ABSTRACT: Music recordings consist of two distinct copyright protections: (1) a copyright in the underlying composition (the “Composition Copyright”) and (2) a copyright in the sound recording (the “Recording Copyright”). The most popular test for Composition Copyright infringement, the Lay Listener Test, conflates the two by having jurors listen to sound recordings. Playing the sound recording in a Composition Copyright case invites the jurors to make the wrong comparison, comparing the sound recordings, rather than the compositional elements underlying each recording. To test this potential for prejudice, an experiment was conducted replicating the Lay Listener Test in a controlled setting. Experiment participants were presented two pairs of music from actually-litigated composition infringement cases. The participants were asked to assess the similarity of the allegedly infringing compositions as would jurors performing the Lay Listener Test. One set of participants heard the songs performed similarly, i.e. same timbre, orchestration, tempo, key, and style. The other participants heard the same pairs of compositions but performed with different timbre, orchestration, tempo, key, and style. Participants consistently rated compositions performed similarly as being more compositionally similar than identical compositions played dissimilarly, suggesting that the Lay Listener Test introduces prejudicial elements into the jury’s determination of substantial similarity. The audio clips can be found at jlundlaw.com.
An Empirical Examination of the “Lay Listener” Test in Music Composition Copyright Infringement

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INTRODUCTION

Under U.S. copyright law, every audio recording of a musical composition made after 1972 is protected by two separate and distinct copyrights: (1) a copyright in the underlying composition (the “Composition Copyright”) and (2) a copyright in the sound recording itself (the “Recording Copyright”). By default (and subject to contractual

2 Section 301 of the Copyright Act provides:

With respect to sound recordings fixed before February 15, 1972, any rights or remedies under the common law or statutes of any State shall not be annulled or limited by this title until February 15, 2067. The preemptive provisions of subsection (a) shall apply to any such rights and remedies pertaining to any cause of action arising from undertakings commenced on and after February 15, 2067. Notwithstanding the provisions of section 303, no sound recording fixed before February 15, 1972, shall be subject to copyright under this title before, on, or after February 15, 2067.


3 Bridgeport Music, Inc. v. Still N The Water Publ’g, 327 F.3d 472, 475 n.3 (6th Cir. 2003) (“Sound recordings and their underlying musical compositions are separate works with their own distinct copyrights.”); 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 in the musical composition and the other in the sound recording.”); 17 U.S.C. § 102(a)(2). For example, the 1992 #1 hit song “I Will Always Love You” was composed by Dolly Parton and performed by Whitney Houston. CITE In this instance, absent other contractual arrangements, Dolly Parton would own the Composition...
transfer), the Composition Copyright is held by the person or persons who composed the music, and the Recording Copyright is held by the person or persons who performed the music in a particular recording.  

When a jury evaluates a claim of either Composition Copyright infringement or Recording Copyright infringements, it may rely on two types of evidence, alone or in combination: (1) each juror’s own lay comparison of the copyrighted music to the alleged infringing music (the “Lay Listener Test”), and (2) the testimony of expert witnesses.  

In a Recording Copyright infringement case, a jury is tasked with determining whether an actual sound recording has been appropriated by the allegedly infringing work. The Lay Listener Test is generally appropriate and effective in Recording Copyright cases because “comparing sounds” is within our common human experience.

Copyright and Whitney Houston would own the Recording Copyright.  

4 17 U.S.C. § 101 (Sound recordings are “works that result from the fixation of a series of musical, spoken or other sounds, ... regardless of the nature of the material objects, such as disks, tapes or other phonorecords, in which they are embodied.”); 17 U.S.C. § 102(a)(2) (Musical works, including accompanying words are among the general subject matter of federal copyright.); 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 in the musical composition and the other in the sound recording.”).

5 The Lay Listener Test is an umbrella term that applies to the many different varieties of tests to determine Substantial Similarity that rely on playing a recording of the music compositions to the jury for them to decide infringement. See Arnstein, Kroft, et al.

6 For Composition Copyright see Arnstein v. Porter, 154 F.2d 464, 473 (2d Cir. 1946).

For use of expert testimony in Recording Copyright see Johnson v. Gordon, 409 F.3d 12, 25 (1st Cir. 2005) (rejecting allegation of sampling because the expert had not “performed a technical analysis of the type used by musicologists to detect samples in sound recordings; he had not noted the existence of sampling in his report; and he could not point to the sheet music corresponding to the relevant sound recordings to indicate where sampling might have occurred.”)

For the Lay Listener Test used in Recording Copyright see Tuff ‘N’ Rumble Management, Inc. v. Profile Records, Inc.(noting that the proper test for determining infringement of a Recording Copyright is “whether an average lay observer would recognize the alleged copy as having been appropriated from the copyrighted work”); Williams v. Broadus (using a fragmented literal similarity approach). See also John Schietinger, Bridgeport Music, Inc. v. Dimension Films: How the Sixth Circuit Missed A Beat on Digital Music Sampling, 55 DePaul L. Rev. 209, 223-24 (2005).

7 See Johnson v. Gordon, 409 F.3d 12, 18 (1st Cir. 2005) (The defendant's work will be said to be substantially similar to the copyrighted work if an ordinary person of reasonable attentiveness would, upon listening to both, conclude that the defendant unlawfully appropriated the plaintiff’s protectable expression).
A typical juror should be able to hear the original recording and the alleged infringing recording and determine whether there has been an appropriation, simply on the basis of the degree of similarity between the performances as aurally perceived. Expert testimony would usually only be necessary where the original recording has been truncated and/or modified, making lay comparison difficult.

