

**FOR PUBLICATION**

**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

Marcus Gray, PKA Flame;  
EMANUEL LAMBERT; CHIKE  
OJUKWU,

*Plaintiffs-Appellants,*

v.

KATHERYN ELIZABETH HUDSON,  
PKA Katy Perry; JORDAN HOUSTON,  
PKA Juicy J; LUKASZ GOTTWALD,  
PKA Dr. Luke; SARAH THERESA  
HUDSON; KARL MARTIN SANDBERG,  
PKA Max Martin; HENRY RUSSELL  
WALTER, PKA Cirkut; KASZ  
MONEY, INC.; CAPITOL RECORDS,  
LLC; WB MUSIC CORP.; KOBALT  
MUSIC PUBLISHING AMERICA, INC.,

*Defendants-Appellees.*

No. 20-55401

D.C. No.  
2:15-cv-05642-  
CAS-JC

OPINION

Appeal from the United States District Court  
for the Central District of California  
Christina A. Snyder, District Judge, Presiding

Argued and Submitted January 11, 2022  
Pasadena, California

Filed March 10, 2022

Before: RICHARD R. CLIFTON, MILAN D. SMITH,  
JR., and PAUL J. WATFORD, Circuit Judges.

Opinion by Judge Milan D. Smith, Jr.

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## SUMMARY\*

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### Copyright

The panel affirmed the district court's order vacating a jury's award of damages for copyright infringement and granting judgment as a matter of law to Katheryn Hudson (pka Katy Perry) and other defendants.

Christian hip-hop artists Marcus Gray (pka Flame), Emanuel Lambert, and Chike Ojukwu claimed that an ostinato, or repeating instrumental figure, in Hudson's song "Dark Horse" copied a similar ostinato in plaintiffs' song "Joyful Noise."

The panel held that copyright law protects musical works only to the extent that they are "original works of authorship." The panel concluded that the ostinatos at issue here consisted entirely of commonplace musical elements, and the similarities between them did not arise out of an original combination of these elements. Consequently, the jury's verdict finding defendants liable for copyright infringement was unsupported by the evidence because plaintiffs failed to put forward legally sufficient evidence

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\* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

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that Joyful Noise and Dark Horse were extrinsically similar works with respect to any musical features protectible under copyright law.

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### COUNSEL

Michael A. Kahn (argued), Capes Sokol, Clayton, Missouri, for Plaintiffs-Appellants.

Vincent H. Chieffo (argued), Greenberg Traurig LLP, California, for Defendant-Appellee Katheryn Elizabeth Hudson.

Christine Lepera (argued), Jeffrey M. Movit, Jacob D. Albertson, and J. Matthew Williams, Mitchell Silberberg & Knupp LLP, New York, New York; Aaron M. Wais and Gabriella A. Nourafchan, Mitchell Silberberg & Knupp LLP, Los Angeles, California; for Defendants-Appellants Lukasz Gottwald, Sarah Theresa Hudson, Karl Martin Sandberg, Henry Russell Walter, Kasz Money Inc., Capitol Records LLC, WB Music Corp., and Kobalt Music Publishing America Inc.

John G. Snow, King Holmes Paterno & Soriano LLP, Los Angeles, California, for Defendant-Appellee Jordan Houston.

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Kenneth D. Freundlich, Freundlich Law, Encino, California, for Amicus Curiae Musicologists.

Edwin F. McPherson, McPherson LLP, Los Angeles, California, for Amici Curiae 110 Individual Songwriters, Composers, Musicians, Producers, Music Publishers, and Other Music Industry Professionals; Nashville Songwriters Association International; and Music Artists Coalition.

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## OPINION

M. SMITH, Circuit Judge:

Plaintiffs Marcus Gray (pka Flame), Emanuel Lambert, and Chike Ojukwu are Christian hip-hop artists who have sued Katheryn Hudson (pka Katy Perry), Capitol Records LLC, and several other defendants for copyright infringement. They claim that a repeating instrumental figure—in musical terms, an ostinato—in Hudson’s song “Dark Horse” copied a similar ostinato in plaintiffs’ song “Joyful Noise.” After a trial centering around the testimony of musical experts, a jury found defendants liable for copyright infringement and awarded \$2.8 million in damages. The district court vacated the jury award and granted judgment as a matter of law to defendants, concluding principally that the evidence at trial was legally insufficient to show that the Joyful Noise ostinato was copyrightable original expression.

