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Fixing Music Copyright

Jamie Lund[†]

INTRODUCTION

In December 2012, musician Beck Hansen (Beck) released *Song Reader*, a concept “album” consisting of 20 unrecorded songs in sheet-music form. As one reviewer put it: “There is no CD. No download. No audio. As of this writing, you cannot hear Beck doing an authoritative, this-is-the-song performance.”¹ According to the album’s publisher, “if you want to hear Do We? We Do, or Don’t Act Like Your Heart Isn’t Hard, bringing them to life depends on you, the reader.”²

Beck’s sheet music album was inspired by a 1937 popular music hit called “Sweet Leilani.”³ “Apparently, it was so popular that, by some estimates, the sheet music sold 54 million copies[.]”⁴ Beck remarked that “nearly half the country had bought the sheet music for a single song, and had presumably gone through the trouble of learning to play it.”⁵ Beck was hoping to similarly engage his fans with *Song Reader*,⁶ and, as evidenced by the hundreds of fan performances posted on

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¹ John Timpane, *Play It Yourself*, PHILLY.COM (Dec. 26, 2012, 12:33 PM), http://articles.philly.com/2012-12-26/news/36000154_1_sheet-music-song-reader-ukulele.

² Sean Michaels, *Beck’s New Album Won’t Be an Album—Just Sheet Music*, GUARDIAN (Aug. 9, 2012, 6:50 AM), <http://www.guardian.co.uk/music/2012/aug/09/beck-new-album-sheet-music>.

³ Geeta Dayal, *Lost Cause*, SLATE (Dec. 6, 2012, 12:33 PM), http://www.slate.com/articles/arts/music_box/2012/12/beck_s_song_reader_reviewed.html.

⁴ *Id.*

⁵ *Id.*

⁶ Esther Yi, *Is Beck’s Sheet-Music ‘Album’ a Cop-Out, Radical Art, or Both?*, ATLANTIC (Dec. 11 2012, 8:45 AM), <http://www.theatlantic.com/entertainment/archive/2012/12/is-becks-sheet-music-album-a-cop-out-radical-art-or-both/266125>

(“In an ideal world, I’d find a way to let people truly interact with the records I put out,” Beck said in a 2006 interview with *Wired*, “not just remix the songs, but maybe play them like a videogame.”).

YouTube and other websites, it worked.⁷ Other fans, however, have criticized the concept as being pretentious⁸ and exclusionary because not everyone can read music or play a musical instrument.⁹ “There is an obvious hurdle of musical literacy.”¹⁰ This led one fan to wonder, “Does Beck only want musicians and musically trained fans to enjoy his music?”¹¹

The anomaly of Beck’s sheet music album demonstrates the often-elided distinction between a musical composition and the sound recording of its performance; each is separately copyrightable. This article contends that the audience for those two kinds of works—compositions and sound recordings—is different. This insight has significant implications for the test for copyright infringement of musical compositions.

Copyright infringement occurs when one work is substantially similar to the work it copies.¹² In music, substantial similarity is determined by playing recordings of the two works to jurors in the Lay Listener Test.¹³ The Lay Listener Test is meant to capture whether the defendant appropriated in his work enough of what in another’s work is “pleasing to the ears of lay listeners, who comprise the audience for whom such popular

⁷ See, e.g., Automatic Toys, *Beck—Do We? We Do!*, YOUTUBE (Sept. 8, 2012), <http://www.youtube.com/watch?v=Zc0fnEY89Co>.

⁸ See, e.g., Downtownrobbrown, Blog Comment, *Most Pretentious Move in Music History?*, SOULSTRUT (Nov. 13, 2012, 1:00 PM), <http://www.soulstrut.com/index.php/forums/viewthread/74912/>; Benjamin Salt, *Beck Hansen’s Song Reader; Pretentious Elitism Or Creative Masterstroke?*, GIVE THE ANARCHIST A CIGARETTE (Dec. 18, 2012), <http://givetheanarchistacigarette.blogspot.com/2012/12/beck-s-song-reader-pretentious-elitism.html>.

⁹ notnicolajames, “Beck’s new release is sheet music only—not a recorded CD”, NOTNICOLAJAMES, (Aug. 11, 2012), <http://notnicolajames.wordpress.com/2012/08/11/beck-s-new-release-is-sheet-music-only-not-a-recorded-cd/>.

¹⁰ Yi, *supra* note 6.

¹¹ notnicolajames, Comment to *Beck’s New Album Won’t Be an Album—Just Sheet Music*, GUARDIAN (Aug. 11, 2012, 12:39 AM), <http://www.theguardian.com/music/2012/aug/09/beck-new-album-sheet-music#comment-17622195>. Others wondered if the beauty of the sheet music alone was worth the purchase price. James Montgomery, *Beck Stages Return With New Non-Album, “Song Reader”*, MTV.COM (Aug. 8, 2012, 3:16 PM), <http://www.mtv.com/news/articles/1691428/beck-hansens-song-reader-sheet-music-album.jhtml> (“Oh, and in case you can’t actually *play* a musical instrument, well, you can still admire the pretty pictures that come along with the “Song Reader.” . . . There’s also an introduction by Slate’s Jody Rosen and a foreword by Beck himself. So it’s not *just* sheet music.”).

¹² Assuming the copied work is copyrighted and that the copying is of copyrightable elements in the original work. See, e.g., *Arnstein v. Porter*, 154 F.2d 464, 468 (2d Cir. 1946); MCCARTHY, J. THOMAS ET AL., MCCARTHY’S DESK ENCYCLOPEDIA OF INTELLECTUAL PROPERTY 576-77 (3d ed. 2004).

¹³ 4 CHARLES MCMANIS ET AL., WEST’S FEDERAL ADMINISTRATIVE PRACTICE § 4009 (3d ed. 1999) (“The ‘ordinary lay observer’ test, used by a number of circuits, was focused by the Fourth Circuit upon an intended audience for the copyright owner’s work and whether that audience has specialized expertise relevant to their purchasing decision.”).

music is composed.”¹⁴ As currently utilized by courts, the Lay Listener Test applies to both musical compositions and the sound recordings of their performances. This general application of the Lay Listener Test fails to acknowledge a fundamental reality—that the audience for musical compositions is different from the audience for musical recordings. The audience for musical recordings is anyone who listens to musical sound recordings, be it on iPods, on the radio, in shopping centers, or via the soundtracks of movies or television shows. In contrast, the audience for musical compositions is not the average listener of music. If we take copyright’s most common definition of a musical composition as “an artist’s music in written form,”¹⁵ then the intended audience for musical compositions, like those in Beck’s *Song Reader*, would appear to be other musicians who are capable of performing and/or recording musical performances for listeners.¹⁶ This theoretical insight demands that courts change the way they administer the Lay Listener Test when adjudicating suits of alleged copyright infringement of musical compositions.

In this context, the Lay Listener Test prejudices outcomes because it incorrectly targets lay jurors rather than musical performers. For the purposes of this article, an experiment was conducted in which a mock Lay Listener Test was given to two groups: musicians¹⁷ and laypeople.¹⁸ Both groups listened to two pairs of songs.¹⁹ Each pair of songs consisted of the same musical composition performed in different manners; thus, although the composition for each recording was exactly the same, the sound recordings were different. The musicians and laypeople were asked to determine the similarities between the songs in each pair on an ordinal scale (“1 = Not at all similar,” to “5 = Very similar”). When comparing the compositions, the respondents should have answered “5,”

¹⁴ *Arnstein*, 154 F.2d at 468-69, 473.

¹⁵ *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002), *aff’d*, 349 F.3d 591 (9th Cir. 2003), *amended on denial of reh’g*, 388 F.3d 1189 (9th Cir. 2004), *aff’d*, 388 F.3d 1189 (9th Cir. 2004) (“A musical composition captures an artist’s music in written form.”).

¹⁶ Readers of written music may enjoy a musical composition as a purely notational or quasi-linguistic work.

¹⁷ The group of musicians included approximately 40 musical performers (two sections of students in a music theory class).

¹⁸ There were approximately 100 music listeners—law students selected from Golden Gate University’s 1L class—who, like a typical jury population, consisted primarily of non-musicians but contained a small percentage of musicians with varying degrees of education and training.

¹⁹ Sound clips are available at www.jlundlaw.com/p/experiment.html.

because the compositions were identical.²⁰ In fact, musicians got much closer to the right answer (4.42) than laypeople (3.60).²¹ The musicians' responses to open-ended questions indicated that they better understood the precise nature and quality of the similarities and differences between the songs than the laypeople respondents. Furthermore, it appears that laypeople cannot be trained in a reasonable time frame to listen with a more discerning ear. In a different iteration of the experiment, laypeople received a 15-minute ear-training exercise yet failed to show any discernible improvement in completing the exercise. Another group of laypeople underwent a semester-long music appreciation class and demonstrated only a slight improvement in completing the exercise. These experimental findings suggest that musicians listen to, and experience, music in distinctively different ways than laypeople, ways that would alter the outcomes of the Lay Listener Test.

This finding is extremely problematic because, as a practical matter, by determining whether a work has been infringed, the Lay Listener Test effectively defines the scope of a copyright. And if musicians and laypeople assess similarity differently, the scope of the copyright will depend on who is asked rather than what the law actually says: a copyright protects others from copying what is "pleasing to the ears of lay listeners, who *comprise the audience* for whom such popular music is composed."²²

If musical compositions are only accessible to musicians, then musicians should comprise the group that courts probe to determine if there has been a copyright violation. Consequently, this article advocates that courts alter the Lay Listener Test to include proper statistical sampling that captures reactions from a composition's intended audience—musical performers. This suggestion is not as drastic as it sounds. Courts commonly use consumer surveys (completed by the intended users of a trademarked brand) in trademark infringement actions,²³ and rules ensuring the validity and reliability of trademark surveys

²⁰ The sound clips were electronically generated to have identical melody, harmony, and rhythm. Participants were asked to compare only the similarities between these elements and to exclude any consideration of genre, style, tempo, and instrumentation.

²¹ These results were for Song 3 and 4.

²² *Arnstein v. Porter*, 154 F.2d 464, 473 (2d Cir. 1946) (emphasis added).

²³ See Shashank Upadhye, *Trademark Surveys: Identifying the Relevant Universe of Confused Consumers*, 8 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 549, 555-56 (1998) ("In short, strong consumer survey results can counter a defendant's argument that the plaintiff failed to prove actual confusion.").

can arguably apply equally well in the music copyright context.²⁴ Under this proposal, survey evidence gathered from musical performers would not serve as conclusive proof of substantial similarity. The jury, as fact finder, would still bear the ultimate responsibility for making a determination of substantial similarity under the court's watchful eye. Under this framework, the fact finder would weigh the credibility of the evidence of substantial similarity for the intended audience rather than stand in as the intended audience and make a potentially misguided judgment of substantial similarity. In collecting better evidence about how the intended audience actually experiences the work, the substantial similarity analysis would shift from an approach that relies upon judicial guesswork to one that employs more reliable statistical sampling.

Part I of this article explores the origins and reasons for copyright's distinction between musical compositions and musical recordings. This section discusses the Lay Listener Test's focus on intended audience and argues that the audience for a musical composition is musical performers, not laypeople. Part II details the experiment and the results underlying this article and demonstrates that musicians understand music differently than laypeople in ways that would alter the outcome of the Lay Listener Test. Part III concludes that the Lay Listener Test should include surveys of the intended audience (musical performers), similar to the way that trademark infringement cases make use of consumer surveys that target the intended audience of the allegedly infringed trademark.

I. MUSICAL PERFORMERS AS THE INTENDED AUDIENCE

In the Lay Listener Test for music copyright infringement, jurors are played songs and asked to determine whether the defendant took enough of what is "pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed," to constitute a misappropriation.²⁵ For musical recordings, the intended audience is clear—it is the general public who either buys the recording directly or

²⁴ See J. Michael Keyes, *Musical Musings: The Case for Rethinking Music Copyright Protection*, 10 MICH. TELECOMM. & TECH. L. REV. 407, 442 (2004) ("Similarly, in cases of music copyright infringement, the 'reactions' of listeners is at the heart of the inquiry as to whether there is an infringement. Because surveys 'create an experimental environment from which to make informed inferences,' they could be used by the trier of fact in music copyright infringement actions to make the ultimate determination of illicit copying."); *infra* Part III.B.

²⁵ *Arnstein*, 154 F.2d at 473.

consumes it indirectly, such as through the soundtrack of a film or television show. In contrast, a musical composition, defined by copyright law as being roughly what is contained in the sheet music, is not audible in its purest form, but rather is only a component part of any given performance or recording of the composition.²⁶ Musical performers constitute the only constituency that can properly consume musical compositions. As such, the Lay Listener Test should rely on fluent musicians as the intended audience when employed to assess whether an infringement of a musical compositions has occurred.

A. *The Distinction Between Musical Composition Copyrights and Sound Recording Copyrights*

Under U.S. copyright law, each musical recording can include at least two²⁷ separate and distinct copyrights: (1) a copyright for the underlying musical composition, and (2) a copyright for the sound recording of a musical composition.²⁸ These two copyrights are doctrinally separate: one protects what the other does not. Traditionally, the composition copyright covered what appeared in a typical piece of sheet music (though sheet music itself was not equivalent to the composition)²⁹: melody,³⁰ harmony,³¹ rhythm,³² and lyrics, if any.³³ Congress introduced copyright protection for sound recordings in the

²⁶ *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002), *aff'd*, 349 F.3d 591 (9th Cir. 2003), *amended on denial of reh'g*, 388 F.3d 1189 (9th Cir. 2004), *aff'd*, 388 F.3d 1189 (9th Cir. 2004) (“A musical composition’s copyright protects the generic sound that would necessarily result from any performance of the piece.”).