However, courts also allow the use of the Lay Listener Test in Composition Copyright infringement cases. In a Composition Copyright case, the jury is tasked not with determining whether an actual recording has been copied, but whether the underlying musical composition (melody, harmony, rhythm, etc.) has been appropriated. The use of the Lay Listener Test in this context is problematic. The recordings played for jurors in a Composition Copyright case are intended only as a vehicle for presenting evidence of the underlying musical composition, of which the recording is merely an expression. The jurors are being asked to look beyond the performance as expressed in the recording, and focus on the underlying musical ideas embodied in the recording. Yet playing an audio recording invites the juror to focus on the sound recording – which is not at issue – rather than the underlying composition. This is especially so because an understanding of musical composition is outside a normal juror’s range of experience.

Thus, playing the sound recording in a Composition Copyright case invites the jurors to make the wrong comparison, comparing the sound recordings, rather than the compositional elements underlying each recording. This creates an unavoidable risk that the jury will reach the wrong conclusion. Therefore, playing recordings in Composition

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Copyright cases and asking the jurors to apply the Lay Listener Test may be unduly prejudicial.\footnote{See, e.g., Fed. Rule of Evid. 403 (“Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.”).}

This paper examines the danger of prejudice posed by use of the Lay Listener Test in Composition Copyright infringement cases. It articulates specific problems with use of the Lay Listener Test in such cases, and uses empirical research to explore the existence and severity of these problems.

I. THE COMPOSITION COPYRIGHT

A. Origins of the Distinction Between Music Compositions and Sound Recordings

Music compositions first received copyright protection at a time when the music business relied primarily on sheet music sales. In 1800, sheet music was the chief vehicle for new music to reach American consumers.\footnote{Edward Samuels, The Illustrated History of Copyright, 2000.} In the absence of audio reproduction technologies, music consumers would purchase sheet music versions of popular songs, in books, magazines, or individually.\footnote{Id.} The sheet music could then be performed on a home piano or other instrument.\footnote{Id.}

Although music was not protected by the first U.S. Copyright Act in 1790,\footnote{Copyright Act of 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 the whole or in part.”\footnote{Act of Feb. 3, 1831, Ch. XVI, §4.} This was the start of the Composition Copyright.
The scope of Composition Copyright was later expanded in 1897 specifically to include the exclusive right to perform the work publicly, and 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.

Sound recordings were not protected by copyright law until passage of the 1976 Copyright Act. The 1976 Act introduced the Recording Copyright, which protects “works that result from the fixation of a series of musical, spoken, or other sounds. . . .” The 1976 Act was a commonsense attempt to tailor copyright law to the technology and business practices of that era’s music industry.

The 1976 Act’s recognition of separate copyrights for composition and for recording encouraged the music industry to profit and grow. The Composition Copyright incentivized composition by allowing composers to profit in the underlying work over multiple performances. The Recording Copyright encouraged recorded performance by

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allowing them to profit from the unique musical interpretation embodied in their recordings.\textsuperscript{18}

At the same time, the 1976 Act also raised questions about the scope of the Composition Copyright and the Recording Copyright. Under the 1976 Act, the two rights are separate and distinct; what one protects, the other does not. Given this separation, holders of each right have a vital interest in understanding exactly where one right ends and the other right begins. Courts set forth the boundaries of each copyright in a series of rulings discussed respectively in the two sections below.

B. The Scope of the Composition Copyright

Composition Copyright is traditionally understood to protect “rhythm, harmony and melody.”\textsuperscript{19} That definition was recently affirmed by the Sixth Circuit in the 2003 decision \textit{Bridgeport Music, Inc. v. Still N The Water Publishing},\textsuperscript{20} and by the Ninth Circuit in the 2003 decision \textit{Newton v. Diamond}.

At least one recent case has articulated a more expansive definition that includes musical elements more frequently associated with sound recordings and not musical writings. In the 2004 decision \textit{Swirskey v. Carey},\textsuperscript{22} the Ninth Circuit suggested that Composition Copyright could protect pitch, tempo, phrasing, structure, chord progressions and lyrics, in addition to rhythm, harmony and melody,\textsuperscript{23} although the

\textsuperscript{18} \textit{Id}. Subject to a statutorily set license fee, performers have an automatic right to perform any composition.

\textsuperscript{19} \textit{Nimmer On Copyright} (1987) (“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.”) 1 Melville B. Nimmer & David Nimmer, \textit{Nimmer on Copyright} § 2.05[D] at 2-58 (2010).

\textsuperscript{20} 327 F.3d 472, 475 n.3 (6th Cir. 2003).

\textsuperscript{21} 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002) aff'd, 349 F.3d 591 (9th Cir. 2003) opinion amended and superseded on denial of reh'g, 388 F.3d 1189 (9th Cir. 2004) and aff'd, 388 F.3d 1189 (9th Cir. 2004)

\textsuperscript{22} 376 F.3d 841 (9th Cir. 2004)

\textsuperscript{23} \textit{Id}. at (“Other courts have taken account of additional components of musical compositions, including melody, harmony, rhythm, pitch, tempo, phrasing, structure, chord progressions, and lyrics.”); see also \textit{Id}. at 849-50 (“Music, like software programs and art objects, is not capable of ready classification into only
court’s opinion itself relied on the same elements of rhythm, harmony, and melody. 24

Commentators have argued that because music is increasingly composed using audio recording equipment without ever being written down, the scope of Composition Copyright should reflect the distinctive elements of a song as embodied by the recording, 25 including the factors suggested by Swirsky. However, no court has cited Swirsky’s dicta with approval on this point 26 or otherwise relied on music performance factors such as tempo, orchestration, key/pitch, or style/genre to sustain a finding of Substantial Similarity in a Composition Copyright case. 27

The legal distinction reflects a practical distinction between a composition and the songwriter who writes it, and a sound recording and the artist who performs it. 28 The

five or six constituent elements; music is comprised of a large array of elements, some combination of which is protectable by copyright.”).

24 Id. at 848 (holding that “although chord progressions may not be individually protected, if in combination with rhythm and pitch sequence, they show the chorus of [the allegedly infringing song] to be substantially similar to the chorus of [the allegedly infringed song], infringement can be found.”).