We affirm. Copyright law protects “musical works” only to the extent that they are “original works of authorship.” 17 U.S.C. § 102(a). The trial record compels us to conclude that the ostinatos at issue here consist entirely of commonplace musical elements, and that the similarities between them do not arise out of an original combination of these elements. Consequently, the jury’s verdict finding defendants liable for copyright infringement was unsupported by the evidence.<sup>1</sup>

## BACKGROUND

### I. Musical Background

We begin by briefly explaining some vocabulary that we rely on throughout this opinion. A musical scale is essentially a sequence of musical notes or tones ordered by pitch (i.e., how “low” or “high” each note is). To illustrate this concept, a standard piano or keyboard instrument has white and black keys organized in a twelve-key repeating pattern. If one starts with any key on the piano and plays twelve white and black keys in order from left to right, she will have played all the notes of the “chromatic” scale in ascending order. That ordered sequence of twelve notes—which repeats itself at higher and lower registers across the

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<sup>1</sup> We accept the amicus briefs submitted by (1) the Recording Industry Association of America and the National Music Publishers’ Association, (2) the Motion Picture Association, (3) a group of 110 individual songwriters and other music industry professionals, along with Nashville Songwriters Association International and Music Arts Coalition, and (4) a group of musicologists. *See* Dkt. Nos. 51, 54, 56, 58. We deny as moot defendants’ motion to strike material from plaintiffs’ opening brief, Dkt. No. 29, because we conclude that even if we were to consider the purportedly improper material, we would still decide this case in defendants’ favor for the same reasons given in this opinion.

keyboard—can be thought of as the musical equivalent of an artist’s coloring palette, as one can rearrange these notes into more complex sequences and add rhythmic (i.e., durational) variety to create memorable tunes.

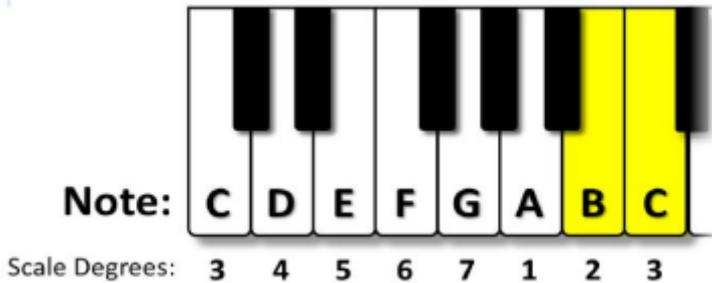
In practice, many songs are based on scales that use only a smaller subset of the twelve notes in the chromatic scale. These scales have different names depending on which notes are chosen. The scale we are primarily concerned with today has seven notes and is called the “minor” scale.<sup>2</sup>

As with other scales, the notes in the minor scale can be referred to with alphabetic names (A, B, C, etc.), but the parties have generally opted to refer to them with numerical degrees indicating each note’s ordered position in the scale. We agree that is the more convenient approach here. The image below, taken from the beginning of defendants’ answering brief, illustrates how numerical scale degrees correspond to different keys on a piano in the minor scale<sup>3</sup> (the image begins with the third note of the scale on the far left rather than the first note—as discussed, the notes on a piano repeat themselves every twelve keys in different pitch registers):

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<sup>2</sup> Our discussion here is slightly oversimplified, as the minor scale comes in three distinct forms. However, the differences between those versions are not material to resolving this case. Likewise, we do not find it necessary for present purposes to distinguish between the concept of a “scale” and the related concept of a “mode,” which is also mentioned in the parties’ briefing.

<sup>3</sup> Specifically, the image corresponds to the natural minor scale in the key of A, which uses only the white keys on a keyboard.



## II. Factual Background

In 2007, plaintiff Ojukwu recorded a simple tune using a free music website. He later sold it to plaintiff Gray, who used it as an ostinato (i.e., a repeating musical figure) for Joyful Noise. A recording of Joyful Noise first appeared in the album *Our World Redeemed* in 2008. While Joyful Noise did not achieve significant commercial success or playtime on the radio, it received millions of views on YouTube and Gray's MySpace page. *Our World Redeemed* was also nominated for a Grammy award in the "Best Rock or Rap Gospel Album" category in 2009.

