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Out of Tune: Why Copyright Law Needs Music Lessons

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Abstract:

This chapter offers a critical analysis of copyright law that integrates insights from music. The authors argue that the unique qualities of musical works magnify the mismatch between creative practices and copyright doctrine, and suggest that an interdisciplinary analysis can shine a revealing light on both the problem and potential paths to improvement. Beginning with an overview of copyright doctrine in Canada in respect of musical works and music infringement claims, the authors then borrow analytical concepts from the discipline of music theory to problematize copyright's "reasonable listener" test for determining substantial copying. Using a specially-designed musical composition, the authors illustrate how and why this test may fail to perform its necessary role in the infringement analysis. The authors conclude by identifying some ways in which the legal analysis could be improved, including a more extensive use of both expert and survey evidence, and greater consideration of the accepted norms and practices of the relevant creative community. The overarching aim of this chapter is to demonstrate the importance of bringing the insights from musical and other creative disciplines to bear on the law of copyright, so that it might more accurately reflect the very practices it is meant to encourage.

Keywords:

Copyright, musical works, infringement, substantial similarity, recognizability, public domain, independent creation, ordinary lay listener, expert evidence, music theory, interdisciplinarity

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Out of Tune: Why Copyright Law Needs Music Lessons

CARYS CRAIG & GUILLAUME LAROCHE

ABSTRACT (EN): This chapter offers a critical analysis of copyright law that integrates insights from music. The authors argue that the unique qualities of musical works magnify the mismatch between creative practices and copyright doctrine, and suggest that an interdisciplinary analysis can shine a revealing light on both the problem and potential paths to improvement. Beginning with an overview of copyright doctrine in Canada in respect of musical works and music infringement claims, the authors then borrow analytical concepts from the discipline of music theory to problematize copyright's "reasonable listener" test for determining substantial copying. Using a specially-designed musical composition, the authors illustrate how and why this test may fail to perform its necessary role in the infringement analysis. The authors conclude by identifying some ways in which the legal analysis could be improved, including a more extensive use of both expert and survey evidence, and greater consideration of the accepted norms and practices of the relevant creative community. The overarching aim of this chapter is to demonstrate the importance of bringing the insights from musical and other creative disciplines to bear on the law of copyright, so that it might more accurately reflect the very practices it is meant to encourage.

RÉSUMÉ (FR): Ce chapitre présente une analyse critique du droit d'auteur qui intègre des perspectives de la musique. Les auteurs soutiennent que les qualités uniques des œuvres musicales amplifient la dissonance entre les pratiques créatives et la doctrine du droit d'auteur, et estiment qu'une ana-

lyse interdisciplinaire peut jeter de la lumière tant sur le problème que sur des pistes potentielles d'amélioration. Commençant d'abord par une vue d'ensemble de la doctrine du droit d'auteur sur les œuvres musicales et des actions en contrefaçon de la musique au Canada, les auteurs empruntent ensuite des concepts analytiques de la théorie musicale pour problématiser le test de «l'auditeur raisonnable» du droit d'auteur comme déterminant du copiage substantiel. En utilisant une composition musicale spécialement créée pour l'article, les auteurs illustrent comment et pourquoi ce test peut échouer dans son rôle lors d'une analyse de contrefaçon. Les auteurs concluent en identifiant certains moyens par lesquels l'analyse juridique pourrait être améliorée, notamment par l'utilisation plus extensive de preuves provenant d'experts et de survols académiques, et avec une plus grande prise en considération des normes et pratiques acceptées par la communauté créative touchée. Le but principal de ce chapitre est donc de démontrer l'apport important de la musique et d'autres disciplines créatives au droit d'auteur, de sorte qu'il puisse mieux refléter les pratiques que ce droit vise justement à encourager.

A. INTRODUCTION

It has been written that “somewhere along the line, the law of music copyright forgot to check in with the world of music.”¹ Our aim, in this chapter, is to demonstrate the importance and potential significance of “checking in” with the world of music when considering the application of copyright doctrine to musical works. While this assertion applies with equal force to every aspect of the copyright inquiry — from definitions of originality to adjudications of fair dealing — our focus will be on the determination of substantial similarity in music copyright infringement cases, and in particular, on the so-called “recognizability” test.

We argue that the test for copyright infringement of musical works reveals a disconnect between the nature and processes of musical creation on one hand, and on the other hand, the vision of music and composition that informs the law. By highlighting this disconnect, we make a broader claim that the law does not, therefore, adequately account for the unique nature of music as a subject matter of copyright. This failure may produce regrettable results, both in terms of the practical application of the law in

1 J Michael Keyes, “Musical Musings: The Case for Rethinking Music Copyright Protection” (2004) 10:4 *Mich Telecomm & Tech L Rev* 407 at 430.

copyright cases, and in the way it is experienced by those in the musical arena. Our suspicion is that musical expression suffers more acutely than other forms of intellectual expression in the face of copyright's conceptual constraints. In a normative sense, common creative activities may be devalued and delegitimized as a result of the gap between cultural and legal norms. In a practical sense, creative processes may be stymied or chilled by the operation, or merely the spectre, of the law.

From a copyright policy perspective, moreover, the law's failure to account for the inherent qualities of music potentially undermines its capacity to advance the purposes of the copyright system — rewarding authors encouraging the creation and dissemination of “works of the arts and intellect”² — by upsetting the copyright balance. The problems we identify here may illustrate a more pervasive failure of our copyright system to adequately reflect and encourage creative processes as they occur in specific social and cultural contexts. These broader themes deserve more expansive consideration. For now, our modest goal is to problematize the application of copyright's infringement test in the musical sphere, to illustrate the importance of bringing music theory into the realm of copyright theory, and perhaps to hint at the greater discord that accompanies the legal concepts at play.

We begin, in Section B, with an overview of copyright doctrine in Canada, and its application to musical works and music infringement claims. In Section C we explain some basics of musical structure and composition to critically analyze this legal formula, and use a specially modelled composition to demonstrate some of the problems with its application. We conclude, in Section D, by identifying practical and policy lessons that can be drawn from the musical analysis, as well as offering general observations about the importance of bringing insights from musical disciplines to bear on the law of copyright.

B. THE LAW OF MUSIC COPYRIGHT INFRINGEMENT

1) Why Music Is Special

Musical works, while different in nature from other categories of copyrightable works, are subject to the same legal principles. Copyright's one-size-fits-all model means that, notwithstanding the unique characteristics of any particular form of intellectual expression, the legal rules are applied

2 *Théberge v Galerie d'Art du Petit Champlain Inc*, 2002 SCC 34 at para 30.

across the board. The test for originality — whether a work involved the exercise of non-trivial skill and judgment³ — applies equally to works of visual art and television listings. The distinction between general ideas and more specific authorial expression remains the same for a dramatic play or computer software code. Significantly, the determination of what constitutes a substantial part of a work involves the same considerations when applied to a cartoon character brooch and the film of a marching band.⁴ In one sense, the broad applicability of copyright principles is the law's greatest strength. It has allowed copyright to adapt to vast changes in our cultural and technological environment, evolving from a limited right to copy books into a global system that defines legal rights over intellectual expression in the digital age. In another sense, however, general copyright principles overlook the specific dimensions of particular kinds of expressive activities and their cultural context. To the extent that the nature of music and the realities of its creation and enjoyment raise unique considerations, the copyright system should, we suggest, offer a more tailored legal approach consistent with its broader policy goals.