²⁷ It is possible that there could be a third copyright—a derivative work copyright in the arrangement of the composition. 17 U.S.C. § 101 (2012) (defining a derivative work as “a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted.”).

²⁸ *See T.B. Harms Co. v. Jem Records, Inc.*, 655 F. Supp. 1575, 1576 n.1 (D.N.J. 1987) (“When a copyrighted song is recorded on a phonorecord, there are two separate copyrights: one on the musical composition and the other in the sound recording.”).

²⁹ A musical composition is not necessarily just the sheet music or anything that could be contained in sheet music. Rather, a musical composition consists of “the generic sound that would necessarily result from any performance of the piece.” *Newton*, 204 F. Supp. 2d at 1249.

³⁰ Melody is “[a] single line of notes heard in succession as a coherent unit.” MARK EVAN BONDS, *LISTEN TO THIS* 517 (2d ed. 2011).

³¹ Harmony is “[t]he sound created by multiple voices [or pitches] playing or singing together.” *Id.* at 516.

³² Rhythm is “[t]he ordering of music through time.” *Id.* at 518.

³³ 1 MELVILLE B. NIMMER & DAVID NIMMER, *NIMMER ON COPYRIGHT* § 2.05[D], at 2-58 (2013) (“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.”).

1970s.³⁴ The copyright for sound recordings protects sounds fixed in a phonorecord,³⁵ and includes performance choices such as tempo,³⁶ instrumentation/timbre,³⁷ key,³⁸ and genre/style. Others are free to make a different sounding recording, but they are not free to copy or sample that exact recording.³⁹ As a practical reality, there are musicians who just compose and musicians who just perform.⁴⁰ In making its distinction between

³⁴ Sound Recordings Act, Pub. L. No. 92-140, 85 Stat. 391 (1971) (codified as amended at 17 U.S.C. § 114 (2012)).

³⁵ Sound recordings are defined as “works that result from the fixation of a series of musical, spoken, or other sounds . . .” 17 U.S.C. § 101; *see also* Circular 56, U.S. Copyright Office, <http://www.copyright.gov/circes/circ56.pdf> (“Generally, copyright protection extends to two elements in a sound recording: (1) the contribution of the performer(s) whose performance is captured and (2) the contribution of the person or persons responsible for capturing and processing the sounds to make the final recording.”); Copyright “Help”, found at <http://www.copyright.gov/eco/help-author.html> (“A sound recording consists of the contributions of the performer(s) and/or the producer(s)/sound engineer(s). The performance and production form an integrated whole, i.e. a sound recording, and are subject to a single registration. A sound recording is separate and distinct from the underlying work being recorded. For example, a song (words and music) is a separate work from the recording of that song. . . . Performance refers to sound recording authorship fixed by a human performer. The performance of a musical work consists of the particular vocal and/or instrumental recorded rendition of that work.”).

³⁶ Tempo is the speed or rate at which a song is played. *See* BONDS, *supra* note 30 at 518 (defining tempo rubato).

³⁷ Timbre is the quality of a sound that makes two instruments or voices sound different from each other. *See id.* at 353, 518. For instance, one can distinguish between a human voice and a trumpet because of the timbre, or unique sound quality of each. *See id.* at 360. Timbre can vary within a particular instrument or sound class (for instance, a distorted electric guitar sound versus a classical acoustic guitar sound) or even in the same performance (for instance, when a blues saxophone player “growls” into the instrument or plays with more audible “breathiness”). *See id.* at 118-19. Perhaps as a result, the Ninth Circuit in *Newton v. Diamond* concluded that timbre choices were a performance aspect of a sound recording, and not a compositional aspect:

For example, Dr. Dobrian declared that ‘Mr. Newton blows and sings in such a way as to emphasize the upper partials of the flute’s complex harmonic tone, [although] such a modification of tone color is not explicitly requested in the score.’ Dr. Dobrian also concludes that Newton ‘uses breath control to modify the timbre of the sustained flute note rather extremely’ and ‘uses portamento to glide expressively from one pitch to another in the vocal part.’ Dr. Dobrian concedes that these elements do not appear in the score, and that they are part of Newton’s performance of the piece.

Newton v. Diamond, 388 F.3d 1189, 1194 (9th Cir. 2004).

³⁸ Key is where in the musical scale a song is pitched. *See* BONDS, *supra* note 30, at 517.

³⁹ 17 U.S.C. § 114(b) (“The exclusive rights of the owner of copyright in a sound recording under clauses (1) and (2) of section 106 do not extend to the making or duplication of another sound recording that consists entirely of an independent fixation of other sounds, even though such sounds imitate or simulate those in the copyrighted sound recording.”).

⁴⁰ *See* Gabriel Jacob Fleet, Note, *What’s in A Song? Copyright’s Unfair Treatment of Record Producers and Side Musicians*, 61 VAND. L. REV. 1235, 1278-79 (2008); *see also* Olufunmilayo B. Arewa, *YouTube, UGC, and Digital Music: Competing Business and Cultural Models in the Internet Age*, 104 NW. U. L. REV. 431, 456 (2010).

the composition and sound recording copyright, Congress decided to protect each separately.⁴¹

Musical compositions first received copyright protection at a time when sheet music sales dominated.⁴² In the absence of audio reproduction technologies, written sheet music was essentially the only means of fixing a musical composition in a “tangible medium,” as is required under the Constitution⁴³ and the Copyright Act.⁴⁴ Not only that, the purchase of sheet music

⁴¹ See Copyright Act of 1831, ch. XVI, 4 Stat. 436 (1831). Although music was not protected by the first U.S. Copyright Act in 1790, when copyright protection for music was added in the Copyright Act in 1831 it gave a song’s composer “the sole right and liberty of reprinting, publishing and vending such . . . [work] . . . in whole or in part . . .” *Id.* This was the start of the composition copyright. The scope of the composition copyright was later expanded in 1897 specifically to include the exclusive right to perform the work publicly. Act of Jan. 6, 1897, 54th Cong., 2d Sess., 29 Stat. 694. In addition, composition copyright holders currently have the right to exclude others from making copies or phonorecords, to prepare derivative works, and to distribute copies, among other rights. 17 U.S.C. § 106 (2012).

[T]he owner of copyright under this title has the exclusive rights to do and to authorize any of the following:

- (1) to reproduce the copyrighted work in copies or phonorecords;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;
- (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and
- (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

Id.

⁴² EDWARD B. SAMUELS, *THE ILLUSTRATED STORY OF COPYRIGHT* 31-32, 131, 136 (2000). Music consumers would purchase sheet music of popular songs in books, magazines, or individually. *Id.* The sheet music could then be performed on a home piano or other instrument. *Id.*

⁴³ See U.S. CONST. art. I, § 8, cl. 8 (authorizing federal copyright protection to apply to “writings”).

⁴⁴ 17 U.S.C. § 102 (2012) (“Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression . . .”); *id.* § 101 (“A work is ‘fixed’ in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.”). For a discussion of the technological shift from reproducing compositions in sheet music form to piano rolls for player pianos, see Kurt E. Kruckeberg, Note, *Copyright “Band-Aids” and the Future of Reform*, 34 SEATTLE U. L. REV. 1545, 1548 (2011).

was the primary means of consuming music at the time.⁴⁵ Take, for instance, Beck's inspiration for his *Song Reader* album—the Bing Crosby 1937 hit “Sweet Leilani.”⁴⁶ Although Bing Crosby had a popular recorded version, the song's sales came largely through the purchase of its sheet music.⁴⁷

Though sound recordings became increasingly popular in the 1950s and 1960s, the composition copyright remained the only music copyright.⁴⁸ But in the early 1970s, Congress passed The Sound Recording Act of 1971 (SRA)⁴⁹. The SRA protected the interests of the music industry by attempting to curtail the rampant unauthorized copying of sound recordings.⁵⁰ Musical industry experts testified that legitimate sound recording owners in 1970 lost at least \$100 million in revenue due to this unauthorized copying.⁵¹ The SRA was later incorporated into the current Copyright Act of 1976,⁵² which defined sound recordings as “works that result from the fixation of a series of musical, spoken, or other sounds.”⁵³

There are both market and legal consequences to the Copyright Act's distinction between musical compositions and musical recordings. Generally, a composer owns a work's musical composition copyright whereas a performer—or, more typically, a record label—owns the sound recording copyright.⁵⁴ The composition copyright is generally thought to include only the work's “rhythm, harmony and melody.”⁵⁵ Although some

⁴⁵ Keyes, *supra* note 24, at 410 (“Thus, the music that was consumed by the public of those days was primarily printed sheet music.”).

⁴⁶ Dayal, *supra* note 3.

⁴⁷ The song sold 54 million copies, according to Beck, or nearly half the country's population. *Id.*

⁴⁸ See *Prohibiting Piracy of Sound Recordings: Hearings on S. 646 and H.R. 6927 Before Subcomm. No. 3 of the H. Comm. on the Judiciary*, 92d Cong., 1st Sess. 1, 25 (1971).

⁴⁹ Pub. L. No. 92-140, 85 Stat. 391 (1971) (codified as amended at 17 U.S.C. § 114 (2012)).

⁵⁰ Note, *A New Spin on Music Sampling: A Case for Fair Pay*, 105 HARV. L. REV. 726, 735 n.38 (1992) (citing *Prohibiting Piracy of Sound Recordings: Hearings on S. 646 and H.R. 6927 Before Subcomm. No. 3 of the H. Comm. on the Judiciary*, 92d Cong., 1st Sess. 1, 25 (1971)).

⁵¹ *Id.*

⁵² Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (1976) (current version at 17 U.S.C. § 101 (2012)). This act gave copyright protection to sound recordings that were made after February 15, 1972. *See id.*

⁵³ *Id.*

⁵⁴ Arewa, *supra* note 40, at 456 (“Recorded music typically involves two separate copyrights, one in the musical work, generally retained by the composer or songwriter, and one in the sound recording, generally held by recording companies.”).

⁵⁵ NIMMER & NIMMER, *supra* note 33, § 2.05[D], 2-58 (“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.”); *accord* *Bridgeport Music, Inc. v. Still N The Water Publ'g*, 327 F.3d 472, 475 n.3 (6th Cir. 2003) (per curiam); *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002), *aff'd*, 349 F.3d 591 (9th Cir.

commentators have argued for the adoption of a more expansive definition of composition copyright that looks beyond these elements, no court has yet expanded the protection of a composition copyright.⁵⁶

If a music performer made a sound recording of a composition that included additional expressive elements that were both original to that sound recording and that satisfied the Copyright Act's "modicum of creativity"⁵⁷ requirement, she would own a copyright over all of that new and original creative expression.⁵⁸ Original expression in a sound recording of a musical composition could include performance choices like tempo and the overall "sound" of the performance.⁵⁹ Unlike musical composition copyrights, however, the recording copyright only protects exact replications of earlier recordings (i.e., sampling).⁶⁰ Others are free to make "sound-alikes."⁶¹ For instance, although they captured the "sound," "feel," and even the instrumentation of a Marvin Gaye recording in their hit "Blurred Lines," performance artists 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.⁶²

The distinction between the copyrights is important for one more aspect of copyright infringement litigation: determining the proper audience for a musical composition for purposes of the Lay Listener Test.

2003), *amended and reh'g denied by* 388 F.3d 1189 (9th Cir. 2004), *aff'd*, 388 F.3d 1189 (9th Cir. 2004).

⁵⁶ Jamie Lund, *An Empirical Examination of the Lay Listener Test in Music Composition Copyright Infringement*, 11 VA. SPORTS & ENT. L.J. 137, 144 (2011) (arguing that no court has "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.").

⁵⁷ *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, n.51 (1991).

⁵⁸ *Newton*, 388 F.3d at 1193-94.

⁵⁹ *Id.* at 1194.

⁶⁰ 17 U.S.C. § 114(b) (2012) ("The exclusive rights of the owner of copyright in a sound recording under clauses (1) and (2) of section 106 do not extend to the making or duplication of another sound recording that consists entirely of an independent fixation of other sounds, even though such sounds imitate or simulate those in the copyrighted sound recording."); *see also Newton*, 388 F.3d at 1194 (finding that the composition copyright was not infringed where the defendant had sampled a sound recording consisting primarily of "highly developed performance techniques, rather than the result of a generic rendition of the composition.").

⁶¹ 17 U.S.C. § 114(b).

⁶² *See, e.g.*, Complaint for Declaratory Relief, *Williams v. Bridgeport Music, Inc.*, No. 13 Civ. 06004 (C.D. Cal. Aug. 15, 2013), *available at* <http://www.scribd.com/doc/160768726/Blurred-Lines-Complaint>.

B. *Looking to the Intended Audience*

Copyright infringement requires a showing of substantial similarity, which, in a musical composition copyright case, is typically assessed by performing the two songs to the jury in what is called the Lay Listener Test.⁶³

Misappropriation of a copyrighted musical composition is a question of fact to be determined by a jury.⁶⁴ A *prima facie* case of copyright infringement consists of proving: (1) that the allegedly infringed work is copyrighted, (2) that the defendant copied from the copyrighted work, and (3) that the defendant copied enough of the protected expression so as to make the two pieces substantially similar.⁶⁵ To find substantial similarity, the jury must conclude that the defendant misappropriated either a quantitatively large portion of the plaintiff's original copyrightable expression, or a smaller, but qualitatively significant, portion of the plaintiff's protected original expression.⁶⁶

Although a standard for substantial similarity has never been clearly defined, there are several cases that suggest that looking to the opinions of the intended audience is not only relevant, it is the core consideration.

