in some circumstances, the court gave no guidance on when such combinations evince substantial similarity and when they are merely spurious scènes à faire.

In fact, the *Swirsky* court limited the scope of the scènes à faire doctrine to apply only to common musical motifs within a genre. As part of her defense, Carey invoked the scènes à faire doctrine, arguing that the perceived similarity in the "melody of the first measure of One is a commonplace phrase not subject to copyright protection."[122] As one expert testified in the case, "the pitch sequence of the first measure of [the chorus of "One of Those Love Songs"] . . . was more similar to the pitch sequence in the first measure of the folk song "For He's a Jolly Good Fellow."[123]

The court rejected this argument, noting that because "For He's a Jolly Good Fellow" is folk song, it could not properly be used as evidence for the claim that the phrase "is an indispensable idea

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119 *Swirsky*, 376 F.3d at 846.

120 *Id.* at 848.

121 *Id.* at 849.

122 Swirsky v. Carey, 226 F. Supp. 2d 1224, 1232 (C.D. Cal. 2002), *rev'd*, 376 F.3d 841 (9th Cir. 2004).

123 *Swirsky*, 376 F.3d at 850.

within the field of hip-hop/R&B."[124] This observation conformed to the scènes à faire doctrine's purpose of keeping characteristic tropes of genre for common use.[125] The Ninth Circuit, however, went on to state that even if these songs were in the same genre, "a musical measure cannot be 'common-place' by definition if it is shared by only two songs."[126] The problem with this statement is that the phrases' defining melodic resolution, from scale degree 4 to 3,[127] is commonplace across genres, especially in songs emulating the "Bo Diddley" rhythm, which is itself a characteristic musical motif in early R&B.[128]

Of course, the *Swirksy* panel cannot be faulted for failing to identify this theme in songs that the plaintiff failed to point out.[129] Still, in restricting the scènes à faire doctrine to comparators within the same genre, *Swirsky* fails to account for the fact that a particular musical element may be commonplace throughout contemporary music composition. As musicologist Nicole Biamonte notes, the "canon" of western popular music is largely derived of songs

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124 *Id*.

125 *See supra* notes 70–82 and accompanying text.

126 *Swirsky*, 376 F.3d at 850.

127 *Compare* XSCAPE, *One of Those Love Songs*, *on* TRACES OF MY LIPSTICK, at 0:57–1:01 (Sony Music Entertainment 1998) ("This is one of those *love songs*."), *with* MARIAH CAREY, *Thank God I Found You*, *on* RAINBOW, at 0:48–0:51 (Columbia Records 1999) ("Thank God I *found you*.").

128 *See* Walter Everett, *Making Sense of Rock's Tonal Systems*, 10 MUSIC THEORY ONLINE 1, 6 (2004), https://www.mtosmt.org/issues/mto.04.10.4/mto.04.10.4.w_everett.html [https://perma.cc/C4ZE-72EH] ("Sometimes, as in 'Bo Diddley' or 'My Generation,' the tonic is established simply by neighbor motions from I [comprising scale degrees 1, 3, and 5] to ♭VII [comprising scale degrees ♭7, 2, and 4] and back again."). For examples of the "Bo Diddley" cadence across genres, compare BO DIDDLEY, *Bo Diddley*, *on* BO DIDDLEY (Chess Records 1958), with THE CRICKETS, *Not Fade Away*, *on* THE CHIRPING CRICKETS (Brunswick Records 1957), THE STRANGELOVES, *I Want Candy*, *on* I WANT CANDY (Bang Records 1965), and THE CLASH, *Rudie Can't Fail*, *on* LONDON CALLING (Columbia Records 1979).

129 *See* FED. R. APP. P. 10(a) (explaining that, in federal cases, the record on appeal only includes the original district court "papers and exhibits," a "transcript of the proceedings," and copies of the "docket entries," implying that a federal appeals court cannot consider a point that a party failed to identify in the district court proceedings); *see also Swirsky*, 376 F.3d at 849–50 (omitting this point in its scènes à faire analysis).

following the same diatonic or pentatonic tonal systems.[130] Most contemporary composers are not Bach, Brian Wilson, or The Beatles; songs with shifting tonal centers and heavy use of non-diatonic melodies are not commonly found on the *Billboard* Top 40 charts. With at most twelve (and often only five) notes to choose from in crafting a suitable melody across an array of popular genres,[131] common compositional conventions are bound to emerge.[132] When they do, "[t]he necessities of musical creativity . . . require the sharing and utilization of such stock motifs," otherwise new popular music could not be composed.[133] This reality underlies the scènes à faire doctrine.[134] The Ninth Circuit was probably correct to note that Xscape's chorus melody in "One of Those Love Songs" did not represent an essential element of contemporary R&B.[135] But restricting

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[130] That is, songs based on the seven notes of the major scale or the subset of scale degrees 1, 2, 3, 5, and 6, respectively. *See* Nicole Biamonte, *Triadic Modal and Pentatonic Patterns in Rock Music*, 32 MUSIC THEORY SPECTRUM 95, 95 (2010).

[131] *See* David Temperly, *The Melodic-Harmonic 'Divorce' in Rock*, 26 POPULAR MUSIC 323, 325 (2007) ("In common-practice music, the notes within a section of a piece tend to be drawn from a single diatonic (major or minor) scale—the scale of the current key."); *see also* Rick Beato, *Why Today's Music Is So Boring. The Regression of Musical Innovation* 10:02–17:32, YOUTUBE (May 28, 2021), https://www.youtube.com/watch?v=Ks4c_A0Ach8 [https://perma.cc/7655-V7NF] ("Most songs today use the pentatonic scale for the melody . . . . The reason that [popular] songs . . . sound[ ] like five other songs is because they're . . . just writing the most basic nursery-rhyme melodies.").

[132] *See* Jeremy Mayall, *Cross-Genre Hybridity in Composition: A Systematic Method*, 21 ORGANISED SOUND 30, 30 (2016); *cf.* Asaf Peres, *Why Pentatonic Scales Are So Popular in Pop Melodies (Infographic)*, TOP40 THEORY (Oct. 10, 2018), https://www.top40theory.com/blog/why-pentatonic-scales-are-so-popular-infographic [https://www.perma.cc/VE5M-EX2D] ("Pentatonic scales are extremely popular these days with pop songwriters . . . .").

[133] Paymaneh Parhami, Williams v. Gaye*: Blurring the Lines of Copyright Infringement in Music*, 34 BERKELEY TECH. L.J. 1113, 1136 (2019).

[134] *See* Darrell v. Joe Morris Music Co., 113 F.2d 80, 80 (2d Cir. 1940) ("[W]hile there are an enormous number of possible permutations of the musical notes of the scale, only a few are pleasing; and much fewer still suit the infantile demands of the popular ear."); *see also* Taylor Barlow, *Tons à Faire: Strengthening the Scènes à Faire Doctrine for Music Copyright Cases*, 20 VA. SPORTS & ENT. L.J. 106, 119 (2021) ("Musical elements are not infinite, especially when artists are creating within a particular musical style.").

[135] That is, a 4-3 suspension is not fundamental to R&B in the same way that the twelve-bar form is to Blues. *See supra* notes 77–82 and accompanying text. For examples of R&B hooks with melodies that *do not* include 4-3 suspensions, see JA RULE FT. ASHANTI, *Always*

the scènes à faire doctrine to commonplace elements of genres—rather than of Western music as such—is misguided in the context of popular musical melodies, given the limited tonal palate available to contemporary popular musical artists across genres.

After *Swirsky v. Carey*, "[e]ven where elements are not . . . unique enough to be protectable under copyright law, now all that appears necessary to survive summary judgment is an expert witness who will testify that there is a 'substantial similarity' between two songs."[136] Where "substantial similarity can be found in a combination of [individually unprotectable] elements,"[137] the court can no longer "filter out and disregard the non-protectable elements in making its substantial similarity determination," since all elements are potentially relevant as a matter of law.[138] This ruling contravenes the text of the Copyright Act of 1976 and maximizes the potential harms of the filtration problem.

While some commentators initially downplayed the doctrinal implications of *Swirsky*,[139] Sprigman and Hedrick are more critical, noting that the extrinsic test provides "a very rough filter" that "ends an infringement case only when the similarities between the plaintiff's and defendant's works are either wholly due to unprotected

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on Time, *on* PAIN IS LOVE, at 00:00–00:40 (Def Jam Recordings 2001) (featuring a pentatonic melody); DRAKE FT. LIL DURK & GIVEON, *In the Bible*, on CERTIFIED LOVER BOY, at 00:16–00:55 (OVO Sound 2021) (featuring a descending diatonic melody that explicitly skips scale degree 4).

136 Regina Zernay, *Casting the First Stone: The Future of Music Copyright Infringement Law After Blurred Lines, Stay with Me, and Uptown Funk*, 20 CHAP. L. REV. 177, 210 (2017).

137 Swirsky v. Carey, 376 F.3d 841, 848 (9th Cir. 2004).

138 Sprigman & Hedrick, *supra* note 8, at 579 (quoting Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002)).

139 *See* Lund, *Examination*, *supra* note 61, at 143–44 ("[No court has] cited *Swirsky*'s dicta with approval on this point or otherwise relied on music performance factors such as tempo, orchestration, key/pitch, or style/genre to sustain a finding of Substantial Similarity in a Composition Copyright case."). Lund's article was published in 2011, two years prior to the release of Robin Thicke's "Blurred Lines" and seven years prior to the Ninth Circuit's paradigm-shifting ruling in *Williams v. Gaye*, 895 F.3d 1106 (9th Cir. 2018). After the filing of that case, Lund later stated in a 2013 article that "Pharrell Williams and Robin Thicke did not commit copyright infringement of Gaye's recording because they did not copy the melody, harmony, or rhythm of Gaye's original recording." Jamie Lund, *Fixing Music Copyright*, 79 BROOK. L. REV. 61, 70 (2013) [hereinafter Lund, *Fixing*]. That prediction of the outcome of the case was wrong. *See Williams*, 895 F.3d at 1127–28.

elements, or where the amount of similar protected expression is de minimis as a matter of law."[140] Thus, even "weak copyright claims can readily pass through the permeable membrane of the extrinsic test" and get to a jury.[141]

In *Williams v. Gaye*, the notorious 2018 case in which the Ninth Circuit upheld a jury's finding that Robin Thicke's "Blurred Lines" was substantially similar to Marvin Gaye's "Got to Give It Up,"[142] it became clear that *Swirsky*'s troubling treatment of the extrinsic test was here to stay.

Crucial to the filtration question in this case was the fact that Gaye's composition, recorded in 1976, was protected under the Copyright Act of 1909, rather than the Copyright Act of 1976, which did not take effect until 1978.[143] Because the 1909 Act did not extend to sound recordings, only the elements of "Got to Give It Up" that were explicitly notated on the lead sheet deposited with the Copyright Office—or that could be inferred from it—received protection.[144]

The deposit copy of "Got to Give It Up," the first page of which is reproduced as Figure 1 below, includes the basic musical elements

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[140] Sprigman & Hedrick, *supra* note 8, at 579.

[141] *Id.*

[142] 895 F.3d at 1128. For the songs at issue, compare ROBIN THICKE, *Blurred Lines*, *on* BLURRED LINES (Interscope Records 2013), with MARVIN GAYE, *Got to Give it Up – Pt. 1*, *on* GOT TO GIVE IT UP (Tamla Records 1977). Since the *Williams* decision, the literature has become saturated with scholarship analyzing the implications of this case (with it almost being a requirement for such articles' titles to include clever wordplay based on the "Blurred Lines" song at issue). *See, e.g.*, Lattanza, *supra* note 4; Rachael Belensz, *Un-Blurred Lines: A Proposal for a More Objective Method in Determining the Extent of Similarities Between Musical Works for the Purpose of Probative Copying*, 20 U. ILL. CHI. REV. INTELL. PROP. L. 251, 251 (2021); Nicholas Booth, *Backing Down: Blurred Lines in the Standards for Analysis of Substantial Similarity in Copyright Infringement for Musical Works*, 24 J. INTELL. PROP. L. 99, 99 (2016); Chavers, *supra* note 2; Madison & Lombardi, *supra* note 112, at 145; Parhami, *surpa* note 133, at 1113. Given the depth of the literature analyzing this case, this Article will principally focus on *Williams*'s implications for the issue of filtration.

[143] *Williams*, 895 F.3d at 1121.

[144] *See* Lattanza, *supra* note 4, at 724–75; *see also* Copyright Act of 1909, Pub. L. No. 60-349, §§ 9–12, 35 Stat. 1075, 1077–78 (1909) (outlining the scope of and requirements for copyright protection). The 1976 Act later included protection for sound recordings. *See* 17 U.S.C. § 102(a)(7).

of: (1) key signature of A Major; (2) meter of common time; (3) lyrics; (4) vocal melody pitches and rhythm; (5) bassline pitches and rhythm for the introduction; (6) chord changes; and (7) song structure.[145] Because only the composition as expressed by the deposit copy fell under copyright protection, stylistic idiosyncrasies arising only from the *performance* of the song which could not be transcribed to sheet music—such as vocal technique, percussion choices, chord voicings, comping rhythms, and groove—represented unprotectable elements that should have been filtered out during the extrinsic test.[146]

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[145] *See* Declaration of Sandy Wilbur ¶¶ 24–55, Williams v. Bridgeport Music, Inc., No. 13-cv-06004, 2014 WL 7877773 (C.D. Cal. Oct. 30, 2014), ECF No. 91-1 (inferring these elements from the deposit copy). For the deposit copy, see Exhibit C to Declaration of Donna Stockett, *Bridgeport Music*, 2014 WL 787773, ECF No. 91-2.

[146] *See* Lund, *Examination*, *supra* note 61, at 144–45.

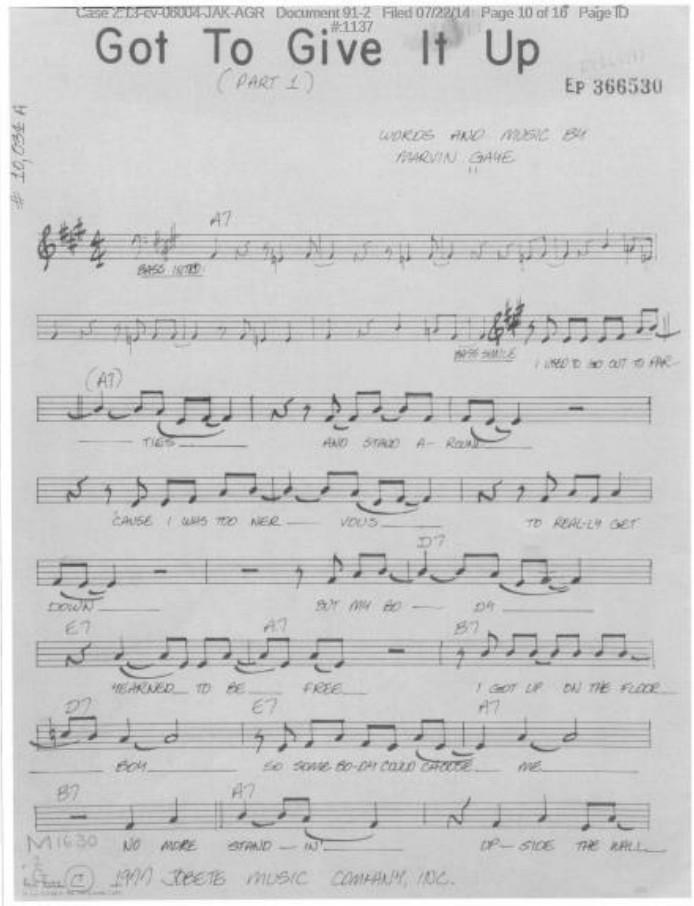

Figure 1: "Got to Give it Up" Deposit Copy

After hearing expert testimony on the substantial similarity and protectability of the musical elements within these songs,[147] the district court concluded that a genuine issue of material fact existed with respect to the signature phrase, hook, bass line, keyboard chords, harmonic structure, and vocal melody[148]—all elements that could be inferred from what is notated on the deposit copy.