Defendants created Dark Horse in 2013. Hudson's trial testimony was that she met with two of her co-defendants at a recording studio and sampled several short musical fragments to consider using in a new song. The segment Hudson responded to most positively became the ostinato for Dark Horse. Dark Horse was first released on the album *Prism* along with several other tracks. It was a hit, resulting in a music video and a performance by Hudson at the Super Bowl halftime show in 2015.

The following features of the two ostinatos are undisputed. Both ostinatos are based on the minor scale (although they are in different keys, meaning that they treat

different notes—i.e., keys on a piano—as the first note of the scale). The Dark Horse ostinato is made up of eight notes (sixteen, when repeated) which correspond to the minor scale degrees 3-3-3-3-2-2-**1-5**, while the Joyful Noise ostinato is made up of two slightly different eight-note figures (sixteen notes when combined) that correspond to the minor scale degrees 3-3-3-3-2-2-**2-1/6** (in other words, 3-3-3-3-2-2-**2-1** for the first eight notes, and 3-3-3-3-2-2-**2-6** for the second eight notes). So, while each eight-note pattern begins with 3-3-3-3-2-2, they differ in the last two notes. Leaving aside some stylistic embellishment in Joyful Noise (specifically, the use of portamento, or “sliding” between different notes), both ostinatos also rely on a completely uniform rhythm, meaning each note is of equal duration in time.

### **III. Trial Proceedings**

Plaintiffs filed their operative complaint for copyright infringement against Hudson and her co-defendants in November 2016. The case proceeded to a bifurcated jury trial taking place from July 17, 2019, to August 1, 2019, with separate phases to determine liability and damages. Rather than putting forward direct evidence that defendants had copied elements of Joyful Noise, plaintiffs focused on circumstantial evidence that defendants had a reasonable opportunity to access Joyful Noise and that the ostinatos in both songs were substantially similar. For the latter point, in addition to testimony from Hudson and other witnesses, the liability phase of the trial turned largely on testimony by plaintiffs’ expert musicologist, Dr. Todd Decker.

The heart of Dr. Decker’s testimony concerned which specific elements of the ostinatos in Dark Horse and Joyful Noise were similar. Dr. Decker testified that:

The length of [each] ostinato is similar, eight notes. The rhythm of the ostinato is similar. The melodic content, the scale degrees present. The melodic shape so the—the way the melody moves through musical space. Similar, the [timbre] or the quality and color of the sound is similar, and the use of the—the placement of this material, this ostinato, in the musical space of the recording in the mix[,] that is also similar. So that’s five or six points of similarity between the two ostinatos.[<sup>4</sup>]

However, Dr. Decker also said that there was “no one single . . . element” that caused him to believe the ostinatos at issue were “substantially similar” when viewed “in isolation.” Rather, while “[a]ny single one of those [elements] would not have been enough,” it was “the combination of them” that led Dr. Decker to conclude that Joyful Noise and Dark Horse had substantially similar ostinatos. He also admitted that the ostinatos were different in some respects, though he clarified that he did not think this negated the similarities between them.

The jury also heard testimony from defendants’ expert, Dr. Lawrence Ferrara, who disagreed with Dr. Decker’s assessment that the ostinatos were substantially similar. He noted the use of different scale degrees at the end of each ostinato, pointing out that Dark Horse has a “leap” from 1 to 5 while Joyful Noise uses “step-wise” motion from 2 to 1 at the corresponding point in time. In addition, Dr. Ferrara explained that two well-known songs—“Jolly Old Saint

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<sup>4</sup> Dr. Decker also testified that the ostinatos in Joyful Noise and Dark Horse both used notes that were rhythmically “even in value.”

Nicholas” and “Merrily We Roll Along” (which, as Dr. Ferrara noted, has the same tune as “Mary Had a Little Lamb”)—also use the 3-3-3-3-2-2 pitch sequence that the Dark Horse and Joyful Noise ostinatos share (or a similar 3-3-3-2-2 sequence for Merrily We Roll Along, with the third 3 doubled in duration). This testimony was not refuted (though Dr. Decker dismissed its importance to the similarity inquiry), nor was Dr. Ferrara’s testimony that three other pieces of music predating Joyful Noise also used pitch progressions proceeding from 3 to 2 to 1 played in an even rhythm: “Love Me Or Hate Me” (which was composed by defendant Lukasz Gottwald, pka Dr. Luke), “Brainchild,” and “Choosing Life.”