First and foremost, *Arnstein v. Porter*, the source of the Lay Listener Test, suggests that the test is meant to determine the effect on the intended audience:

The plaintiff's legally protected interest is not, as such, his reputation as a musician but his interest in the potential financial returns from his compositions which derive from the lay public's

⁶³ *Arnstein v. Porter*, 154 F.2d 464, 473 (2d Cir. 1946). *But see* ROBERT C. OSTERBERG & ERIC C. OSTERBERG, *SUBSTANTIAL SIMILARITY IN COPYRIGHT LAW*, § 3:1.1 (2003), available at http://www.pli.edu/product_files/booksamples/631_sample3.pdf.

⁶⁴ *Arnstein*, 154 F.2d at 473 (stating that similarity is "an issue of fact which a jury is peculiarly fitted to determine. . . . [E]ven if there were to be a trial before a judge, it would be desirable (although not necessary) for him to summon an advisory jury on this question." (footnote omitted)).

⁶⁵ *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 361 (1991) ("To establish infringement, two elements must be proven: (1) ownership of a valid copyright, and (2) copying of constituent elements of the work that are original."); *Dawson v. Hinshaw Music Inc.*, 905 F.2d 731, 732 (4th Cir. 1990) ("[T]he law has established a burden shifting mechanism whereby plaintiffs can establish a *prima facie* case of infringement by showing possession of a valid copyright, the defendant's access to the plaintiff's work, and substantial similarity between the plaintiff's and defendant's works."); *Marks v. Leo Feist, Inc.*, 290 F. 959, 960 (2d Cir. 1923) ("To constitute an infringement of the appellant's composition, it would be necessary to find a substantial copying of a substantial and material part of it.").

⁶⁶ *See Baxter v. MCA, Inc.*, 907 F.2d 154 (9th Cir. 1990) (unpublished disposition) (affirming trial court's special verdict form where, after excluding the possibility of quantitative similarity, the form asked: "Is the expression of the musical idea and the music from 'E.T.' substantially similar as defined in the instructions to a qualitatively important music expression in 'Joy'?" (internal quotations omitted)).

approbation of his efforts. The question, therefore, is whether defendant took from plaintiff's works so much of what is pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed, that defendant wrongfully appropriated something which belongs to the plaintiff.⁶⁷

Courts typically only consider questions of appropriate intended audience when the general public does not constitute the audience for a work.⁶⁸ The inquiry of intended audience particularly arises when the subject matter demand specialized expertise in order to be understood, as in cases pertaining to computer code, and, as this article argues, musical compositions.⁶⁹

Some, relying on language from *Feist Publications, Inc. v. Rural Telephone Service Co.*, have argued that courts should not be concerned with a work's intended audience. In that case, the Supreme Court was presented with whether a phonebook was copyrightable.⁷⁰ The Court noted that all that is necessary to show infringement is ownership of a valid copyright and the "copying of constituent elements of the [copyrighted] work that are original."⁷¹ This two-pronged requirement suggests that the jury might play a sort of "Where's Waldo" to find copied original expression in the defendant's work; infringement would arise whenever the jury finds identical elements between the two works.

The Supreme Court has never endorsed nor rejected the Lay Observer Test. (The Lay Listener Test is the Lay Observer

⁶⁷ *Arnstein*, 154 F.2d at 473 (footnotes omitted). This quote might be interpreted in such a way that the phrase "who comprise the audience" modifies the phrase "lay listeners," indicating that the intended audience for everything would be the lay listener. Professors Jeanne Fromer and Mark Lemley make the argument that the court is using the jury as a substitute for typical consumers of the works based on: (1) the court's exclusion of both tone-deaf people from appropriate audience members and (2) the suggestion that a judge should not attempt to make a decision himself but should assemble an advisory jury to experience the work. See Jeanne Fromer & Mark Lemley, *The Audience in Intellectual Property Infringement*, 112 MICH. L. REV. (forthcoming 2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2272235 ("This reasoning seems to suggest that typical consumers of the work ought to be the audience (even though the Second Circuit cases applying *Arnstein* consistently specify a different audience construct, the ordinary observer).").

⁶⁸ Fromer & Lemley, *supra* note 67, at 29-30 (describing the Second Circuit's use of intended audience for software copyrights, the Ninth Circuit's use of intended audience for computer games, and the Fourth Circuit's use of intended audience for church choir music).

⁶⁹ See, e.g., *Whelan Assocs. v. Jaslow Dental Lab.*, 797 F.2d 1222, 1232 (3d Cir. 1986) (computer software infringement case where the court admitted evidence regarding whether a specialized audience of computer programmers would consider the works to be substantially similar).

⁷⁰ *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

⁷¹ *Id.* at 361.

Test; it is “listener” because the comparison is aural). In fact, commentators have criticized the test as improperly departing from *Feist’s* two-prong test of “copying of constituent elements of the [copyrighted] work that are original.”⁷²

There is an inherent appeal to the *Feist* approach for determining copyright infringement, particularly its ability to be administered in a straightforward fashion by courts and its ease of application by jurors. But what if there is no exact replication of original expression, only attempts to evoke or even paraphrase the expression? Professor Nimmer has argued that “[t]he mere fact that the defendant has paraphrased rather than literally copied will not preclude a finding of substantial similarity [C]opyright ‘cannot be limited literally to the text, else a plagiarist would escape by immaterial variations.’”⁷³ When determining similarity, courts frequently state that two works may be either quantitatively or qualitatively similar.⁷⁴ Qualitative similarity addresses the relative significance of the copied portion.⁷⁵ In *Newton v. Diamond*, a Ninth Circuit musical composition copyright infringement case, the dissent opined that “[e]ven passages with relatively few notes may be qualitatively significant. The opening melody of Beethoven’s Fifth Symphony is relatively simple and features only four notes, but it certainly is compositionally distinctive and recognizable.”⁷⁶

Insofar as a creative work is “distinctive” and “recognizable,” it can only be so to a particular ear, eye, or other sensory perception. In his 1967 seminal essay “The Death of the Author,” Roland Barthes discusses the essential role of the audience in understanding a creative work.⁷⁷ Barthes theorized that the audience—with its various cultural, historical and social contexts—infuses a creative work with constantly renewed meanings.⁷⁸ He writes, “The text is a fabric of quotations resulting from a thousand sources of culture.”⁷⁹ For

⁷² *Id.*

⁷³ 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.03[A][1] (2013) (quoting *Nichols v. Universal Pictures Co.*, 45 F.2d 119, 121 (2d Cir. 1930)).

⁷⁴ *See, e.g.*, *Newton v. Diamond*, 388 F.3d 1189, 1195 (9th Cir. 2004) (“Substantiality is measured by considering the qualitative and quantitative significance of the copied portion in relation to the plaintiff’s work as a whole.”).

⁷⁵ *Id.* at 1196 (noting that plaintiff had failed to provide sufficient evidence of the “segment’s significance in relation to the composition as a whole” to show qualitative similarity).

⁷⁶ *Id.* at 1197.

⁷⁷ ROLAND BARTHES, *The Death of the Author*, in *THE RUSTLE OF LANGUAGE* 49, 53 (Richard Howard trans., 1986).

⁷⁸ *Id.*

⁷⁹ *Id.*

Barthes, the significance of a creative work lies not in the author but in the audience that enjoys or consumes it.

Barthes' postmodernist insight has a practical reality in the context of the Lay Listener Test. In asking juries to determine substantial similarity, courts recognize that judgments about the uniqueness, meaning, and cultural or social significance of a work must be obtained from its audience. However, this act of substituting the jury's judgment for that of a work's intended audience can be problematic when the jury does not properly represent the constituencies that make up the particular work's intended audience. Although the members of a lay jury may comprise part of the intended audience for a popular work, this is not always the case.

C. *Musical Performers as the Intended Audience*

Who constitutes the audience for whom such popular musical compositions are composed? The Second Circuit in *Arnstein v. Porter* assumed that, for popular music, it was the average juror selected from the general population.⁸⁰ The plaintiff in that case, Ira Arnstein was a Tin Pan Alley composer who, despite sales of nearly two million for one of his songs, was largely known then—and is only known now—for the series of lawsuits he brought against more successful composers.⁸¹ Among other theatrics, Arnstein was known for strolling around the streets of New York City wearing a sandwich board that read, “My songs have been plagiarized by the following writers: Irving Berlin, George Gershwin, Cole Porter, Jerome Kern, Rodgers and Hart.”⁸² The defendant in the case was Cole Porter, the most prolific and influential of the Tin Pan Alley composers.⁸³

To determine whether there was sufficient “substantial similarity” between Arnstein's and Porter's respective compositions to constitute unlawful or illicit copying, the court employed what it called the “ordinary lay hearer” test (*i.e.*, the Lay Listener Test).⁸⁴ Arnstein would play the songs in open

⁸⁰ 154 F.2d 464, 473 (2d Cir. 1946).

⁸¹ B. MacPaul Stanfield, Note, *Finding the Fact of Familiarity: Assessing Judicial Similarity Tests in Copyright Infringement Actions*, 49 DRAKE L. REV. 489, 489-90 & n.1 (2001); see also Jack Lawrence, *The Story Behind the Song: Play Fiddle Play*, JACK LAWRENCE SONGWRITER, http://www.jacklawrencesongwriter.com/songs/play_fiddle_play.html (last visited Sept. 1, 2013).

⁸² Lawrence, *supra* note 81.

⁸³ See *Arnstein v. Porter*, 154 F.2d 464, 467 (2d Cir. 1946).

⁸⁴ *Id.* at 468 (“[T]he test is the response of the ordinary lay hearer.”).

court, and he was known for playing them in a manner that emphasized similarities:⁸⁵

Arnstein's lawyer had a piano and fiddle player in court plus huge music charts, an intriguing presentation. The melody line of a song consists of single notes in the clef treble. Arnstein's chart highlighted notes in both the clef and bass and when the fiddler played only the high-lighted notes . . . lo and behold!—it sounded exactly like our song! Our attorneys spent hours trying to explain this to the judge, *but he would only accept what he was hearing.*⁸⁶

A musicologist might have helped the judge understand what he was hearing, but unfortunately the Second Circuit in *Arnstein* held that the use of such expert testimony to determine substantial similarity was “irrelevant” and should not be permitted.⁸⁷ The court reasoned that the proper inquiry was “whether defendant took from plaintiff’s works so much of what is pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed”⁸⁸ It rejected the use of “the refined ears of musical experts” as being irrelevant because “the views of such persons are caviar to the general [public]—and plaintiff’s and defendant’s compositions are not caviar.”⁸⁹ Because the general public was the intended audience for popular music, the opinions of lay jurors, and not that of music experts, was what mattered in a musical composition copyright case.⁹⁰

Arnstein v. Porter was decided in 1946, just nine years after “Sweet Leilani” became a hit. The decision arose during the peak of an “era when sheet music was king,” a “simpler, seemingly halcyon time, [when] friends would gather around a piano in the

⁸⁵ See, e.g., *Arnstein v. Edward B. Marks Music Corp.*, 82 F.2d 275, 277 (2d Cir. 1936).

⁸⁶ Lawrence, *supra* note 81 (emphasis added). Arnstein continued his practice of performing the compositions in a way that created the impression of greater compositional similarity throughout his many lawsuits. *Song Writer Plays Piano for Court*, N.Y. TIMES, Mar. 7, 1939, at 18.

⁸⁷ *Arnstein*, 154 F.2d at 469 (“If copying is established, then only does there arise the second issue, that of illicit copying (unlawful appropriation). On that issue (as noted more in detail below) the test is the response of the ordinary lay hearer; accordingly, on that issue, ‘dissection’ and expert testimony are irrelevant.”).

⁸⁸ *Id.*

⁸⁹ *Id.* (“The impression made on the refined ears of musical experts or their views as to the musical excellence of plaintiff’s or defendant’s works are utterly immaterial on the issue of misappropriation.”).

⁹⁰ Because experts are not the “intended audience,” the court reasoned that the views of experts were wholly inapplicable to a substantial similarity analysis. *Id.* (“The impression made on the refined ears of musical experts or their views as to the musical excellence of plaintiff’s or defendant’s works are utterly immaterial on the issue of misappropriation; for the views of such persons are caviar to the general—and plaintiff’s and defendant’s compositions are not caviar.”).

parlor and play popular songs together.”⁹¹ The average music consumer was still buying and playing sheet music, and sheet music sales for hit songs generated millions of dollars in revenue.⁹² Today, whether a song is a “hit” is determined not by sales of sheet music, but by record sales. Although the intended audience for popular musical recordings may still be the general public, this article contends that the intended audience for musical compositions is now limited to musicians.

Whereas the general public at the time of *Arnstein* may have been able to consume musical compositions in their sheet music form, the reaction to Beck’s *Song Reader* suggests that the general public has lost this ability. A significant portion of the population cannot sing, perform, or read written music, at least not to the level of fluency. Today, musical fluency resides primarily within a population of musical performers. Therefore, the audience for musical compositions is no longer the general public, but musicians with specialized knowledge and experience who can convert the composition into a form for mass consumption.

The modern market for musical compositions exists almost exclusively in copyright licensing.⁹³ Today’s “music publishers” do not sell sheet music to the public but instead manage the copyrights to the musical compositions they control.⁹⁴ The only direct participants in today’s market for composition copyrights are the songwriters that create the compositions; the publishers and performance-rights societies

⁹¹ Dayal, *supra* note 3.

⁹² *Id.*

⁹³ See *What is Music Publishing?*, MUSIC PUBLISHER’S ASS’N FREQUENTLY ASKED QUESTIONS, <http://www.mpaonline.org.uk/FAQ> (last visited Aug. 27, 2013).

⁹⁴ *Id.*; see also NAT’L MUSIC PUBLISHERS’ ASSOC. (“NMPA”), MUSIC PUBLISHING 101 (2009), available at <http://www.nmpa.org/pdf/legalissues/Music101-NMPA-May2009pdf.pdf>.

A music publisher works with songwriters to market and promote their songs, resulting in exposure of songs to the public and generating income. Music publishers “pitch” songs to record labels, movie and television producers and others who use music, then license the right to use the song and collect fees for the usage. Those fees are then split with the songwriter.