The claim that music is in some way unique amongst the categories of works that copyright protects seems at once obvious and in need of some justification. We see broadly four ways in which music differs, at least in degree if not in form, from most other types of copyrighted works. The first is that perhaps more than any other art form, music is engaged with and realized through its performance.⁵ Music does not develop on paper, nor is it interacted with via visual or tactile means. Rather, the most basic medium of music involves sound waves sent through the air into the ears of an audience and experienced over time. The work does not simply exist as a painting might, it must be brought to life every time it is to be experienced. “[I]n no other type of art does time form so much the basis of, and is so strongly interwoven in, any aspect of artistic manifestation than in music.”⁶ Few people are just as satisfied to quietly read a musical score, in the way that

3 *CCH Canadian v Law Society of Upper Canada*, 2004 SCC 13 at para 16 [CCH].

4 *King Features Syndicate Inc v O and M Kleeman Ltd*, [1941] AC 417 HL; *Hawkes & Son (London) Ltd v Paramount Film Service Ltd*, [1934] 1 Ch 593 [Hawkes & Son].

5 We note in passing that choreography is similarly a performance-based media, realized through dance, typically to music. It would not be surprising to find that it shares with music some of the copyright problems that we identify.

6 Andreas Rahmatian, “Music and Creativity as Perceived by Copyright Law” (2005) 3 *Intellectual Property Quarterly* 267 at 272–73 [footnote omitted].

they would a book, as they are to attend a performance of the work or listen to a recording; performances in music are just better.

Second, music affords biological benefits that elude common understanding. It is not especially surprising that music helps refine the brain's processing of sounds,⁷ but musicians' accrued abilities in the learning of foreign languages⁸ and in mathematical thinking⁹ are somewhat more astounding. While engagement with any art will refine the senses used to interact with the art,¹⁰ music is special insofar as it trains the brain in areas seemingly unrelated to music itself. The neurological, physiological, and psychological responses that hearing music can generate are also well documented and remarkable.¹¹ Such studies support what we might intuitively know to be true: "More so than any other artistic endeavours, music possesses ethereal qualities that infiltrates and permeates multiple facets of our existence in a complex manner."¹²

Third, music is a language in its own right. The field of music theory seeks to illuminate how this language works, but one need not be a music theorist to grasp the field's basic truths; after all, even people with little musical education can tell when young children learning to play their instruments have accidentally hit the "wrong" note. There is something about the sound that we know does not belong, even though the vast majority of us could not explain why that note is incorrect whereas the one next to it on the keyboard sounds "right." If the sounds of the language of music are familiar, its mechanics are not.

Fourth, and most importantly for copyright, borrowing and copying among musicians is commonplace in the music world and an accepted part of musical practice. For the most part, taking someone else's musical idea and developing it in a new way is largely understood as part of musical culture and thus entirely consistent with cultural norms.¹³ In fact, the relatedness of

7 Alexandra Parbery-Clark et al, "Musician Enhancement for Speech-In-Noise" (2009) 30:6 *Ear & Hearing* 653.

8 Patrick CM Wong et al, "Musical Experience Shapes Human Brainstem Encoding of Linguistic Pitch Patterns" (2007) 10:4 *Nature Neuroscience* 420.

9 Kathryn Vaughn, "Music and Mathematics: Modest Support for the Oft-Claimed Relationship" (2000) 34:3/4 *Journal of Aesthetic Education* 149.

10 Reading novels or poetry improves one's reading skills, cooking refines one's palette, etc.

11 See Keyes, above note 1 at 420–23; see generally Daniel J Levitin, *This is Your Brain on Music: The Science of a Human Obsession* (New York: Penguin Group, 2006).

12 Keyes, above note 1 at 420–21 [footnote omitted].

13 *Ibid* at 427 (offering numerous examples).

musical ideas is a core theme of the study of music composition. Contemporary classical composers study concepts such as musical unity and variation in the works of the great masters. In jazz, studying “standards” and their re-composition according to performers’ unique musical tastes drives much musical education and innovation. “Covers” in popular music fulfill the same goals, albeit in a different style. Sampling and digital manipulation in hip-hop music also exemplify transformative re-use and its centrality in modern music-making.¹⁴ In some sense, music creation *depends* on the borrowing and adaptation of material passed from one musician to another. This is not to suggest, of course, that musicians are the only artists who borrow from one another, and that only music is therefore worthy of special consideration in copyright; copyright law generally assumes a romantic vision of independent origination that sits uneasily with the realities of human creativity and culture at large.¹⁵ Yet, the combination of a clear and established culture of musical borrowing, together with the special characteristics of musical expression (the importance of genres, performance techniques, and aural perception in particular), magnifies the mismatch between creative practice and the structures (and strictures) of copyright law.

Taken as a whole, these features suggest that we do not engage with music in the same way that we engage with the visual or literary arts, nor does music engender only musical appreciation. There is something more fundamental in the nature of musical expression and the human response that it generates. The features of musical culture and the ubiquity of musical borrowing reveal a dramatic divergence between the shared norms and practices of music culture and a doctrinal copyright approach.¹⁶ Hence, there is something to be said about music as a unique category within copyright, both deserving and in need of special consideration.

14 Use of prior recordings as the musical object for transformation presents another layer of copyright issues relating to the “neighbouring rights” of performers and sound recording makers (see *Copyright Act*, RSC 1985, c C-42, ss 15–21 [*Copyright Act*]). In order to focus on prima facie infringement of copyright in musical works, we exclude neighbouring rights issues from our analysis. Note that the potential for the assertion of neighbouring rights to prevent *de minimis* uses and fair dealing with recorded music is another highly problematic feature of copyright law in the realm of music: see, for example, *Bridgeport Music Inc v Dimension Films*, 410 F 3d 792 (6th Cir 2005).

15 For a critique of copyright law’s vision of the author, originality, and cultural practices, see Carys J Craig, *Copyright, Communication and Culture: Towards a Relational Theory of Copyright Law* (Northampton, MA: Edward Elgar Press, 2011).

16 See Keyes, above note 1 at 426–30; see also Olufunmilayo B Arewa, “From JC Bach to Hip Hop: Musical Borrowing, Copyright and Cultural Context” (2006) 84:2 NC L Rev 547.

2) Copyright's Original Musical Work

Copyright law protects “every original literary, dramatic, musical and artistic work.”¹⁷ A musical work is defined, tautologically, as “any work of music or musical composition, with or without words . . .”¹⁸ Of course, music (like art) has no intrinsic definition, and which sounds count as “music” is inherently contestable.¹⁹ As a cultural category, music is whatever we, in our shared culture, designate as such; as a legal category, the same is now true. Prior to a 1993 amendment, the statutory definition included only “any combination of melody and harmony, or either of them, printed, reduced to writing or otherwise graphically produced or reproduced.”²⁰ By departing from the requirement of melody or harmony, the amended definition opened the door to more experimental, less traditional forms of auditory expression. It also dislodged the assumption that musical works must be fixed as graphical reproductions or sheet music for copyright to vest.²¹ As with all copyrightable expression, some form of physical embodiment or “fixation” is required, but this can be achieved through virtually any means of recording. Importantly, the work is not reducible to its fixed form; as a legal category, the musical work refers to the composition *per se*, and not to any particular interpretation or performance thereof.²²

Although a musical work may be protected by copyright, not every element of that work will belong to the copyright owner. As with any kind of work, critical aspects may belong to the public domain. Thus, non-original

17 *Copyright Act*, above note 14, s 5(1).

18 *Ibid*, s 2.

19 See Michael W Carroll, “Whose Music is it Anyway? How We Came to View Musical Expression as a Form of Property” (2004) 72:4 U Cin L Rev 1405. “Music has no intrinsic definition. It is a cultural category consisting of any sounds that those in a society or culture designate as ‘music’ instead of ‘noise,’ along with any notation, recording, or other means of capturing or representing such sounds” at 1417.

20 *Copyright Act*, above note 14, s 2, as amended by SC 1993, c 23, s 1.

21 See *Composers, Authors & Publishers Association of Canada Ltd v CTV Television Network Ltd*, [1968] SCR 676 at 680. Justice Pigeon held that transmission of a television signal did not infringe the copyright in a musical work, since musical works, as defined by the Act, consisted of only graphical reproductions of melody and harmony; broadcasting a television signal communicated a “performance of the works,” not the “works” themselves.