For each phase of the trial, the jury was instructed on the law and given a special verdict form. Among other conclusions, the jury found specifically that Dark Horse used protected material from Joyful Noise, that the two songs contained substantially similar copyrightable expression, that defendants had a reasonable opportunity to hear Joyful Noise before composing Dark Horse, and that plaintiffs were entitled to 22.5% of defendants’ net profits from Dark Horse, resulting in a total verdict of about \$2.8 million in damages.

#### **IV. Post-Trial Motions**

After the trial, defendants moved for judgment as a matter of law (JMOL) or, alternatively, for a new trial pursuant to Federal Rule of Civil Procedure 50(b). Plaintiffs also moved for an award of prejudgment interest. The district court considered these motions simultaneously.

The district court vacated the jury’s verdict and granted defendants’ JMOL motion. It denied the parties’ remaining motions as moot, but conditionally granted a new trial and denied prejudgment interest in the alternative. *See* Fed. R.

Civ. P. 50(c) (allowing this procedure). As relevant here, the district court's 32-page decision rejected all of defendants' challenges to the jury verdict except their argument that the *ostinatos* were not substantially similar. Citing Dr. Decker's testimony, the district court reasoned that none of the individual points of similarity the expert identified between *Dark Horse* and *Joyful Noise* constituted copyrightable original expression. The district court also did not believe that the combination of these elements constituted original expression. Alternatively, the district court concluded that this combination merited no more than a "thin" copyright, which is infringed only by "virtually identical" works. The district court determined that there were enough objective distinctions between the *ostinatos* such that they were not virtually identical.

Plaintiffs timely appealed. We review *de novo* the district court's grant of JMOL. *Zamalloa v. Hart*, 31 F.3d 911, 913 (9th Cir. 1994).

## ANALYSIS

The operative question is whether a "reasonable jury" would have had "a legally sufficient evidentiary basis" to conclude that defendants engaged in copyright infringement. Fed. R. Civ. P. 50(a)(1). The applicable standards are essentially "the same" as those for a summary judgment motion, *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 251 (1986)), meaning that we "must draw all reasonable inferences" in plaintiffs' favor, *id.* Along these lines, we "must disregard all evidence favorable to [defendants] that the jury is not required to believe," but we should also "give credence to . . . evidence supporting [defendants] that is uncontradicted and unimpeached, at least

to the extent that that evidence comes from disinterested witnesses.” *Id.* at 151 (cleaned up).

Copyright protection extends only to works that contain original expression. 17 U.S.C. § 102(a); *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991). “Original, as the term is used in copyright, means only that the work was independently created by the author . . . and that it possesses at least some minimal degree of creativity.” *Feist*, 499 U.S. at 345. “To establish [copyright] infringement, two elements must be proven: (1) ownership of a valid copyright, and (2) copying of constituent elements of the work *that are original*.” *Id.* at 361 (emphasis added).

We agree with the district court that plaintiffs failed to establish copying of any original—and, consequently, protected—elements of Joyful Noise. For that reason, we affirm its decision to vacate the jury award and grant JMOL to defendants. We need not reach any other issue in this case.

## **I. Legal Framework for Copyright Infringement**

Because plaintiffs did not present any direct evidence that defendants copied Joyful Noise’s ostinato, they were required to show that (1) defendants had “access” to their work and (2) the ostinatos in Joyful Noise and Dark Horse “are substantially similar.” *L.A. Printex Indus., Inc. v. Aeropostale, Inc.*, 676 F.3d 841, 846 (9th Cir. 2012), *abrogated on other grounds as recognized by Unicolors, Inc. v. H&M Hennes & Mauritz, L.P.*, 959 F.3d 1194, 1198 (9th Cir. 2020); *see also Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1442 (9th Cir. 1994) (copying may be shown through “circumstantial evidence of access and substantial similarity”). We need not address the access prong because we may resolve this case based on the

“substantially similar” prong. For that requirement, we have “traditionally determined whether copying sufficient to constitute infringement has taken place under a two-part test having ‘extrinsic’ and ‘intrinsic’ components.” *Apple*, 35 F.3d at 1442. “Both tests must be satisfied for the works to be deemed substantially similar.” *Skidmore as Tr. for Randy Craig Wolfe Tr. v. Led Zeppelin*, 952 F.3d 1051, 1064 (9th Cir. 2020) (en banc).