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147 For a comprehensive analysis of the expert testimony in this case, see McPherson, *supra* note 7, at 68–70; Lattanza, *supra* note 4, at 737–39; Parhami, *supra* note 133, at 1124–26.

148 *See Bridgeport Music*, 2014 WL 7877773, at *19–20.

Additionally, the court "identified certain similarities as unprotectable, including the use of a cowbell, hand percussion, drum set parts, background vocals, and keyboard parts."[149] These elements were not notated in the deposit copy and instead emanated from performance choices made while recording the song.[150] As such, "[t]he district court ruled before trial that [the plaintiffs] could present sound recordings of 'Got To Give It Up' edited to capture only elements reflected in the deposit copy."[151]

To this extent, the district court properly conducted the filtration process by identifying which elements were and were not protected as a matter of law. Incredulously, however, the plaintiffs' expert witnesses were still allowed to testify at trial as to the substantial similarity of the unprotectable elements from the sound recording the court explicitly sought to filter out during summary judgment.[152] Additionally, the court did not "eliminate from the recording played at trial the other elements that it had earlier held to be unprotectable . . . ."[153]

This decision rested on a fundamental misunderstanding of the district court's role in undertaking the extrinsic test, which boggles belief, given that the district court *itself* stated in its decision on the motion for summary judgment that "[t]he Court *must* first determine what elements of these works 'are protected by [their] copyright[s] in the musical composition . . . and "filter out" elements not protected by the copyright.'"[154] A case should survive summary judgment if there is a genuine dispute regarding a material issue of triable fact with respect to whether the protected elements are substantially similar—not if there is a disagreement as to whether an element is protected in the first place.[155] In allowing for protectability to be a question submitted to the jury, the district court essentially nullified

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149 Sprigman & Hedrick, *supra* note 8, at 594.

150 *See Bridgeport Music*, 2014 WL 7877773, at *12–16.

151 Williams v. Gaye, 895 F.3d 1106, 1117 (9th Cir. 2018).

152 *See id.* at 1117–18.

153 Sprigman & Hedrick, *supra* note 8, at 594.

154 *Bridgeport Music*, 2014 WL 7877773, at *6 (quoting Newton v. Diamond, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002), *aff'd in amended opinion*, 388 F.3d 1189 (9th Cir. 2004)) (emphasis added).

155 *See* Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002).

the conclusions of its own extrinsic analysis, wholly setting aside any required filtration.

The district court's jury instructions severely exacerbated this error. In Jury Instruction No. 43—which outlined the doctrinal framework for determining substantial similarity—the trial judge explicitly instructed the jury to consider the unprotectable elements of vocal style and phrasing.[156] Rather than instructing the jury to ignore these elements, the court emboldened the jury to "determine for itself whether or not to consider [these elements] in its . . . analysis."[157] As Sprigman and Hedrick observe, "[t]he court should have instructed the jury specifically on which elements were in and which were out [as a matter of law] . . . [and to] consider only the protectable elements when undertaking its lay observer analysis."[158] In allowing the jury to decide for itself "whether portions allegedly copied [were] qualitatively or quantitatively important" to Gaye's composition,[159] the court gutted the intended safeguard of the extrinsic test.

Nor did the Ninth Circuit step in to correct this manifest error on appeal. Rather, a divided panel held that

> [e]ven if [the jury instruction's] inclusion of contested elements could have led the jury to believe that the elements were in the deposit copy, and to consider them as protectable elements for purposes of the substantial similarity analysis[,] . . . [t]he instructions on whole make clear that the jury could consider only elements in the deposit copy.[160]

There are several issues with this result. Most problematically, the jury was never put on clear notice as to what the elements in the deposit copy were. Lay jurors, who "usually do[] not have any musical training," are simply not capable of determining what musical

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156 *See* Jury Instructions at 46, Williams v. Bridgeport Music, Inc., No. 13-cv-06004, 2014 WL 7877773 (C.D. Cal. Oct. 30, 2014), ECF No. 322 [hereinafter Blurred Lines Jury Instructions].

157 Sprigman & Hedrick, *supra* note 8, at 594.

158 *Id.* at 596.

159 Blurred Lines Jury Instructions, *supra* note 156, at 46.

160 Williams v. Gaye, 895 F.3d 1106, 1124 (9th Cir. 2018).

elements are implied by a piece of written sheet music.[161] The literature has long been skeptical of lay jurors' ability to discern substantial similarity between protected elements,[162] let alone make the determination for themselves as to what elements are contained in the deposit copy. Because the district court's extrinsic test did not delineate protectability as a matter of law, the jury was rendered unable to effectively carry out its duty in determining only whether the expression of "*protectible elements*, *standing alone*, are substantially similar."[163]

The *Williams* majority failed to correct this error, and instead endorsed *Swirsky*'s agnosticism towards protectability.[164] In a final strike to those in the academy arguing that *Swirsky*'s unlimited proposition that "substantial similarity can be found in a combination of elements, even if those elements are individually unprotected,"[165] was merely dicta,[166] the Ninth Circuit explicitly reaffirmed *Swirsky* and held that this "constellation" theory was sufficient to put these elements before the jury.[167]According to the court, "[t]he experts'

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[161] Arata-Enrique Kaku, Uncovering the Confusing Influence Experts Have on Music Copyright Cases (May 1, 2017) (Student Scholarship, Honors Project, Bowling Green State University), https://scholarworks.bgsu.edu/cgi/viewcontent.cgi?article=1370&context=honorsprojects [https://perma.cc/M9LL-5Y2A].

[162] *See, e.g.*, M. Fletcher Reynolds, Selle v. Gibb *and the Forensic Analysis of Plagiarism*, 32 COLL. MUSIC SYMP. 55, 76 (1992); Lee & Moshirnia, *Experts*, *supra* note 16, at 727.

[163] Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002) (quoting Williams v. Crighton, 84 F.3d 581, 588 (2d Cir. 1996)); *see also* Joseph P. Fishman, *Music as a Matter of Law*, 131 HARV. L. REV. 1862, 1872 (2018) ("Meanwhile, several prominent musicologists who specialize in music copyright disputes have expressed exasperation that the law in the wake of the 'Blurred Lines' verdict might suddenly protect something more than melody. The way things have always worked, the story goes, 'only tunes and words are explicitly covered, while rhythm, instrumentation, timbre, and tempo remain in the vague terrain of phenomena that, each on its own, remain without protection.'" (citations omitted)).

[164] *See Williams*, 895 F.3d at 1119–20 (citing Swirsky v. Carey, 376 F.3d 841, 848 (9th Cir. 2004)).

[165] *Swirsky*, 376 F.3d at 848.

[166] *See* Lund, *Examination*, *supra* note 61, at 143–44.

[167] *See Williams*, 895 F.3d at 1119–20 (citing the *Swirsky* dicta with approval); *id.* at 1117 (quoting one of the Gayes' expert witnesses for the term "constellation"); *id.* at 1124 (stating that the district court did not err in giving the jury Instruction 43, despite the Thicke Parties arguing that the instructions told the jury to consider unprotectable elements).

quarrel over what was in the deposit copy was a factual dispute for the jury to decide."[168] But even if these elements could be discerned from the deposit copy,[169] many of them—like melisma, word painting, and parlando—are nonetheless unprotectable because they represent both "common musical technique[s]"[170] and performance features.[171] Thus, even the combination of these elements should not merit copyright protection as they fall outside the scope of the 1909 Act.[172]

Worse, both the district court's jury instructions and the Ninth Circuit's restatement of the applicable legal standard erroneously declared that extrinsic similarity may be found when two works share a "similarity of ideas."[173] After nearly fifty years—and explicit doctrinal correction[174]—the doctrine had come full circle to apply *Krofft*'s incorrect conception of the extrinsic test,[175] thus inviting "the jury to think that similarity in unprotected ideas is a basis for an infringement finding."[176]

Only time will tell what the longstanding effects of these errors on the extrinsic test will be. Since *Williams v. Gaye*, the Ninth

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168 *Id.* at 1124.

169 *But see* Brianna Bell, Note, *Can Artists Recapture Their Copyrights in Musical Compositions That Have Been Lost to the Public Domain?* Skidmore v. Led Zeppelin *Applied*, 44 CARDOZO L. REV. 1143, 1164 (2023) ("[S]everal of the elements included in Gaye's song recording, such as instruments and his vocal performances that do not appear in the simple melody, cannot be protected under the compositional copyright because they are not also in the deposit copy.").

170 *Williams*, 895 F.3d at 1145 (Nguyen, J., dissenting); *see also* Parhami, *supra* note 133, at 1142 ("Melisma is a commonplace musical technique used in countless songs.").

171 *See* Parhami, *supra* note 133, at 1138–43 (comparing the two songs' similar performance features of notes, rhythms, and melisma).

172 *See* Lund, *Examination*, *supra* note 61, at 143–46.

173 *See* Blurred Lines Jury Instructions, *supra* note 156, at 46; *Williams*, 895 F.3d at 1119 (quoting Swirsky v. Carey, 376 F.3d 841, 845 (9th Cir. 2004)).

174 *See* Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002); Shaw v. Lindheim, 919 F.2d 1353, 1357 (9th Cir. 1990).

175 *See* Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1164 (9th Cir. 1977).

176 Sprigman & Hedrick, *supra* note 8, at 595.

Circuit has reviewed only two music copyright cases.[177] In *Skidmore v. Led Zeppelin*, decided two years after *Williams*, an en banc Ninth Circuit appeared to pull back on *William*'s expansive treatment of the extrinsic test.[178] With respect to protectability, the Ninth Circuit observed that "the deposit copy defines the four corners of the [song's] copyright."[179] Thus, the Ninth Circuit held, the district court did not err in defining the unprotectable elements for itself at summary judgment and instructing the jury that copyright "does not protect ideas, themes or common musical elements, such as descending chromatic scales, arpeggios or short sequences of three notes."[180]

The *Skidmore* majority also finally gave a limiting principle to the "constellation" theory of protectability, noting that "[p]resenting a 'combination of unprotectable elements' without explaining how these elements are particularly selected and arranged amounts to nothing more than trying to copyright commonplace elements."[181] As such, it was proper for the district court to exclude the sound recording (and consequently, its unprotectable performance elements) from evidence.[182] *Gray v. Hudson*, the Ninth Circuit's most recent music copyright ruling, similarly endorsed this more robust conception of the extrinsic test.[183] Even so, the panel in *Gray* continued to cite to *Krofft*'s misstatement that the extrinsic test must consider "similarity of ideas,"[184] suggesting that this muddled understanding of the doctrine is here to stay.

2. Filtration and the Intrinsic Test

Of course, satisfying the extrinsic test is only a necessary, but insufficient, condition for establishing music copyright infringement in the Ninth Circuit. In addition to showing extrinsic

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177 For the two music copyright cases the Ninth Circuit has reviewed, see Gray v. Hudson, 28 F.4th 87 (9th Cir. 2022), and Skidmore v. Led Zeppelin, 952 F.3d 1051 (9th Cir. 2020) (en banc).

178 *See* 952 F.3d at 1064–65 (evaluating the extrinsic test).

179 *Id.* at 1064.

180 *Id.* at 1069 n.10.

181 *Id.* at 1075 (quoting Satava v. Lowry, 323 F.3d 805, 811–12 (9th Cir. 2003)).

182 *Id.* at 1064.

183 28 F.4th 87, 97–102 (9th Cir. 2022).

184 *Id.* at 96 (quoting Swirsky v. Carey, 376 F.3d 841, 845 (9th Cir, 2004)).

substantial similarity, a plaintiff also must prove access and intrinsic similarity.[185] The intrinsic test, which is solely evaluated by the trier of fact, "test[s] for similarity of expression from the standpoint of the ordinary reasonable observer, with no expert assistance."[186] Because the intrinsic test occurs if and only if a claim survives the extrinsic test conducted at summary judgment,[187] the factors considered in undertaking it are directly affected by the extent to which the court has filtered out unprotectable elements. While the intrinsic test was initially intended to serve as an additional safeguard against unprotectable elements influencing jury decisions, its scope has since expanded, rendering the test troublesome and unpredictable.[188]

Like the extrinsic test, the intrinsic test was first announced by the Ninth Circuit in *Krofft*.[189] There, the court explained that only after the court has identified a material issue of extrinsic similarity "in ideas" can the trier of fact then "decide whether there is substantial similarity in the expressions of the ideas so as to constitute infringement . . . depending on the response of the ordinary reasonable person."[190] Given *Krofft*'s erroneous understanding of the extrinsic test, as discussed above, the intrinsic prong was meant to be the "limiting principle" used to "determine whether there has been copying of the expression of an idea rather than just the idea itself."[191] Ironically, while the intrinsic test was intended to ensure that the trier of fact only consider protected expressions, the Ninth Circuit has since turned the doctrine on its head to not only allow,

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185 *Skidmore*, 952 F.3d at 1064.

186 *Id.* at 1064 (quoting Jada Toys, Inc. v. Mattel, Inc., 518 F.3d 628, 637 (9th Cir. 2008)).

187 Williams v. Gaye, 895 F.3d 1106, 1119 (9th Cir. 2018) ("A district court applies only the extrinsic test on a motion for summary judgment, as the intrinsic test is reserved exclusively for the trier of fact.").

188 *See* Amy B. Cohen, *Masking Copyright Decisionmaking: The Meaninglessness of Substantial Similarity*, 20 U.C. DAVIS L. REV. 719, 755–57 (1987); *see also* Lattanza, *supra* note 4, at 726 ("[T]he Ninth Circuit's affirmance of the jury's decision [in *Williams*] inappropriately expanded the scope of copyright protection to the feel or groove of a song.").

189 Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1164 (9th Cir. 1977).

190 *Id.*

191 *Id.* at 1163.

but *encourage*, juries to consider unprotectable elements in conducting this test.

In *Three Boys Music*, the Ninth Circuit drew upon dicta in *Krofft* to redefine the intrinsic test in the context of music copyright as a subjective inquiry asking whether "the ordinary, reasonable person would find the total concept and feel of the works to be substantially similar."[192] This formulation markedly undermines the value of filtration by explicitly inviting juries to consider unprotectable elements of a song during the intrinsic test. As Sprigman and Hedrick explain:

> The formulation quite palpably invites the jury, in exercising its subjective judgment, to include similarities in ideas and other elements of works that the idea/expression distinction places outside the scope of copyright. Indeed, the test specifically directs the factfinder to look for similarities in the works' "total concept," although "concept" is one of the elements that § 102(b) of the Copyright Act explicitly identifies as unprotectable by copyright.[193]

Allowing for such protection is especially problematic in the context of music, as common "feels" can necessarily define a genre through idiosyncratic grooves and beats. Jazz is defined by the groove of swing eighth notes on the cymbals; rock music by straight eighth notes, a four-on-the-floor kickdrum pulse, and a snare drum backbeat; Latin music by interlocking clave, montuno, and tumbao patterns.[194] None of these should be protected under any reasonable understanding of the Copyright Act, as they simply are not "original work[s] of authorship."[195]

Further, "a work's 'feel' can arise from any element, including from unprotectable ideas, general styles and themes, and even

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192 Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485 (9th Cir. 2000) (quoting Pasillas v. McDonald's Corp., 927 F.2d 440, 442 (9th Cir. 1991)).