25 Alan Korn, Issues Facing Legal Practitioners in Measuring Substantiality of Contemporary Musical Expression, 6 J. Marshall Rev. Intell. Prop. L. 489, 490 (2007) (“precedent has failed to keep up with important shifts in how contemporary music is composed by its practitioners or appreciated by its audience. As a result, the legal system continues to analyze difficult compositional works based on a definition of music that may no longer be adequate to the task.”); Gabriel Jacob Fleet, What's in A Song? Copyright's Unfair Treatment of Record Producers and Side Musicians, 61 Vand. L. Rev. 1235, 1242 (2008) (“Given the practice of using the recording studio as a compositional medium and in light of the elimination of a written notation requirement, the boundary separating these two copyrights has become blurred.”).

26 The closest case to this proposition is Gable v. National Broadcasting Co, 727 F.Supp.2d 815, 831 (C.D. Cal. 2010). This was an infringement case for a television show and the court did use the quote from Swirsky “whether [the works] share a similarity of ideas and expression as measured by external, objective criteria.” In doing their substantially similar test they were to look at “whether there is substantial similarity in the objective elements of theme, plot, dialogue, characters, sequence of events, mood, pace, and setting between Karma! and Earl.” While the factors in Swirsky were for musical compositions, there is some similarity in applying that analysis to the television shows because they are looking at more than just the basic plot and characters. The only other music case that cites Swirsky is Positive Black Talk Inc. v. Cash Money Records, Inc, 394 F.3d 357 (5th Cir. 2004), which cites Swirsky inverse relationship of access and similarity and how the 9th Circuit unlike many other circuits use “substantial similarity” to describe the similarity needed for factual copying as well as legally actionable copying. Id. at PINCITE, citing Swirsky, 376 F.3d at 844. (“Where a high degree of access is shown, we require a lower standard of proof of substantial similarity.”).


28 Gabriel Jacob Fleet, What's in A Song? Copyright's Unfair Treatment of Record Producers and Side Musicians, 61 Vand. L. Rev. 1235, 1279 (2008) (“In addition to the need to separate the sound recording copyright from the musical composition copyright in legally analyzing a claim for copyright infringement,
music business still employs people who are only composers and people who are only performers, as well as people who do both. In making the distinction between the Composition Copyright and the Recording Copyright, congress has made the decision to reward both activities.\textsuperscript{29} Despite a lack of consensus about the exact delineation between the Composition Copyright and the Recording Copyright, the 1976 Act’s distinction between the two serves the practical function of ensuring that both composers and performers are protected and compensated.

C. The Scope of the Recording Copyright

In order to curtail rampant unauthorized copying of sound recording in the music industry, Congress passed The Sound Recording Act of 1971.\textsuperscript{30} Musical industry experts testified that legitimate sound recording owners were missing out on at least $100 million

\textsuperscript{29} Some would limit the scope of a Composition Copyright must be limited to the “generic sound that would necessarily result from any performance of the piece.” Gabriel Jacob Fleet, What's in A Song? Copyright's Unfair Treatment of Record Producers and Side Musicians, 61 Vand. L. Rev. 1235 (2008). In other words, if there were 100 versions of a piece, the Composition Copyright of the underlying composition would represent only those elements elements that make all 100 versions recognizable as the same song: [O]ne court has said that “a musical composition's copyright protects the generic sound that would necessarily result from any performance of the piece.” This definition encapsulates the theory of the musical work copyright and its distinction from the sound recording copyright. However, it still does not indicate which sonic elements expressed in the recording are included within the musical composition. The logic of this putative definition is circuitous, because it merely begs the question: Which sounds would result from any performance and which are unique to the specific performance captured by the sound recording? This court's attempt at a definition does little to answer that more fundamental question.

due to this unauthorized copying. The Copyright Act of 1976 defined sound recordings as “works that result from the fixation of a series of musical, spoken, or other sounds”. This Act also afforded the owner of the Recording Copyright the exclusive rights of reproduction, preparation of derivative works, and distribution of copies, but explicitly does not afford performance rights. The reproduction right is defined as the right “to duplicate the sound recording in the form of phonorecords, or of copies of motion pictures and other audiovisual works, that directly or indirectly recapture the actual sounds fixed in the recording”, while the derivative work right is “to prepare derivative work in which the actual sounds fixed in the sound recordings are rearranged, remixed, or otherwise altered in sequence or quality.”

A newfound technology in the music industry is Digital Music Sampling, or simply sampling. It is used in music recordings to recycle sound clips that were originally recorded by other musicians. Generally, an artist who is sampling will take a previously popular song, incorporate a more modern sound, and repeat it throughout the new song. When an artist wants to lawfully make a sampled recording, they must obtain the correct licenses and pay the original artist for the use of the recording. Because sampling requires the composition copyright and the sound recording copyright, there are two separate licensing processes involved.

In Positive Black Talk Inc. v. Cash Money Records Inc., a controversy arose over

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31 Id.
35 Id § 114(b).
the use of the poetic four-word phrase “back that ass up.” In 1997, two New Orleans
rap artist each recorded a song using the phrase, which resulted in allegations of
copyright infringement. On appeal, PBT complained that the district court abused its
discretion by allowing the defendants to show that the plaintiff’s version of the song
sampled, without authorization, music from the Jackson Five song, *I Want You Back.*
The evidence of sampling was used by the defendants to show that the very heart, or
hook, of the plaintiffs’ song was not the four-word phrase in controversy but rather an
unauthorized sample of the Jackson Five song. The evidence was deemed to be relevant
to the determination of the songs hook because of the popularity of the Jackson
Five. The court noted that in a more perfect world the district court would admit the
sampling evidence but refrain from stating that the sampling was unauthorized. However, the court held that any potential error in showing that the sampling was
unauthorized did not warrant a reversal, because the jury had ample evidence to find in
favor of the defendants’ even if they were not informed that the Jackson Five sampling
was unauthorized.