Id. at 4. The shift in intended audience can be attributed to technological innovations that allowed consumers to listen to sound recordings rather than perform the music themselves:

By the 1950s, the music industry was a multi-dimensional being that had at its disposal many techniques and abilities to reach the consuming public with music. The industry had far outpaced its humble beginnings of simply offering copies of sheet music for sale. Indeed, music publishing was no longer the preeminent method of choice for the music industry to peddle its wares to the masses.

Keyes, *supra* note 24, at 417.

that manage them;⁹⁵ and the performers, recording studios, and sound engineers that obtain licenses to record or perform the copyrighted compositions.⁹⁶ The general public is not the intended audience of copyrighted musical compositions in the same way that the average automobile driver is not the intended market for crude oil. Arguably, only performers, music publishers, sound engineers, *etc.*, can properly consume musical compositions. These groups, and not the general public, represent the target market for, and intended audience of, copyrighted musical compositions.

The optimal adjudicatory scenario for musical composition copyright infringement cases, therefore, would be to amass a jury of musicians fluent enough in music theory or performance to be able to understand or consume sheet music. Because this is rarely feasible, courts should allow the introduction of expert testimony that articulates to juries the elements of particular compositions that are substantially similar to one another.⁹⁷ Better yet, courts should allow parties to introduce listener test results from statistically reliable samples of actual musicians.

Of course, none of these additional measures would be necessary if laypeople were adequate stand-ins for musical performers, either because they already experience, or could be trained to experience, musical compositions in a similar fashion to musicians for purposes of the Lay Listener Test. Experiments run for purposes of this article suggest that a significant divide separates the way laypeople and musicians experience a musical performance. The results of the experiments indicate that laypeople experience music differently than musicians, and that basic musical training does not improve laypeople's performance under the Lay Listener Test.

⁹⁵ For example, the major music publisher Warner/Chappell Music describes its role and customer base on its website: "[Warner/Chappell's extensive] catalog makes [it] a natural first stop for A&R executives and record producers, feature film and television production companies and others looking to record or license some of the world's greatest music." *History*, WARNER/CHAPPELL MUSIC, http://www.warnerchappell.com/about.jsp?currenttab=about_us (last visited Sept. 1, 2013).

⁹⁶ See NAT'L MUSIC PUBLISHERS' ASSOC., *supra* note 94 ("Songwriters enter into publishing, co-publishing, or administration agreements with music publishers."); see also Lydia Pallas Loren, *Untangling the Web of Music Copyrights*, 53 CASE W. RES. L. REV. 673, 697-98 (2003).

⁹⁷ Cf. *Arnstein v. Porter*, 154 F.2d 464, 468-69, 473 (2d Cir. 1946).

II. MUSICIANS ALONE ARE CAPABLE OF SUCCESSFULLY PERFORMING THE LAY LISTENER TEST

Experiments conducted for this article indicate that lay jurors improperly fixate on performance aspects of a recorded song in the Lay Listener Test. The results further indicate 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. Specifically, whereas musicians tended to properly focus on similarities in the melody, harmony, and rhythm, a lay participant incorrectly opined, “I think as far as music goes, if it has a different feel to it, it is a different song.”⁹⁸ So long as the Lay Listener Test is administered to laypeople in musical composition infringement cases, society can expect results that impermissibly and incoherently “enlarge (or diminish) the scope of statutory protection enjoyed by a copyright proprietor.”⁹⁹

A. *Lay Jurors Improperly Focus on Performance Similarities*

The author performed an earlier experiment to determine whether jurors are unduly swayed by superficial performance similarities when tasked with assessing potential infringement of copyrightable compositional elements.¹⁰⁰ This section will highlight the main findings of that experiment, and provide a new analysis of the jurors’ responses conducted for purposes of this article.

In the prior experiment, 178 mock jurors were asked to compare the plaintiff’s and defendant’s songs from a Ninth Circuit composition copyright infringement case.¹⁰¹ Half of the jurors heard identical compositions performed similarly, and the other half heard the identical pairs of compositions performed differently. The first half of participants heard both songs (“Songs 1 and 2”) performed as R&B ballads. The other half of participants heard Song 1 performed in a calypso style and Song 2 performed as an R&B ballad. For the purposes of the experiment, the elements of the song protected by the composition copyright were defined as its melody, harmony, and rhythm. Variations in each song were constructed to be

⁹⁸ See experiment responses, on file with author.

⁹⁹ Warner Bros., Inc. v. Am. Broad. Co., 720 F.2d 231, 245 (2d Cir. 1983).

¹⁰⁰ Lund, *supra* note 56, at 138.

¹⁰¹ Swirsky v. Carey, 376 F.3d 841 (9th Cir. 2004).

“compositionally doctrinally identical,” meaning that, although they might differ in performance style, both songs of a given pair had identical melodies, harmonies, and rhythms. In total, the experiment only altered four performance elements of the composition: the tempo, key signature, instrumentation, and genre. All other possible performance elements stayed constant between versions of the same composition.¹⁰²

Although each group 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 (*e.g.*, when both were performed as R&B ballads).¹⁰³ In fact, for the first pair of songs, the impression of substantial similarity by one group of participants was almost exactly the inverse of the other’s¹⁰⁴:

¹⁰² For the experiment,

Tempo, key signature, orchestration, and style/genre were chosen because they are all well-accepted elements of performance that can, and do, vary significantly from performer to performer, or even from performance to performance by the same performer.

....

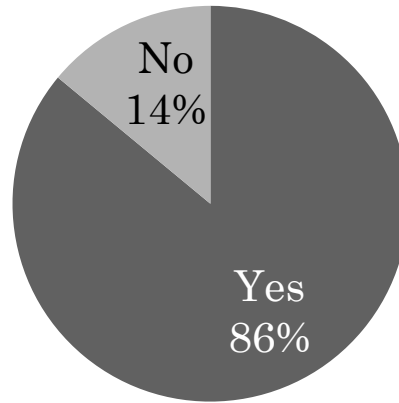
The experiment feature[d] the genre/styles of: (1) slow rhythm and blues, (2) calypso, (3) adult contemporary, and (4) upbeat big band jazz.

Lund, *supra* note 56, at 146-47.

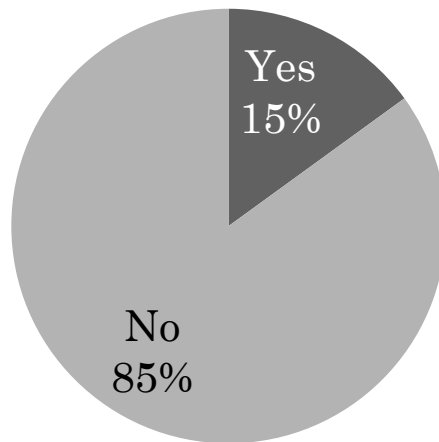
¹⁰³ The subjects’ perception of similarity was less affected by performance when the songs had significant structural similarities, including identical harmonies and very similar patterns of pitches and rhythms in the melody. This finding suggests that, although the manner of performance affects listener perception of similarity, it is not so determinative as to eliminate the awareness of actual structural similarities. *See generally* Lund, *supra* note 56.

¹⁰⁴ Statistical analysis was performed for both musical composition pairs in order to determine the effect, if any, of *performance* on each of the *perception* variables (*ordinal similarity*, *ordinal copying*, and *dichotomous copying*). The full results can be found in author’s previous paper. *See* Lund, *supra* note 56, at 161-73.

**Substantial similarity
finding with songs
played similarly**



**Substantial similarity
finding with songs
played dissimilarly**



In other words, the mock jury seemed primarily swayed by similarities in performance and not by similarities in the copyrightable elements of a composition. If representative of the real world, the results of the survey indicate a problem: jurors are considering aspects of the works that are not copyrightable.¹⁰⁵ In doing so, they are impermissibly altering the statutory scope of the composition copyright.¹⁰⁶

This is not surprising, as the performance of sound recordings by its very nature subjects a jury in a musical composition case to irrelevant performance elements. If a musical composition is essentially information recorded on sheet music or the “generic sound that would necessarily result from any performance of the piece,”¹⁰⁷ then only fluent musicians would be able to make a finding of substantial similarity based upon reading—but not playing—and comparing sheet music. Non-musicians would need to hear the music to perceive it. In order for music to be heard, it must be played in time and must therefore have a tempo. The performance, further, must have some sort of tone quality or timbre; it must be performed through

¹⁰⁵ Although these aspects could be part of the recording copyright, the Copyright Act of 1971 protects only the exact recording itself—others are free to copy any performance aspects of the sound recording as long as they make a separate recording (*i.e.*, they do not “sample” or duplicate the original sound recording itself). 17 U.S.C. § 114(b) (2012). (“The exclusive rights of the owner of copyright in a sound recording under clauses (1) and (2) of section 106 do not extend to the making or duplication of another sound recording that consists entirely of an independent fixation of other sounds, even though such sounds imitate or simulate those in the copyrighted sound recording.”).

¹⁰⁶ Michael Ferdinand Sitzer, Note, *Copyright Infringement Actions: The Proper Role for Audience Reactions in Determining Substantial Similarity*, 54 S. CAL. L. REV. 385 (1981).

Thus, because every copyright infringement claim is contingent upon a finding of substantial similarity, resolution of this issue defines the very extent of copyright protection. The relationship between copyright and substantial similarity is analogous to the relationship existing between ownership of land and trespass: in both instances the acts that are deemed to constitute infringement, *viz.* trespass or substantially similar copying, define the extent of the rights, *viz.* ownership and copyright, respectively. . . . In the copyright context, if substantial similarity may be found to exist when only a few faint similarities between two works are found, the copyright is of great value. If, on the other hand, virtual identity between the works is required, plaintiff’s copyright is of a more limited nature. It follows that the manner in which courts test for substantial similarity, *i.e.*, by using the reactions of average lay observers or those of a particular audience, is so crucial to defining the extent of copyright protection that the choice of test should reflect a policy consistent with the overall goals of copyright law.

Id. at 389.

¹⁰⁷ *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002), *aff’d*, 349 F.3d 591 (9th Cir. 2003), *amended on denial of reh’g*, 388 F.3d 1189 (9th Cir. 2004), *aff’d*, 388 F.3d 1189 (9th Cir. 2004).

a particular instrument or voice. In order for the relationship between the melody and harmony to be maintained, the performance of a musical composition must rely upon a key signature or at least a starting pitch. None of these three categories—tempo, timbre, and key signature—however, are included within a musical composition copyright.¹⁰⁸ Jurors should not be swayed by irrelevant similarities in performance. But, as the experiment demonstrated, they are.

If jurors are not listening to, or unable to identify, compositional similarities in melody, harmony, and rhythm, then what, exactly, are they listening to? For the purposes of this article, further analysis was conducted on the mock jurors' responses to open-ended questions asking them to explain their reactions to the songs. Questions included: "In thinking about your responses to Questions #1¹⁰⁹ and #2,¹¹⁰ what was it about the songs you heard that led you to rate them as you did? In other words, what about the songs led you to conclude they were or were not similar to each other?" Specifically, comments mentioning similarities or differences in *performance* were twice as prevalent as comments mentioning *compositional elements*, further suggesting that the mock jurors incorrectly focused upon superficial performance similarities.¹¹¹

The answers provided by the mock jurors were coded and categorized. For instance, if a mock juror had responded, "As they began playing, the melodies were the same. The sounds were also the same," this response was coded for both "melody" and "instruments." "Melody" was categorized as a compositional element, along with "beat",¹¹² "rhythm," "song structure," "harmony," and "miscellaneous composition." "Tempo," "instruments," "feel," "key" "style," "miscellaneous performance" and "miscellaneous indeterminate" were all classified as performance elements. The results are reflected in the bar chart

¹⁰⁸ See NIMMER & NIMMER, *supra* note 33, § 2.05[D], 2-58 ("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.")

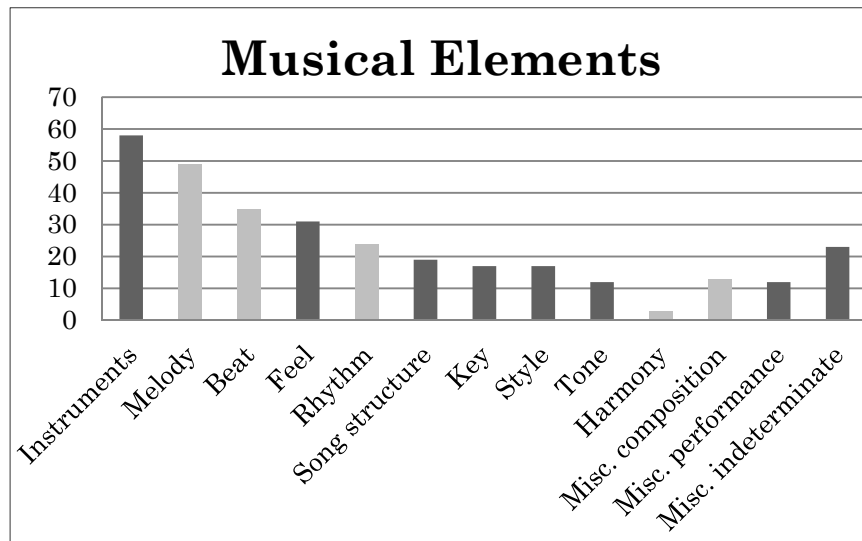
¹⁰⁹ Question 1 asked how similar the jurors thought the songs were on an ordinal scale from 1 to 5. See experiment questions, on file with author.

¹¹⁰ Question 2 asked participants, on a scale of 1 to 5, how likely they thought it was that the songs were so similar that one song had been copied from another. See experiment questions, on file with author.