193 Sprigman & Hedrick, *supra* note 8, at 580.

194 *Compare, e.g.*, OSCAR PETERSON TRIO, *Night Train*, *on* NIGHT TRAIN (Verve Records 1963) (exemplifying Jazz), *with* THE KILLERS, *Mr. Brightside*, *on* HOT FUSS (UMG Recordings 2004) (exemplifying Rock), *with* CHUCHO VALDÉS & PAQUITO D'RIVERA, *Mambo Influenciado*, *on* I MISSED YOU TOO! (Paquito Records 2022) (exemplifying Latin).

195 17 U.S.C. § 102(b).

common elements in the plaintiff's and defendant's works that are scènes à faire or taken from the public domain."[196] In allowing the jury to determine substantial similarity in part on a song's "intractably imprecise" feel,[197] infringement could potentially be found whenever the jury believes that songs have a similar "vibe."[198] But just because, say, the jangly, clean-reverb guitar tones on Vampire Weekend's eponymous debut album evoke shades of Paul Simon's *Graceland*, that should not mean the former is liable for copyright infringement—as Simon said himself: "[We're simply] drawing from the same well . . . . That's the way music grows and is shaped."[199]

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196 Sprigman & Hedrick, *supra* note 8, at 580.

197 *Id.*

198 *See* McPherson, *supra* note 7, at 77–78 n.35. Nor should it matter that Robin Thicke and Pharrell Williams went into the studio *intending* to write a song in the style of Marvin Gaye. *See* Stelios Phili, *Robin Thicke on That Banned Video, Collaborating with 2 Chainz and Kendrick Lamar, and His New Film*, GQ (May 6, 2013), https://www.gq.com/story/robin-thicke-interview-blurred-lines-music-video-collaborating-with-2-chainz-and-kendrick-lamar-mercy [https://perma.cc/9827-NSAZ] ("Pharrell and I were in the studio and I told him that one of my favorite songs of all time was Marvin Gaye's 'Got to Give It Up.' I was like, 'Damn, we should make something like that, something with that groove.'"). Although subjective intent to write like a certain artist indicates access to the allegedly copied material, *see* Three Boys Music Corp. v. Bolton, 212 F.3d 477, 482 (9th Cir. 2000), substantial similarity requires copying of "concrete elements based on objective criteria." *Id.* at 485. But Marvin Gaye does not retain a monopoly over songs that sound "like" the archetypical Marvin Gaye song any more than other seventies funk artists like James Brown or The Commodores would. *Compare* MARVIN GAYE, *Got to Give it Up – Pt. 1*, *on* GOT TO GIVE IT UP (Tamla Records 1977), *with* JAMES BROWN, *Get Up Offa That Thing*, *on* GET UP OFFA THAT THING (Polydor Records 1976), *and* THE COMMODORES, *Brick House*, *on* COMMODORES (Motown Records 1977). Where no protectable elements of a song are copied, copyright law is not implicated.

199 Evan Schlansky, *Paul Simon Defends Vampire Weekend*, AM. SONGWRITER (Mar. 17, 2011, 3:23 PM), https://americansongwriter.com/paul-simon-defends-vampire-weekend [https://perma.cc/49RP-Y7CF]. *Compare* VAMPIRE WEEKEND, *Cape Cod Kwassa Kwassa*, *on* VAMPIRE WEEKEND (XL Recordings 2008), *with* PAUL SIMON, *Under African Skies*, *on* GRACELAND (Warner Bros. Records 1986). Simon's *Graceland*, in turn, was directly inspired by "the street music of Soweto, South Africa." Stephen Holden, *Paul Simon Brings Home the Music of Black South Africa*, N.Y. TIMES (Aug. 24, 1986), https://www.nytimes.com/1986/08/24/arts/paul-simon-brings-home-the-music-of-black-south-africa.html [https://perma.cc/J9TE-QYHQ]. For an example of this truly wonderful music, see AMASWAZI EMVELO, *Thul'ulalele*, *on* THUL'ULALELE (Ezom Dabu 1981).

A proper application of the extrinsic test would work to limit the most egregious implications of this expansive rule by filtering out unprotectable elements. Doing otherwise would circumvent the essential rule that copyright infringement may be established only if "the *protectible elements, standing alone*, are substantially similar."[200] However, the Ninth Circuit's consistent failure to determine protectability and insistence that "substantial similarity can be found in [any] combination of [unprotectable] elements"[201] makes it so unprotectable that elements nonetheless slip though the sieve of filtration and to the jury's purview.

Resultantly, the breakdown of the extrinsic test in *Williams v. Gaye* unleashed the jury to reify the most concerning implications of an intrinsic test based simply upon substantial similarity in feel.[202] Because the trial court failed to filter out all musical elements that were not in the deposit copy, the jury was exposed to testimony on and evidence of unprotectable elements.[203] While the court excluded the sound recording from being used as evidence, the reductions played for the jury still "contained unprotectable elements, such as the keyboard parts, bass melodies, and Marvin Gaye's vocals," which were not explicitly notated in the deposit copy.[204] As such, when the jury was ultimately instructed to assess whether the "total concept and feel" of the songs were substantially similar,[205] the confounding presence of keyboard comping and basslines—two foundational components of a song's groove[206]—made a finding of copyright infringement all but inevitable.

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200 Skidmore v. Led Zeppelin, 952 F.3d 1051, 1070 (9th Cir. 2020) (en banc) (quoting Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002)).

201 Williams v. Gaye, 895 F.3d 1106, 1119–20 (9th Cir. 2018) (quoting Swirsky v. Carey, 376 F.3d 841, 845 (9th Cir, 2004)); *accord* Metcalf v. Bochco, 294 F.3d 1069, 1073–74 (9th Cir. 2002); Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485–86 (9th Cir. 2000).

202 *See supra* notes 151–63 and accompanying text.

203 *See* Lattanza, *supra* note 4, at 745.

204 *Williams*, 895 F.3d at 1126.

205 Blurred Lines Jury Instructions, *supra* note 156, at 46.

206 *See* Ingrid Monson, *Doubleness and Jazz Improvisation: Irony, Parody, and Ethnomusicology*, 20 CRITICAL INQUIRY 283, 296 (1994) ("The accompaniment (what musicians call 'the groove' or rhythmic 'feel') consists of three independent yet interlocking parts played by the drums, piano, and bass."). Professor Monson also argued that "musicians borrow, quote, transform, and invert music from all sorts of repertories in

The intrinsic test remains downstream of its extrinsic counterpart. If the extrinsic test fails to properly filter between protectable and unprotectable elements, juries will continue to find substantial similarity "based on external criteria from the sound recording or unprotectable sonic and performance qualities."[207] And given the Ninth Circuit's "history of reluctance to articulate a detailed standard for courts to follow in . . . music copyright cases," it is far from certain that these doctrinal lines will become unblurred any time soon.[208]

3. Evidentiary Answers to the Filtration Problem

The most immediate consequence of the Ninth Circuit's filtration problem is the doctrine's lack of clarity as to which audio representations of the songs at issue may be played for the jury as evidence of substantial similarity. Because only "protectible elements, standing alone" are (at least nominally) the only doctrinally relevant factors in determining substantial similarity,[209] exposing the jury to the commercial recording would introduce extraneous elements of a song not protected by copyright that may confuse and mislead the jury in violation of the Federal Rules of Evidence.[210] Recall, copyright protections for musical compositions and musical sound recordings are distinct from one another.[211] Composition copyright protects only original musical expressions, traditionally understood

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their musical play; they ask audiences and other musicians to delight in their musical and social knowledge." *Id.* at 313. However, Professor Monson served as one of the expert witnesses for the plaintiffs in *Williams v. Gaye*, arguing that Pharrell and Thicke delighted too much in their musical knowledge of Gaye's piece. *See* 895 F.3d at 1126–27.

207 Mark Kuivila, Note, *Exclusive Groove: How Modern Substantial Similarity Law Invites Attenuated Infringement Claims at the Expense of Innovation and Sustainability in the Music Industry*, 71 U. MIA. L. REV. 238, 262 (2016).

208 Ranger-Murdock, *supra* note 94, at 1099.

209 Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002) (emphasis omitted).

210 FED. R. EVID. 403; *see also* Skidmore v. Led Zeppelin, 952 F.3d 1051, 1065 (9th Cir. 2020) (en banc) ("To prevent the jury from making an erroneous comparison for determining substantial similarity, the court properly excluded the sound recording, which contains performance elements that are not protected by the . . . deposit copy.").

211 Both are protected under the Copyright Act of 1976, but only musical compositions are protected under the 1909 Act. *See* Lund, *Examination*, *supra* note 61, at 141–42.

as a song's "rhythm, harmony, and melody,"[212] whereas recording copyright protects idiosyncratic "performance choices that differentiate one version of the same song from another," and is generally limited to narrow issues of reproduction and sampling, rather than stylistic inspiration.[213] Thus, "[p]laying sound recordings to juries in a Composition Copyright case may be unduly prejudicial because it creates an unavoidable risk" that juries will base their findings of substantial similarity of unprotectable performance elements.[214] Any instructions to ignore these elements in their consideration, "in effect, to 'un-hear' or 'un-see' them [are] unlikely to be effective in practice."[215]

However, that has not stopped the courts of the Ninth Circuit from allowing full recordings to be played to the judge at summary judgment or to the jury at trial.[216] In such instances, "[t]he recordings . . . are intended only as a vehicle for presenting evidence of the

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[212] 1 NIMMER, *supra* note 58; *see also* Newton v. Diamond, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002) ("A musical composition consists of rhythm, harmony, and melody, and it is from these elements that originality is to be determined."), *aff'd*, 388 F.3d 1189, 1190 (9th Cir. 2004).

[213] Lund, *Examination*, *supra* note 61, at 145–46. For example, neither recording nor composition copyright would be implicated by a rendition of the nursery rhyme "B-I-N-G-O" in the style of the Pixies. *See* ADAM HORNE, *B-I-N-G-O (The Pixies)*, *on* INDIE KIDZ SONGS (2013). In turn, composition copyright, but not recording copyright, would be implicated by a rendition of the Pixies' song "Where Is My Mind?" as a lullaby. *See* PIXIES, *Where Is My Mind?*, *on* SURFER ROSA (4AD 1988); ROCKABYE BABY!, *Where Is My Mind?*, *on* LULLABY RENDITIONS OF PIXIES (CMH Records 2008). Recording copyright would only come into play if another artist used the recording of "Where Is My Mind?" in a new work. *See, e.g.*, M.I.A., *20 Dollar*, *on* KALA (XL Recordings 2007) (sampling "Where Is My Mind?"). This is why singer-songwriter Taylor Swift—who owns the *composition* copyright to songs she has written—is able to re-record and re-release her music without incurring liability, even though she does not hold the *recording* copyright to the original masters. *See, e.g.*, Justin Tilghman, *Exposing the "Folklore" of Re-Recording Clauses (Taylor's Version)*, 29 J. INTELL. PROP. L. 402, 408–10 (2022); *compare* TAYLOR SWIFT, RED (Big Machine Records 2012), *with* TAYLOR SWIFT, RED (TAYLOR'S VERSION) (Republic Records 2021).

[214] Lund, *Examination*, *supra* note 61, at 140.

[215] Sprigman & Hedrick, *supra* note 8, at 591.

[216] *See* Newton v. Diamond, 388 F.3d 1189, 1195–96 (9th Cir. 2004); *see also* Williams v. Bridgeport Music, Inc., 2014 WL 7877773, at *9 n.12 (C.D. Fla. Oct. 30, 2014) ("[T]he consideration by the jury of the sound recording [in *Three Boys Music*] was deemed harmless error in light of the sufficiency of other trial evidence . . . which supported the determination of infringement by the jury." (citing Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485–86 (9th Cir. 2000))).

underlying musical composition . . . of which the recording is merely an expression."[217] This evidentiary nuance is inherently problematic. As Lund notes, "playing an audio recording invites the juror to make the wrong comparison by comparing the sound recordings rather than the compositional elements underlying each recording."[218] This problem is further compounded by most lay jurors' lack of musical training and expert witnesses' ability to wax poetic on minute similarities in unprotectable elements in the recordings.[219]

Where filtration does occur, courts have allowed several different methods for presenting evidence of the song's compositional elements short of playing the full recording. Occasionally, parties have been able to perform their works for the jury during witness testimony.[220] The efficacy of this evidentiary decision appears to be mixed. On the one hand, requiring performance of a song is potentially a suitable means of demonstrating how a musician would interpret the composition as noted in the deposit copy. This was the path the district court took in *Skidmore*.[221] Because the deposit copy of the plaintiff's song "Taurus" did not transcribe the guitar melody, the in-court performance of the song based on the lead sheet alone almost certainly led the jury to believe the song was less similar to *Stairway to Heaven* than it would have had they listened to both

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217 Lund, *Examination*, *supra* note 61, at 139.

218 *Id*.

219 *See id*.; Miah Rosenberg, Note, *Do You Hear What I Hear? Expert Testimony in Music Infringement Cases in the Ninth Circuit*, 39 U.C. DAVIS L. REV. 1669, 1682–84 (2006); *see also Three Boys Music*, 212 F.3d at 485 (allowing plaintiffs' expert to testify that the songs at issue were substantially similar because they both included a fade out).

220 *See, e.g.*, Skidmore v. Led Zeppelin, 952 F.3d 1051, 1063 (9th Cir. 2020) (en banc); Max Matza, *Ed Sheeran Sings and Plays Guitar at Copyright Trial in New York*, BBC NEWS (Apr. 28, 2023), https://www.bbc.com/news/world-us-canada-65420860 [https://perma.cc/M9Z6-6J2C]; Joe Daly, *That Time John Fogerty Was Sued for Plagiarising John Fogerty*, LOUDER (Dec. 30, 2022), https://www.loudersound.com/features/that-time-john-fogerty-was-sued-for-plagiarising-john-fogerty [https://perma.cc/8QNC-LYPU] ("In one of rock's most bizarre moments of the 80s, John Fogerty sat in the witness box with a guitar on his lap and explained to the jurors what . . . must have seemed obvious to the entire courtroom—of course the two songs are going to sound the same, considering that they were written and performed by the same artist in that artist's signature swampy style.").

221 952 F.3d at 1063.

recordings.[222] In this instance, limiting audio evidence to performance of the deposit copy seems to have been beneficial, as the jury could only base its verdict on protectable elements.