In *Bridgeport Music, Inc. v. Dimension Films,* Bridgeport Music, Inc., Westbound
infringement claims against No Limit Films. The plaintiffs alleged that “Get Off Your
Ass and Jam” was sampled, without authorization, in the rap song “100 Miles and

36 394 F.3d 357 (5th Cir. 2004).
37 Id. at 363.
38 Id. at 378.
39 Id. at 379.
40 Id.
41 Id. at 380.
42 Id.
43 410 F.3d 792, 795 (6th Cir. 2005).
Runnin’” which was included on the soundtrack to the movie “I Got the Hook Up”\textsuperscript{44}. Bridgeport and Westbound both claimed to own the sound recording copyright in “Get Off Your Ass and Jam” by George Clinton and the Funkadelics. \textsuperscript{45} Experts testified that the creators of “100 Miles” sampled the three-note electric guitar opening of “Get Off,” lowered its pitch, extended its duration, and used it throughout their song.\textsuperscript{46} No Limit Films was granted summary judgment by arguing that the sample was not protected by copyright law because the sample was legally insubstantial and therefore does not amount to actionable copying under copyright law.\textsuperscript{47} In reversing the district court’s grant of summary judgment the Sixth Circuit first stated that “[t]he analysis that is appropriate for determining infringement of a musical composition copyright, is not the analysis that is to be applied to determine infringement of a sound recording.”\textsuperscript{48} The court recited the appropriate federal copyright statutes and interpreted these statutes as stating that a sound recording copyright owner may sample or copy his recordings. The court held that others cannot ‘lift’ or ‘sample’ parts of the recording without infringing on the copyright.\textsuperscript{49} Therefore, it was held that when discussing infringement of a sound recording copyright by sampling, there is no\textit{de minimis} taking and substantial similarity does “not enter the equation”.\textsuperscript{50} Ordinarily, to succeed on a copyright infringement case the plaintiff must show that the allegedly infringed work is copyrighted, that the defendant copied from that copyrighted work, and that the defendant copied enough of the protected expression so as

\textsuperscript{44} Id.  
\textsuperscript{45} Id. at 796.  
\textsuperscript{46} Id.  
\textsuperscript{47} Id. at 797.  
\textsuperscript{48} Id. at 798.  
\textsuperscript{49} Id. at 800-01.  
\textsuperscript{50} Id. at 801.
to make the two pieces “substantially similar.”\textsuperscript{51} The Sixth Circuit’s holding that substantial similarity is no longer an issue explicitly stated any copying or sampling of a copyrighted sound recording, no matter how immaterial, will constitute copyright infringement.\textsuperscript{52} The court rationalized this decision by stating the appropriate statutes it cited earlier dictate it, and even sampling a small part of a sound recording is taking something of value.\textsuperscript{53}

II. THE LAY LISTENER TEST

Notwithstanding U.S. copyright law’s distinction between Composition Copyright and Recording Copyright, courts continue to apply the same test – the Lay Listener Test – to assess claims of infringement for both types of copyright. This practice ignores the fact that each type of copyright has a different scope. While the Lay Listener Test is well-suited to cases involving Recording Copyright, it is poorly-suited to evaluate claims of Composition Copyright infringement.

A. Proving copyright infringement

Violation of either a Composition Copyright or a Recording Copyright is a question of fact to be determined by a jury.\textsuperscript{54} A prima facie case of either type of infringement consists of proving (i) that the allegedly infringed work is copyrighted (ii) that the defendant copied from that copyrighted work, and (iii) that the defendant copied enough of the protected expression so as to make the two pieces “substantially similar.”\textsuperscript{55}

\textsuperscript{52}410 F.3d 792, 801 (6th Cir. 2005).
\textsuperscript{53}Id.
\textsuperscript{54}Arnstein v. Porter, 154 F.2d 464, 473 (2d Cir. 1946) (“Similarity is an issue of fact which a jury is peculiarly fitted to determine. Even 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.”).
“Substantial similarity” is a legal standard which means that the defendant has taken either a quantitively or qualitatively significant portion of plaintiff’s protected original expression: “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.”

Because Composition Copyright and Recording Copyright protect different musical elements, the inquiry into “substantial similarity” focuses on different information depending on the type of infringement alleged.

If infringement of a Recording Copyright is alleged, the jurors compare the original recording and the allegedly infringing recording, and make a factual determination about whether the original recording was used in the allegedly infringing recording. The jury then makes a determination as to whether the duration of the recording is sufficient to be an infringement; and whether the recording has been sufficiently altered to make it a new, non-infringing work. The jury’s initial determination of whether a copyrighted recording has been used is relatively straightforward. The jurors need only listen to the recordings and make a lay
comparison. Where a lay comparison is made difficult by abridgement or alteration of the original recording, the analysis is amenable to expert testimony. Audio specialists can use computer tools to analyze the audio wave forms of music and form an opinion as to the presence or absence of infringement.

On the other hand, evaluating an alleged violation of a Composition Copyright is much more difficult. Jurors cannot typically make a lay comparison of two music compositions: comparison of recorded sound is within the range of a typical juror’s common experience, comparison of written sheet music is not. As a result, cases involving claims of Composition Copyright infringement will generally require the testimony of an expert witness, such as a musicologist, who can isolate and analyze compositional elements of the musical works and testify about their similarity.

However, most courts limit or exclude expert testimony where it would be most helpful, instead relying solely on jurors listening to audio recordings of the two works in the “Lay Listener Test”.