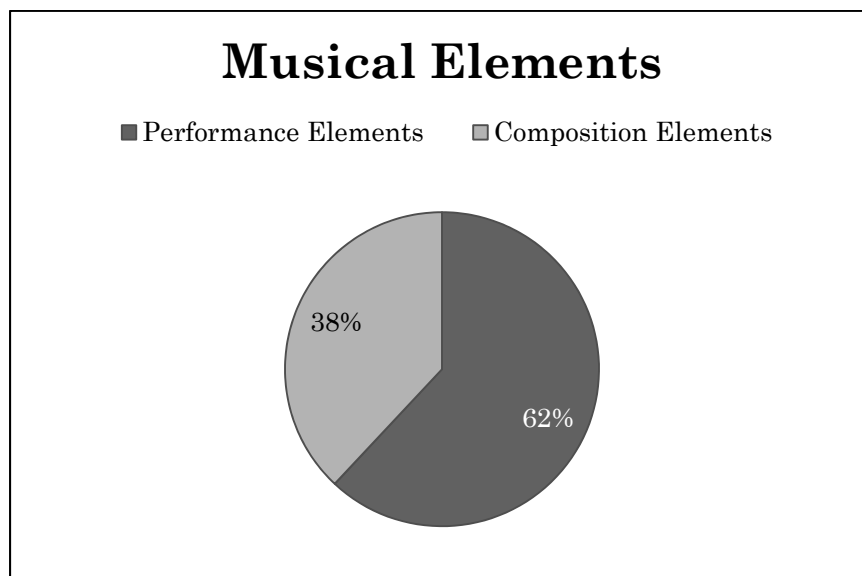
¹¹¹ See experiment responses, on file with author.

¹¹² "Beat" was a popular term used in responses, but it was not always clear whether respondents were referring to compositional elements or performance elements of the songs. For instance, one comment that was coded for "beat" was "The background music to the beat was very different for both songs, and was what was heard the most, so they didn't sound so similar." See experiment responses, on file with author.

below, with performance elements in dark gray and compositional elements in light gray:



When organized by compositional and performance elements, the mock jurors' answers reveal that their focus centered on superficial, irrelevant performance similarities and not on the elements of the song that composition copyright would protect—similarities that should be ignored when applying the Lay Listener Test to a case of musical copyright infringement.



Other aspects of the participants' responses indicated that they did not feel comfortable performing the Lay Listener Test. Many participants noted that they were unfamiliar with the genre of music being played. A few mock jurors went so far as to suggest that their lack of familiarity made it difficult to discern similarities or differences between the songs. One participant noted, "[It's] hard to construct a survey about these music clips in my opinion. I feel like a guitar/drum combo would be more easily identifiable in terms of similarity perhaps?"¹¹³ Another observed, "The music was alright, but made it hard to tell what genres because the songs didn't sound popular."¹¹⁴ Many participants complained about the tone quality. One griped, "The electronic versions of the music made it more difficult for me to judge."¹¹⁵ Another stated, "The 'instruments' sounded computerized and there was no definition to them."¹¹⁶ One participant declined to answer the questions about similarity, simply opining, "Not the type of music I prefer."¹¹⁷

Mock jurors seemed unsure of how to judge the songs that lacked lyrics upon which they could focus: "It was very interesting on how taking out the lyrics and just listening to the instrumentation can almost sound similar."¹¹⁸ One participant observed, "I thought it was interesting only instrumental music was used. Similar music with different words would make them seem less similar."¹¹⁹ Another noted, "I think they sounded similar to me because they were both pretty boring without lyrics."¹²⁰ One juror seemed to go so far as to invent possible lyrics to the songs: "Some of the words from the songs came to mind and they were the same for both."¹²¹ One self-identified musician commented, "If there had been lyrics to these songs, I think listeners would have memorized the melody faster and more easily recognized that it had been copied."¹²²

¹¹³ See experiment results on file with author.

¹¹⁴ *Id.* Interestingly, perhaps because the sound clips were prepared using electronic simulations of instruments such as the flute, cello, etc., many mock jurors incorrectly identified the genre of the music clips as "classical." The genres used in the first pair were R&B and calypso. For the second pair, the songs were performed in contemporary and jazz big band performance genres.

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.* This suggests a possible limitation to this experiment. Most popular music includes lyrics; the experiment's sound clips did not.

Many participants seemed interested not in particular performance elements, but instead focused on the context in which the music was played or how it made them feel: “The 1st . . . songs for both pairs were upbeat and something I would listen to put me in a good mood. The second songs of both pairs were songs I’d listen to in order to relax or unwind to.”¹²³ Another participant expressed the same general sentiments more colorfully: “I noticed how in the 1st song pairing[,] [S]ong 1 made me want to dance, drink pineapple juice, and eat fish while [S]ong 2 made me want to hit myself in the head to make the music stop. I enjoyed taking note of the different ways the songs made me feel.”¹²⁴

There seemed to be some indication that, when confronted with the challenging task of explaining why they found the songs similar or dissimilar, mock jurors focused on the one thing that they could readily perceive—their instinctual feeling about similarity. One commented, “I thought it flowed nicely, quick and easy. It was somewhat difficult to write down in words why I thought pieces were similar. I just felt that that they were.”¹²⁵ Another wrote, “I noticed that the songs were different but I didn’t like them so it was difficult to distinguish them.”¹²⁶ One juror went so far as to say, “I think as far as music goes, if it has a different feel to it, it is a different song.”¹²⁷

The mock jurors’ sentiments reveal that what may make music “pleasing to the ear[.]”¹²⁸ of laypeople are facets of a musical recording copyright and not characteristics of a musical composition copyright.¹²⁹ The former, for example, protects a song’s

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ See experiment responses, on file with author.

¹²⁸ *Arnstein v. Porter*, 154 F.2d 464, 473 (2d Cir. 1946).

¹²⁹ See, e.g., *Gaste v. Kaiserman*, 863 F.2d 1061, 1068-69 (2d Cir. 1988) (“[W]e are mindful of the limited number of notes and chords available to composers and the resulting fact that common themes frequently reappear in various compositions, especially in popular music. Thus, striking similarity between pieces of popular music must extend beyond themes that could have been derived from a common source or themes that are so trite as to be likely to reappear in many compositions.” (citation omitted)); see also *Pyatt v. Raymond*, No. 10-CV-8764, 2011 U.S. Dist. LEXIS 55754, at *19 (S.D.N.Y. May 19, 2011) (“While both songs (like millions of others) share the theme of relationships between men and women, this theme is an idea that is not copyrightable. ‘Only the actual expression of those ideas might be protected, and here there is no overlap in the expression of the ideas embodied in the two songs.’” (quoting *Currin v. Arista Records, Inc.*, 724 F. Supp. 2d 286, 293 (D. Conn. 2010))); *Pendleton v. Acuff-Rose Publ’ns, Inc.*, 605 F. Supp. 477, 481-82 (M.D. Tenn. 1984) (comparing the lyrics to the two songs and noting that “[t]he existence of similarities limited to the general idea or theme will not, as a matter of law, support a claim for copyright infringement.”).

tempo, genre/style, and instrumentation. The latter, alternatively, protects the song's melody, harmony, and rhythms. The mock jurors' apparent disinterest in the actual composition elements of a song strongly suggests that laypeople do not constitute the intended audience of a musical composition copyright.

B. Musicians Perform Better on the Lay Listener Test

A follow-up experiment compared the results of the Lay Listener Test when performed by laypeople¹³⁰ and music majors in their second or fourth semester of traditional music theory core classes. These classes include music theory, dictation (ear training), sight-singing, and keyboard harmony.¹³¹ Each group in this experiment heard two pairs of songs. The songs in each pair had identical compositions but the songs were performed differently. For example, Song 1 was performed as a ballad and Song 2, its pair, was performed in a calypso style.¹³² The participants were then asked to rate the similarity of the two songs on an ordinal scale ("1 = Not at all similar," to "5 = Very similar"). The participants were instructed to compare similarities in melody, harmony, and rhythm and to disregard any similarities in instrumentation, tempo/speed, style, genre, or key signature.¹³³ The participants received the following definitions: "For purposes of this examination, a song consists of melody, harmony, and rhythm. Melody is defined as a single line

¹³⁰ The 108 laypeople used in this exercise consisted of students from the author's civil procedure classes. Although some of these students are musically trained, some randomly selected jurors would also be musically trained in approximately the same proportions, thus their description as "laypeople" rather than "non-musicians."

¹³¹ The 33 to 36 musically inclined participants came from a music theory class and a sight singing class. The 138 to 140 laypeople came from civil procedure classes and a copyright class.

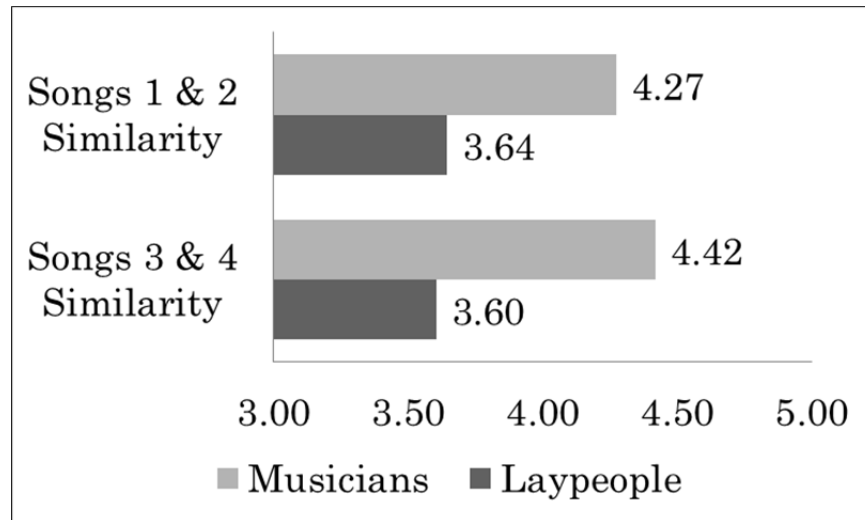
¹³² The songs were identical except for their tempo, instrumentation, key, and genre/style. Recordings of each song pair were generated specifically for the purposes of this research by the musical composition software Sibelius. The sound clips were created to be doctrinally identical; that is, each version of a song had the exact same melody, rhythm, and harmony. Sound clips can be found at <http://www.jlundlaw.com/p/music-copyright-project.html>.

¹³³ Specifically, the prompt instructed: "Please circle the number that best expresses how similar you feel the two pieces are to one another, taking into consideration only melody, harmony, and rhythm. Do not consider any performance similarities such as instrumentation, tempo/speed, style, genre, or key signature. (1= Not at all similar to 5= Very similar)."

Participants were also asked to assess the likelihood that parts of the songs were copied, and whether any perceived similarity was so great that parts of one song must have been copied from the other. This was also done with a second set of songs. The first two questions (similarity and likelihood of copying) were assessed on a scale from 1 to 5, with 5 being the correct response. The third question was a yes/no question and coded as 1=yes and 0=no.

of notes heard in succession as a coherent unit. Harmony is the sound created by multiple pitches playing together. Rhythm is the ordering of music through time.” Because the song clips were designed to have identical melody, harmony, and rhythm, the correct response to the similarity analysis was “5.” This same test with same instructions was given to the laypeople group.

As expected, the mean response for musicians was much closer to “5” than that of the laypeople:¹³⁴



Musicians performed significantly better than laypeople in properly assessing the similarity of the song pairs on an ordinal scale.¹³⁵ The musicians’ answers to open-ended questions¹³⁶ indicated that they knew exactly what was going on, perhaps even better than their selections on the ordinal scale suggested.¹³⁷ One musician observed, “The melody was

¹³⁴ Although the range for the ordinal scale was 1 to 5, this chart and the subsequent chart are set at a baseline of 3 to more clearly depict differences among participants.

¹³⁵ A difference in means test was run between musicians and laypeople, setting statistical significance at the 0.1% level ($p < 0.001$) for all questions in both sets of songs. Musicians were much more likely than laypeople to identify the level of similarity between the songs and the likelihood that parts of one song could have been copied. They were also more confident in stating that parts of one song must have been copied from the other.

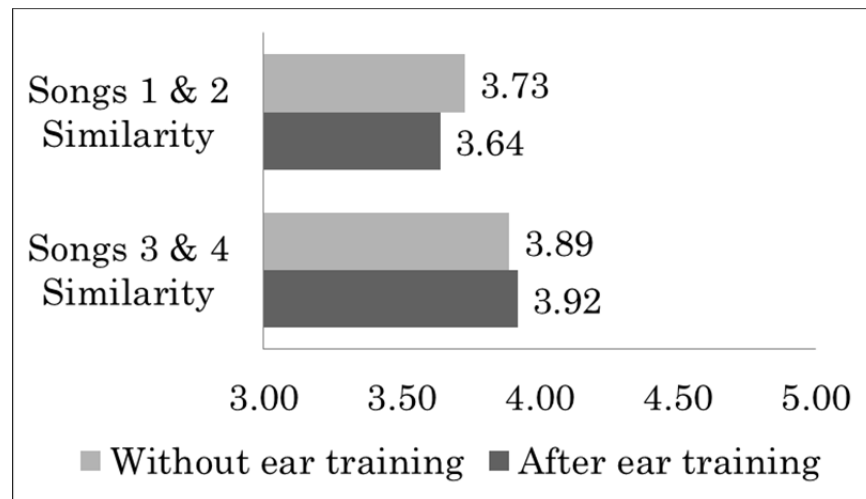
¹³⁶ The question asked, “What about the songs led you to conclude they were or were not similar to each other?”