On the other hand, where the live performance is done by the musician himself, "the presence of the star . . . in the courtroom [may] have a perceptible impact on the jury."[223] For instance, in *Fantasy, Inc. v. Fogerty*, Creedence Clearwater Revival frontman John Fogerty was sued for composition infringement on his own song "Run Through the Jungle" by its then-copyright holder.[224] As part of his defense, Fogerty took the stand with his guitar in hand to demonstrate how this song and later compositions of his were substantively different.[225] According to one contemporaneous account, "[b]y the end of the afternoon, Fogerty had regaled the jurors, court and audience with 'Proud Mary,' 'Down on the Corner,' 'Green River,' 'Born on the Bayou,' 'Run through the Jungle,' 'Tombstone Train,' 'Fortunate Son,' and 'Have You Ever Seen the Rain.'"[226] In a more-recent case, Ed Sheeran was allowed to take his guitar on the stand while testifying to defend against the claim that his song, "Thinking Out Loud," violated the copyright of Marvin Gaye's "Let's Get it On."[227] The jury returned a verdict for the performer-

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[222] *See* Sara Baumgardner, *The "I Know It When I Hear It" Test: Decreasing Overdependence on Sheet Music in Substantial Similarity Cases*, 56 GONZ. L. REV. 351, 375 (2020) ("Because the court refused to allow the jury to hear the recordings, the jury heard only Skidmore's 'master guitarist' Kevin Hanson perform a rendition of the deposit copy. However, Hanson's rendition of 'Taurus' contained only 'the bass clef and excluded the treble clef, which contained additional, [higher] notes' that would have provided the complete picture of the song's opening."(quoting *Skidmore*, 952 F.3d at 1063) (alteration in original)).

[223] Maureen Baker, Note, *La[w]—A Note to Follow So: Have We Forgotten the Federal Rules of Evidence in Music Plagiarism Cases?*, 65 S. CAL. L. REV. 1583, 1586 n.19 (1992).

[224] 984 F.2d 1524, 1526 (1993) (noting that prior to this case, Fogerty sold the composition copyright to many of his songs, meaning that he, in fact, could be sued for copying songs that he had written).

[225] *Famed Musician Plays Blues for Jury*, UPI (Oct. 31, 1988), https://www.upi.com/Archives/1988/10/31/Famed-musician-plays-blues-for-jury/1424594277200/ [https://perma.cc/8GVH-HB52].

[226] *Id*.

[227] Matza, *supra* note 220.

defendant in both cases.[228] Under these circumstances, while the jury may not have been exposed to unprotectable elements of these songs, "the defendant's popularity" and willingness to provide an in-court rendition of some of their most recognizable hits of the time may have unfairly influenced the jury in the defendant's favor,[229] presenting an unintended consequence of this filtration method.

Another strategy that courts have used to mitigate the filtration problem is to allow plaintiffs to introduce a reduction of the sound recording that only includes the protected elements. This was the course taken by the district court in *Williams v. Gaye*.[230] In theory, such reductions serve the dual purpose of excluding extraneous material while not wholly rendering the audio representation of the composition hollow and artificial. Problems arise, however, where the court abdicates its role in determining which elements are protected and allows each side to prepare its own reductions, as was the case in *Williams*. For example, while "Got to Give It Up's" melody was undisputedly transcribed on the deposit copy, and thus protected by composition copyright, Marvin Gaye's individual performance of that melody—and all its stylistic idiosyncrasies—was not.[231] And yet, Gaye's vocals on the commercial recording, as well as interpretations of other elements not explicitly transcribed on the lead sheet such as the bass and keyboard parts, were included in plaintiffs' expert's reduction.[232] If partisan experts' transcriptions "deviate from the sheet music,"[233] these reductions can still confuse the jury as to the extent of protectability and potentially allow experts to sneak in commentary on unprotectable elements, as lay juries may not be

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228 *See Fantasy, Inc.*, 984 F.2d at 1526; Lauren del Valle, *Jury Finds Ed Sheeran Did Not Infringe on the Copyright of 'Let's Get It On'*, CNN, https://www.cnn.com/2023/05/04/media/ed-sheeran-verdict/index.html [https://perma.cc/W5SK-3BXS] (May 4, 2023, 04:03 PM); Final Judgment, Griffin v. Sheeran, No. 17-cv-5221 (S.D.N.Y. May 5, 2023), ECF No. 277.

229 Baker, *supra* note 223, at 1586.

230 895 F.3d 1106, 1125 (9th Cir. 2018).

231 Bell, *supra* note 169, at 1164.

232 *Williams*, 895 F.3d at 1125–1126.

233 *Id.* at 1126 n.13.

equipped to determine "whose interpretation of the deposit copy to credit."[234]

Lastly, courts have limited audio representations of compositions to piano adaptations of the songs at issue, although this practice appears to have fallen out of favor.[235] This method most aggressively serves the interest of filtration, as no performance elements from the sound recording are played to the jury. Still, this most restrictive reduction technique is not without its flaws, especially when the piano accompaniment is performed live for the jury.[236] Each method of evidentiary filtration comes with its own costs and benefits. Troublingly, though, there appears to be little standardization across cases with respect to how evidence of compositions is aurally presented. A district court's ruling on this issue potentially could make or break the outcome of a case. For instance, had the plaintiffs in *Skidmore* been able to play either the sound recording of "Taurus" or a reduction that included "'additional, [higher] notes' that would have provided the complete picture of the song's opening,"[237] it appears more likely that the jury would have returned a verdict for the plaintiff.[238] Likewise, filtering out the groove-creating elements like the bassline and rhythmic comping from the recording of "Got to Give It Up" played during the *Williams* trial quite possibly would have made the case come out the other way.

While we can never truly know these counterfactuals, this Article seeks to assess the extent to which varying levels of filtration from a song's sound recording is associated with the likelihood that a juror will find substantial similarity between the songs. The doctrine of filtration rests on the assumption that the notes played—or

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234 *Id.* at 1126.

235 *See, e.g.*, N. Music Corp. v. King Rec. Distrib. Co., 105 F. Supp. 393, 398 (S.D.N.Y. 1952); Carew v. R.K.O. Radio Pictures, 43 F. Supp. 199, 200–01 (S.D. Cal. 1942); Wilkie v. Santly Bros., 91 F.2d 978, 979–80 (2d Cir. 1937); Arnstein v. Edward B. Marks Music Corp., 11 F. Supp. 535, 535 (S.D.N.Y. 1935).

236 *See* William R. Coulson, *They're Playing Our Song! The Promise and the Perils of Music Copyright Litigation*, 13 J. MARSHALL REV. INTELL. PROP. L. 555, 574 (2014).

237 Baumgardner, *supra* note 222, at 375 (alteration in original).

238 *See* Brandon Evans, *Stairway to Heaven, but Not to the Supreme Court:* Skidmore v. Led Zeppelin, VAND. J. ENT. & TECH. L. BLOG (Oct. 25, 2020), https://www.vanderbilt.edu/jetlaw/2020/10/25/01-15 [https://perma.cc/LEE7-9Q4H].

not played—during trial matter.[239] However, the literature has yet to support this belief with any empirical evidence. We will now take the first step in filling that gap.

II. "PROVE MY HYPOTHESIS": AN EMPIRICAL APPROACH TO UNDERSTANDING THE FILTRATION PROBLEM

This Part now turns to examine the extent to which the type of audio representation of a composition a juror is exposed to is associated with her ultimate assessment of substantial similarity.[240] This is not the first study to use original survey data to gain insight into how the lay listener assesses allegations of music copyright infringement. In fact, a growing literature situated at the intersection of music copyright law and empirical legal studies has emerged over the last decade.[241]

In 2011, Jamie Lund broke ground on this discipline by using quasi-experimental data to "to evaluate the internal validity and reliability of the Lay Listener Test in Composition Copyright cases" by assessing "the ability of jurors to understand the criteria for a finding of substantial similarity as stated in the jury instruction."[242] To do so, Lund exposed study participants to the song-pairs at issue in *Swirsky v. Carey*[243] and *Gaste v. Kaiserm*,[244] where half of the participants "heard the compositions in each pair performed in a similar manner (tempo, orchestration, key, and style), and the other [half] heard the compositions in each pair performed differently."[245]

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239 *See* Sprigman & Hedrick, *supra* note 8, at 590 ("[Reductions] are crafted to prevent the jury from inappropriately considering unprotectable elements (consciously or accidentally) by preventing unprotectable elements from being presented to the jury in the first place.").

240 For Part II's title reference, see DEATH CAB FOR CUTIE, *Prove My Hypotheses*, *on* YOU CAN PLAY THESE SONGS WITH CHORDS (Barsuk Records 2002).

241 *See, e.g.*, Edward Lee & Andrew Moshirnia, *Does Fair Use Matter? An Empirical Study of Music Cases*, 94 S. CAL. L. REV. 471, 476 (2021) [hereinafter Lee & Moshirnia, *Fair Use*]; Lee & Moshirnia, *Experts*, *supra* note 16, at 740; Lund, *Examination*, *supra* note 61, at 140; Lund, *Fixing*, *supra* note 139, at 70.

242 Lund, *Examination*, *supra* note 61, at 152.

243 376 F.3d 841 (9th Cir. 2004).

244 669 F. Supp. 583 (S.D.N.Y. 1987), *aff'd*, 863 F.2d 1061 (2d Cir. 1988).

245 Lund, *Examination*, *supra* note 61, at 158.

In her study, Lund found the manner of performance to significantly bear on listeners' outcomes, concluding that "similar performance was associated with a greater likelihood that participants would indicate copying had occurred," despite the versions played to each group being compositionally identical.[246] In her 2013 follow-up, Lund provided nuances to her prior findings by observing that "musicians are capable of hearing and comprehending compositional elements of songs in a way that laypeople cannot, even after laypeople receive limited musical training."[247]

Recent scholarship provides further evidence for Lund's claims. For instance, Edward Lee and Andrew Moshirnia's investigation into how expert testimony influences juror outcomes found that "duelling experts had little to no effect on lay subjects who lacked prior music knowledge, but did have an effect on subjects with [musical] knowledge."[248] Additionally, a number of studies using observational data on outcomes in substantial-similarity cases have provided descriptive insights into trends in the courts' application of the doctrine over the past century.[249]

Through this Article, I hope to add to this growing scholarly conversation by building off of these validated study designs to specifically look at how jurors respond to differing audio representations of musical compositions. This Part details the methodology used to answer this question. Section II.A describes my research instrument, an original quasi-experimental survey, which is heavily inspired by that used by Lee and Moshirnia in their studies on the

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246 *Id.* at 166.

247 Lund, *Fixing*, *supra* note 139, at 78.

248 Lee & Moshirnia, *Experts*, *supra* note 16, at 748. Lee & Moshirnia employed a similar research instrument in another study surveying how juror outcomes differ under the substantial-similarity and fair-use standards. *See* Lee & Moshirnia, *Fair Use*, *supra* note 241, at 521.

249 *See, e.g.*, Clark D. Asay, *An Empirical Study of Copyright's Substantial Similarity Test*, 13 U.C. IRVINE L. REV. 35, 56 (2022); Daryl Lim, *Saving Substantial Similarity*, 73 FLA. L. REV. 591, 591 (2021); Eric Rogers, Comment, *Substantially Unfair: An Empirical Examination of Copyright Substantial Similarity Analysis Among the Federal Circuits*, 2013 MICH. ST. L. REV. 893, 915; Katherine Lippman, Note, *The Beginning of the End: Preliminary Results of an Empirical Study of Copyright Substantial Similarity Opinions in the U.S. Circuit Courts*, 2013 MICH. ST. L. REV. 513, 539.

subject.[250] Section II.B then outlines the empirical strategy employed to analyze this data.

A. Experimental Study Design

To evaluate whether jurors disparately perceive similarities in the elements of musical composition based on the audio representation of those elements played for them, I conducted a self-administered survey consisting of 633 participants who completed the survey.[251] As a preliminary matter, subjects were asked to report demographic information, including age, sex, race, level of education, musical experience, ability to read music, music tastes, and listening habits.[252] After reporting these data, each participant began the process of evaluating substantial similarity with respect to one pair of songs. Participants were then randomly assigned a group corresponding to the audio representation of each song in the pair they were exposed to. The possible audio representations were: (1) the commercial recording; (2) a MIDI reduction consisting of the recording's vocal melody mixed with digital harmony and bass parts;

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[250] For an outline of Lee & Moshirnia's methodology, see Lee & Moshirnia, *Experts*, *supra* note 16, at 735–46; Lee & Moshirnia, *Fair Use*, *supra* note 241, at 522–32.

[251] 140 people abandoned the survey before completion, so their responses were not recorded.

[252] Age was reported as an interval-level variable. Sex was reported as a binary variable. Following Lee & Moshirnia, level of education was reported as a categorical variable, presenting the options of "no high school education," "high school education," "some college education," "associate's degree," "bachelor's degree," "master's degree," and "professional degree or doctorate." *See* Lee & Moshirnia, *Experts*, *supra* note 16, at 738. Participants were also asked to report their racial identification from the choices "American Indian or Alaska Native," "Asian," "Black or African American," "Hispanic or Latino," "Pacific Islander," "White," or "Other." To assess musical training, participants were first asked whether they play an instrument. If the respondent answered "yes" to that question, they were then asked to report how many years they have played that instrument. Ability to read music was reported as a binary variable. For music taste, participants were asked to note whether they self-identified as fans of the genres doo-wop, classic rock, funk/R&B, pop, hip hop, jazz, and alternative/indie rock. Participants could select as many genres as applicable. Music-listening habits were reported as a categorial variable, corresponding to average number of hours per day the participant listens to music. The options ranged from "less than one hour per day" to "4+ hours per day," with each hour interval in between being presented.

or (3) a digital piano reduction.[253] After listening to both songs, participants then watched two short videos summarizing the respective arguments for and against a finding of substantial similarity.[254] Across all the three groups within each song-pair, these videos only differed in the audio representation used to demonstrate the composition discussed. All participants were then given uniform jury instructions for the extrinsic and intrinsic tests and were asked to determine whether the songs at issue were substantially similar under each test.[255] The following subsections outline the research instrument in detail.

1. Selecting Song Pairs

Following Lee and Moshirnia,[256] the survey asked subjects to evaluate substantial similarity with respect to one of two pairs of songs: either "He's So Fine" by The Chiffons and "My Sweet Lord" by George Harrison ("*My Sweet Lord* Pair"); or "Got to Give it Up" by Marvin Gaye and "Blurred Lines" by Robin Thicke, Pharrell Williams, and Clifton Harris, Jr. ("*Blurred Lines* Pair").[257]

According to their 2022 article, Lee and Moshirnia chose these songs not only because they were each "involved in successful copyright infringement actions . . . ensur[ing] that a trier of fact could find liability," but also because each pair represents a different

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253 *See* discussion *infra* Section II.A.1. This study did not include live performance as a category of audio representation, as its efficacy appears to be strongly influenced by the star power of the performer. *See supra* notes 220–29 and accompanying text. The content of this simulation would need to greatly differ from that of the other audio-representation categories, potentially introducing confounding variables to the study design. Still, the relative effect of live performances on findings of substantial similarity is a worthwhile research question and merits empirical investigation in future scholarship.

254 *See* discussion *infra* Section II.A.2.

255 *See* discussion *infra* Section II.A.3.

256 *See* Lee & Moshirnia, *Experts*, *supra* note 16, at 740–41; Lee & Moshirnia, *Fair Use*, *supra* note 241, at 525–26.