“The extrinsic test considers whether two works share a similarity of ideas and expression as measured by external, objective criteria. The extrinsic test requires . . . breaking the works down into their constituent elements, and comparing those elements for proof of copying as measured by substantial similarity. Because the requirement is one of substantial similarity to protected elements of the copyrighted work, it is essential to distinguish between the protected and unprotected material in a plaintiff’s work.” *Swirsky v. Carey*, 376 F.3d 841, 845 (9th Cir. 2004) (cleaned up); accord *Skidmore*, 952 F.3d at 1064. The intrinsic test focuses on “similarity of expression from the standpoint of the ordinary reasonable observer, with no expert assistance.” *Apple*, 35 F.3d at 1442.

At oral argument and in their briefing, plaintiffs argued that we are required to defer to the jury’s determination that the Joyful Noise and Dark Horse ostinatos are substantially similar. But even when juries serve as the factfinders, judges retain an important gatekeeping role in applying the law. To be sure, the intrinsic test for substantial similarity is “uniquely suited for determination by the trier of fact” because of its focus on the lay listener, and so “this court must be reluctant to reverse” a jury’s finding that two works are intrinsically similar. *Sid & Marty Krofft Television Prods., Inc. v. McDonald’s Corp.*, 562 F.2d 1157, 1166 (9th

Cir. 1977), *overruled on other grounds by Skidmore*, 952 F.3d 1051;<sup>5</sup> accord *Three Boys Music Corp. v. Bolton*, 212 F.3d 477, 485 (9th Cir. 2000), *overruled on other grounds by Skidmore*, 952 F.3d 1051 (quoting same, and adding, “We will not second-guess the jury’s application of the intrinsic test.”). Crucially, however, the extrinsic test is objective and is often resolved as a matter of law. See *Benay v. Warner Bros. Ent.*, 607 F.3d 620, 624 (9th Cir. 2010), *overruled on other grounds by Skidmore*, 952 F.3d 1051 (noting summary judgment is often granted on this issue). So, while we must refrain from usurping the jury’s traditional role of evaluating witness credibility and weighing the evidence, the extrinsic test requires us as a court to ensure that whatever objective similarities the evidence establishes between two works are legally sufficient to serve as the basis of a copyright infringement claim regardless of the jury’s views.

## II. Protected Elements Contained in Joyful Noise

Because the extrinsic test for substantial similarity requires us to distinguish between “protected and unprotected material in a plaintiff’s work,” *Swirsky*, 376 F.3d at 845, the threshold issue is what—if anything—about the Joyful Noise ostinato qualifies as original expression that can serve as the basis for a copyright infringement claim. See *Feist*, 499 U.S. at 361 (infringement requires “copying of constituent elements of [a] work that are original”); *Skidmore*, 952 F.3d at 1070 (substantial similarity test

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<sup>5</sup> This case and others cited in this opinion with the same subsequent procedural history indication were overruled by *Skidmore* only to the extent they suggested that a weaker showing of substantial similarity is required when a high degree of access to a copyrighted work has been shown. See *Skidmore*, 952 F.3d at 1065–69 (calling this the “inverse-ratio rule”). These cases otherwise remain binding on us.

focuses on “the protectible elements, standing alone, . . . and disregard[s] the non-protectible elements” (cleaned up)).

“Although copyright protects only original expression, it is not difficult to meet the famously low bar for originality.” *Skidmore*, 952 F.3d at 1069. “[T]he requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, no matter how crude, humble or obvious it might be.” *Feist*, 499 U.S. at 345 (citation and internal quotation marks omitted).