B. Some courts allow the Lay Listener Test in evaluating Composition Copyright claims, but exclude expert testimony

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58 Jurors must be able to understand English. If a jury were asked to compare passages of two poems in English for close similarities, they could do so (lay experience); if they were asked to compare passages of two poems in Farsi, they could not. Although they might be able to recognize similar sounds (if the poems are spoken) or shapes (if the poems are written), just as a lay juror in a Composition Copyright case may sense similar compositional elements, the jurors don’t know enough Farsi to make a true, fair comparison of the Farsi poems.

59 Jollie v. Jaques, 13 F.Cas. 910, 914 (C.C.N.Y. 1850.) (“Each case must depend upon its own particular facts and circumstances. Persons of skill and experience in the art must be called in to assist in the determination of the question. It may often be a very nice one.”)

60 Six of the twelve circuits have a case adopting a form of the lay listener test at the courts of appeals level. The Third, Fifth, Eighth, Tenth, and DC Circuits all have at least one district court case adopting some form of the lay listener test. The Seventh Circuit has apparently not addressed the issue, although at least one case has allowed a recording to be played to the jury, but on the issue of copying. See Selle v. Gibb, 741 F.2d 896, 899 (7th Cir. 1984) (noting that a “work tape which was introduced into evidence and played in court.”)
The Lay Listener Test is an umbrella term for any test in which the jury listens to sound recordings of musical pieces to determine the “substantial similarity” prong of copyright infringement. Jurors evaluating a claim of Composition Copyright infringement are typically asked to listen to recordings of the original and allegedly infringing work, and apply the Lay Listener Test to determine if the compositional elements are “substantially similar.” This use of the Lay Listener Test requires jurors to evaluate the compositional elements underlying the recordings, rather than evaluating the recordings themselves. Because this comparison is beyond a typical juror’s common experience, expert testimony is extremely helpful in this analysis. Yet some courts have excluded the use of expert testimony in Compositional Copyright cases.61

The key case excluding expert testimony in a Compositional Copyright case is Arnstein v. Porter.62

Ira Arnstein was a composer who was largely known then—and is only known now—for the series of lawsuits he brought against other more successful composers.63 Among other theatrics, he was known for strolling around the streets of New York City wearing a sandwich board reading, “My songs have been plagiarized by the following

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61 Compare Arnstein v. Porter, 154 F.2d 464, 473 (2d Cir. 1946). (“Expert testimony should be utilized only to assist in determining the reactions of lay auditors. The impressions made on the refined ears of musical experts...are utterly immaterial on the issue of misappropriation.”) with Sid & Mary Krofft Television Prods., Inc. v. McDonald’s Corp., 562 F.2d 1157, 1164 (9th Cir. 1977). (The intrinsic test “depends on the response of the ordinary reasonable person” and “whether there is substantial similarity in the expressions of the ideas so as to constitute infringement.” “Analytical dissection and expert testimony” are prohibited for this test.) and Dawson v. Hinshaw Music, Inc. 956 905 F.2d 731, 735 (4th Cir. 1990). (Lay listener test is proper when the general public is the targeted audience, but it would be “reckless indifference to common sense” for a court to employ a doctrine for copyright infringement that is based on the opinion of a person who lacks the knowledge distinguish the similarities and differences between two works.)

62 154 F.2d 464 (2nd Cir. 1946).

writers: Irving Berlin, George Gershwin, Cole Porter, Jerome Kern, Rodgers and Hart.\textsuperscript{64}

In one of his first cases alleging Composition Copyright infringement, \textit{Arnstein v. Edward B. Marks Music Corp},\textsuperscript{65} Arnstein established a pattern of playing his songs in court, but altering them to emphasize similarities:

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 highlighted 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.\textsuperscript{66}

Arnstein continued this practice of performing the composition in a way that created the impression of greater compositional similarity throughout his many lawsuits.\textsuperscript{67}

\textit{Arnstein v. Porter}, the most legally significant of Arnstein’s lawsuits, centered on Arnstein’s claim of Composition Copyright infringement by Cole Porter, then the most prolific and influential of the Tin Pan Alley composers.\textsuperscript{68} In determining whether there was “substantial similarity” between Arnstein’s work and Porter’s work that would constitute unlawful or illicit copying the court employed what it called the “ordinary lay hearer” test, i.e. the Lay Listener Test.\textsuperscript{69} Under the Lay Listener Test, the jury would listen to both works and determine whether their compositional elements were substantially similar. The court explicitly prohibited the use of expert testimony,\textsuperscript{70} reasoning that the proper inquiry of the “substantial similarity” analysis is “whether

\textsuperscript{64} As told by songwriter Jack Lawrence, found at http://www.jacklawrencesongwriter.com/songs/play_fiddle_play.html
\textsuperscript{65} 82 F. 2d 275 (2d Cir. 1936).
\textsuperscript{66} As told by songwriter Jack Lawrence, found at http://www.jacklawrencesongwriter.com/songs/play_fiddle_play.html
\textsuperscript{67} Song Writer Plays Piano For Court, N.Y. Times, Mar. 7, 1939, at 25.
\textsuperscript{68} \textit{Arnstein v. Porter}, 154 F.2d 464 (2d Cir. 1946).
\textsuperscript{69} \textit{Id.} at 468. (“[T]he test is the response of the ordinary lay hearer.”) [What does the rest of the sentence say? Does the court specify for what the test is for, for instance? JL]
\textsuperscript{70} \textit{Id.} (“Expert testimony of musicians may also be received, but it will in no way be controlling on the issue of illicit copying, and should be utilized only to assist in determining the reactions of lay auditors.”)
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.  

Arnstein v. Porter's exclusion of expert testimony in the “substantial similarity” analysis has been adopted by other circuits, most notably the Ninth Circuit in Sid & Marty Krofft Television Productions, Inc. v. McDonald’s Corp.  

C. Other courts allow both the Lay Listener Test and expert testimony in evaluating Composition Copyright claims  

Other courts reject Arnstein v. Porter’s exclusion of expert testimony in the “substantial similarity” analysis, at least for songs that are directed at a niche audience that may not be well-represented by a typical jury.  