257 For the *My Sweet Lord* Pair, compare GEORGE HARRISON, *My Sweet Lord*, *on* ALL THINGS MUST PASS (Apple Records 1970), with THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE (Laurie Records 1963). For the *Blurred Lines* Pair, compare MARVIN GAYE, *Got to Give it Up – Pt. 1*, *on* GOT TO GIVE IT UP (Tamla Records 1977), with ROBIN THICKE, *Blurred Lines*, *on* BLURRED LINES (Interscope Records 2013).

degree of within-pair similarity.[258] Lee and Moshirnia consider the *My Sweet Lord* Pair the "high similarity" pair and the *Blurred Lines* Pair the "low similarity" pair.[259] These classifications are supported by commentaries on the two cases.[260] As the court reviewing the *My Sweet Lord* case concluded, "it is clear that My Sweet Lord is the very same song as He's So Fine with different words"—a point which George Harrison essentially acknowledged at trial.[261] On the contrary, "The *Blurred Lines* case was unique," as "Blurred Lines" and "Got to Give It Up" do not share any "melodic phrase[s]," chords patterns, structural similarities, or lyrics.[262]

This Article concurs with this taxonomy. With respect to melody, the *My Sweet Lord* Pair is "virtually identical except for one

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[258] Lee & Moshirnia, *Experts*, *supra* note 16, at 740. For the referenced successful copyright infringement actions, see generally Bright Tunes Music v. Harrisongs Music, Ltd., 420 F. Supp. 177 (S.D.N.Y. 1976); Williams v. Gaye, 895 F.3d 1106 (9th Cir. 2018). *Bright Tunes Music* was not litigated in the Ninth Circuit, and the chief doctrinal difference between the frameworks applied by the Second and Ninth Circuits is that the former's test "does not differentiate between extrinsic and intrinsic analysis." Swirsky v. Carey, 376 F.3d 841, 849 n.16 (9th Cir. 2004). Nevertheless, the songs at issue in *Bright Tunes Music* were chosen for this study because of their similarities and previous use in the literature. This experiment, like the work of Lee & Moshirnia, is not intended to serve as formal revision on that litigation. *See* Lee & Moshirnia, *Experts*, *supra* note 16, at 741.

[259] Lee & Moshirnia, *Experts*, *supra* note 16, at 740–41.

[260] There is much commentary supporting the view that the *Blurred Lines* Pair is not substantially similar. *See, e.g.*, Stephen Carlisle, *The "Blurred Lines" Verdict: What It Means for Music Now and in the Future*, NOVA SE. U.: OFF. COPYRIGHT (Mar. 19, 2015), http://copyright.nova.edu/blurred-lines-verdict (last visited Jan. 11, 2024); Rick Beato, *Blurred Lines vs. Got To Give It Up Judgment $5.3 Million*, YOUTUBE (Dec. 14, 2018), https://www.youtube.com/watch?v=-1COYitP8hI [https://perma.cc/L3GF-SUJP]; Andy Hermann, *Beyond 'Blurred Lines': How Forensic Musicology Is Altering Pop's Future*, ROLLING STONE (Apr. 4, 2018), https://www.rollingstone.com/pro/features/beyond-blurred-lines-how-forensic-musicology-is-altering-pops-future-204986 [https://perma.cc/DF3Q-72ZM]. For commentary supporting the view that the *My Sweet Lord* Pair is substantially similar, see Tom Breihan, *The Number Ones: George Harrison's "My Sweet Lord"*, STEREOGUM (Jan. 18, 2019, 11:39 AM), https://www.stereogum.com/2028987/the-number-ones-george-harrisons-my-sweet-lord/columns/the-number-ones [https://perma.cc/89MU-S78S]; FabFourArchivist, *George Harrison's $1.6 Million Mistake*, YOUTUBE (Dec. 20, 2019), https://www.youtube.com/watch?v=ksZDMx6-cJY [https://perma.cc/H9SK-5E9L].

[261] *Bright Tunes Music*, 420 F. Supp. at 180–81.

[262] McPherson, *supra* note 7, at 67–68.

phrase" in each song's Motifs A and B.[263] Motif A is the same harmonically in each song, with both following the same chord progression.[264] The court in *Bright Tunes Music*, however, was incorrect to note that "[t]he harmonies of both songs are identical."[265] This statement is only true for the section of each song containing Motif A. For "My Sweet Lord," the chords change in Motif B, whereas in "He's So Fine," all of Motif B remains on the tonic chord.[266] Still, the melodic similarities throughout and harmonic similarities in Motif A at least render these songs relatively more similar than those at issue in the *Blurred Lines* Pair. There, melodic similarities did not exist at all "on a note-for-note level."[267] Nor were the chord progressions similar between the two songs. Rather, the similarities between "Blurred Lines" and "Got to Give It Up" were either in the songs' unprotectable funk grooves, occurred at random, or were otherwise trivial.[268]

This study also chooses to use the same song-pairs as those used by Lee and Moshirnia to ensure the internal validity of the research

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[263] *Bright Tunes Music*, 420 F. Supp. at 180. The district court in *Bright Tunes Music* used "Motif A" to refer to the section in each song featuring the "basic musical phrase, 'sol-mi-re.'" *Id.* at 178. In "My Sweet Lord," this motif is sung exclusively using the lyrics "My sweet Lord" (or a variation thereof) and would most naturally be the chorus of the song, as it is repeated throughout. *See* GEORGE HARRISON, *My Sweet Lord*, *on* ALL THINGS MUST PASS (Apple Records 1970). In "He's So Fine," this motif is first sung using the lyrics "He's so fine" and is best described as the verse of the song. *See* THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE (Laurie Records 1963). "Motif B" refers to the melodic phrase in each song built around the solfège degrees "sol-la-do-la-do." *See Bright Tunes Music*, 420 F. Supp. at 178. In "My Sweet Lord," this motif is first sung on the lyrics "I really want to see you" in the song's first verse. *See* GEORGE HARRISON, *My Sweet Lord*, *on* ALL THINGS MUST PASS (Apple Records 1970). In "He's So Fine," Motif B is first sung on the lyrics "I don't know how I'm gonna do it." *See* THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE (Laurie Records 1963). Because of the usual structures of these songs, this Article will refer to these sections in the same manner as the district court in *Bright Tunes Music*.

[264] The chords for Motif A follow a repeating ii-V progression, resolving on the I chord on the downbeat of Motif B.

[265] *Bright Tunes Music*, 420 F. Supp. at 178.

[266] In "My Sweet Lord," the harmony of Motif B is a repeating I-vi progression with a ii^{o}/ii-V^{7}/ii turnaround back to Motif A. "He's So Fine" simply remains on the I chord for the entirety of its comparable section. *Compare* GEORGE HARRISON, *My Sweet Lord*, *on* ALL THINGS MUST PASS (Apple Records 1970), *with* THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE (Laurie Records 1963).

[267] Lee & Moshirnia, *Experts*, *supra* note 16, at 744.

[268] *See* Ranger-Murdock, *supra* note 94, at 1078.

instrument. When employed in their previous studies, this selection of song-pairs yielded results that were consistent with the literature and "comport with findings . . . on copyright infringement decisions in light of [participants'] musical . . . training."[269]

2. Treatment Variables for Audio Representation

For this study, the explanatory variable of interest is the audio representation of the composition played for the participant. For their assigned song-pair, participants would listen to an excerpt of either the commercial recording, a reduction consisting of only a vocal melody, harmony part, and bassline (the "MIDI Reduction"), or a piano reduction of the songs at issue. To ensure that participants listened to the songs, the survey instrument included time requirements on each page corresponding to the length of each audio file. The order in which participants heard the song was randomized.

For the commercial recordings, the excerpts played for each song in a song-pair were of similar compositional length and reflected comparable sections of the two songs.[270] The recordings were transposed into the same key and standardized to a median tempo.[271] The purpose of this category was to represent the polar

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[269] Lee & Moshirnia, *Experts*, *supra* note 16, at 748–49.

[270] For the *Blurred Lines* Pair, the "Got to Give It Up" excerpt consisted of the introduction and first time through the form. MARVIN GAYE, *Got to Give it Up – Pt. 1*, *on* GOT TO GIVE IT UP, at 00:00–00:52 (Tamla Records 1977). The "Blurred Lines" excerpt comprised the introduction and first two times through the form. ROBIN THICKE, *Blurred Lines*, *on* BLURRED LINES, at 00:00–00:52 (Interscope Records 2013). For both songs in the *My Sweet Lord* Pair, the "He's So Fine" excerpt consisted of the twice through Motifs A & B. THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE, at 00:00–00:58 (Laurie Records 1963); GEORGE HARRISON, *My Sweet Lord*, *on* ALL THINGS MUST PASS, at 00:30–01:40 (Apple Records 1970). The audio representations used in this study are available at https://thenotesyoudontplay.weebly.com/audio-files.html [https://perma.cc/SV57-VE3F] (last visited Feb. 8, 2024).

[271] *See* Declaration of Sandy Wilbur ¶¶ 74–75, Williams v. Bridgeport Music, Inc., No. 13-cv-06004, 2014 WL 877773 (C.D. Cal. Oct. 30, 2014) (presenting comparison of songs after transposing them to the same key). The *Blurred Lines* Pair was transposed to the Key of $A^{\flat}$ Major and each songs' tempo remained at 120 beats per minute ("BPM"). The *My Sweet Lord* Pair was transposed to the Key of F Major and each songs' tempo was changed to 132 BPM. As "My Sweet Lord" was recorded in E Major and "He's So Fine" in G Major, there is no one closest-median key. F Major was chosen, as opposed to $F^{\sharp}$ Major,

extreme of zero filtration, as the audio representation played to the participant would include all unprotectable performance elements—including drum parts, timbre, instrumentation, and vocal stylings.

The MIDI reductions were excerpted to reflect the same musical passages for each song as those demonstrated by the commercial recording excerpts.[272] However, these reductions only included a representation of a song's harmony, melody, and bassline. For the melody parts, isolated vocals from the commercial recordings were used. This included both the main vocal lines as well as any background vocals, such as the comparable "Hare Krishna" and "Do-lang-do-lang" call-and-response parts in "My Sweet Lord" and "He's So Fine," respectively.[273] Harmony parts—reflecting the chord changes of each song—were programmed and performed on digital instruments. The rhythm and timbre of the comping instruments were derived from their counterparts in the respective commercial recordings.[274] Likewise, the bassline for each song was transcribed from the commercial recording. For the songs in the *My Sweet Lord* Pair, this part was digitally performed using an electric bass patch. The bassline in each song in the *Blurred Lines* Pair was digitally programmed and played on both an electric bass and electric piano patch. Again, the songs in each pair were transposed to the same key and their beats-per-minute were averaged to be played at the same tempo.

This category of audio representation aims to demarcate a middle ground between the other two categories in terms of filtration. On the one hand, the MIDI reductions do not include unprotectable elements like drumbeats or the recording-specific performance

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to minimize the number of accidentals in the key signature and mitigate participant confusion.

272 *See supra* text accompanying note 270.

273 *See* THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE (Laurie Records 1963); GEORGE HARRISON, *My Sweet Lord*, *on* ALL THINGS MUST PASS (Apple Records 1970).

274 Like on the recordings, the chords for the "My Sweet Lord" MIDI reduction were played using an acoustic guitar patch and on an electric piano patch for both "Got to Give It Up" and "Blurred Lines." In the commercial recording of "He's So Fine," the harmonic framing of the song is principally covered throughout by the three-part harmonies in the background vocals. *See* THE CHIFFONS, *He's So Fine*, *on* HE'S SO FINE (Laurie Records 1963) ("Doo-lang-doo-lang-doo-lang"). As such, no additional digital instrument was added for this purpose and, instead, the isolated backing vocals were used.

characteristics of the exact timbre, voicings, instrumentation, and comping rhythms of rhythm-section parts. On the other hand, the use of the isolated vocals and representations of the harmonic elements by digital instruments comparable to those used in each recording continue to present recording elements that are not strictly notated in the deposit copy.[275] As such, the goal of this category was to eliminate the most salient performance elements in a manner that still partially captured the recording's "total concept and feel."[276]

Lastly, the piano reductions presented the same excerpted sections as the previous two audio-representation categories and identical compositional elements—harmony, rhythm, melody, and bassline—as their respective MIDI reductions. That is, all digital instruments in the MIDI reductions were changed to be played on a piano patch. Similarly, the isolated vocal parts used in the MIDI reductions were transcribed and programmed to be digitally performed on a piano sound. Each song's piano reduction was transposed to the same key and played at the same tempo as the other two representations. This category represents the most-filtered audio representation, as the unprotectable performance elements—drumbeats, vocal stylings, timbre, instrumentation, key, tempo, voicings, and idiosyncratic comping rhythms—are not included. Rather, the piano reductions present only those elements that may be reasonably inferred from a deposit copy.[277] This category most closely tracks the "synthetic piano instrumental" versions of these songs used as

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[275] *See* Williams v. Gaye, 895 F.3d 1106, 1126 n.14 (9th Cir. 2018) ("Although the 'mash-ups' used Marvin Gaye's vocals, the parties have not disputed whether Marvin Gaye's vocals were notated in the deposit copy.").

[276] Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485 (9th Cir. 2000) (quoting Pasillas v. McDonald's Corp., 927 F.2d 440, 442 (9th Cir. 1991)).

[277] Because a portion of the bassline in "Got to Give It Up" was notated in the deposit copy, *see supra* Figure 1, basslines were included in the piano reductions for all songs. The only arguably unprotectable element apparent in the piano reductions is the rhythm with which the chords are expressed. Like most lead sheets, the deposit copy for "Got to Give It Up" only marks where the chord changes and does not further notate specific comping rhythms. Therefore, no rhythmic expression of the harmony would be strictly protectable. Because all comping rhythms are equally unprotectable, the piano reductions simply use the same rhythms as their MIDI reduction counterparts.

each song's sole audio representation by Lee and Moshirnia in their studies.[278]

3. Simulating Expert Testimony

Although this study's research question does not directly set out to analyze the effect of expert testimony on music copyright infringement outcomes, the technical nature of assessing similarities in musical compositions requires that some explanation of the music theory arguments at issue in these cases be presented to the test subjects.[279] Therefore, prior to assessing the substantial similarity between a song-pair, participants watched two short videos, each respectively simulating expert testimony for the plaintiff and the defendant in the case.[280] Like the expert simulations used by Lee and Moshirnia, these videos "simplified the music disputes to focus the mock jurors' analysis to audio clips of the two songs . . . ."[281] The content or script of the videos did not change based on the audio representation employed. Additionally, all videos for a given song-pair used identical lead sheets for each song at issue to visually demonstrate the musical elements. The videos were created and performed by two professional musicians, who each took a turn serving once as the plaintiff's expert and defendant's expert across the two song-pairs.[282] To mitigate confusion, participants watched the videos in the same order in which they previously listened to the songs. Once again, the survey instrument included time requirements to prevent participants from skipping through the videos.

In their study, which specifically focused on the role of expert witnesses in influencing outcomes in music copyright cases, Lee and

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[278] Lee & Moshirnia, *Fair Use*, *supra* note 241, at 526; *see also* Lee & Moshirnia, *Experts*, *supra* note 16, at 740–41 (noting their use of "piano instrumental" versions of the songs).

[279] *See Three Boys Music*, 212 F.3d at 485 ("[Music copyright litigation] often requires analytical dissection of a work and expert testimony.").

[280] The videos used in this study to simulate expert testimony are available at https://thenotesyoudontplay.weebly.com/expert-videos.html [https://perma.cc/Z7TP-TZN8] (last visited Feb. 8, 2024).

[281] Lee & Moshirnia, *Experts*, *supra* note 16, at 741.