22 A performer’s performance and its sound recording are protected by a “neighbouring rights” regime. The relationship between the performance and the musical work is less clear than this distinction implies: see Keyes, above note 1 at 428–29; *Newton v Diamond*, 204 F Supp (2d) 1244 (2002); Olufunmilayo B Arewa, “Writing Rights: Copyright’s Visual Bias and African American Music” (2012) UC Irvine School of Law, Legal Studies Research Paper Series No. 2012-9, online: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2010024.

elements of a musical work, whether borrowed from another work or from the “common stock” of musical compositions, are not within the scope of the owner’s right. The use of arpeggios in major or minor keys, for example, cannot give rise to a copyright interest in the arpeggio, which has been a building block of classical Western music for hundreds of years. The process of selecting or arranging common elements using more than trivial skill and judgment will produce a copyrightable work;²³ the copyright owner cannot, however, lay claim to those elements of the work that are not her original contribution.

Perhaps most fundamentally, the ideas contained in the work are not protected by copyright, but only the expression of these ideas. The critical legal line between ideas and expression is never easy to draw, but in the case of musical works the distinction is particularly elusive. The exclusion of abstract ideas from copyright’s scope means that no one can claim an exclusive right to produce songs about, say, falling in love. It also precludes the monopolization of any genre of music, compositional methodology, or general pattern or structure (verse-chorus-verse-chorus-bridge-verse, for example). Copyright’s *scènes à faire* doctrine excludes from protection any elements of a work that are mandatory or customary to the work’s genre. In the musical context, the doctrine ensures that customary refrains, common chord progressions, scales, and musical metres remain in the public domain. Copyright’s “merger” doctrine further ensures that, where a musical expression merges with the idea (because the idea can be expressed in only a limited number of ways), the expression will not be protected.²⁴ Admittedly, the “considerable difficulty” with the application of the merger doctrine that Justice Reed described in *Apple Computers Inc v Mackintosh Computers Ltd* resonates in the musical context: it might be said that musical works, like poems and paintings, necessarily “exhibit a merger of the idea they convey and the expression thereof . . .” unless the idea communicated “is described in highly abstract, remote and general terms . . .”²⁵ There is no clear answer to the question of when, in music, idea and expression can be said to have merged.

Also unclear is the practical significance of the claim that the idea-expression dichotomy leaves others free to express anew the same musical ideas. Whereas in dealings with literary expression, it is a common and sim-

23 CCH, above note 3 at para 16.

24 See, for example, *Morrissey v Procter & Gamble*, 379 F 2d 675 (1st Cir 1967); *Delrina Corp v Triolet Systems Inc*, [1993] OJ No 319 (Gen Div), aff’d (2002), 58 OR (3d) 339 (CA) [*Delrina Corp*].

25 *Apple Computers Inc v Mackintosh Computers Ltd*, [1987] 1 FC 173 at 187.

ple practice to abstract and reformulate ideas into non-infringing expression (what we might typically think of as paraphrasing), the reformulation of musical ideas into non-infringing musical expression (wherein the original musical expression is not substantially recognizable) is more challenging. A written statement can readily be expressed in different words but retain the original meaning or idea; it is hard to conceptualize how different musical works could communicate a musical idea that is substantially the same without sounding substantially similar. Said otherwise, a sufficiently different musical expression will almost necessarily express a different idea.

Notwithstanding the difficulties inherent in the application of copyright doctrine to musical works, the principles that limit the reach of an owner's rights are fundamental to the copyright system as a whole, and the balance it must strike. In light of the unique characteristics of music already identified, it is tempting to claim that the limits of copyright and the free accessibility of public domain material are of particular importance in the context of musical works. Copyright infringement claims in this context must be carefully examined to ensure that the law does not, in substance or effect, unduly restrict creative musical practices.

3) Copyright Infringement in Canada

It is an infringement of copyright for any person to do, without the consent of the copyright owner, any act that is within the owner's exclusive rights.²⁶ There are two necessary components to copyright infringement: first, there must in fact have been copying of the plaintiff's work; second, the amount copied must be of all or a substantial part of the plaintiff's work. In the United States' jurisprudence, these two components have been helpfully labelled as (1) actual copying, and (2) illicit (or unlawful) copying.²⁷ The bifurcated test underscores two essential propositions: the act of copying is not inherently unlawful, but will infringe copyright only when it amounts to a substantial taking; and a substantially similar work is not necessarily infringing, but will infringe copyright only where the similarity is the result of copying.

26 The owner has the exclusive right to reproduce the work or any substantial part thereof in any material form whatever; to perform the work or any substantial part thereof in public; and, if the work is unpublished, to publish the work or any substantial part thereof: see *Copyright Act*, above note 14, ss 3(1) and 27(1).

27 *Arnstein v Porter*, 154 F 2d 464 (2d Cir 1946), aff'd on rehearing 158 F 2d 795 (2d Cir 1946) [*Porter*]; for a more detailed analysis of the two-step test, see Mark A Lemley, "Our Bizarre System for Proving Copyright Infringement" (2010) 57:4 J Copyright Soc'y USA 719 at 719.

a) Proof of Copying

With regard to the requirement of actual copying, there is rarely direct evidence that the defendant composed her music with the plaintiff's work before her or playing in her ears. Rather, to establish copying on the balance of probabilities requires proof that the defendant had access to the plaintiff's work together with a sufficient objective similarity between the two works.²⁸ The similarities between the works must be the result of a causal connection such that the original is the source of the copy.²⁹

Access to the original could be shown by presenting evidence that the defendant attended a performance or received a copy of the plaintiff's work. A causal connection could also be demonstrated through evidence of the popularity or broad dissemination of the work.³⁰ Arguably, the greater the degree of similarity between the two works at issue, the less is required of the plaintiff to prove that the defendant had access to the original work. Some American cases have gone so far as to find that, where the similarity is so "striking" as to preclude the possibility of independent creation, access may be inferred.³¹ However, it should be stressed that, without a causal connection, there is no copying, and any similarities must be the result of coincidence and should not give rise to liability.³² In the Internet age, even this stricter evidentiary requirement to prove access may have lost some of its significance; any work available online is a work to which access would be at least possible, and certainly difficult to disprove.³³ This new reality raises the specter of findings of copying based almost entirely on the high degree of similarity between musical works. Once sufficient objective similarity and causal connection are established, it is no defence for the defendant to

28 *Francis Day & Hunter Ltd v Bron*, [1963] Ch 587 [*Francis Day*]; *Gondos v Hardy et al*, *Gondos v Toth* (1982), 64 CPR (2d) 145 [*Hardy*].

29 See generally *Boutin v Distributions CLB Inc*, [1992] 46 CPR (3d) 395 (QCA); appeal allowed (1994), 54 CPR (3d) 160 (SCC).

30 For example, *Bright Tunes Music v Harrisongs Music*, 420 F Supp 177 (SDNY 1976) [*Harrisongs*].

31 *Heim v Universal Pictures Co*, 154 F 2d 480 (2d Cir 1946); *Jones v Supreme Music Corp*, 101 F Supp 989 (SDNY 1951) at 990. This approach can be contrasted with the famous dicta of Lord Diplock in *Francis Day*, above note 28, and was explicitly rejected by the Ontario court in *Hardy*, above note 28.

32 *Hardy*, *ibid* at para 34, citing Lord Diplock in *Francis Day*, above note 28 at 624.