In examining the alleged infringement of a spiritual, a specific type of religious music directed at a narrow audience, the Fourth Circuit in Dawson v. Hinshaw Music, Inc. noted that juries will not necessarily represent the intended audience of a work. Where the work is “popular music,” Dawson explained, “[t]he lay listener's reaction is relevant because it gauges the effect of the defendant's work on the plaintiff's market.” But the Dawson court criticized the exclusion of expert testimony where the intended

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71 Id. at 473.  
72 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.”).  
73 562 F.2d 1157, 1162 (9th Cir. 1977)  
74 905 F.2d 731 (4th Cir. 1990)  
75 Id. at 734.  
76 Dawson v. Hinshaw Music Inc. 905 F.2d 731, 734 (4th Cir. 1990)
audience is “more specialized than the pool of lay listeners,” e.g. the audience for a spiritual.\footnote{\textit{Id}.} The \textit{Dawson} court asserted that the means for determining “substantial similarity” should actually represent the “perspective of the works’ intended audience,”\footnote{\textit{Id}.} such that when the intended audience of a work is more narrow than the that of the lay person, the court should look only to whether a “member of the intended audience would find the two works to be substantially similar.”\footnote{\textit{Id} at 736.} The \textit{Dawson} court suggested that this could be accomplished through the use of witnesses who represent the intended audience or through experts who could testify as to the intended audience.\footnote{\textit{Id}.} 

Even if the jury represented the intended audience, expert testimony would be helpful and appropriate as to the compositional elements and similarities that the jury was expected to analyze. In allowing expert testimony to aid the jury in making its finding of substantial similarity,\footnote{\textit{Dawson}, 905 F.2d at 737 (“we think remand is necessary because the district court did not inquire into whether the audience of Dawson's work possessed specialized expertise that the lay public lacks and, therefore, whether the general, undifferentiated lay public fairly represents the intended audience of Dawson's arrangement.”). The Dawson court was careful not to mandate that the court use expert testimony, but rather held that there are times when expert testimony or other evidence would be needed as to whether the target audience would find the works to be similar, as opposed to just the average lay observer. \textit{Id.} (cautioning: “That burden would be a substantial one if our holding were read as an invitation to every litigant in every copyright case to put before the court the seemingly unanswerable question of whether a product’s audience is sufficiently specialized to justify departure from the lay characterization of the ordinary observer test” and that “a court should be hesitant to find that the lay public does not fairly represent a work's intended audience.”).} the \textit{Dawson} court noted that there are occasions when the lay observer lacks the expertise required to tell the differences or similarity of products, and it would be “reckless indifference to common sense” for a court to employ a doctrine for copyright infringement that is based on the opinion of a person who lacks the knowledge to distinguish the similarities and differences between two works.\footnote{\textit{Id} at 735.}
D. Problems with the Lay Listener Test.

The Lay Listener Test seems poorly suited to weighing the “substantial similarity” of musical compositions because it focuses the lay listener’s attention on *performance* elements that are not actually protected by the Composition Copyright, elements like tempo, pitch, orchestration, and style. This tends to cause the lay listener to judge the wrong thing – the similarity of the performances, rather than the similarity of the compositions.

Despite the repeated legal distinctions made by the courts and Congress between the music that we can perceive with our eyes and the music that we can perceive with our ears, the most common test for music composition infringement, the Lay Listener Test, fails to distinguish between the two. Rather, it conflates the two types of copyright infringement by introduces performance elements, which are only protected by Recording Copyright, into the “substantial similarity” analysis of Composition Copyright infringement cases. By taking the elements of Composition Copyright—melody, rhythm, harmony, and lyrics—and making them audible, we necessarily add performance elements. We add tempo, because music can only be experienced temporally. We add orchestration and/or timbre because the music has to be played by something or sung by someone in order to be heard. We add pitch because although we must choose

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83 Although these distinctions are largely historical as discussed in Part I, the result is a longstanding legal distinctions between music composition copyright and the copyright other mechanical embodiments of the music, such as sound recordings.

84 Tempo is the speed of a song, typically measured in beats per minute. CITE to New Grove Dictionary of Music.

85 Orchestration is how music is arranged amongst various instruments or voices, e.g. saxophone playing the melody, piano playing the accompaniment. Id. At New Grove.

86 Timbre is the sonic quality of a particular voice or instrument that makes it sound distinctively like itself, e.g. a tuba has a rich brassy timbre, while a piccolo has a shrill, airy timbre.

87 Even a very basic keyboard is a timbral choice – the sound of a very basic keyboard. Even a pure sine wave has a distinctive sound.
sounds that are neither too high nor too low in frequency to be perceived by human ears,\textsuperscript{88} we otherwise have near limitless possibilities for pitch. Finally, we must choose a certain style\textsuperscript{89} or genre, because even music played exactly “straight,” e.g. played by a computer rather than “stylized” by a live performer, has a certain feel to it. Although the law makes a sharp and necessary distinction between elements protected by Composition Copyright and elements protected by Recording Copyright, our research show that the Lay Listener Test makes it extremely difficult for jurors to make these distinctions in Composition Copyright cases.\text{e.}

### III. EXPERIMENTAL RESEARCH

#### A. Clarifying the problems in the Lay Listener Test

The focus of the preceding discussion has been on the practical problems the Lay Listener Test presents for litigating music composition copyright infringement cases. As has been established in the preceding discussion, the problems presented by the Lay Listener Test are generally understood, but there is no clear consensus on how to resolve them. In part, the lack of consensus about how to resolve this problem reflects uncertainty as to the precise nature of the problem created by the Lay Listener Test.

This paper proposes that empirical research is a useful tool for identifying how performance of musical pieces relates to listener perception of similarity between them, and thereby advancing the legal discussion toward a practical solution.