[282] The expert-testimony simulation videos were created by Alasdair Mackenzie and Chris Haley of the Boston-based indie rock band Hush Club. For more of their most-recent record, see HUSH CLUB, FINGERPRINTS & STAINS (Full Send Records 2021).

Moshirnia found that dueling experts "did not have any impact" on the decisions of participants "who did not have prior knowledge in music."[283] Therefore, the experiments for this study employ expert testimony simply to educate participants on basic musical concepts and the main arguments presented by each side at trial. For the *Blurred Lines* Pair, the expert testimony arguing in favor of substantial similarity emphasized similarities in the songs' bassline rhythms, keyboard parts, uses of syncopation, uses of rhythmic fills, and overall grooves. In response, the expert arguing against substantial similarity first noted the vast differences in harmony and melody between the songs. This video then attempted to dispel the allegations of rhythmic similarity by arguing that the songs' grooves are based upon different rhythmic subdivisions, that the basslines emphasize different beats, and that the keyboard parts follow different comping rhythms. The expert testimony arguing in favor of substantial similarity for the *My Sweet Lord* Pair focused on the songs' similarities with respect to the melodies of Motifs A and B,[284] the background vocal parts, and the shared ii-V chord progression. In response, the video simulating expert testimony for the defendant highlighted melodic discrepancies between the two songs, harmonic differences between the two songs in Motif B, and the differences in voicings and rhythms of the backup vocals.

4. Participant Prompts and Jury Instructions

After viewing the videos of the plaintiff's expert and the defendant's expert for the song-pair, participants were then asked to note whether they were able to successfully play the expert-testimony videos. This question mainly served as "an attention check for suspicious bot behavior,"[285] but would also filter out any participants who could not hear the testimony.

Finally, participants were tasked with making the ultimate assessments of extrinsic and intrinsic similarity. To avoid confusion as to the standard for each test, jury instructions and verdicts for the

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283 Lee & Moshirnia, *Experts*, *supra* note 16, at 776.

284 *See supra* text accompanying note 263.

285 Lee & Moshirnia, *Experts*, *supra* note 16, at 740. Three participants answered "Yes" to this question, and these participants' responses were not recorded.

extrinsic and intrinsic tests were bifurcated, as described below. This decision also allows this study's results to provide insight into how jurors may differ in their relative assessments of extrinsic and intrinsic similarity. The order in which participants were asked to assess the extrinsic and intrinsic test was randomized.

The content and wording of these instructions were derived from Jury Instruction No. 43 in *Williams v. Gaye*, the jury instructions used in Lee and Moshirnia's 2022 article, and those used in Lund's 2011 article.[286] For the extrinsic test, each juror was presented with the following instructions:

> *As part of proving music copyright infringement, the plaintiff must show that there is enough similarity between the original elements of the two songs (for example, harmony, melody, and rhythm) to constitute a substantial amount to the ordinary, reasonable listener. This is not the same as "identical." The plaintiff does not have to show that each of the individual elements of the songs is substantially similar.*
>
> *In light of this rule, are the original elements of the two songs as measured by objective criteria substantially similar?*

While making this determination, participants were allowed to review the expert videos and relisten to the songs' audio representations. When ready, participants would then provide their answer to the question posed.

Participants would then be directed to the jury instructions for the intrinsic test. These instructions read:

> *As part of proving music copyright infringement, the plaintiff must show that the ordinary, reasonable listener would conclude that the total concept and feel of the two songs are substantially similar.*

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[286] *See* Blurred Lines Jury Instructions, *supra* note 156, at 46; Lee & Moshirnia, *Experts*, *supra* note 16, at 742; Lund, *Examination*, *supra* note 61, at 158.

> *In light of this rule, do you think that the total concept and feel of these two songs are substantially similar?*

Once again, participants could review the audio representations and the expert videos before answering.

B. Empirical Strategy

With these data, I then employed a series of logistic regression equations for each song-pair.[287] The model presented here combines the data from all participants across all groups, and may be defined as:

$$\log\left(\frac{Y_i}{1-Y_i}\right) = a_0 + \beta_1 MIDI_i + \beta_2 Piano_i + \beta_3 BL_i * MIDI_i + \beta_4 BL_i * Piano_i + \beta_n \delta_i + \varepsilon_i$$

The explanatory variables ***MIDI*** and ***Piano*** are assigned a 1 if the participant listened to that respective representation and a 0 if she did not. Participants who listened to the commercial recording were assigned a 0 for both categories. The variable ***BL*** takes the value of 1 if the participant listened to the *Blurred Lines* Pair and a 0 if she listened to the *My Sweet Lord* Pair. The term $\boldsymbol{BL_i * MIDI_i}$ represents the interaction effect on the outcome for those who listened to the MIDI reduction for the *Blurred Lines Pair*, and $\boldsymbol{BL_i * Piano_i}$ likewise for the piano reduction. The matrix $\boldsymbol{\delta}$ represents the demographic-control variables,[288] $\boldsymbol{\alpha}$ represents the intercept

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[287] The results in Part III, *infra*, will discuss the interaction equation defined here. For alternate specifications and discussions thereof, see Robert D. Capodilupo, *Web Appendix to "The Notes You Don't Play: An Empirical Analysis of the Ninth Circuit's Filtration Problem in Music Copyright Cases"* [hereinafter Capodilupo, *Web Appendix*], https://thenotesyoudontplay.weebly.com/web-appendix.html [https://perma.cc/3EQB-7F5F] (last visited Feb. 8, 2024). For the full dataset used in these models, see Robert D. Capodilupo, *Full Dataset for* "*The Notes You Don't Play: An Empirical Analysis of the Ninth Circuit's Filtration Problem in Music Copyright Cases"* [hereinafter Capodilupo, *Full Dataset*], https://thenotesyoudontplay.weebly.com/dataset.html [https://perma.cc/5QFF-YUSZ] (last visited Feb. 8, 2024).

[288] *See* Lee & Moshirnia, *Experts*, *supra* note 16, at 738 (outlining the subject demographic-control variables both by age and by education). The reported demographic data on race were transformed into a binary variable, which was assigned a 1 if the participant self-identified as "White" and a 0 if the participant reported another race. The reported data on education were transformed into a binary variable, which was assigned a 1 if the participant had obtained an associate's degree or above and a 0 if the participant

term, and $\boldsymbol{\varepsilon}$ the error term. This model was run on two outcome variables: the votes on extrinsic similarity and the votes on intrinsic similarity across the survey.

III. "WHAT'S GOING ON": EVIDENCE ON THE RELATIONSHIP BETWEEN FILTRATION AND JURY FINDINGS OF SUBSTANTIAL SIMILARITY

This Part describes the outcomes of the survey experiment and explores these results' implications.[289] For the *Blurred Lines* Pair, filtering from the recording to the MIDI reduction failed to yield a statistically reliable difference in findings of extrinsic or intrinsic similarity between the groups. However, those in the piano-reduction group displayed significantly lower odds of concluding the songs were extrinsically and intrinsically similar than did those in the recording group. Similarly, while the *My Sweet Lord* Pair's MIDI-reduction and recording groups showed no reliable difference for either outcome, filtering from the recording to the piano reduction for this song-pair resulted in markedly higher odds of finding extrinsic and intrinsic similarity.

As explained in Section III.C, it appears that the relationship between filtration and jury conclusions may be heavily influenced by whether the song-pairs are objectively similar in their compositional elements. When this is the case, filtration may actually amplify these songs' similarities by omitting extraneous or irrelevant dissimilar elements. Conversely, filtration of objectively dissimilar songs removes many of the unprotectable performance elements on which

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had not. For musical experience, ability to read sheet music remained a binary variable, and all participants who reported they did not play an instrument were assigned a 0 for the interval variable corresponding to years playing an instrument. For musical tastes, the reported data were transformed into a binary variable representing whether the participant was a fan of the genres of their assigned songs. For those assessing the *My Sweet Lord* Pair, a 1 was assigned only to those participants who reported being fans of classic rock or doo-wop. For those assessing the *Blurred Lines* Pair, a 1 was assigned only to those participants who reported being fans of funk/R&B and pop. Age remained an interval variable, sex remained a binary variable, and time listening to music remained a categorical variable. *See* Capodilupo, *Full Dataset*, *supra* note 287.

289 For Part III's title reference, see MARVIN GAYE, *What's Going On*, *on* WHAT'S GOING ON (Tamla Records 1971). For the data used in these models, see Capodilupo, *Full Dataset*, *supra* note 287.

liability may be erroneously based and focuses the listener towards perceiving the compositional differences.

A. Descriptive Statistics

Figure 2 below displays a summary of the sample sizes and means for the demographic information of study participants separated into their respective song-pair categories. Slightly more participants were assigned the *Blurred Lines* Pair than were assigned the *My Sweet Lord* Pair (327 vs. 306). The right-most column presents the p-values corresponding to the differences in means for each variable between song-pairs. As shown, there are no statistically significant differences in the means across the two groups for any control variable.

Within the *Blurred Lines* Pair, the average participant was about 48 years old. Additionally, 49.5% of participants were male, 75.8% of participants identified as White, and 48.9% had a college degree. With respect to musical ability, participants had, on average, played an instrument for just under 5 years and 35.5% reported that they could read sheet music. As to listening habits, 63.9% of this cohort described themselves as fans of at least one of the genres of the songs at issue (pop or funk/R&B). 26.7% listened to music for less than 1 hour per day, on average; 32.4% for 1–2 hours per day; 17.7% for 2–3 hours per day; 9.5% for 3–4 hours per day; and the remaining 13.8% for more than four hours per day.

For the *My Sweet Lord* Pair, the average age of participants was just under 47 years old, with 47.7% of participants being male, 76.1% White, and 46.4% with a college degree. Participants had played an instrument for 5.5 years, on average, and 39.5% noted they could read sheet music. 69% reported that they were fans of either doo-wop or classic rock. The modal category for average hours listening to music each day was 1–2 hours, with 31% of respondents reporting so. 26.5% reported listening an average of 0–1 hours per day; 18.3% for 2–3 hours; 10.8% for 3–4 hours; and 13.4% for more than 4 hours.[290]

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[290] For further discussion of the relative balance between sample groups, see Capodilupo, *Web Appendix*, *supra* note 287.

	Blurred Lines Pair		*My Sweet Lord* Pair		
Variable	N	Mean	N	Mean	P-Value
Age	327	47.752	306	46.840	0.48
Male	327	0.495	306	0.477	0.65
White	327	0.758	306	0.761	0.93
Years Playing Instrument	327	4.694	306	5.500	0.40
Ability to Read Music	327	0.355	306	0.395	0.29
College Degree	327	0.489	306	0.464	0.53
Fan of Genre	327	0.639	306	0.690	0.18
0-1 hr/day	327	0.266	306	0.265	0.97
1-2 hr/day	327	0.324	306	0.310	0.71
2-3 hr/day	327	0.177	306	0.183	0.85
3-4 hr/day	327	0.095	306	0.108	0.59
4+ hr/day	327	0.138	306	0.134	0.89

Figure 2: Summary Statistics Table

Moving to descriptive statistics on the outcome variables, Figures 3 and 4 present participant responses regarding the extrinsic and intrinsic similarity of the *Blurred Lines* Pair and *My Sweet Lord* Pair, respectively, broken up by audio-representation groups. For the *Blurred Lines* Pair, there appears to be a steady decrease in finding intrinsic similarity between these songs as filtration increases. As shown, while nearly 72% of participants who listened to the recordings of "Blurred Lines" and "Got to Give It Up" believed the songs to be similar with respect to "total concept and feel," this figure fell slightly to just above 68% for those who listened to the MIDI reductions and fell markedly to below 55% for those who listened to the piano arrangements of the songs. There is a less discernable trend with respect to extrinsic similarity. Moving from the recording to the MIDI reduction, findings of extrinsic similarity increased from approximately 67% to 72%. However, when compared against the recording group, the piano reduction yielded a comparatively lower rate of extrinsic similarity, with 59% of participants in the latter concluding as such.

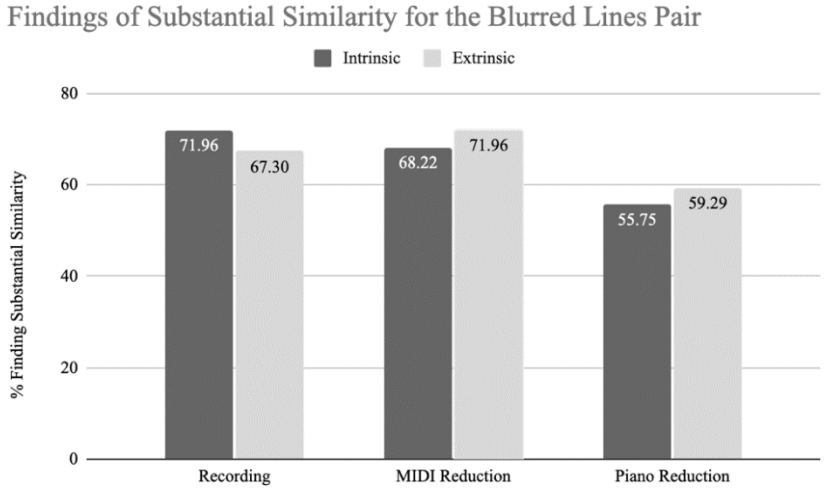

Figure 3: Findings of Substantial Similarity for the *Blurred Lines* Pair

For the *My Sweet Lord* Pair, the trend for findings of both intrinsic and extrinsic similarity appears to consistently increase with the level of filtration. Inverse to these outcomes for the *Blurred Lines* Pair, the proportion of participants concluding intrinsic similarity increases from 58% to 70% to nearly 82% as the audio representation moves from the recording to the MIDI reduction to the piano reduction. This trend holds for findings of extrinsic similarity, which increase from about 67% to 76% to just below 90% across those categories.

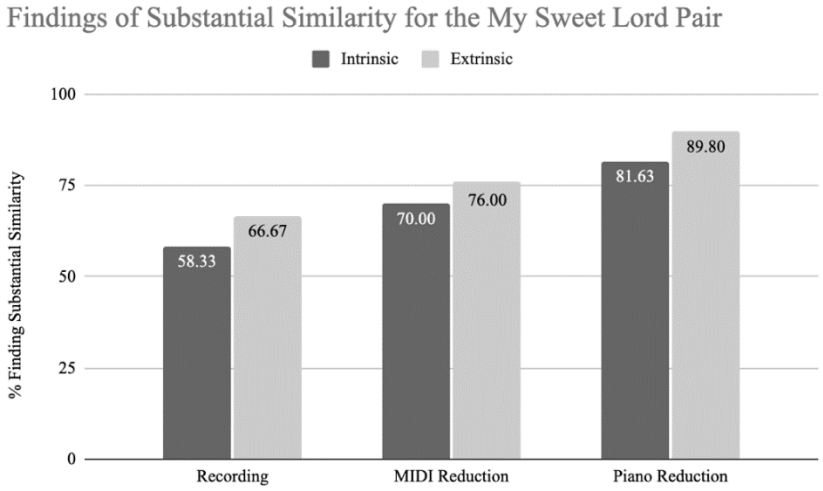

Figure 4: Findings of Substantial Similarity for the *My Sweet Lord* Pair

At first glance, it appears that there may, in fact, be an observable relationship between filtration and findings of substantial similarity, although the direction of this relationship could depend on the extent to which the songs are objectively similar. I will now turn to analyze the inferential models to help clarify these findings and determine the extent to which these differences will hold when accounting for the control variables.