33 See Ann Bartow, "Copyrights and Creative Copying" (2003-2004) 1 U Ottawa L & Tech J 75 at 83-84, quoting Karen Bevill, "Note: Copyright Infringement and Access: Has the Access Requirement Lost Its Probative Value?" (1999) 52:1 Rutgers L Rev 311 at 311-12; although the defendant does not bear the legal burden of disproving infringement, in the face of substantial similarity, the tactical burden may shift to the defendant to provide some other explanation for objective similarities.

claim that she did not know she was copying. Because neither knowledge nor intent is a requirement for infringement liability, it has been held that even unconscious copying may result in a finding of infringement.³⁴

The assessment of objective similarity in this part of the infringement test is conducted with a view to determining the probability of copying. It is appropriate to have regard not only to a note-to-note comparison of the works, but also to the “effect on the ear” of the works.³⁵ A court may be prepared to infer copying where the degree of similarity between two works “is such that an ordinary reasonably experienced listener might think that perhaps one had come from the other.”³⁶ It is widely accepted that there is also an important role here for expert evidence.³⁷ The appropriate conclusion to be drawn from apparent similarities between two musical works is a highly technical determination. It may be shown with the use of expert testimony that a striking similarity produced by the repetition of a particular note sequence, for example, is not probative of copying, but rather indicative of a common source or reliance on a compositional trope.³⁸ By the same token, an expert musicologist may convince the court that an apparently minor similarity is good evidence of copying in light of the uniqueness or idiosyncrasy of the portion reproduced.

b) Proof of Copying a “Substantial Part”

It is a fundamental principle of copyright that there is no inherent legal wrong in copying *per se*, but only in the copying of a whole work or a substantial part thereof. Where copying is established, then, the next question is how much and what has been copied.

The determination of substantial copying involves an assessment of both the quality and quantity of the portion copied in relation to the plaintiff’s work as a whole. The addition of significant original content or the relative insignificance of the copied portion in the defendant’s work are not,

34 See, for example, *Francis Day*, above note 28 at 600; *Hardy*, above note 28; *Harrisongs*, above note 30; *Fred Fisher Inc v Dillingham*, 298 F 145 at 147 (SDNY 1924).

35 *Francis Day*, above note 28 at 608, Willmer J, citing in support *Austin v Columbia Gramophone Co Ltd* (1923), *Macg CC* (1917–1923) 398 at 409 and 415, Justice Astbury stating that infringement is to be determined “by the ear as well as by the eye”.

36 *Francis Day*, above note 28 at 596.

37 See *Porter*, above note 27 at 468.

38 See, for example, *Arnstein v Edward B Marks Music Corp*, 82 F 2d 275 (2d Cir 1936); see also *Darrell v Joe Morris Music*, 113 F 2d 80 (2d Cir 1940).

strictly speaking, grounds for refusing to find prima facie infringement.³⁹ Creative borrowing does not make borrowing lawful.

Perhaps the muddiest part of copyright's infringement doctrine, in application at least, is the integrated analysis of the substantiality of the taking in quantitative and qualitative terms. In *Hawkes & Son*⁴⁰ the court found infringement of copyright in "Colonel Bogey's March" when a quantitatively small portion of the musical work was reproduced in a newsreel. The Court of Appeal overturned the ruling of Eve J, who had rejected the plaintiff's claim on grounds that the part copied was merely twenty seconds of the whole work, which would run for about four minutes. On appeal, Slesser LJ found that "other matters beyond mere quantity may and have to be looked at . . ."⁴¹ No matter how brief, part of a musical work is substantial if it is "a vital, and an essential part . . ."⁴² Justice Romer agreed that a substantial portion of the work was copied when "the principle air" was reproduced; "the air which every one who heard the march played through would recognize as being the essential air . . ."⁴³ Following the reasoning of the court in *Hawkes & Son*, the Ontario High Court of Justice in *Canadian Performing Right Society Ltd v Canadian National Exhibition Association*⁴⁴ confirmed that, in Canada, "it is not merely by comparing the respective lengths of the whole work and of the part played that one is to reach a decision as to whether the part played is a substantial part . . ."⁴⁵ The court was satisfied that a substantial part of the work was performed on the basis that "the part played was recognizable and in fact recognized . . ."⁴⁶

According to this so-called "recognizability test," if a part taken would be recognized by an ordinary, reasonable person familiar with the work, then that taking is substantial and may infringe copyright. In the United States, under the *Porter* two-part test, the key to determining whether copying amounted to an illicit appropriation is "whether defendant took from plaintiff's works so much of what is pleasing to the ears of lay listeners, who

39 The extent to which the plaintiff's work has been recontextualized or transformed may be of legal significance in the determining the availability of a fair dealing defence. See *Copyright Act*, above note 14, s 29.1; *Society of Composers, Authors and Music Publishers of Canada v Bell*, 2012 SCC 36 at para 24 [Bell].

40 *Hawkes & Son*, above note 4.

41 *Ibid* at 606.

42 *Ibid*.

43 *Ibid* at 609.

44 [1934] OR 610.

45 *Ibid* at 614.

46 *Ibid*.

comprise the audience for whom such popular music is composed, that defendant wrongfully appropriated something which belongs to the plaintiff.”⁴⁷ Similarly, in the Canadian case of *Preston v 20th Century Fox Canada Ltd*,⁴⁸ which concerned the alleged copying of a movie script, the Federal Court described the test of substantial similarity as involving an assessment of “ultimately whether the average lay observer, at least one for whom the work is intended, would recognize the alleged copy as having been appropriated from the copyrighted work.”⁴⁹

The “average lay observer” test for determining copying of a “substantial part” is effectively copyright’s equivalent to tort law’s “reasonable person” test. Keyes suggests that this is a curious cameo by the reasonable person, whose historical and philosophical underpinnings “illustrate that this construct is a fish out of the common law waters that has been blindly cast into the music copyright infringement sea.”⁵⁰ Whereas the legal function of the reasonable person is to represent social norms and minimum standards of behaviour in a community, copyright’s reasonable listener does not gauge the conduct of the litigating parties; he merely determines how two works are likely to be perceived by an ordinary member of the intended audience. As Keyes cautions, “there is no accepted ‘social norm’ that would provide any meaningful standard on how a piece of music would be perceived by a ‘reasonable listener.’”⁵¹ This is because “music perception is an inherently subjective process that differs from individual to individual.”⁵²

Irina Manta further warns that the reasonable listener test in music infringement cases is vulnerable to all of the vagaries, biases, and misperceptions to which the reasonable person test is demonstrably prone.⁵³ Specifically, she argues, the substantiality determination lends itself to hindsight bias, such that a finding of copying, for example, will influence a decision maker to find substantial similarity.⁵⁴ Furthermore, the copyright inquiry can be distorted by an “anchoring bias” (whereby the plaintiff’s original work becomes the “anchor” against which the defendant’s work is

47 Porter, above note 27 at 473.

48 [1990] FCJ No 1011, 33 CPR (3d) 242 (TD), aff’d (1994), 53 CPR (3d) 407 (FCA) [*Preston*].

49 *Ibid* at 274 (TD cited to CPR).

50 Keyes, above note 1 at 431.

51 *Ibid* at 432.

52 *Ibid*.