But “[e]ven in the face of this low threshold, copyright *does* require at least a modicum of creativity and does not protect every aspect of a work; ideas, concepts, and common elements are excluded. Nor does copyright extend to common or trite musical elements, or commonplace elements that are firmly rooted in the genre’s tradition. These building blocks belong in the public domain and cannot be exclusively appropriated by any particular author.” *Skidmore*, 952 F.3d at 1069 (cleaned up); *see also Swirsky*, 376 F.3d at 850 (“Under the scenes a faire doctrine, when certain commonplace expressions are indispensable and naturally associated with the treatment of a given idea, those expressions are treated like ideas and therefore not protected by copyright.”).

The trial record here requires us to conclude that no single point of similarity between Joyful Noise and Dark Horse arises out of a protectible form of expression. For this issue, it is arguably sufficient that plaintiffs’ expert musicologist, Dr. Decker, candidly testified that “[a]ny single one of those [elements] would not have been enough” for him to conclude that substantial similarity existed, and that only “the combination” of those elements led him to this conclusion. Nonetheless, Dr. Decker testified as an expert

musicologist, not as an expert on copyright law. For that reason, we provide a brief overview of the individual musical elements identified by plaintiffs as original, and explain why those elements are not individually entitled to copyright protection. We address whether copyright law protects the combination of these unprotectible elements in the next section.

To reiterate, Dr. Decker drew attention to the following musical elements in support of his opinion that the Joyful Noise and Dark Horse ostinatos are substantially similar:

The length of [each] ostinato is similar, eight notes. The rhythm of the ostinato is similar. The melodic content, the scale degrees present. The melodic shape so the—the way the melody moves through musical space. Similar, the [timbre] or the quality and color of the sound is similar, and the use of the—the placement of this material, this ostinato, in the musical space of the recording in the mix[,] that is also similar. So that's five or six points of similarity between the two ostinatos.

Though it used slightly different terminology, plaintiffs' opening brief focused on essentially the same musical elements, adding that both ostinatos were based on the minor scale.

The evidence at trial was legally insufficient to establish that these musical elements are individually copyrightable. We note that Dr. Decker himself acknowledged that many of these elements are commonplace in the musical world, even if some aspects of the Joyful Noise and Dark Horse ostinatos were unusual for their respective genres. For example, apart

from conceding that “there are many” songs “predating the creation of Joyful Noise that have ostinatos,” Dr. Decker explained that it is “characteristic” for musical phrases playing a role similar to the ostinatos at issue here “to last for eight beats.” And while Dr. Decker opined that it is uncommon to use completely even rhythms in popular music, he also testified that the use of such a rhythm in Joyful Noise and Dark Horse was a “relatively simple rhythmic choice” that “no composer’s entitled to monopolize.”<sup>6</sup> Plaintiffs adduced no evidence at trial contradicting their own expert’s testimony suggesting that these shared elements of the two ostinatos are merely common musical “building blocks” belonging to the public domain. See *Skidmore*, 952 F.3d at 1069; *Swirsky*, 376 F.3d at 850.

Even leaving aside these admissions, our precedents and other persuasive decisions make clear that no element identified by plaintiffs or Dr. Decker is individually copyrightable. Plainly, no person may copyright the minor scale, as such scales are common musical building blocks belonging to the public. See *Skidmore*, 952 F.3d at 1070–71. The fact that Joyful Noise and Dark Horse both make use of “sequence[s] of eight notes” played in an even rhythm is a similarly “trite” musical choice outside the protection of copyright law. *Darrell v. Joe Morris Music Co.*, 113 F.2d 80, 80 (2d Cir. 1940) (per curiam). Along somewhat different lines, the fact that Joyful Noise and Dark Horse arguably have similar textures<sup>7</sup> is far too abstract of a

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<sup>6</sup> Plaintiffs conceded this element was not individually protectible in their district court briefing.

<sup>7</sup> Dr. Decker explained that texture refers to the way different musical elements—such as parts played by different instruments—are mixed together. He commented that both Joyful Noise and Dark Horse

similarity to be legally cognizable. See *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 556 (1985) (explaining that copyright law protects expression, not ideas); cf. *Morrill v. Stefani*, 338 F. Supp. 3d 1051, 1060 (C.D. Cal. 2018) (“the use of a long-short-long rhythm is too general to be protectable”).