B. Results

Figure 5 below presents the outcomes for the regression models on intrinsic and extrinsic similarity.[291] These models combine the data across all experiments and employs interaction terms to delineate between song-pairs.

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[291] Figure 5 reports the coefficients for the treatment as log-odds. For clarity, the ensuing analysis will describe these coefficients as odds by taking the exponent of the relevant coefficients. *See* ANDREW GELMAN & JENNIFER HILL, DATA ANALYSIS USING REGRESSION AND MULTILEVEL/HIERARCHICAL MODELS 79–81, 92–93 (2007). For the report of the full output table for all control variables, see Capodilupo, *Web Appendix*, *supra* note 287.

	Dependent variable:	
	Extrinsic Test	Intrinsic Test
	(1)	(2)
MIDI Reduction	0.446	0.512*
	(0.331)	(0.308)
Piano Reduction	1.459***	1.163***
	(0.407)	(0.338)
Blurred Lines	0.044	0.720**
	(0.308)	(0.304)
MIDI*Blurred Lines	−0.368	−0.845*
	(0.456)	(0.438)
Piano*Blurred Lines	−1.941***	−2.016***
	(0.506)	(0.453)
Constant	2.284***	1.611***
	(0.538)	(0.490)
Observations	633	633
Log Likelihood	−338.948	−371.551
Akaike Inf. Crit.	713.896	779.102
Note:	*p<0.1; **p<0.05; ***p<0.01	

Figure 5: Interaction Model Regression Output

Beginning with the *Blurred Lines* Pair, Model 1—the extrinsic test—suggests that there is no statistically reliable difference in findings of extrinsic similarity when filtering from the recording to the MIDI reduction. For intrinsic similarity, Model 2—the intrinsic test—presents weak evidence of a positive relationship, although this finding is not statistically reliable at the 0.05 level. Thus, we fail to reject the null hypothesis that there is no meaningful difference in outcomes between the recording and MIDI-reduction groups for the *Blurred Lines* Pair. However, the coefficients measuring the change in outcomes when the audio representation is filtered to the piano reduction tell a different story. Participants in the piano group for the *Blurred Lines* Pair had approximately 38% lower odds of finding extrinsic similarity than those in the recording group, all else equal. On the intrinsic test, the decrease in odds was about 13%.

Participants evaluating the *My Sweet Lord* Pair also demonstrated no change in the odds off finding either intrinsic or extrinsic similarity that was statistically reliable at the 0.05 level when the audio was filtered from the recording to the MIDI reduction. And like the outcomes on the *Blurred Lines* Pair experiment, filtering to the piano reduction for the *My Sweet Lord* Pair is associated with a marked departure from the recording baseline. However, this change is in the opposite direction. All else equal, participants who were exposed to the piano reductions here had approximately 330% and 220% higher odds of finding extrinsic and intrinsic similarity, respectively, than those in the recording group.

It appears from these models that the level of filtration does indeed bear on jury determinations of substantial similarity. Regarding the MIDI reduction, we find only weak evidence to suggest departing from the null hypothesis that filtering to this category has no association with findings of extrinsic or intrinsic similarity. However, the models present evidence of statistically reliable relationships between filtering to the piano reduction and perceptions of similarity, although this effect took opposite directions across song-pairs. For the *My Sweet Lord* Pair, this relationship is positive, while it is negative for the *Blurred Lines* Pair.

The discrepancy in findings of extrinsic similarity appears to be a result of the different elements that are highlighted across the audio representations. While the melody notes and chords are the same across versions, they are played on different media within the song-pairs for the other two categories. That is, in the recording and MIDI reduction, the melody for "My Sweet Lord" is sung by a male vocalist, George Harrison, while the melody for "He's So Fine" is sung by a female vocalist, Judy Craig of The Chiffons. Likewise, the harmony parts in "My Sweet Lord" are covered by a guitar (either live or MIDI), while they are mainly supplied in "He's So Fine" by the live backup vocals of the remaining Chiffons, Patricia Bennett, Sylvia Peterson, and Barbara Lee. Only in the piano reduction are these elements performed with the same timbre. Therefore, standardizing the compositions to be both played on a piano may work to amplify one's perception of similarities in harmonies and melodies of these songs.

On the contrary, the models for the *Blurred Lines* Pair provide evidence for a negative relationship between filtering to the piano reduction and findings of extrinsic similarity. Given the low similarity between the harmonies and melodies of "Blurred Lines" and "Got to Give It Up" to begin with,[292] playing these contrasting elements on the same instrument may work to further highlight these differences. Future scholarship should undertake further inquiry to determine whether this finding holds for other low-similarity song-pairs.

These results hold for the outcomes on intrinsic similarity. For the *Blurred Lines* Pair, we observed a statistically reliable decrease in the odds of concluding intrinsic similarity when the audio representation was filtered from the recording to the piano reduction. No such relationship, however, was observed between the recording and MIDI-reduction groups.

The elements included in each reduction, and the manner in which they are expressed, may be responsible for this outcome. While the MIDI reduction omits what may be the most apparent element contributing to one's perception of similarity in "total concept and feel" between these songs—the drum beat—it still preserves many of the groove-making features of the recording, like the syncopated chord comping on an electric piano sound and in-the-pocket electric bass line. Additionally, because these reductions use Robin Thicke and Marvin Gaye's vocal tracks, comparable performance choices like their uses of falsetto and melisma also were not filtered out of the MIDI reduction.[293] Thus, the presence of these performance elements in the MIDI reduction appeared to sufficiently preserve enough of the songs' grooves for there to be no meaningful difference in findings of intrinsic similarity when compared against the full recording.

And while this "experiment was not intended to be a retrial of . . . the 'Blurred Lines' . . . case,"[294] this observation comports

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[292] *See* Lattanza, *supra* note 4, at 725.

[293] *See* Williams v. Bridgeport Music, Inc., No. 13-cv-06004, 2014 WL 7877773, at *12–17 (C.D. Cal. Oct. 30, 2014) (noting the defendant's expert witness' opinions about the similarities in melisma and falsetto at certain points in the songs).

[294] Lee & Moshirnia, *Experts*, *supra* note 16, at 741.

with the jury's ultimate decision there. In *Williams v. Gaye*, the jury still found there to be intrinsic similarity between the songs, even when "[t]he district court . . . filtered out several unprotectable similarities . . . including the use of a cowbell, hand percussion, [and] drum set parts . . . ."[295] But because the reduction played at trial and the MIDI reduction used here did not filter the songs' "bass lines, keyboard chords, harmonic structures, and vocal melodies,"[296] key rhythm-section features remained sufficient to demonstrate similarities in groove, even if it is undisputable that "groove . . . is an unprotectable idea."[297] Though it is impossible to know the counterfactual, the evidence from the *Blurred Lines* Pair experiment indicates that filtering the drums out of songs' audio representations may not make as much of a difference in juror perception of intrinsic similarity as thought in the literature,[298] at least where a sufficient combination of other stylistic rhythm-section elements remain.

The piano reduction, however, preserves virtually none of these elements. Although the notes of the melody, chords, and basslines did not change, their articulations were transformed from being played on quintessential funk-genre instruments in the recording and MIDI reduction to a stock piano sound. Any performance-specific stylistic artifacts contributing to a finding of intrinsic similarity were lost when the audio representation was filtered to the piano reduction.

Normatively speaking, this is a desirable result. Where the chief factors indicating intrinsic similarity are "commonplace elements that are firmly rooted in the genre's tradition," the scènes à faire doctrine requires that these elements be filtered out so that liability does not erroneously turn on "unoriginal and thus uncopyrightable" expressions.[299] Here, participants who heard the songs played on the "commonplace" instrumentation of the funk genre—as opposed to

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295 895 F.3d 1106, 1117 (9th Cir. 2018).

296 *Id.*

297 *Id.* at 1140 (Nguyen, J., dissenting) (internal quotations omitted).

298 *See* Madison & Lombardi, *supra* note 112, at 199; *cf.* Sprigman & Hedrick, *supra* note 8, at 594–95.

299 *Williams*, 895 F.3d at 1140–41 (Nguyen, J., dissenting); *see also* Parhami, *supra* note 133, at 1117–18 ("[T]he [scènes à faire] doctrine . . . precludes certain elements that are standard, stock, or common in a particular category from copyright protection.").

a piano patch—were more likely to consider the songs intrinsically similar, suggesting that exposure to these idiomatic timbres contributed to that conclusion. When that instrumentation was filtered to the neutral piano sound, participants could not be influenced by such "standard, stock" elements.[300] Thus, the choice to filter the audio representation to a piano reduction was an evidentiary improvement on the recording, as it prevented the participants from having their verdicts tainted by exposure to unprotectable elements in violation of the longstanding scènes à faire principle.

Contrastingly, the piano-reduction group for the *My Sweet Lord* Pair showed evidence of an increase in determinations of intrinsic similarity when compared against the control. For these songs, the chief similarities are not in filterable, stylistic-performance elements, but in their melodies and harmonies. By filtering some of the genre-specific elements—like instrumentation, percussion choices, and vocal timbre—the similar compositional elements are highlighted, while the disparate performance elements are deemphasized. As Lund's 2013 experiment on the relationship between performance style and jury outcomes finds, even where participants "heard performances of the same composition, participants were significantly more likely to believe that the compositions in each pair were similar when they were performed similarly."[301] Whereas those in the recording group had to grapple with comparing guitar chords to vocal harmonies and drum sets to hand percussion, those in the piano-reduction group were simply presented with similar elements played on an identical medium. However, the MIDI reduction, which preserved the recordings' vocals and instrumentation, does not go far enough in filtering the dissimilar performance to realize this effect.

It seems, then, that the relationship between filtration and perceptions of substantial similarity may turn on whether the elements that are filtered out are more similar than those that remain in the reduction. In the *Blurred Lines* Pair, filtration to the piano reduction virtually omitted all elements of the songs that would make the

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300 Satava v. Lowry, 323 F.3d 805, 810 (9th Cir. 2003).

301 Lund, *Fixing*, *supra* note 139, at 79.

songs sound similar. When the songs were both played on the piano, this added similarity in timbre could not make up for the fact that participants were hearing dissimilar compositions, stripped down to their essential elements. Rather, without similarities in performance elements to rely on, participants were less likely to find sufficient evidence of intrinsic similarity in the remaining elements. In contrast, it is the filterable performance elements—and not the compositional elements—of the *My Sweet Lord* Pair that are dissimilar. Removing the former in the piano reduction allowed participants to look past distinctive performance elements and better appreciate the marked similarities between these two songs in the elements that remained.

Ultimately, a proper approach to filtration must balance copyright law's competing goals of protecting original works from legitimate infringement and promoting the "progress" of artistic creation.[302] On the one hand, overly aggressive filtration could result in a song that is objectively similar to a copyrighted work in its compositional evading liability. Comping rhythms, for example, are usually not noted in a song's lead sheet, and thus may fall outside the strictly construed boundaries of the Copyright Act of 1909.[303] However, requiring chords to be articulated only where they change on a lead sheet—or omitting them from the audio representation altogether—would mischaracterize the composition, as it would be absurd to conclude the author intended the essential musical element of harmony to occur only in measures where chord symbols were expressly notated.[304] Filtering this element, then, could make it easier for a copier to escape liability, as the jury would not be able to assess the other elements within the context of comparable chord structures. On the other hand, a weak approach to filtration would continue to allow liability to be based on spurious similarities or otherwise unprotectable elements of a song. This doctrine presents

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302 *See generally* U.S. CONST. art. I, § 8, cl. 8.

303 *See supra* Figure 1; Copyright Act of 1909, Pub. L. No. 60-349, §§ 9–12, 35 Stat. 1075, 1077–78 (1909).

304 *See* 1 NIMMER, *supra* note 58; *see also* Three Boys Music Corp. v. Bolton, 212 F.3d 477, 486–87 (9th Cir. 2000) ("[T]he deposit copy included all of the song's essential elements such as the title hook, chorus, and pitches.").

the consequence of "chilling" future songwriting and stunting the development of existing musical idioms.[305]

The results of this study suggest that filtering the audio representations of the songs at issue in music copyright cases to a piano reduction may be the optimal strategy. Where songs were objectively similar in compositional elements—and thus should merit a finding of copyright liability—the piano reduction worked to emphasize both the intrinsic and extrinsic similarity between the songs, increasing the probability that participants would find infringement. Concurrently, the piano reduction decreased conclusions intrinsic and extrinsic similarity for the low-similarity pair, as unprotectable performance elements could no longer delude the participant's reasoning. Adopting the piano reduction as the standard audio representation in music copyright claims would work to mitigate the harmful consequences of the Ninth Circuit's doctrinal missteps since *Krofft* while still preserving the overall extrinsic-intrinsic framework that has been the law of the circuit for the past half century.

IV. "A CHANGE IS GONNA COME": AN EVIDENCE-BASED PROPOSAL TO MITIGATE THE FILTRATION PROBLEM

Perhaps the only thing the music industry is more saturated with than guitar players and funk-revival bands these days is academic articles proposing foundational overhauls to music copyright doctrine.[306] Ranging in prescriptions from replacing lay juries with specialized panels of musicians,[307] to instituting a "compulsory license system" for borrowing musical elements,[308] to diminishing the role

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[305] *See* Lattanza, *supra* note 4, at 726 n.27.

[306] For Part IV's title reference, see SAM COOKE, *A Change Is Gonna Come*, *on* AIN'T THAT GOOD NEWS (RCA Victor Records 1964).

[307] *See, e.g.*, Lund, *Fixing*, *supra* note 139, at 105–06; Jason Palmer, *"Blurred Lines" Means Changing Focus: Juries Composed of Musical Artists Should Decide Music Copyright Infringement Cases, Not Lay Juries*, 18 VAND. J. ENT. & TECH. L. 907, 929 (2016).

[308] *See, e.g.*, J. Michael Keyes, *Musical Musings: The Case for Rethinking Music Copyright Protection*, 10 MICH. TELECOMMS. & TECH. L. REV. 407, 439 (2004).

of sheet music as evidence of infringement,[309] the literature provides no shortage of thoughtful and creative ways to make the outcomes of music copyright cases more predictable and fair.

Given the specific scope of this Article's empirical findings, the prescriptions offered here will be limited to how the Ninth Circuit could implement piano reductions as the standard audio representations at trial. In doing so, filtration would simultaneously strengthen copyright claims based on appropriation of objectively similar elements, while diminishing the chances that a jury would erroneously find infringement between compositionally distinct songs. Building off the framework for reforms outlined by Sprigman and Hedrick,[310] this Part sketches how the Ninth Circuit could integrate piano reductions into the existing extrinsic-intrinsic framework for assessing claims of copyright infringement in music as a discrete evidentiary rule.

A. Filtration at Summary Judgment

Despite the Ninth Circuit's consistent misstatements to the contrary, the loadstar of the extrinsic test at summary judgment should be to determine whether a reasonable jury could find that the "protectible elements, standing alone" are substantially similar.[311] The trial judge at this stage should be seen as having two distinct responsibilities—*first*, to determine which elements are protectable, and *second*, to consider whether the two works could reasonably be seen as substantially similar with respect to those elements.