53 Irina D Manta, “Reasonable Copyright” (2012) 53:4 BC L Rev 1303.

54 *Ibid* at 1339, citing Shyamkrishna Balganes, “Foreseeability and Copyright Incentives” (2009) 122:6 Harv L Rev 1569 at 1631.

measured⁵⁵), and “confirmation bias” (which leads a decision maker to favour a finding that confirms “existing beliefs, expectations or the hypothesis at hand”⁵⁶). Each of these potential biases in the application of the lay listener infringement test tends towards favouring the plaintiff who alleges unlawful copying over the defendant tasked with refuting the claim.⁵⁷

In addition to such principled and practical objections to the “average lay listener” test, considered in greater detail below, the test raises challenging questions about the role and relevance of expert testimony in music infringement cases. Applying the reasoning in *Porter*, at this second stage of the infringement determination, expert evidence is inappropriate. To the extent that it has been admitted by some courts, its (somewhat counter-intuitive) role has been restricted to supporting a conclusion about the likely response of the reasonable listener.⁵⁸ Mark Lemley convincingly argues that the availability of expert evidence in determinations of copying and its effective exclusion in respect to unlawful appropriation “has the analysis of proof exactly backwards . . .”⁵⁹ The ordinary, lay listener may be well equipped to decide whether copying is likely in light of the degree of objective similarity between two works; the question of what has been copied and the legal significance of that copying, however, requires careful dissection of the plaintiff’s work to separate protectable from non-protectable elements. Whereas the reasonable listener might discern copying from the similarities in the “aural appeal” of works taken as a whole, the lay listener will not — and likely cannot — parse musical ideas from expression, distinguish between original and borrowed musical elements, separate musical composition from performance techniques, or disregard commonplace compositional features. In short, the degree of legal complexity inherent in the substantiality determination makes it ill-suited to a reasonable person inquiry.⁶⁰

This problem is compounded by the question that the average lay observer is notionally answering: is the plaintiff’s work recognizable in the defendant’s work? The mere recognizability of a work does not adequately

55 *Ibid* at 1341.

56 *Ibid* at 1342, quoting Raymond S Nickerson, “Confirmation Bias: A Ubiquitous Phenomenon in Many Guises” (1998) 2 *Review of General Psychology* 175 at 175.

57 *Ibid*.

58 *Porter*, above note 27 at 473; for a critique of this use of expert testimony, see Keyes, above note 1 at 435–36.

59 Lemley, above note 27 at 719.

60 Amy B Cohen, “Masking Copyright Decisionmaking: The Meaninglessness of Substantial Similarity” (1987) 20:4 *UC Davis L Rev* 719 at 740.

address the critical question of whether the part taken is a part that copyright protects. Musical ideas, non-original melodies, famous riffs, commonplace rhythms, generic chord progressions — all of these may be recognizable to the average listener, but none is legally relevant to the infringement determination. By focusing on whether the part taken can or cannot be recognized, the test fails to distinguish the protected from the public domain. The difficulty with the test is not merely one of potential overprotection of the plaintiff; by the same token, substantial original musical expression may in fact be copied without being recognizable to the average untrained ear.

Simply put, there are grounds for concern that copyright's test for determining infringement of musical works bears little relationship either to the appropriate legal inquiry or to the specificities of the subject matter at issue. In the following section, we turn to the world of music to highlight the nature and extent of these gaps in the law's approach to finding musical infringement.

C. SECOND GUESSING SUBSTANTIAL SIMILARITY

It is our argument that judicial assessments of musical similarity and recognizability at best distort, and in some cases radically depart from, the standards of music communities. By examining aspects of music theory⁶¹ — alongside research into musical psychology⁶² — we identify below some serious flaws that, in combination, suggest that current methods of evaluating claims of music copyright infringement are deeply problematic. A specially designed composition illustrates many of these problems.

1) Determining Similarity

As noted by Keyes, there is no such thing as an accepted social norm on how musical similarities should be perceived for copyright purposes.⁶³ This is

61 Don Michael Randel, ed, *The New Harvard Dictionary of Music* (Cambridge, MA: Belknap Press of Harvard University Press, 1986). Matthew Brown defines music theory as “the abstract principles embodied in music and the sounds of which it consists” *sub verbo* “theory” at 844; see also Patrick McCreless, “Contemporary Music Theory and the New Musicology: An Introduction” (1997) 15:3 *Journal of Musicology* 291.

62 Diana Deutsch et al, “Psychology of Music” *Grove Music Online*, Oxford Music Online (Oxford University Press), that is, “the discipline that studies individual human musical thought and behaviour from a scientific perspective” at introduction.

63 Keyes, above note 1 at 432.

far from the only challenge faced by the lay listener test in its determination of objective similarity. We focus on two particular problems: how aural determinations of similarity are easily manipulable; and how straightforward assessments of similarity fail to address the significance of the similarity in musical terms, with the result that they fail to distinguish the musical *scène à faire* from the protected musical expression.

It may seem to be stating the obvious to say that the lay listener test privileges an aural appreciation of music. But it bears emphasis that an uncritical acceptance of hearing-based evaluations of music may undermine the validity of such tests by conflating musical expression with what is aurally apparent. Jamie Lund suggests that the aural appreciation of music can be deeply flawed, and is more directed by similarity of timbre⁶⁴ than the similarity or prominence of musical events.⁶⁵ Simply put, two melodies sound more similar when they are played by the same instrument. Music psychologists back Lund's findings, with Carterette and Kendall agreeing that "[h]armonically related spectra [i.e., timbre] reinforce the sense of musical pitch . . ."⁶⁶ This means that aural similarity is not necessarily the same thing as musical similarity, counterintuitive as this may seem. Our ears are biologically hardwired to believe two violin melodies are more alike than two melodies for two different instruments. This is not an absolute standard; timbre is only one part of the determination. Still, the fact that timbral similarities affect judgments of pitch-based similarity is important information for a court tasked by copyright law with determining whether two pitch-based melodies (or even harmonies, rhythms, etc.) sound the same — not whether they feature the same instrument. Musical laypersons are more likely to conflate the two because of their unspecialized understanding of music. This matters because the overwhelming majority of music copyright litigation features popular music, which rarely strays from its basic instrumental setup of a vocalist, an electric guitar, a bass guitar, and a drum kit. The influence of timbre on judgments of pitch-based music-

64 Timbre is the quality of a sound that makes a trumpet sound like a trumpet, and a piano sound like a piano (and not like a trumpet). Both the trumpet and piano can be playing the same note, but their respective timbres allow us to differentiate one instrument from the other.

65 See, generally, Jamie Lund, "An Empirical Examination of the Lay Listener Test in Music Composition Copyright Infringement" (2011) 11:1 *Va Sports & Ent LJ* 137 at 171.

66 Edward C Carterette & Roger A Kendall, "Comparative Music Perception and Cognition" in Diana Deutsch, ed, *The Psychology of Music*, 2d ed (San Diego: Academic Press, 1999) at 762.

al similarity, and the fallibility of the human ear that it reveals, suggests that the lay listener test should, at the very least, be supplemented by additional, non-aural kinds of musical analysis.

This is not to say, of course, that the lay ear is incapable of good musical observations. *Bright Tunes Music Corp v Harrisongs*⁶⁷ is an excellent case study in this regard. In comparing George Harrison's "My Sweet Lord" to The Chiffons' "He's So Fine," Owen J correctly noted:

"He's So Fine," recorded in 1962, is a catchy tune consisting essentially of four repetitions of a very short basic musical phrase, "sol-mi-re," (hereinafter motif A), altered as necessary to fit the words, followed by four repetitions of another short basic musical phrase, "sol-la-do-la-do," (hereinafter motif B).⁶⁸

In this particular instance, Owen J discovered musical form through listening (that is, he perceived by ear the sequencing of musical events in time). He later remarked that "My Sweet Lord" uses a similar form. What Owen J did next is of critical importance: he assessed the musical significance of the similarity he identified, relying on experts' testimony to conclude that such a form represents "a highly unique pattern."⁶⁹ Regrettably, few judges include this step in the lay listener test; after all, as previously noted, the lay listener test is supposed to represent a non-expert view of the music. But Owen J correctly appreciates that, without assessing the musical significance of a similarity, he has no way to tell if it is common stock or "a highly unique pattern." Said otherwise, he has no basis on which to determine if the similarity is probative of unlawful copying. A survey of copyright infringement cases, as well as descriptions of the lay listener test, confirm that Owen J's vital extra step is often lost in music copyright actions.⁷⁰

This point leads to the second core problem: the significance of identified similarities. Some aspects of musical composition, regardless of genre, are inherently alike. Probably the best example of this is the notion of "con-

67 *Harrisongs*, above note 30.