¹³⁷ There seemed to be some confusion about what types of rhythm should be considered as part of similarity comparison. Some of the musicians (particularly the more educated musicians in their fourth semester music of music theory classes) noted that there were different rhythms in the harmony or different drumbeats that, although arguably appropriate for the genres, actually made the “rhythm” different from song to song.

exact, harmony was the same. The only difference was the rhythm, style and genre. It's more likely that #3 is just an up-tempo arrangement of #4 (or #4 is a ballad arrangement of #3)."¹³⁸ As was observed in the prior experiment, the responses of laypersons from this experiment were not nearly as accurate. Laypeople often relied on irrelevant performance aspects of the songs to distinguish them. As one layperson noted, "The two songs made me feel happy, but different ranges of happy. The first song was more of a calm happy and the second one had more of an energy and bubbly happy."¹³⁹

Overall, the data suggests that musicians can understand and experience both the musical composition and musical performance of a song in a way that laypeople cannot.

A second part of the experiment examined whether laypeople performed better in the Lay Listener Test after a brief ear-training exercise. A group of 32 laypeople conducted a similarity analysis without training and then, one month later, performed the same analysis after receiving some training.¹⁴⁰ The training consisted of approximately 10 minutes of ear-training exercises, which focused on the compositional similarities and performance differences of "cover" versions of popular songs.¹⁴¹ The ear training did not help:



¹³⁸ See experiment responses, on file with author.

¹³⁹ See experiment responses, on file with author.

¹⁴⁰ Laypeople were collected from the author's copyright class. The first part of the exercise was given in the first week of the semester and the second part of the exercise (post-ear training) was given one month later.

¹⁴¹ The ear training focused on listening to cover songs to determine differences and similarities between the different performances of the songs.

As the chart reflects, the group's performance slipped with Songs 1 and 2 and improved slightly for Songs 3 and 4 after the ear training. Neither change in performance, however, is statistically significant.¹⁴² In other words, there was no meaningful improvement from the brief ear training. Interestingly, many individuals felt that they had performed better when in fact their performance remained unchanged or actually declined. For instance, one participant observed more distinctions during the second round of the experiment; distinctions that did not exist: "After hearing them again, the variances in melodic lines, rhythm, and harmonies have become a little more distinguishable."¹⁴³

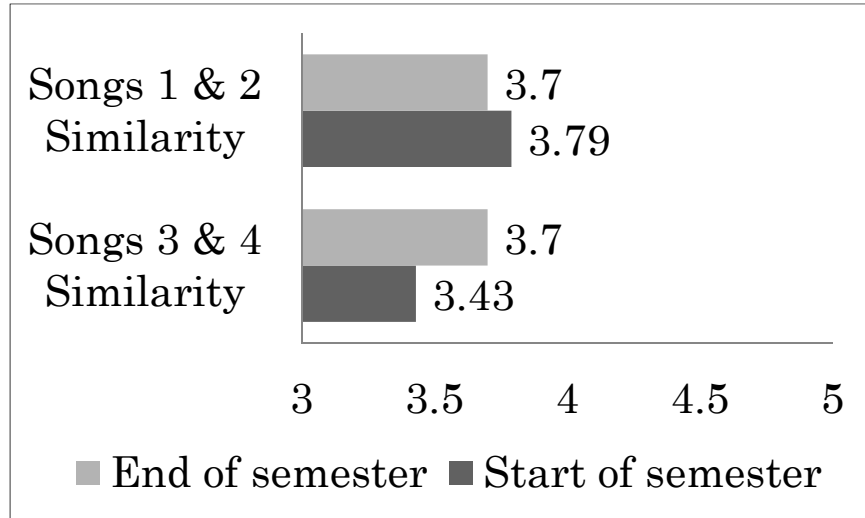
A similar experiment was run with two classes of music-appreciation students to see if one semester of musical training would help laypeople listen to music in the same way that musicians do.¹⁴⁴ The hypothesis was that even a semester of music training would not be enough to hone their ears and that musical performance training is a specialized expertise that takes years to master. Although the results were statistically inconclusive because the sample size was too small, the results were consistent with the hypothesis that a semester of musical training is insufficient. The students participated in an exercise that compared two pairs of identical compositions at the beginning and end of the semester, yet they failed to demonstrate any meaningful improvement. Although they performed slightly better on the first pair of songs, the group of music-appreciation students performed slightly worse on the second pair of songs.¹⁴⁵

¹⁴² Thirty-two subjects from a copyright class participated in a study involving an ear-training exercise. The students answered the same questions described above before and after the exercise. A paired t-test was run to compare the means of thirty-two subjects' responses before and after the ear training. In some cases, participants were better able to answer the questions correctly after the ear-training exercise. With one exception, statistical significance was not found among any of the differences in means. After engaging in the ear training, participants were more able to respond that parts of Song 3 or Song 4 must have been copied from each other with a confidence of 95% ($p < 0.05$). The ear-training exercise had little effect on subjects' ability to identify the similarity and likelihood of copying between songs, and the practical significance of using a one-time, short ear-training exercise to improve subjects' performance was negligible.

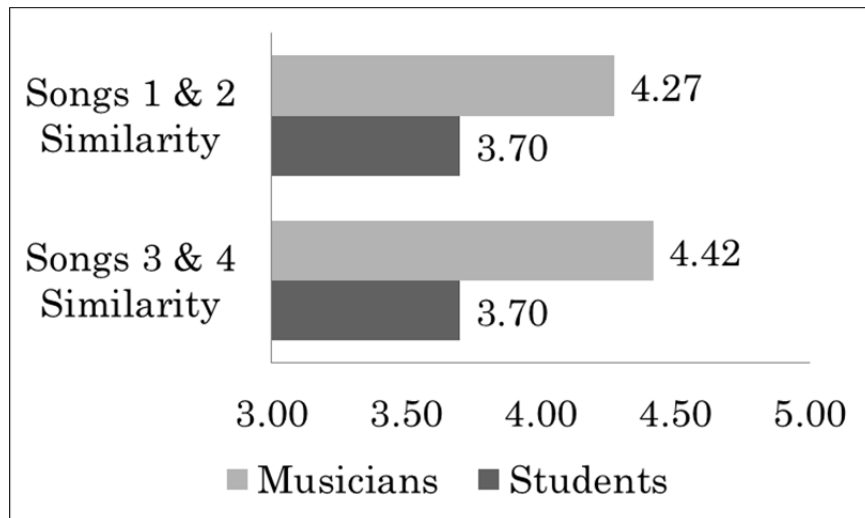
¹⁴³ See experiment responses, on file with author.

¹⁴⁴ The control group for this experiment comprised musically-untrained civil procedure students that participated in the exercise at the beginning and end of a semester.

¹⁴⁵ See experiment response, on file with author.



Even after a semester of basic music training, the music-appreciation students did not perform as well as actual musicians.



These results suggest that trained musicians interact with a musical composition in a unique way, one that even a semester of musical training cannot instill in laypeople. The Lay Listener Test is meant to capture the reactions of the intended audience. If the audience for musical compositions is trained musicians, lay jurors are a poor substitute. It appears that neither brief nor sustained (but still cursory) musical training helps the layperson to approximate the way musicians experience music.

The Lay Listener Test is broken. Lay jurors are equally likely to find infringement when different compositions are performed similarly as they are to find infringement when identical compositions are performed differently. This is a problem because the Lay Listener Test defines the scope of a copyright by determining what types of copying are impermissible. Copying becomes impermissible when the defendant has taken what is “pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed.”¹⁴⁶ In the case of musical compositions, that audience is musicians. The experimental evidence suggests that musicians distinguish songs based on melody, harmony, and lyrics, and laypeople distinguish a song based on the feeling it evokes. Consequently, the Lay Listener Test will yield inaccurate results—both false positives and false negatives—when administered to lay listeners without a musical background.

III. STATISTICAL SAMPLING OF THE INTENDED AUDIENCE

The Lay Listener Test was meant to capture the effect of a work on its intended audience. For musical compositions, the intended audience is musical performers. Because the audience for musical compositions is musical performers, and not the general public, the appropriate jury to apply the Lay Listener Test and resolve a case of alleged infringement of a musical composition copyright would consist entirely of fluent musicians. As this is rarely feasible, other means of capturing the effect of the work on musicians could include the admission at trial of expert testimony or survey evidence that demonstrates how musical performers might perceive the music differently from the typical lay music listener.

A. *Courts Accept Evidence from the Intended Audience*

In copyright infringement cases where the target audience possesses specialized expertise, the Sixth Circuit has adopted a rule that allows a jury to consider evidence of substantial similarity from the specialist’s perspective.¹⁴⁷ In *Kohus v. Mariol*, the infringing work at issue was a “drawing[]

¹⁴⁶ *Arnstein v. Porter*, 154 F.2d 464, 468-69, 473 (2d Cir. 1946).

¹⁴⁷ *Kohus v. Mariol*, 328 F.3d 848, 857 (6th Cir. 2003). The Sixth Circuit made clear that “departure from the lay characterization is warranted only where the intended audience possesses ‘specialized expertise.’” *Id.* at 857 (quoting *Dawson v. Hinshaw*, 905 F.2d 731, 737 (4th Cir. 1990)).

of a latch that [locked] the upper rails” of a playhouse.¹⁴⁸ The court ruled that in cases for copyright infringement in which “the audience for the work possesses specialized expertise that is relevant to the purchasing decision and lacking in the lay observer, the trier of fact should make the substantial similarity determination from the perspective of the intended audience.”¹⁴⁹ The court suggested that expert testimony “will likely be required” to educate the jury about “those elements for which the specialist will look,”¹⁵⁰ including “standard industry practices for constructing latches, or safety standards established by organizations like the American Society for Testing Materials and the Juvenile Products Manufacturer’s Association.”¹⁵¹

In *Whelan Associates v. Jaslow Dental Laboratory*, the Third Circuit ruled that the “ordinary observer” test for substantial similarity was insufficient for a complex computer program.¹⁵² There, the defendant, Jaslow, hired Strohl Co. to develop a computer program called “Dentalab” to enhance the efficiency of its dental prosthetic business.¹⁵³ Whelan, then an employee of Strohl, wrote the program, but she eventually left Strohl to start her own business.¹⁵⁴ Strohl and Jaslow assigned their respective interests in “Dentalab” to Whelan.¹⁵⁵ Later that year, Jaslow began working on his own version of the program, “Dentcom.”¹⁵⁶ Jaslow marketed his product as “a new version of the Dentalab computer system.”¹⁵⁷ Whelan sued for copyright infringement. The Third Circuit did not use the typical Lay Observer Test to determine substantial similarity. Instead, it adopted a “single substantial similarity inquiry in which both lay and expert testimony would be admissible.”¹⁵⁸ The court reasoned that the general public is unfamiliar with this type of computer program and that the judgment for such a complex case should be decided by a trier of fact who is familiar with the type of technology at issue.¹⁵⁹

¹⁴⁸ *Id.* at 851.

¹⁴⁹ *Id.* at 857.

¹⁵⁰ *Id.* (citing *Dawson v. Hinshaw*, 905 F.2d 731, 736 (4th Cir. 1990)).

¹⁵¹ *Id.* at 856.

¹⁵² *Whelan Assocs. v. Jaslow Dental Lab.*, 797 F.2d 1222, 1233 (3d Cir. 1986).

¹⁵³ *Id.* at 1225-27.

¹⁵⁴ *Id.* at 1226.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ *Id.* at 1227.

¹⁵⁸ *Id.* at 1233.

¹⁵⁹ *Id.*

Likewise, in *Computer Associates v. Altai*,¹⁶⁰ another case of alleged copyright infringement of a computer program, the Second Circuit held that the trier of fact need not be limited by its own lay perspective.¹⁶¹ “[W]e leave it to the discretion of the district court to decide to what extent, if any, expert opinion, regarding the highly technical nature of computer programs, is warranted in a given case.”¹⁶²

Both computer code and musical compositions are in some way “blueprints” for future expression. Neither a computer code nor a musical composition is immediately accessible or marketed to the layperson. This similarity would suggest that the layperson is not the intended audience for a computer program or a musical composition. The best way to determine the value of computer code and musical compositions, then, would be to ask the programmers and musicians directly.

Perhaps the broadest statement advocating for a focus on the intended audience came from the Fourth Circuit in *Lyons Partnership v. Morris Costumes*.¹⁶³ The court held that the substantial similarity analysis should focus on the reactions of the intended audience because one of the core purposes of copyright law is to “protect the creators’ economic market”¹⁶⁴ *Lyons* dealt with the copyright to the popular children’s television character Barney.¹⁶⁵ Morris Costumes produced a costume of a similar-looking purple dinosaur named “Duffy the Dragon.”¹⁶⁶ Adults began renting, buying, and using the costume at children events.¹⁶⁷ Lyons, as owner of the Barney copyright, sued for copyright infringement.¹⁶⁸

The district court held that the Duffy costume did not infringe Lyons’s copyright because it was not intrinsically similar to the Barney character. In reaching this conclusion, the court viewed the question of substantial similarity from the “perspective of the average adult renter or purchaser of these costumes.”¹⁶⁹ Lyons appealed, arguing that the district court misapplied the legal standard for copyright infringement. The

¹⁶⁰ *Computer Assocs. Int’l, v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992).

¹⁶¹ *Id.* at 713.

¹⁶² *Id.* at 713.

¹⁶³ *Lyons P’ship L.P. v. Morris Costumes, Inc.*, 243 F.3d 789, 789 (4th Cir. 2001).

¹⁶⁴ *Id.* at 802.

¹⁶⁵ Lyons did not license the rights to Barney because of its “inability to police” those rights and because of the risk that individuals might use the images in a “decidedly un-Barney-like manner and tarnish . . . his wholesome reputation.” *Id.* at 795.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ *Id.* at 801 (quotation marks omitted).