As a preliminary matter, it is imperative that the trial court first identifies—clearly and concretely—what those elements are. Whether copyright protects a certain element is foundationally a matter of law, wholly within the authority of the trial court to determine at this stage.[312] Judges should not be able to shirk their duty at summary judgment and punt that decision to the jury, as was the case in *Williams*.[313] Rather, if a case goes to trial, the parties must

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309 *See, e.g.*, Baumgardner, *supra* note 222, at 355.

310 Sprigman & Hedrick, *supra* note 8, at 589–93.

311 Cavalier v. Random House, Inc., 297 F.3d 815, 822 (9th Cir. 2002).

312 *See* Newton v. Diamond, 388 F.3d 1189, 1192 (9th Cir. 2004) (affirming lower court's decision that a portion of a song was unoriginal and, therefore, uncopyrightable).

313 *See* Williams v. Gaye, 895 F.3d 1106, 1116–17 (9th Cir. 2018).

be clear on which musical elements are legally relevant and which must be excluded as inadmissible evidence because of its potential of "confusing the issues [and] misleading the jury."[314]

As is the case now, adversarial expert testimony can continue to guide the judge's assessment of protectability in the extrinsic test at summary judgment. Specifically, Sprigman and Hedrick propose that this process take the form of a patent law *Markman* hearing,[315] where expert testimony is presented to the judge prior to trial to assist her in determining the proper "scope" of one's intellectual property as a matter of law.[316] Adopting this procedure would be "a means for delineating protected and unprotected elements . . . aimed at ensuring that the jury's ultimate infringement decision focuses on similarities in the former and not the latter."[317]

For claims brought under the Copyright Act of 1909, this set would include anything explicitly transcribed in the deposit copy, as well as any elements that could reasonably be inferred from it.[318] For songs protected by the Copyright Act of 1976, which protects "musical works" that are "fixed in any tangible medium of expression,"[319] this maximum universe would include the song's harmony, melody, and rhythm, as well any other musical expressions derived from "at least a modicum of creativity,"[320] such as specific horn

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314 FED. R. EVID. 403.

315 Sprigman & Hedrick, *supra* note 8, at 589.

316 Markman v. Westview Instruments, 517 U.S. 370, 388 (1996); *see also id.* at 384 (regarding the "two elements of a simple patent case, construing the patent and determining whether infringement occurred, . . . '[t]he first is a question of law, to be determined by the court, construing the letters-patent, and the description of the invention and specification of claim annexed to them. The second is a question of fact, to be submitted to a jury.'" (quoting *Winans v. Denmead*, 56 U.S. (15 How.) 330, 338 (1854))).

317 Sprigman & Hedrick, *supra* note 8, at 589; *see also* SaiPranay Vellala, Note, *Conquering Copyright: Why Copyright Needs to Be Modernized Based on Practical Illustrations of Inconsistent Copyright Precedent*, 56 AKRON L. REV. 409, 430–31 (2022) (discussing how, in a music copyright *Markman* hearing, "the copyrightable subject matter of both materials [would] be determined" first by the judge, before the jury would be allowed to make "[a] determination of actual copying" based on the copyrightable elements).

318 *See* Copyright Act of 1909, Pub. L. No. 60-349, §§ 9–12, 35 Stat. 1075, 1077–78 (1909).

319 17 U.S.C. § 102(a).

320 Skidmore v. Led Zeppelin, 952 F.3d 1051, 1069 (9th Cir. 2020) (en banc).

lines or backing vocal parts. Because filtration has yet to occur at this stage, this proposal would need to preserve the necessary evil of using the commercial recording to represent what the elements of the songs even are. However, the risk of such evidence would be less than it is under the current doctrine, given its limited purpose of representing the elements of each song—rather than similarities between them—and a judge's relative faculty in adhering to her own limiting instructions.[321] Once these elements are identified, the filtration process would begin.

The trial judge would then hear expert testimony as to whether the maximum sets comprised any unprotectable ideas under the merger and scènes à faire doctrines. In assessing merger—or where a compositional choice represents "one of only a few ways" of expressing the underlying idea[322]—courts should continue to base protectability on whether expressing the idea in that manner is "firmly rooted in the genre's tradition."[323] This rule properly makes it so that genre-defining ideas like the twelve-bar form in blues or rhythmic changes in jazz remain "building blocks belong[ing] in the public domain."[324]

The scènes à faire doctrine, which more broadly precludes copyright protection for expressions of "basic and commonplace" musical ideas,[325] should be expanded beyond the confinements of a composition's specific genre. In *Swirsky v. Carey*, the Ninth Circuit limited the application of scènes à faire to common tropes "within the relevant field" or genre.[326] While a genre-specific approach is suitable for filtering standard instrumentations or rhythmic grooves, this narrow conception fails to account for the convergence of popular western music *as a whole* around reoccurring melodic or

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321 *See* Gregory Mitchell, *Mapping Evidence Law*, 2003 MICH. ST. L. REV. 1065, 1122.

322 Sprigman & Hedrick, *supra* note 8, at 572 n.2.

323 *Skidmore*, 952 F.3d at 1069 (quoting Williams v. Gaye, 895 F.3d 1106, 1140–41 (9th Cir. 2018) (Nguyen, J., dissenting)).

324 *Id.*

325 *Williams*, 895 F.3d at 1145 (Nguyen, J., dissenting) (quoting McDonald v. West, 138 F. Supp. 3d 448, 458 (S.D.N.Y. 2015)).

326 376 F.3d 841, 850 (9th Cir. 2004).

harmonic patterns.[327] The pentatonic scale, for example, is not an "indispensable idea within" any specific genre—it is an indispensable idea within virtually all contemporary genres.[328] Therefore, just because songs as diverse in genre as The Temptations' timeless Motown classic "My Girl" and Rednex's techno-country, middle-school-dance anthem "Cotton Eye Joe" have melodies based of this motif should not preclude them from enjoying scènes à faire protection from lawsuits based on spurious melodic similarities.[329] Regardless of an element's exclusiveness to a genre, the court should filter out all common musical elements that portray stock ideas common throughout contemporary music, rather than expressions of "independent creation."[330]

If any elements that are not related to harmony, melody, or rhythm remain at issue after filtering out unprotectable elements, the court should hear expert testimony as to whether a combination of otherwise unprotectable elements nonetheless renders these elements legally relevant for assessing substantial similarity. While the *Williams* court's application of its "constellation" theory for copyright infringement was based on "an incomplete and distorted musicological analysis,"[331] copyright law in general has long recognized that "the selection and arrangement of unprotectable musical elements can itself be protectable."[332] So as to not require a fundamental overhaul of the Ninth Circuit's caselaw, this proposal will proceed within the confines of this doctrine.

However, there must be a limiting principle as to when combinations of individually unprotectable elements nevertheless should not be filtered from consideration. As the Ninth Circuit finally clarified in *Skidmore*, the burden should be placed on the plaintiff to

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327 *See generally* Allen Forte, *Schenker's Conception of Musical Structure*, 3 J. MUSIC THEORY 1 (1959) (describing music theorist Heinrich Schenker's theory that Western tonal music can be reduced to a I-V-I chord progression).

328 *Swirsky*, 376 F.3d at 850.

329 *See* THE TEMPTATIONS, *My Girl*, *on* THE TEMPTATIONS SING SMOKEY (Gordy Records 1965); REDNEX, *Cotton Eye Joe*, *on* SEX & VIOLINS (Jive Records 1995).

330 Skidmore v. Led Zeppelin, 952 F.3d 1051, 1071 (9th Cir. 2020) (en banc).

331 Williams v. Gaye, 895 F.3d 1106, 1145–46 (9th Cir. 2018) (Nguyen, J., dissenting) (quoting *Swirsky*, 376 F.3d at 845).

332 1 NIMMER, *supra* note 58, § 3.04.

establish "how these elements are particularly selected and arranged" to constitute a "*novel* arrangement."[333] The copyright protection must extend to arrangement itself—not to the individual "building blocks."[334] Therefore, in order to receive protection under the combination theory, the "coincidence of the unprotected elements" must occur "at the same relative place . . . in both."[335] Plaintiffs may not simply concatenate a laundry list of spurious similarities "scattered throughout the works"[336]: that both songs begin on the same note and end on a fade will not suffice. Likewise, the combination should implicate one of the fundamentally protectable elements—harmony, melody, or rhythm—rather than be loosely tethered to "[t]rivial elements of compilation and arrangement . . . ."[337] In the rare instance where a combination satisfies this exacting standard, it still must only be given "thin protection" against copying that is "virtually identical."[338]

Because filtration has already occurred, the use of the commercial recording is no longer appropriate from this point on. Prior to receiving testimony on substantial similarity, the court should prepare a definitive and exclusive list of the protectable elements of the songs that may be discussed by the experts.[339] The court would then instruct the parties to prepare a piano reduction of the songs that represents these protected elements. If the parties cannot stipulate to the other's arrangement, the court should hold an additional preliminary hearing to adjudicate any outstanding discrepancies as to whether some element should be excluded from the piano reduction as a matter of law.[340]

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333 *Skidmore*, 952 F.3d at 1075 (quoting Universal Pictures Co. v. Harold Lloyd Corp., 162 F.2d 354, 363 (9th Cir. 1947)).

334 *Id.*

335 *Williams*, 895 F.3d at 1146 n.8 (Nguyen, J., dissenting).

336 Cavalier v. Random House, Inc., 297 F.3d 815, 825 (9th Cir. 2002) (quoting Litchfield v. Spielberg, 736 F.2d 1352, 1356 (9th Cir. 1984)).

337 Gray v. Hudson, 28 F.4th 87, 101 (9th Cir. 2022) (quoting U.S. v. Hamilton, 583 F.2d 448, 451 (9th Cir. 1978)) (alteration in original).

338 *Skidmore*, 952 F.3d at 1080.

339 *See* Sprigman & Hedrick, *supra* note 8, at 589–90.

340 *See* FED. R. EVID. 104(a). The court would also need to oversee the parties in deciding on which rhythm the harmony parts would be articulated. *See supra* note 277.

Only then would it be appropriate for the judge to hear substantive expert testimony on the question of substantial similarity. If she believes that a reasonable jury could find these elements to be extrinsically similar, she should deny summary judgment for the plaintiff and prepare the case for trial.

B. Filtration at Trial

At trial, expert testimony would be limited only to elements that are included in "the final list of elements that are and are not protectable."[341] And crucially, any audio representations of the songs would be limited to the pre-filtered piano reduction. This is not as drastic an intervention as it may seem at first blush. Facially, the Ninth Circuit already limits the "analytical dissection" by experts that underpins the extrinsic test "to protected elements of the copyrighted work."[342] The problem is that it has failed to consistently define or communicate to the jury what these elements, in fact, are.[343] In this sense, committing to filtration prior to the empaneling of the jury would actually allow the Ninth Circuit to better effectuate its existing doctrine.

Further, limiting a song's audio representation to the piano reduction would not require substantial departure from the circuit's current evidentiary practices. The Ninth Circuit, in some situations, has already done audio filtration—it just has not consistently done it effectively. In *Williams v. Gaye*, for instance, the court did not allow for the commercial recordings to be played at trial—only reductions that filtered out "the use of a cowbell, hand percussion, drum set parts, background vocals, and keyboard parts."[344] But why stop there? If the Ninth Circuit is interested in pursuing filtration, it should also require the filtering of other unprotectable elements like instrument timbre and stylistic choices in the lead vocals. Adopting the standard of the piano reduction would best serve this end.

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341 Sprigman & Hedrick, *supra* note 8, at 590.
342 Swirsky v. Carey, 376 F.3d 841, 845 (9th Cir. 2004).
343 *See* Sprigman & Hedrick, *supra* note 8, at 589.
344 895 F.3d 1106, 1117 (9th Cir. 2018).

Moreover, evidence from this study suggests that piano reduction actually furthers the desired ends of filtration. The reduction used at trial in *Williams* most resembles the MIDI reduction used in the experiment for the *Blurred Lines* Pair, as they both filtered out drum and percussion parts but preserved the recording's lead vocals and instrument timbres. The above analysis, however, provides no evidence that switching to the MIDI reduction has any meaningful effect on findings of extrinsic or intrinsic similarity. Conversely, the results suggest that when filtration is taken to its doctrinally permissible ends, the use of the piano reduction yields a higher chance that the jury will arrive at the right answer.. As such, if the Ninth Circuit is interested in pursuing filtration, it should adopt the evidence-backed approach of using a piano reduction.

Lastly, this filtering regime would allow trial courts to avoid confusing jury instructions as to which elements presented at trial can be considered in determining a verdict. The current practice for jury instructions essentially enumerates potentially relevant elements and leaves it to the jury to decide not only whether they are substantially similar, but whether they are even protectable in the first place.[345] And even when the judge tells the jury to ignore something they heard at trial because it is not protected by copyright, it has always been a "naive assumption" to conclude jurors can heed such limiting instructions.[346] This problem is further exacerbated by the technical nature of music. As Sprigman and Hedrick eruditely note, "simply telling a jury to ignore the bass line of a song" is not going mean much to a juror who lacks a basic understanding of music.[347] Filtering to the piano reduction prior to trial would avoid this issue altogether, as the jury would not be exposed to excluded elements either through expert testimony or in the songs' audio representations.

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345 *See, e.g.*, Blurred Lines Jury Instructions, *supra* note 156 ("[The jury is allowed to consider] the so-called 'Signature Phrase,' hook, 'Theme X,' bass melodies, keyboard parts, word painting, lyrics, [and] rap v. parlando."); *see also Williams*, 895 F.3d at 1124 ("[The jury instructions did not prevent] the jury from making a factual determination of what was in the deposit copy.").

346 Minnesota Law Review Editorial Board, *The Limiting Instruction—Its Effectiveness and Effect*, 51 MINN. L. REV. 264, 264 n.3 (1966).

347 Sprigman & Hedrick, *supra* note 8, at 592.

Filtration is not a foreign concept to the Ninth Circuit. However, its ad hoc application in music copyright cases has failed to provide a standardized and clear rule for litigants as to which elements of their compositions will be admissible at trial. By adopting the prophylactic rule of limiting audio representations to piano reductions, the Ninth Circuit would be able to optimize its use of filtration and mitigate the most deleterious practical consequences of its intrinsic-extrinsic tests, while still maintaining the overall framework that has governed all creative copyright law in the circuit since *Krofft*.

CONCLUSION

While David Crosby may have been correct that "music is love,"[348] and the Lord Justice Atkin may have approached the effectual truth in observing that "love . . . counts for so little in these cold Courts,"[349] the transitive property does not appear to apply in this case. As the results of this study indicate, music played at trial actually counts a great deal in influencing juror perceptions of substantial similarity.

This Article presents empirical evidence demonstrating that filtering the audio representations of songs played at trial to piano reductions could improve outcomes of music copyright cases in the Ninth Circuit by nudging juries to focus on the protectable elements that are most relevant for assessing infringement claims. In turn, as observed here, jurors would be less likely to find liability between low-similarity compositions and more likely to do so when comparing high-similarity composition. Future research should examine the extent to which these findings hold for other high-similarity and low-similarity song-pairs. So long as the Ninth Circuit maintains its existing tepid use of filtration, scholars should have no trouble finding cases that make it to trial dealing with the latter.

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348 DAVID CROSBY, *Music Is Love*, *on* IF I COULD ONLY REMEMBER MY NAME (Atlantic Records 1971).

349 Balfour v. Balfour [1919] 2 KB 571, 579 (Eng.). *But see, e.g.*, Obergefell v. Hodges, 576 U.S. 644, 681 (2015).