68 *Ibid* at 178 [footnotes omitted].

69 *Ibid*. We disagree with this assessment in musical terms, but for our purposes it is more important that Owen J assessed the importance in and of itself than it is that he drew what we view as the correct conclusion.

70 A small sampling includes: *Hawkes & Son*, above note 4; *Redwood Music Ltd v Chappell & Co Ltd*, [1982] RPC 109; *Godfrey v Lees*, [1995] EMLR 307 (Ch); *Hadley v Kemp*, [1999] EMLR 589; *Herald Square Music v Living Music*, 205 USPQ 1241 (SDNY 1978).

cluding functions.”⁷¹ Concluding functions in music fulfill the same role as the period in written language: they mark the end of a complete musical thought. Instead of doing so through symbolic means as does language, or a lowering of vocal intonation and short pause when speaking, concluding functions in music are harmonically constructed around a limited number of chord sequences, the appearance of which marks the end of a musical phrase. While the harmonies of concluding functions may vary from style to style—Mozart’s concluding functions are unlike Led Zeppelin’s—the notion of the concluding function remains constant. A common concluding function in rock music sees the chord of IV move to the chord of I in a certain metric disposition (that is, the relationship of strongly and weakly stressed beats). Many rock phrases end with this “cadence.” To an astute but context-ignorant layperson in court, two rock phrases in two contested works may thus appear similar because both phrases end with the same harmonic pattern; harmonies necessarily affect the selection of consonant pitches that can be used in the melody, meaning phrase endings often feature the same notes in a particular style of music. Additionally, rhythmic activity in the music slows at phrase endings. Hence, a layperson might conclude that similar phrase endings in two contested melodies represent strong evidence of copying. It would be a reasonable conclusion for the average listener to draw, given her knowledge, but it would be dreadfully wrong in music — as wrong as concluding that one fairy tale is copied from another because both end with “happily ever after.”

Many of the similarities in “aural appeal” that might give rise to a finding of copying simply cannot support it. Without sufficient appreciation of the musical significance of apparent similarities, the fundamental distinction between independent creation and unlawful copying cannot be satisfactorily drawn. The understanding that music theory brings to copyright cases is not merely “interesting but extraneous” information; it is vital to upholding some of copyright’s most foundational norms. The lay listener test circumvents music theory, thus bypassing critical steps in the infringement inquiry—steps that are of recognized importance in respect of other expressive forms.⁷²

71 We borrow the terms of music theorist William Caplin here, from his study of phrase-functional forms in classical music. The same principles — musical phrases have a beginning, middle, and end — are present in all styles of music: see William Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (Oxford: Oxford University Press, 1998) at 254.

72 See, for example, *Preston*, above note 48; *Delrina Corp.*, above note 24; Lemley, above note 27 at 719 similarly compares the infringement test in music copyright cases unfavourably to the more careful dissection undertaken in computer software cases.

2) Determining Recognizability

It is with regard to determinations of “recognizability” that the lay listener test takes on its primary importance; after all, if recognizability is the key to establishing substantial copying, then it does not matter how great the similarities between two works are unless they can be recognized aurally by the average lay listener. Two scenarios require special consideration of the ramifications of this test: first, a situation where copying has occurred but goes unrecognized; and second, when copying has not occurred, but some similarities between two works are nonetheless recognizable. To help illustrate the problems that emerge from each scenario, consider this model composition, which we have specially prepared for this purpose:

Figure 2.1

The musical score for Figure 2.1 is a piano piece in B-flat major (two flats) and 4/4 time. It consists of 13 measures, divided into four systems. The first system (measures 1-4) features a melody in the right hand with a long slur over measures 2-4 and a piano dynamic marking. The second system (measures 5-8) continues the melody with a slur over measures 6-8. The third system (measures 9-12) shows the melody with a slur over measures 10-12. The fourth system (measures 13) concludes the piece with a final chord in the right hand and a sustained bass line in the left hand. The score is enclosed in a dotted-line border.

A recording of the work is available for readers' benefit,⁷³ and we encourage readers to listen to the composition a few times. The first few times one listens to the work, there is nothing particularly special about it. It sounds like something your talented nephew might play. Almost certainly, no copyright issues are immediately apparent.

Yet, that initial impression is mistaken. The composition is replete with instances of potential infringement. Key phrases from four extremely well-known musical works were copied and inserted into the work—not all of them currently protected by copyright, but for our purposes, let us suppose that they are. We openly admit that we copied musical expression from other sources, and that, were the purposes of the work not to make an academic point but rather to reap riches of our creative genius, then we might be found liable for copyright infringement. Such admissions, however, have no bearing on the recognizability of the copied melodies. Their timbres are different, heard on a piano instead of their original performing forces; the musical segments fulfill different musical functions, where a melody is transformed into a bass line, or an initiating function (similar to a concluding function, except marking the beginning of a musical phrase) is shifted into a different syntactical role; or the metric alignment of a well-known fragment is displaced, emphasizing different notes than in the original. The musical context of the copied expression is different, and, even though the musical expressions are note-for-note the same, they manage to express something different than they did in their original context. All of this means that the lay listener—presumably, you—has difficulty pinpointing from which works we have borrowed. It is similarity without recognizability. In copyright terms, it is literal copying of an essential and vital part of a protected work without substantial similarity (and so, it would seem to follow, without infringing copyright).

Such a failure of the lay listener test on copyright's own terms ought handily to illustrate why a simple listening standard for music copyright infringement is an unsuitable arbiter of unlawful copying. Copied material gets by the ear where it would not get by the letter of the law. While it would be easy to dismiss all of this as merely academic, musical culture suggests otherwise. As other copyright scholars have noted,⁷⁴ in pop musical culture, the taking and adapting of others' musical ideas is what drives innova-

73 Guillaume Laroche, "Sinfonietta in C Minor" (2012), online: IP Osgoode www.iposgoode.ca/?attachment_id=21753.

74 See generally Anne Barron, "Introduction: Harmony or Dissonance? Copyright Concepts and Musical Practice" (2006) 15:1 Soc & Leg Stud 25; see also Lionel Bently, "Authorship of Popular Music in UK Copyright Law" (2009) 12:2 Information, Communication & Society 179.

tion; copyright, by imposing liability for adaptations of existing works, sits askew of this culture. On its face, the protection afforded to the exclusive rights of the copyright owner would seem to demand that such substantial reproduction constitute prima facie infringement—a conclusion that the “recognizability test,” as currently understood, apparently fails to produce in the case of our model composition. The test, then, runs counter to some central claims of copyright. We cannot resist suggesting, in passing, that this failure of copyright law is a victory for musical culture, but for now, our intention is merely to identify this internal inconsistency.

The second scenario, where copying is questionable but some degree of recognizability is easily perceived, demands that we reveal which works we borrowed from in our earlier model composition. Here they are:

Figure 2.2

Richard Wagner's "Wedding March"

Piano

Britney Spears' "Oops! ...I Did It Again"

Beethoven's Fifth Symphony

Nirvana's "Smells Like Teen Spirit"

[Beethoven]

[Spears]

5

9

13

For the purposes of this second scenario, let us suppose that we did not copy the above works, but rather, by extraordinary coincidence, we composed a work with such similarities to those of Nirvana, Beethoven, Wagner, and Britney Spears.⁷⁵ The question now becomes how familiarity affects recognizability. Listen to the work a few more times with these musical referential markers on which to focus. Eventually, the infringing melodies reveal themselves to the ear, and, increasingly, they stand out from the rest of the music; the piece becomes a series of quotations. In short, recognizing a well-known melodic theme in a new musical context is possible, given a sufficient number of listenings, and perhaps even easy when one knows what to listen for.