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\textsuperscript{88} A normal human can hear between 20 Hz and 20000 Hz. CITE to New Grove? I found some articles online that reference Physics textbooks so if I cannot find it in New Grove I figured I could find a textbook at the library I could reference so it would be accessible to make PDF’s of. [Yeah, wherever you find it easiest is probably fine, it's not really a key point. JL]

\textsuperscript{89} Style is the manner in which notes are interpreted. It’s biggest influence is on how rhythms are played, either very straight or very swung, but typically somewhere on the vast spectrum between the two. Id. at New Grove.
The research discussed in this paper is currently being carried out and results will be forthcoming. The purpose of this research is to investigate: (1) the effect of musical performance on the likelihood of Substantial Similarity, and (2) the effect, if any, the addition of a Lay Listener Test jury instruction has on the relationship between musical performance and the likelihood of a finding of substantial similarity. Because the focus of this paper relates primarily to the first research objective, the following discussion will cover only the methods that pertain to it.

B. Sampling Method and Data Collection

Data for this study is being collected through the execution of an eight-group, sixteen condition experimental design. Each group will be tested under two different conditions. The sample for this experiment is a volunteer sample that will be between 160 and 200 current students from a state university in central Texas. As would occur with potential jurors in a composition copyright case, all study participants are being screened for known hearing impairments.

C. Experimental procedure

Potential study participants have already been initially recruited, and are currently being randomly assigned to one of eight groups (Group 1…Group 8). Study participants in all eight groups will assess the degree of compositional similarity for two pairs of songs. Participants will first assess the degree of compositional similarity of the musical pieces litigated in the Ninth Circuit case of Swirsky v. Carey, superscript 90 after which they will make a separate assessment of the degree of compositional similarity of the musical pieces litigated in the Second Circuit case of Gaste v. Kaiserman. superscript 91

 superscript 90 376 F. 3d 841 (9th Cir. 2004).
 superscript 91 863 F.2d 1061 (2d Cir. 1988).
These song pairs used in this research were chosen on the basis of two factors: the findings in each case, and because songs in each pair are relatively recent. A fundamental challenge in designing this research has been to establish a baseline measure of comparison for what should be found to be Substantially Similar and what should not be found to be Substantially Similar. The problem in this research is that the very measures used to make these assessments, specifically the Lay Listener Test, are themselves the subject of the debate this paper addresses. The lack of a clear baseline measure for comparison creates the risk of potentially introducing systematic error that may reduce the overall internal validity of the research, which could reduce the efficacy of the model for fully or accurately capturing the effect of musical performance on the likelihood of a finding of substantial similarity.

Swirsky was chosen, because this case passed summary judgment, albeit narrowly, but was not determined to be Substantially Similar by a jury. Gaste was chosen, because the jury, using the Lay Listener Test, found there was infringement.

The song pairs used in this research were also chosen, because they contain songs that are relatively recent and are from broadly recognized genres. This reduces the likelihood that participant familiarity, or lack of familiarity, with a genre of music, or period of music, will introduce a confounding variable into the experimental design.

Performance of the music used for this study consists of 1 - 1 ½ minute segments generated via the music composition software Sibelius specifically for the purposes of

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92 Swirsky v. Carey, 376 F. 3d 841, 853 (9th Cir. 2004). (Concluding that Swirsky's expert adequately explained his methodology and provided “indicia of a sufficient disagreement concerning the substantial similarity of two works” so that the issue of the substantial similarity of the two choruses should have been presented to a jury.)

93 Gaste v. Kaiserman, 863 F.2d 1061, 1067-68 (2d Cir. 1988). (The trial court did not error in permitting the jury to find copying on the basis of “striking similarity. Striking similarity can raise an inference of copying but the inference must be reasonable in light of all the evidence, which in this case consisted of aural renditions of the song and expert testimony.)
this research. The segments include the protectable copyright elements at issue in the original cases. All executions of the experimental design will take place in the same room, and each song clip will be played at 70 decibels. The order of presentation of the songs in each pair will be alternated in order to avoid any potential confound that could be inadvertently introduced by playing each song in the same order across all treatments.

The effect of musical performance on perception of substantial similarity will be tested using Groups 1 through 4. The experimental procedure for each group will be identical, except for the manner of performance of the pieces. Groups 1 and 2 will hear each song-pair performed similarly, e.g. same tempo, orchestration, key, and style, and Groups 3 and 4 will hear the pieces in each pair performed differently, e.g. different tempo, orchestration, key, and style. Other than these differences, the experimental procedure for Groups 1 through 4 will be as follows:

- All participants within an assigned group (Group 1, 2, 3 or 4) will meet together in a classroom on campus, where the experiment will take place.
- After the experimental procedure has been fully explained, each participant will receive an individually numbered packet containing two copies of the assessment instrument to be used during the experiment, along with a short survey. The survey will capture basic demographic information, information on respondent habits of music consumption, familiarity with different aspects of music, i.e. different genres, and the extent of formal and informal musical training received by the respondent. The assessment forms capture perception of similarity using two measures, one dichotomous (yes/no) and the other using an ordinal scale from 1 to 7.
Next, each music segment in the first pair of songs to be assessed (Swirsky) will be played for the participants in order to familiarize them with the music they will be evaluating.

After the music segments have been played a second time, participants will be directed to fill out the first assessment form.

Once the first assessment form has been completed, the process will be repeated for the two music segments in the second pair of songs (Gaste).

Upon completion of the second assessment, participants will be given a $15 gift card for a local grocery store.