Dr. Decker’s remark that the ostinatos have a similar timbre also does not help plaintiffs. Dr. Decker explained that timbre is a way of describing a sound’s quality: for example, a clarinet and a piano playing the same notes will sound noticeably different. Dr. Decker testified that the synthesizers used to play the Joyful Noise and Dark Horse ostinatos have similar timbres because they both use sounds that are “artificial,” are in a “high” register, and seem “pingy,” among other similar descriptors. But a copyright to a musical work does not give one the right to assert ownership over the sound of a synthesizer any more than the sound of a trombone or a banjo.

For one, plaintiffs have sued only for infringement of their copyright in Joyful Noise as a musical composition. In contrast, the choice of a particular instrument (whether acoustic or electronic) to play a tune relates to the performance or recording of a work, which are protected by distinct copyrights. See, e.g., *Williams v. Gaye*, 895 F.3d 1106, 1121 (9th Cir. 2018) (“It is well settled that sound recordings and musical compositions are separate works with their own distinct copyrights.” (cleaned up)); *Newton v. Diamond*, 204 F. Supp. 2d 1244, 1258 (C.D. Cal. 2002), *aff’d*, 388 F.3d 1189 (9th Cir. 2004) (distinguishing between “elements protected by [the plaintiff’s] copyright over the

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have relatively “empty” textures, with the ostinatos beginning “in relative isolation.”

musical composition” at issue and “those attributable to his performance of the piece or the sound recording”).

More generally, the use of synthesizers to accompany vocal performers has long been commonplace in popular music. *See, e.g., Batiste v. Najm*, 28 F. Supp. 3d 595, 623 (E.D. La. 2014). Along these lines, Dr. Decker conceded that timbre “is one of the very difficult things to monopolize.”

That leaves us with plaintiffs’ contention that the pitch sequence utilized by the Joyful Noise ostinato is copyrightable, and with Dr. Decker’s related comments that the two ostinatos use similar “scale degrees” and have the same “melodic content [and] shape.” At this point, it is necessary to distinguish between an abstract sequence of pitches and a melody (or, more colloquially, a tune). Though the concepts are sometimes equated, creating a melody involves more than writing down a sequence of pitches; at a minimum, that sequence must also be “rhythmically organized” so as to form an “esthetic whole.” *Melody*, Webster’s Third New International Dictionary (2002); *cf. Swirsky*, 376 F.3d at 848 (distinguishing between non-copyrightable “chord progressions” standing alone and a copyrightable “chorus,” which involves these progressions “in combination with rhythm and pitch sequence[s]”). While an eight-note *melody* may be copyrightable, the abstract eight-note *pitch sequence* that is a component of the melody is not. *See* U.S. Copyright Office, *Compendium of U.S. Copyright Office Practices* § 313.4(C) (3d ed. 2021)<sup>8</sup>

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<sup>8</sup> Available at <https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf>. Our court has drawn upon the Compendium for guidance on what qualifies as copyrightable expression. *See Skidmore*, 952 F.3d at 1070–71. The Supreme Court

(citing 37 C.F.R. § 202.1(a)) (advising that “short musical phrases consisting of only a few musical notes standing alone are not copyrightable . . . even if the phrase is novel or distinctive,” and giving an eight-note pitch sequence as an example).

We note that this conclusion is consistent with the rule that “chord progressions may not be individually protected” because they are basic musical building blocks. *Swirsky*, 376 F.3d at 848. Chords are ultimately just a combination of pitches played simultaneously, *Skidmore*, 952 F.3d at 1070, so a chord progression itself consists of multiple pitch sequences playing out at the same time. If the chord progression cannot be protected, the individual pitch sequences forming the progression cannot be either.

Turning finally to the ostinatos’ “melodic shape,” Dr. Decker described this as “the way the melody moves through musical space.” He explained that “scale degrees have in them tendencies . . . . There are scale degrees that want to go somewhere . . . and scale degrees that say you’re home like 1.” Later in his testimony, he elaborated that “3 wants to go to 2, [and] the 2 wants to go to 1 because 1 is our home note.” Applying this concept to the Joyful Noise and Dark Horse ostinatos, he testified that the repetition of scale degree 3 in both songs created “tension that wants to be released and it’s released to [scale degree 2] on a particularly strong beat.”