A musical psychology study by Lucy Pollard-Gott showed the same process as that described above, albeit in a more complex musical environment.⁷⁶ Pollard-Gott based her study around Franz Liszt's Sonata in B minor, a tricky work in which three main musical ideas (named Theme A, Theme B, and the Transfer Theme in the study) continuously reinvent themselves in a twenty-five-minute solo piano piece. Theme A is heard as a melody, later as a bass line, later again as a countermelody to another theme, and so on, never quite the same but always similar. The other themes follow the same pattern. The question Pollard-Gott asked was to what extent familiarity with a theme (say, Theme B) affects its recognizability in some modified form (say, the sixth appearance of Theme B). She tested both musicians and non-musicians. She found that, as listeners became more familiar with a given theme and listened to varied versions of that theme, both musicians and non-musicians were more able to identify elements of "theme structure"⁷⁷ in variations. In plain language, the better someone knows a musical theme, and in a context where she is asked to compare that theme to another, the more likely it is she will draw a link between the two themes and deem them to be related, even when the two themes are somewhat dissimilar yet loosely share some common musical features.

This finding has tremendous implications for the lay listener test. First, it suggests that the recognition of similarity is an acquired skill, not a stable

75 We trust the Beethoven and Wagner excerpts are sufficiently well known. In the original recording of Nirvana's "Smells Like Teen Spirit," our excerpt is lifted from the beginning of the chorus at ~1:06. In Britney Spears' "Oops! . . . I Did It Again" (composed by Max Martin and Rami Yacoub), our excerpt comes from the beginning of the chorus at about ~0:50.

76 Lucy Pollard-Gott, "Emergence of Thematic Concepts in Repeated Listening to Music" (1983) 15:1 *Cognitive Psychology* 66 at 85-92 (see Experiment 2).

77 *Ibid* at 80.

binary *yes/no* response. Rather, *no* can become *yes* over time and repeated listenings, to a point where the two themes need not be particularly alike in order for connections to be drawn between them. Second, it suggests this process is unidirectional; while *no* can become *yes* over time, *yes* cannot become *no*. Once points of similarity are drawn, a listener cannot go back to a state of mind in which those connections do not exist. Our model composition is useful here again. Once you hear Beethoven's Fifth Symphony in the melody, there is no way to go back to not hearing that connection. One's attention is turned to comparing the melody around measure 7 of our piece to Beethoven's most famous theme simply by having the connection suggested, and then encouraging repeated listenings. This is an example of the "anchoring bias" described earlier. It is all too simple to create the conditions that favour a finding of recognizable similarity.

Thus, the question of "recognizability" of one work in another is not as objective as the lay listener test purports to be; quite the contrary, one can train people to hear connections between melodies, given sufficient time. This does not bode well for composers falsely accused of infringement where there is merely coincidental similarity, even where there are notable differences in the musical themes or expressive details that the composer might point to as evidence of independent creation. One might object that this assessment pays insufficient heed to the significance of the differences between the works. Perhaps so, but this only underscores the weakness of the recognizability inquiry: greater recognition of similarity minimizes appreciation of differences. Put otherwise, if a plaintiff wishes to win an infringement case through the application of a lay listener test, the best thing she can do is to play the two musical excerpts over and over again, building irreversible similarity connections between the two melodies over time. Eventually, everyone hears the "Smells Like Teen Spirit" chorus in our bass line, even if it takes a while to get to that point. The differences correspondingly fade to insignificance.

D. CONCLUDING THOUGHTS

1) Music's Lessons

Anyone who works with the law is used to dealing with the complexities that necessarily arise when applying general legal rules to real-world situations. It is unremarkable to encounter legal uncertainties ("is this in-

fringing?") and normative indeterminacy ("should it be?"). Perhaps this explains why copyright scholars, practitioners, and judges feel reasonably confident examining music through the lens of law, notwithstanding the complexity of the endeavour; but when we look back at law through the lens of music, we see that our nicely articulated legal doctrine suffers from more than typical legal uncertainty. The compositional example offered in Section C presents fundamental practical and policy questions that merit greater consideration.

On the practical side, it provokes us to ask how substantial similarity can be fairly assessed when the human perception of similarities is so subjective, context-specific, and vulnerable to suggestion. Musical experts may detect substantial copying and technical similarities where the lay ear cannot. Moreover, the capacity to detect copying depends on many factors including the music's phraseology, complexity, and structure, and the listener's knowledge, sophistication, and expectations. We have argued that this challenges copyright's "ordinary lay listener" test for determining unlawful copying. Not only is the test ill-suited to the legal task at hand, but it is also virtually impossible to apply in light of its inevitable manipulability, which is only exacerbated in a litigation context.

From a policy perspective, our illustration suggests, first, that extensive copying may produce works that sound very different, and secondly, that works may sound very similar even in the absence of copying. The first point hints at a copyright policy conundrum: if substantial copying evades detection by the ordinary lay listener, but is otherwise evident, should infringement be found? If a composer borrows another's musical melody and writes it backwards, for example, an ordinary listener is unlikely to hear it, while an educated musician will likely discern the copying upon examining the score.⁷⁸ Doctrinally speaking, it might seem that the first composer should be entitled to claim infringement, but he is unlikely to succeed. Which result is correct? A proprietary understanding of the copyright interest might lead us to conclude that substantial copying should attract liability even where undetectable to the intended audience or the reasonable listener.⁷⁹ A

78 This example is examined by E Scott Fruehwald in "Copyright Infringement of Musical Compositions: A Systematic Approach" (1992) 26:1 Akron L Rev 15 at 27–28.

79 See Jeffrey G Sherman, "Musical Copyright Infringement: The Requirement of Substantial Similarity" (1975) 22 Copyright L Symp 81, quoting Melville Nimmer, *Nimmer on Copyright* (1970) s 143.52: "[the] Copyright Act is intended to protect writers from the theft of the fruits of their labor, not to protect against the general public's 'spontaneous

more consequentialist vision of copyright as an economic incentive to spur creativity might inform a different response: where copying is not noticeable to the intended audience of the original work, then the copying will not produce any harm to the market for the original. As such, there may be no reason to prevent it.

These are, we think, interesting arguments deserving of more attention than we can give them here.⁸⁰ For now, we note that the proprietary approach sits uneasily with the Supreme Court of Canada's "move away from an earlier, author-centric view which focused on the exclusive right of authors . . ." to control their works in the marketplace.⁸¹ The Court's recent focus on the public interest, the dissemination of artistic works, and the development of "a robustly cultured and intellectual public domain"⁸² points in favour of finding no infringement where musical borrowing is unrecognizable. In the absence of harm to the original author, the copyright balance is not furthered by restricting the creative expression of a derivative author and thereby depriving the public of the benefits of her creativity. This suggests an interesting possibility: the lay listener test may be unsatisfactory as a basis for *finding* infringement; however, the lack of substantial similarity to a layperson's ear might be a sound basis on which to *rule out* infringement on policy grounds.

The second scenario, where readily perceived similarities between two works do not reflect unlawful copying, identifies a very real policy concern for copyright law. It demonstrates that reliance on the reasonable listener standard risks capturing within copyright's domain independent creations or public domain uses that ought to be unrestricted. It is critical that courts are alive to this possibility and the threat that it represents both to the copyright system and to creative practices. The limits of copyright are as important to the proper functioning of the copyright system as the rights that it protects. If we fail to draw the appropriate limits to copyright, we upset the copyright balance by overcompensating owners while establishing un-

and immediate' *impression* that the fruits have been stolen" at 94 [emphasis in original]. Sherman counters, "but what are 'the fruits' of a composer's labor? . . . If the lay ear can detect no similarities, is it not arguable that the 'fruits' of plaintiff's work have not in fact been stolen, even though experts might be able to detect technical similarities of the most 'striking' kind?" at 95.