D. Discussion

The high level of control afforded by this experimental design will make it possible to isolate the effect of the independent variable, manner of performance, on the dependent variable, perception of similarity. In so doing, it is possible to establish whether there is a true cause and effect relationship between the variables. Establishing cause and effect alone will not serve to sufficiently clarify the problems in the Lay Listener Test, but it is a necessary first step in this process. The second part of this research, not addressed in this paper, will add additional elements, such as a generic lay-listener jury instruction and a group evaluation of similarity, in addition to the individual assessment made by each participant. These additional elements will provide a more nuanced understanding of the broader issues in the Lay Listener Test by determining the extent to which the jury instruction modifies the anticipated cause and effect relationship observed in the first part of the research. Additionally, the effect of the group dynamic,
independent of individual participant assessment of similarity, may serve to shed light on
the jury process in copyright cases more generally.

The sampling method and sample size are significant strengths in this design. All
participants were effectively sampled at one time (volunteered over the course of four
days), and then randomly assigned to groups, as a result, statistical analysis can be
conducted to examine variations within groups and also across groups.

Another strength of this design is the use of multiple measures of similarity.
Although courts must ultimately conclude whether there is infringement or not, a
circumstance reflected by the use of a dichotomous measure of similarity, in reality, such
distinctions are rarely so clear. The inclusion of an ordinal measure of similarity will
enhance our ability to capture the extent to which respondents actually perceive
similarity.

A final strength of this design that should be mentioned is that several variables
which could potentially be confounding, such as sex, age, music training, familiarity with
different genres, and type and quantity of music consumption are being captured, and can
therefore be controlled for in the statistical analysis.

IV. COPYRIGHT LAW AND ISSUES OF POLICY

Copyright law is fraught with policy concerns generally, because of its role in
fostering creativity for its economically and aesthetically desirable outcomes, and the
need for relatively clear legal standards that are predictably applied in order to avoid
chilling creativity. Music copyright law involves these broad issues, but because of the
nature of music creation and performance, along with rapid advancements in technology, policy issues are of a particular concern in this area.

Although this paper broadly alludes to the policy issues inherent in music copyright law generally, and in music composition copyright infringement cases specifically, the policy implications of using empirical research to inform legal debate needs to be examined more closely. Empirical research offers the potential to work in the service of the development of the law, but it is important to avoid overstating its value. The extent to which any policy-based solution will be successful depends on a number of factors, including such considerations as practicality and efficiency, balancing the competing interests among stakeholders, and ideological fit.

With respect to the Lay Listener Test, empirical findings alone are insufficient for determining the best solution to the problem, because the law and empirical research differ significantly as to goals, methods, and accepted practices. As such, any solution that over-emphasizes empirical research findings runs the risk of a poor fit with the law as a matter of practice and ideology.

V. CONCLUSION

Because the Composition Copyright and the Recording Copyright are separate and distinct, the scope of each is necessarily limited.\(^94\) What one copyright protects, the other must not.\(^95\) The Composition Copyright protects only the notes on the page:

\(^94\) *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002) aff'd, 349 F.3d 591 (9th Cir. 2003) opinion amended and superseded on denial of reh'g, 388 F.3d 1189 (9th Cir. 2004) and aff'd, 388 F.3d 1189 (9th Cir. 2004) (“The rights of a copyright in a sound recording do not extend to the song itself, and vice versa.”)

\(^95\) *Id. See also* Gabriel Jacob Fleet, What's in A Song? Copyright's Unfair Treatment of Record Producers and Side Musicians, 61 Vand. L. Rev. 1235, 1241-42 (2008) for a discussion of the distinction between what the Composition Copyright protects and what the Recording Copyright protects.
melody, rhythm, harmony, and lyrics (if any). The Recording Copyright protects only the particular performance embodied in the sound recording.

The Copyright Act may make a distinction between the Composition Copyright and Recording Copyright, but the most popular test for infringement, the Lay Listener Test, conflates the two by having jurors listen to sound recordings in Composition Copyright cases.

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96 Although some courts have limited to the scope of the Composition Copyright to just melody and lyrics, other courts also include rhythm and harmony as well. *Bridgeport Music, Inc. v. Still N The Water Publ’g*, 327 F.3d 472, 475 n.3 (6th Cir. 2003), citing MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.05[D].

97 *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1249 (C.D. Cal. 2002) aff’d, 349 F.3d 591 (9th Cir. 2003) opinion amended and superseded on denial of reh’g. 388 F.3d 1189 (9th Cir. 2004) and aff’d, 388 F.3d 1189 (9th Cir. 2004); *T.B. Harms*, 655 F.Supp. at 1576 n. 1 (“The sound recording is the aggregation of sounds captured in the recording while the song or tangible medium of expression embodied in the recording is the musical composition.”), citing H.R.Rep. No. 94-1476, 94th Cong., 2d Sess. 56, reprinted in 1976 U.S.Code Cong. & Ad. News 5659, 5669.
Appendix A: Research Design

Sample Size:
n= ~160 to 200

8 Groups, 16 Experimental Conditions:

I. Song-pairs performed similarly, no jury instruction:

Group 1 - Carey first, then Swirsky
Group 1 - Gaste first, then Kaiserman

    Group 2 - Swirsky first, then Carey (control)
    Group 2 - Kaiserman first, then Gaste (control)

II. Song-pairs performed differently, no jury instruction:

Group 3 - Carey first, then Swirsky
Group 3 - Gaste first, then Kaiserman

    Group 4 - Swirsky first, then Carey (control)
    Group 4 - Kaiserman first, then Gaste (control)

III. Song-pairs performed similarly, jury instruction given:

Group 5 - Carey first, then Swirsky
Group 5 - Gaste first, then Kaiserman

    Group 6 - Swirsky first, then Carey (control)
    Group 6 - Kaiserman first, then Gaste (control)

IV. Song-pairs performed differently, jury instruction given:

Group 7 - Carey first, then Swirsky
Group 7 - Gaste first, then Kaiserman

    Group 8 - Swirsky first, then Carey (control)
    Group 8 - Kaiserman first, then Gaste (control)