Court of Appeals for the Fourth Circuit agreed, finding that the standard applied by the district court was too narrow because it prevented the district court from hearing evidence concerning confusion among children.¹⁷⁰

Although adults were making the actual purchases, the intended audience of Duffy's costume also included children.¹⁷¹ The Fourth Circuit asserted that the relevant issue in determining substantial similarity is "whether the works are so similar that the introduction of the alleged copy into the market will have an adverse effect on the demand for the protected work."¹⁷² Because children accepted the Barney knock-offs as Barney, the court held that "[e]ven if adults can easily distinguish between Barney and Duffy, a child's belief that they are one and the same could deprive Barney's owners of profits in a manner that the Copyright Act deems impermissible."¹⁷³ Consequently, the Fourth Circuit ruled that the district court should have heard the "substantial evidence" of actual confusion among children,¹⁷⁴ which included first-hand accounts from children along with "over 30 newspaper clippings from around the country" in which the Duffy costume was incorrectly referred to as "Barney."¹⁷⁵

Other courts have placed a similar focus on the effect an alleged infringing work has on the market for a plaintiff's goods.¹⁷⁶ Many of these cases rely on Judge Learned Hand's classic statement that the finding of substantial similarity is based on whether "the ordinary observer, unless he set out to detect the disparities, would be disposed to overlook them and regard their aesthetic appeal as the same."¹⁷⁷ At least one commentator has suggested that the test as laid out in *Arnstein v. Porter* focuses on whether the defendant's work acts as a market substitute for the plaintiff's:

[B]y assuming the level of dissection in which a lay listener engages . . . the trier of fact supposedly gains an impression as to whether the defendant has materially and substantially copied the plaintiff's work so that the plaintiff's audience would buy the

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.* at 802.

¹⁷³ *Id.* at 803.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* at 802.

¹⁷⁶ *See, e.g., Mulberry Thai Silks v. K & K Neckwear*, 897 F. Supp. 789, 791 (S.D.N.Y. 1995).

¹⁷⁷ *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960).

defendant's work over that of the plaintiff's. If this has occurred, the defendant has improperly appropriated the plaintiff's work.¹⁷⁸

Similarly, in *Mulberry Thai Silks v. K & K Neckwear*,¹⁷⁹ a court in the Southern District of New York found infringement because the average purchaser of ties could have easily confused the defendant's necktie with the plaintiff's.¹⁸⁰ The defendant, K&K, a competitor of Mulberry Thai Silks, sought to create a product as similar as possible to Mulberry's "without crossing over into the realm of illegal copying."¹⁸¹ Mulberry sued for copyright infringement. The court found that the ties were substantially similar, noting that

[a] tie buyer who had seen one of Mulberry's Ziggurat collection ties and wished subsequently to buy the same tie would be likely, upon seeing K & K's copy, to buy it in the mistaken belief that the buyer was purchasing the same tie that the buyer had seen previously—and *vice versa*.¹⁸²

This case shows that in order to "protect the creators' economic market," which is a primary purpose of copyright law, the trier of fact needs to represent the market for which the copyrighted work is intended. In the *Mulberry* case, the market to be protected was tie purchasers. For musical compositions, the market to be protected is the sale and licensing of musical compositions to musical performers.

B. *Statistical Sampling is the Best Evidence of Intended Audience*

Although expert testimony may be the most common solution when the intended audience of a copyrighted work has specialized expertise, statistically reliable consumer surveys that target the intended audience may offer litigants and courts a stronger evidential source to assess substantial similarity. In the context of musical compositions, such a survey would ask fluent musicians whether two musical compositions are substantially similar to each other.

¹⁷⁸ Michelle V. Francis, Comment, *Musical Copyright Infringement: The Replacement of Arnstein v. Porter—A More Comprehensive Use of Expert Testimony and the Implementation of an "Actual Audience" Test*, 17 PEP. L. REV. 493, 508 (1990).

¹⁷⁹ 897 F. Supp. at 791.

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.*

Courts are already accustomed to dealing with survey evidence in trademark disputes.¹⁸³ Statistical surveys are the primary evidentiary method to prove trademark infringement.¹⁸⁴ Trademark infringement requires a likelihood of consumer confusion.¹⁸⁵ Trademark litigants routinely submit the results of professionally designed consumer surveys targeted at the relevant market as evidence of consumer confusion.¹⁸⁶ One court noted the requirements of proper surveys as follows:

The proponent of a consumer survey has the burden of establishing that it was conducted in accordance with accepted principles of survey research, i.e., that (1) a proper universe was examined; (2) as representative sample was drawn from that universe; (3) the mode of questioning the interviewees was correct; (4) the persons conducting the survey were recognized experts; (5) the data gathered was accurately reported; and (6) the sample design, the questionnaire and the interviewing were in accordance with generally accepted standards of procedure and statistics in the field of such surveys.¹⁸⁷

The use of survey evidence is also appropriate to resolve cases of alleged infringement of design patents. Infringement of a design patent is found “if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other”¹⁸⁸ At least one commentator has opined that the “‘ordinary observer’ test” as applied in music copyright infringement cases is “capable of submission to a group of survey interviewees.”¹⁸⁹

The concept of using survey evidence for the purpose of proving substantial similarity in copyright litigation is not new.¹⁹⁰ But “[w]hile there is no per se rule barring survey

¹⁸³ Upadhye, *supra* note 23, at 555-56. (“[S]trong consumer survey results can counter a defendant’s argument that the plaintiff failed to prove actual confusion.”).

¹⁸⁴ *Id.* at 551 (“Because the crux of any trademark infringement case is the infringing mark’s effect on the typical consumer, a survey is normally required to measure that effect.”).

¹⁸⁵ *Tyco Indus., Inc. v. Lego Sys., Inc.*, No. 84-CV-3201 (GEB), 1987 WL 44363, at *27 (D.N.J. Aug. 26, 1987), *aff’d*, 853 F.2d 921 (3d Cir. 1988).

¹⁸⁶ Larry C. Jones, *Developing and Using Survey Evidence in Trademark Litigation*, 19 MEM. ST. U. L. REV. 471, 473 (1989) (“When likelihood of confusion is at issue, as it usually is in trademark litigation, evidence of actual confusion may not be sufficient to carry the burden of proof in the absence of a survey.”).

¹⁸⁷ *Tyco*, 1987 WL 44363, at *9.

¹⁸⁸ *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511, 528 (1871).

¹⁸⁹ Jones, *supra* note 186, at 476.

¹⁹⁰ At least one student note has advocated for its use. See Sitzer, *supra* note 106, at 423 (“Marketing research, which attempts to measure the market’s reactions to

evidence in copyright infringement actions, their admissibility has been rejected.¹⁹¹ Courts typically reject the admission of survey evidence because of perceived flaws in the surveys.¹⁹² Two courts, further, have questioned in dicta whether the substantial similarity analysis is too nuanced a legal standard to be successfully surveyed.¹⁹³ This belief, however, overlooks that the Lay Listener Test is itself a mini survey; although one that comes without the usual guarantees of statistical reliability that an actual survey would have.

Perhaps the most significant judicial opinion to express a disinclination to use consumer surveys to prove substantial similarity came from the Second Circuit in *Warner Brothers v. ABC*.¹⁹⁴ In that case, Warner Brothers, the owners of DC Comics, claimed that an ABC television show, *The Greatest American Hero*, infringed upon DC Comic's trademarks and copyrights relating to its Superman property.¹⁹⁵ The television show had adopted many of the quintessential features of Superman, such as tearing away a button-down shirt to reveal an emblem-bearing costume.¹⁹⁶ Warner Brothers stated "that of the 45% of those interviewed who said Hinkley [ABC's protagonist] reminded them of some other character, 74% (33% of the entire sample) said they were reminded of Superman."¹⁹⁷ The district court ruled that the survey was inadmissible based on various defects and it granted summary judgment in favor of ABC.¹⁹⁸

Judge Newman, writing for the majority, agreed that the survey responses were "too general" to be probative.¹⁹⁹ The court went on to express its doubts that survey evidence could ever be appropriate in a copyright infringement case because "substantial similarity" is not easily understood by the general populace²⁰⁰ and that judges are best suited to strike the

various products and marketing schemes, could be especially useful in predicting and interpreting audience reactions in copyright infringement actions.").

¹⁹¹ 3 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 9:83 (2013).

¹⁹² *Id.*

¹⁹³ *See id.*

¹⁹⁴ 720 F.2d 231, 245 (2d Cir. 1983).

¹⁹⁵ Danny Spiegel, *Greatest American Hero Worship on July 4th*, TVGUIDE.COM (July 2, 2010, 7:00 AM), <http://www.tvguide.com/News/Greatest-American-Hero-1020127.aspx>.

¹⁹⁶ *See Warner Bros., Inc. v. Am. Broad. Cos., Inc.*, 530 F. Supp. 1187, 1189 (S.D.N.Y. 1982), *aff'd*, 720 F.2d 231 (2d Cir. 1983).

¹⁹⁷ *Warner Bros.*, 720 F.2d 231 at 244.

¹⁹⁸ *Id.* at 232.

¹⁹⁹ *Id.* at 244.

²⁰⁰ *Id.* at 245 ("The 'substantial similarity' that supports an inference of copying sufficient to establish infringement of a copyright is not a concept familiar to the public at large.").

“delicate balance between the protection to which authors are entitled under an act of Congress and the freedom that exists for all others to create their works outside the area protected against infringement.”²⁰¹ Judge Newman did not elaborate. For example, the Second Circuit did not discuss whether it believed juries would be better (or more careful) at determining substantial similarity than survey participants, whether judges would design less prejudicial questions to ask the jury than survey professionals, or whether judges were particularly well-suited for giving instructions and ensuring that participants complied with those instructions. Despite expressing doubts regarding the admissibility of survey evidence to prove substantial similarity, the court admitted that it “need not” decide this issue definitively.²⁰²

Interestingly, Judge Newman argued in favor of survey evidence in a copyright case four years later. In *Carol Barnhart Inc. v. Economy Cover Corporation*, the Second Circuit resolved a copyright dispute concerning whether mannequin torsos are suitable for copyright protection. In a dissenting opinion, Judge Newman argued that the difficult distinction of whether the object was a work of art or design should not be left to the arbitrary values or biases of courts or juries.²⁰³ Instead, Judge Newman stated, “[E]xpert opinion and survey evidence ought generally to be received.”²⁰⁴ It remains unclear, though, whether Judge Newman actually changed his mind about the use of survey evidence in copyright cases in the four years between writing the majority opinion in *Warner Brothers* and his dissent in *Carol Barnhart*.²⁰⁵ Judge Newman’s solution to handling the nuance of substantial similarity was to restrict it to a courtroom, while his remedy for making the subjective determination of whether a work is art or design was to enlist the help of experts and survey evidence.²⁰⁶ He neither explains nor notes his apparent inconsistency.

Although no case concerning copyright infringement has definitively excluded survey evidence from ever being

²⁰¹ *Id.*

²⁰² *Id.* (“We need not and do not decide whether survey evidence of the sort tendered in this case would be admissible to aid a jury in resolving a claim of substantial similarity that lies within the range of reasonable factual dispute.”).

²⁰³ *Carol Barnhart Inc. v. Econ. Cover Corp.*, 773 F.2d 411, 423 (2d Cir. 1985).

²⁰⁴ *Id.*

²⁰⁵ The majority opinion criticized Judge Newman’s test as being “so ethereal as to amount to a ‘non-test’ that would be extremely difficult, if not impossible, to administer or apply.” *Id.* at 419 n.5.

²⁰⁶ *Id.* at 422-23.

submitted to assist in the jury's finding of substantial similarity, courts frequently have excluded surveys for being insufficiently reliable or probative. Arguably, however, the rules for survey evidence in trademark infringement disputes could easily be adapted to assist an analysis of substantial similarity in copyright cases.²⁰⁷ Trademark surveys carefully target the relevant audience of potential consumers; responses are solicited only from those people whose opinions matter in the purchasing decisions of the trademarked works.²⁰⁸ Adhering to this principle would be especially important in the copyright infringement domain where, like with musical compositions, the intended audience has a specialized expertise. Furthermore, and perhaps most importantly, these survey standards would produce results that are more accurate and reliable than the impressions of individual judges or lay juries.

To illustrate the representative inaccuracy among a jury, imagine a case involving the alleged infringement of Britney Spears's song, ". . . Baby One More Time," a 1999 hit that sold over 10 million records.²⁰⁹ Assuming that a group of 10 million is the intended audience for the song,²¹⁰ a survey seeking to capture the reactions of that population would require a sample size of 1,537 Britney Spears consumers.²¹¹ If the Lay Listener Test uses only a 12-person jury, the jury's response will likely misrepresent the larger population.²¹²

²⁰⁷ See *supra* Part III.B; Keyes, *supra* note 24, at 442.

²⁰⁸ Jones, *supra* note 186, at 479. In addition to the trademark owner's current and potential consumers, a survey's "universe" will include "past purchasers, intended purchasers," and persons in a position to "influence purchasing decisions." *Id.*

²⁰⁹ Nielsen Announces Adele's "21" as Exceeding 10 Million in U.S. Sales, SCOOP MARKETING (Nov. 30, 2012), <http://www.scoopmarketing.com/2012/11/nielsen-announces-adeles-21-as-exceeding-10-million-in-u-s-sales/>.

²¹⁰ Although the number of Britney Spears consumers is likely to be higher than 10 million, the appropriate sample size for a population greater than 10 million does not change significantly. Margaret H. Smith, *A Sample/Population Size Activity: Is it the Sample Size of the Sample as a Fraction of the Population that Matters?*, 12 J. STAT. EDUC. 2 (2004), available at <http://www.amstat.org/publications/jse/v12n2/smith.html> ("it is the absolute size of the sample, not the size of the sample relative to the population, that matters for our confidence in an estimate").

²¹¹ Results obtained assuming a 95% confidence level and a confidence interval of .025 using the National Statistics Service's online sample size calculator, available at <http://www.nss.gov.au/nss/home.nsf/pages/Sample+size+calculator>.