80 For a critical analysis of the property-based vision of copyright, see Craig, above note 15 at ch 4.

81 Bell, above note 39 at para 9.

82 *Ibid* at para 10.

necessary obstacles to creativity. For musicians whose creative activities take shape under the shadow of potential legal liability — and often under the watchful eye of risk-averse music publishers — the perceived need to avoid any detectable similarity to pre-existing works can be stultifying. If our legal standards do not accommodate the realities of musical creativity, there is a very real risk that musical creativity will adapt and constrict in the shadow of the law.

While our modest aim here has been to shine a light on the problems with substantial similarity determinations in music infringement cases, our critique illuminates some possible avenues towards improvement. Our general plea is that copyright law must take into account the nature of the creative musical practices that it purports to encourage. Jessica Litman famously pointed to “the gulf between what authors really do and the way the law perceives them,”⁸³ and warned that “we must guard against protecting authors at the expense of the enterprise of authorship.”⁸⁴ This warning is extremely pertinent in the context of musical composition, which “has historically enjoyed a healthy diet of musical borrowings” and “has developed its own informal rules for borrowing.”⁸⁵

Given the technical nature and complexity of musical expression, one key to improving the alignment between what composers do and the law of copyright would be to more fully engage musical expertise in the substantiality determination.⁸⁶ We agree with Lemley’s assertion that expert evidence would be most usefully and appropriately employed in determining unlawful copying (analytically weeding out unprotected from protected elements of a plaintiff’s work) rather than in assessing the probability of copying as a matter of fact, for which a lay listener’s ear may be sufficient.⁸⁷ Lemley compares the proposed role of the music expert to that of the soft-

83 Jessica Litman “The Public Domain” (1990) 39:4 *Emory LJ* 965 at 968.

84 *Ibid* at 969.

85 Keyes, above note 1 at 426 [footnote omitted].

86 Some scholars charge that judges rely too heavily on expert testimony; see, for example, Bently, above note 74 at 193. Some judges believe themselves ideal reasonable persons for testing musical similarity. See, for example, Denault J in *Grignon v Roussel*, [1991] FCJ No 557, 38 CPR (3d) 4 (TD). However, since 1991, substantial advances in mathematical models for analyzing musical similarity have yielded more meaningful data sets, strengthening claims that these models should be given some consideration in infringement actions; see, for example, Guillaume Laroche, “Striking Similarities: Toward a Quantitative Measure of Melodic Copyright Infringement” (2011) 25 *Intégral* 39 at 47–57.

87 Lemley, above note 27 at 728–29.

ware expert in the United States' software cases, namely, assisting the court with separating ideas from expression, filtering out other unprotectable elements of the work, and then comparing the defendant's work with the plaintiff's protected expression.⁸⁸ Whether or not Canadian law embraces the "abstraction-filtration-comparison" approach to software claims that Lemley invokes, our courts have accepted that "some method must be found to weed out or remove from copyright protection those portions which . . . cannot be protected by copyright."⁸⁹

We also agree with Lemley that a better solution would be to employ expert testimony and analytic dissection of the work in both prongs of the substantial similarity test. Assessing the probative significance of discernible similarities could be greatly aided by expert evidence. And if the ordinary reasonable listener has any role to play in the second prong of the analysis, we would restrict it, as already mentioned, to supporting a finding in favour of the defendant where the copied portion is recognizable *only* to expert eyes or ears, and not to the intended audience. After all, as Manta notes, "the potential harm that infringement causes to copyright owners, both financial and non-financial, results from the perceptions of those members of the public who will encounter the works . . ."⁹⁰

Where reliance continues to be placed on the lay listener, there are ways to alleviate some of the biases to which the test is prone. In particular, we see some potential in Manta's proposal that courts assessing similarity allow the use of survey evidence in copyright cases, similar to that used in trademark litigation. Conducted correctly, and subject to the usual rules of admissibility, a survey could offer a court more objective, scientific evidence of the extent of similarities perceived by the intended audience.⁹¹ Surveys would assist the decision maker to separate her own perception of the material from the question of fact at hand, and would minimize the impact of cognitive biases, such as hindsight or anchoring bias, on the infringement inquiry.

88 *Computer Associates Intern Inc v Altai Inc*, 982 F 2d 693 (2d Cir 1992); see Lemley, above note 27 at 729.

89 *Delrina Corp*, above note 24 at para 43 [citation omitted]; see also Preston, above note 48.

90 Manta, above note 53 at 1347 [footnote omitted].

91 *Ibid* at 1346; this is also consistent with the Supreme Court of Canada's acknowledgment of the value of surveys in *Masterpiece v Alavida Lifestyle*, 2011 SCC 27, namely, "to provide empirical evidence which demonstrates consumer reactions in the marketplace — exactly the question that the trial judge is addressing . . ." at para 93.

Perhaps above all, what is needed is an attitudinal shift away from the law's idea of ownership and exclusive control and towards a more nuanced understanding of the creative works at issue, and the creative process from which they emerge. The law must afford sufficient space for musical inspiration, influence, and transformation; this space should not be confined only to the zone of fair dealing (wherein the defendant must defend her actions on limited statutory grounds or be held liable⁹²), but should also inform the law's approach to determining prima facie infringement.⁹³ We must resist the idea that every recognizable similarity is both legally probative of copying and legally relevant to establishing infringement. Moreover, it should be accepted that what constitutes "substantial similarity" may vary across different expressive forms in accordance with the norms and conventions of the relevant creative community. Formulating a more fine-tuned approach to infringement is thus an important piece of a much larger puzzle.

2) The Value of an Interdisciplinary Approach to Music Copyright

This volume is intended to demonstrate the importance and critical value of interdisciplinary approaches to copyright scholarship. With this in mind, we conclude with some final thoughts about the complementarity of music and law as areas of intellectual inquiry. Music theory can help correct some common misunderstandings and sharpen general perceptions. By cutting through musical illusions, it might help to identify copying where it is hidden. More importantly, it tempers the possibility of false infringement findings and the overreach of copyright in cases where common musical devices are employed to similar aural effect. In a world where people learn to separate general ideas from specific expressions in everyday language

92 The space opened up for downstream users by the fair dealing defence has been dramatically expanded by recent developments in Canada. In *Bell*, above note 39, the Supreme Court of Canada identified as an important goal of fair dealing "to allow users to employ copyrighted works in a way that helps them engage in their own acts of authorship and creativity" at para 21. The defence remains available only for dealings for purposes expressly enumerated in the Act. As such, many creative uses of musical works will not benefit from the extended reach of fair dealing.

93 David Vaver, *Intellectual Property Law*, 2d ed (Toronto: Irwin Law, 2011), describing the "overall goal" of the substantial part determination in terms of a balance between encouraging the production and dissemination of creative work and allowing "public access to and use of a work for socially desirable ends" at 188.

but not in the language of music, music theorists can restore this core copyright concept to the judicial treatment of musical works. Additionally, the insights offered by musical psychology reveal how inexact and manipulable are laypersons' hearing senses, and how overconfident we tend to be in our own musical interpretations and conclusions. These revelations suggest the possibility of improved models for gauging similarities built upon the knowledge of how musical listening really works. Finally, a greater appreciation of the actual practice of musical composition promises a more informed discussion about the appropriate role and limits of copyright protection in the musical realm.

While these music lessons may leave the reader with more questions than answers, the fact that music theory turns our attention to such questions, shining a revealing light on the assumptions at play, surely speaks to its value and potential importance for copyright law. If nothing else, we hope to have demonstrated that a critical analysis of copyright's recognizability test is enriched by a technical analysis of musical structures and compositional practices, combined with an appreciation of the complex nature of music perception. Attention to musical disciplines and the lessons they afford holds the promise of a better copyright system than the one we have today — a system that more carefully calibrates copyright's norms and processes with the norms of musical communities and the processes of musical creativity.