²¹² The higher the percentage of margin of error, the lower the confidence that the results of the sample's poll will yield true population values. According the law of large numbers, the probability of accurately measuring population values is unlikely, and the level of precision is lost, in small sample sizes. See ROBERT S. LOCKHART, INTRODUCTION TO STATISTICS AND DATA ANALYSIS FOR THE BEHAVIORAL SCIENCES 164 (1998). The law of large numbers states that "as the sample size increases, differences between the observed proportion and the theoretical probability tend to become smaller and smaller." *Id.* at 165.

To illustrate what this means, there may be significant variability²¹³ among the population of 10 million fans that purchased the song. Spears's audience, for example, might include middle age bankers who like the song because it has a good beat for their gym playlists, teenage girls who want to emulate Spears's defiant style, feminists who (perhaps ironically) find the lyrics to be empowering, and many more types of listeners. Each of these audience members will experience Spears's music differently, and it is not clear that any one of them will adequately represent the typical listener of the song. If we randomly select only 12 people from Spears's audience of millions, we may happen to select mostly bankers and no teenage girls, or mostly feminists and no bankers. Such a skewed sample would yield an inaccurate picture of the listening experiences of the population. Worse yet, attorneys during voir dire could attempt to intentionally skew the composition of the jury in a way that would grossly misrepresent the audience of the disputed work. If the jury misrepresents the audience for the song, it likely would bias the results of the Lay Listener Test.

Even if all 12 jurors were part of the audience for the work, the sample size is still too small to make accurate projections about what the typical audience member values. If jurors voted yes for substantial similarity, we could not be confident that the larger population would agree. Further, it is likely that we would not get a comparable result if we assembled another jury of 12 and asked them the same question. Indeed, there would be a margin of error of 28% among a 12-person jury purporting to represent a population of 10 million people, in this case 10 million Britney Spears fans.²¹⁴

²¹³ Variability among the target population, and therefore the sample, affects the statistical measurement of the outcomes of interest. Variability describes the amount of homogeneity or heterogeneity of the population and how much a sample may deviate from the average results of the general population. *Id.* at 130-33, 136-37.

²¹⁴ This figure is calculated at the standard 95% confidence level, a random sample of 12 jurors, assuming a 50% chance of answering either yes or no to the questions for maximum variability (see below), for a population of 10,000,000. A confidence interval calculator can be found at <http://www.surveysystem.com/sscalc.htm>.

The sample size is calculated using the equation below and is taken from WILLIAM G. COCHRAN, *SAMPLING TECHNIQUES* 75 (2d ed. 1963).

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where n_0 is the sample size, Z is the value of the area found under the normal curve (e.g., 1.96 for 95% confidence level), p is the estimated variability in the proportion of an attribute found in the population (if variability is unknown, assume $p = .5$ for maximum variability see below), q is $1-p$, and e is the confidence interval expressed as a decimal (margin of error; e.g., $.03 = \pm 3$).

Compare this incredible margin of error with a typical Gallup poll, where the margin of error typically ranges between two or three percent.²¹⁵ In other words, if 50% of a jury of 12 voted for substantial similarity, the true population response in favor of substantial similarity could be as low as 22% and as high as 78%.²¹⁶ In other words, our sample tells us little about the true opinions of the population. To put the margin of error in terms of its impact upon a jury's determination, if the test was repeated with another jury, as few as three jurors ($6 - (12 \cdot 0.28)$) or as many as nine ($6 + (12 \cdot 0.28)$) might find substantial similarity between the two works.²¹⁷ Whether your client wins or loses would be based in part on how many outliers you draw from your jury pool.

Obviously, the problem of misrepresentation increases considerably with a decrease in sample size. Imagine a sample size of three. How easy would it be to have a jury of three bankers, or three teenage girls, or three feminists? The inclusion of a single banker on this three-person jury might significantly misrepresent the target population if, for instance, the target population from which jurors are drawn includes only a handful of bankers.

Now imagine a sample size of one. How likely is it that a single person could properly represent the opinions of a larger population? Imagine further that the single person has chosen to ignore findings of the larger population, and instead decides to rely on his or her own listening of the song. How accurate will the finding be then?

These numbers were not chosen randomly. They correspond with the sample size engaged in the Lay Listener Test on a motion for summary judgment (a single judge), or on

The equation for estimating confidence intervals solves for e .

$$e = \sqrt{\frac{Z^2 pq}{n_0}}$$

When variability is unknown, the maximum probability must be assumed, although practically speaking the variability would depend on the two songs at issue. With the unrepresentative sample of the jury and the use of dichotomous yes/no responses for juror determinations (giving a 50-50 probability the juror will respond either yes or no), the variability would need to be estimated at maximum, and worst, value of 50% for most cases of similar description to the Britney Spears example. As stated in the sample size equation, the maximum variability is 50% or $p = .5$.

²¹⁵ See, e.g., *Election 2012 Registered Voters Trial Heat: Obama vs. Romney*, GALLUP POLITICS, <http://www.gallup.com/poll/150743/obama-romney.aspx> (last visited Sept. 30, 2013).

²¹⁶ See *supra* note 214. The standard of error was calculated using a standard 95% confidence level.

²¹⁷ See *supra* note 214.

appeal from a motion for summary judgment (a panel of three appellate judges). Although judges who reject consumer surveys in the Lay Observer Test have doubted whether a jury should be replaced by a “public opinion poll,”²¹⁸ they frequently rely on their own private assessments of the works in question to decide on summary judgment whether two works are substantially similar.

The advantage of deploying well-constructed surveys is clear. Surveys properly define and target the relevant “universe” or audience of the work. These surveys can adhere to rigid methodological standards, standards that bolster the argument in favor of admitting such evidence at trial. These standards include: clear precise, and non-leading questions posed to participants; expert, impartial administration; accurate reporting; sound analysis done in accordance with settled statistical principles; and ubiquitous objectivity in all facets of the survey’s production.²¹⁹ To establish that these standards were met, the survey’s proponent typically proffers to the court a comprehensive statement of objectives, the raw data collected from the survey presented in a manner that represents the entirety of the results, and a thorough explanation of how the proponent used its methods to reach its conclusions.²²⁰ Furthermore, the experts attaching their name to any survey would be subject to cross-examination on any of these points.²²¹

The primary difficulty in constructing a consumer survey to show copyright infringement is that there is no clear understanding of what constitutes substantial similarity. Issues include: (1) what question(s) should be asked by the survey, and (2) how would a survey’s results sufficiently demonstrate whether there is substantial similarity?

Case law does not provide much clarity on what would be the most relevant questions to ask copyright consumers, fluent musicians.²²² One option would be to give consumers a brief jury instruction about substantial similarity and see what percentage of the consumers find in favor of substantial similarity.²²³ Another possibility includes asking survey

²¹⁸ *Ideal Toy Corp. v. Kenner Prods. Div. of Gen. Mills Fun Group, Inc.*, 443 F. Supp. 291, 304 (S.D.N.Y. 1977) (noting the “dangerous precedent of allowing trial by the court to be replaced by trial by public opinion poll”).

²¹⁹ Upadhye, *supra* note 23, at 559.

²²⁰ Jones, *supra* note 186, at 490.

²²¹ *See id.* at 489.

²²² *See supra* Part I.B.

²²³ *Id.*

participants questions aimed at market substitution. For example, one question might be whether the juror would consider purchasing the defendant's work instead of the plaintiff's.²²⁴ A third possibility (consistent with the *Feist* interpretation of copyright infringement analysis) would be to ask participants if they see any copyrightable expression from the plaintiff's work in the defendant's work.²²⁵ All three of these types of questions have the potential to be leading (or even misleading). The consumer-survey approach mirrors the Lay Listener Test (making it perhaps more palatable to courts) and, so long as the population of survey respondents is large enough, would produce a statistically accurate depiction of the intended audience.

The second major difficulty is determining how many survey results in favor of substantial similarity are needed for a court or jury to find that a work has been infringed. In trademark law, the parties use consumer surveys to show the likelihood of consumer confusion. Although the exact number is debated, it has been suggested that a surveyed rate of consumer confusion exceeding ten percent is sufficient to show a likelihood of consumer confusion and that a trademark may have been infringed.²²⁶

Unfortunately, in copyright, there is no established quantitative threshold to constitute a finding of substantial similarity. Jeanne Fromer and Mark Lemley address the problem in their recent article:

Defining the consumer as the audience requires us to make judgments about how many consumers must agree on something, and how we are to account for the views of the remainder. A plausible measure is whether a majority of the defined audience would find infringement. The majority requirement aligns with the "preponderance of the evidence" standard plaintiffs must meet on the issue of infringement. If the audience is a hypothetical consumer, the alignment is perfect: the plaintiff must show that it is more likely than not that this hypothetical consumer would believe the defendant infringed. But even if the consumer invoked as infringement audience is a real one, a reasonable translation of the preponderance of the evidence standard might be that more people in the audience would find infringement than would not.²²⁷

²²⁴ *Id.*

²²⁵ *Id.*

²²⁶ 6 J. THOMAS MCCARTHY, TRADEMARKS AND UNFAIR COMPETITION § 32:189 (4th ed. 2007).

²²⁷ Fromer & Lemley, *supra* note 67.

Under their proposal, a survey would tend to show substantial similarity if its results demonstrated that more than 50% of participants found substantial similarity between the litigated works. Although the application of a 50% threshold would have the benefit of clarity as applied to a copyright consumer survey, the threshold is unlikely to quantitatively mirror the actual standard of substantial similarity currently employed by courts. Abandoning the current standard for determining substantial similarity as espoused by decades of case law has the potential of enlarging or reducing the scope of billions of current copyrights. If the Lay Listener Test were abandoned in musical composition infringement cases in favor of using survey evidence of the intended audience at trial, a definitive threshold for substantial similarity must first be established. In other words, we must first quantify the current standard of substantial similarity.

One possible solution would be to recreate the substantial similarity analysis for the last 10 years of copyright cases in which substantial similarity was actually litigated and decided. For each case, a statistically significant sample of randomly selected mock jurors would be asked to compare the plaintiff's and defendant's works and determine substantial similarity based on a standard jury instruction. The sample would be randomly selected as opposed to targeted (*i.e.* laypeople *v.* musicians) to recreate past results, which were reached entirely by randomly selected juries. For some cases the sample might reach a different conclusion than the actual jury, however as long as a sufficient number of cases are recreated, general patterns should emerge. Once a baseline level for substantial similarity level of past cases is established, courts and litigants should be able to recreate a comparable analysis in all future copyright infringement cases. In other words, once the results of the mock jurors provide a similarity threshold, courts and juries would have a benchmark against which to compare the similarity results produced by well-constructed surveys. Such a system would have several advantages over the current system. First, the comparison of survey results to past cases is clear and easy to apply. Second, the reliance on statistical and scientific methods promotes greater certainty and predictability. Armed with such tools, parties would be able to assess the merits of a case before initiating costly litigation. Judges, too, will gain a more reliable standard to apply when considering a copyright case on a motion for summary judgment.

Although the use of consumer survey evidence to show substantial similarity in a copyright infringement case is not without problems, a well-constructed sampling of the intended audience would be far superior to the existing alternatives. When deciding whether to admit survey evidence, courts should consider the questionable accuracy of the alternative—reliance upon an insufficient sample size of jurors or, in the case of summary judgment, reliance upon the opinion of a single judge. As Judge Newman of the Second Circuit has noted:

Courts have an important responsibility in copyright cases to monitor the outer limits within which juries may determine reasonably disputed issues of fact. If a case lies beyond those limits, the contrary view . . . of a particular jury cannot be permitted to enlarge . . . the scope of statutory protection enjoyed by a copyright proprietor.²²⁸

The results of the experiments conducted for this article, however, suggest that Judge Newman's concern has manifested itself under the current application of the Lay Listener Test. Between the option of consumer surveys and relying upon a jury that does not represent the intended audience for a work, well-designed surveys are the better option.

As in the trademark context, juries using survey evidence in a copyright infringement case would still be responsible for making the ultimate determination of substantial similarity. Rather than serve as a stand-in for the intended audience and pass judgment, a jury would instead weigh the credibility of the evidence of substantial similarity as provided by the actual intended audience of the work. This shift from playing armchair statistician to assessing the credibility of evidence helps realign the jury's function to tasks that it is particularly well suited to undertake.²²⁹

CONCLUSION

Musical performers are the correct audience for the Lay Listener Test when musical compositions are under review. The easiest way to assess the opinions of fluent musicians would be via a properly constructed survey. Such a survey

²²⁸ Warner Bros., Inc. v. Am. Broad. Co., 720 F.2d 231, 245 (2d Cir. 1983).

²²⁹ See, e.g., Reeves v. Sanderson Plumbing Prods., Inc., 530 U.S. 133, 150 (2000) (“Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.” (quoting Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986))(internal quotation marks omitted)).

would be more statistically sound than administering the Lay Listener Test to a jury or panel of judges.

Musical compositions require specialized knowledge to understand. Some courts have allowed expert testimony for the substantial similarity determination when the works in question require the jury to understand idiosyncratic concepts or to have the perception skills of a specialized audience. Though it seems counter to common sense, experimental evidence suggests that laypeople may not be able to hear music the way that fluent musicians do, even after receiving ear training. Furthermore, even when administered by a jury comprising members of the work's intended audience, the Lay Listener Test relies on too small a sample size to properly embody the sentiments of the intended audience. To counter these problems, a statistically significant sample of intended audience members should evaluate the similarity of two works. It is common practice among trademark law to employ as evidence consumer surveys produced by the intended audience. Jurors would retain the ultimate responsibility for making a determination of substantial similarity, but they would be aided by much more accurate evidence than their own hunches and intuitions.