As with musical texture, it could be argued that the overall “shape” of a melody as described by Dr. Decker is nothing more than an abstraction outside the protection of

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has done the same. See *Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1014 (2017).

copyright law. See *Harper & Row*, 471 U.S. at 556. In any event, as the district court recognized, Dr. Decker’s explanation that the two ostinatos moved “through musical space” in similar ways simply reflects “rules of consonance common in popular music.” Just as films often rely on tropes to tell a compelling story, music uses standard tools to build and resolve dramatic tension. In this vein, courts have recognized that “while there are an enormous number of possible permutations of the musical notes of the scale, only a few are pleasing.” *Darrell*, 113 F.2d at 80; see also *Skidmore*, 952 F.3d at 1079–80 (Watford, J., concurring) (recognizing “the constraints of particular musical conventions and styles”). This is also underscored by the fact that uncontradicted evidence at trial showed that two songs predating Joyful Noise—Merrily We Roll Along and Jolly Old Saint Nicholas—used the same pitch sequence (albeit in the “major” scale rather than the minor scale) and melodic shape. Cf. *Granite Music Corp. v. United Artists Corp.*, 532 F.2d 718, 720 (9th Cir. 1976) (“Evidence of similar musical phrases appearing in prior works . . . demonstrates that the musical language was of such ordinary and common occurrence that the probability of independent, coincidental production was great.”).

Because the use of similar pitch sequences in the Joyful Noise and Dark Horse ostinatos results only from the use of commonplace, unoriginal musical principles, it cannot be the basis for a copyright infringement claim on its own. See *Swirsky*, 376 F.3d at 850 (expression that is “naturally associated with the treatment of a given idea” is not copyrightable).

### III. Protection of the Unprotectible Musical Elements in Combination

Although no individual musical component of the Joyful Noise ostinato is copyrightable, we still must consider whether the Joyful Noise ostinato is protectible as a “combination of unprotectable elements.” *Satava v. Lowry*, 323 F.3d 805, 811 (9th Cir. 2003); *see also Swirsky*, 376 F.3d at 848 (“[A] substantial similarity can be found in a combination of elements, even if those elements are individually unprotected.”). That is the case only if the “selection and arrangement” of those elements is original in some way. *Satava*, 323 F.3d at 811.

We begin this analysis with some guiding principles. To start, the fact that the ostinatos here are only eight notes long does not foreclose the possibility of a protected arrangement of commonplace musical elements. *See Swirsky*, 376 F.3d at 852 (“It cannot be said as a matter of law that seven notes is too short a length to garner copyright protection.”). “Each note in a scale . . . is not protectable, but a pattern of notes in a tune *may* earn copyright protection.” *Metcalf v. Bochco*, 294 F.3d 1069, 1074 (9th Cir. 2002), *overruled on other grounds by Skidmore*, 952 F.3d 1051 (emphasis added). On the other hand, despite “the famously low bar for originality,” *Skidmore*, 952 F.3d at 1069, “[t]rivial elements of compilation and arrangement . . . fall below the threshold of originality.” *United States v. Hamilton*, 583 F.2d 448, 451 (9th Cir. 1978); *accord Satava*, 323 F.3d at 811–12.

One circumstance where an arrangement of individual elements lacks enough creativity to garner copyright protection is when that arrangement is “practically inevitable” or in keeping with “an age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course.” *Feist*, 499 U.S. at 363.

“For example, it is well-settled that copyright of a map does not give the author an exclusive right to the coloring, symbols, and key used in delineating boundaries of and locations within the territory depicted.” *Hamilton*, 583 F.2d at 451 (9th Cir. 1978). The same is true for an alphabetical arrangement of numbers in a phonebook. *Feist*, 499 U.S. at 363. These are all utterly conventional ways of arranging information, and so they cannot be called “original” under copyright law.

To provide an example in the artistic context, we have held that lifelike glass “jellyfish sculptures” enclosed in a clear outer layer of glass did not combine public-domain elements in an original way. *Satava*, 323 F.3d at 811. We did not dispute that the sculptures were “beautiful,” but we determined that elements such as the “selection of clear glass, oblong shroud, bright colors, proportion, vertical orientation, and stereotyped jellyfish form, considered together, lack[ed] the quantum of originality needed to merit copyright protection.” *Id.* This was because “[t]hese elements are so commonplace in glass-in-glass sculpture and so typical of jellyfish physiology that to recognize copyright protection in their combination effectively would give [the artist] a monopoly” over this artform. *Id.* at 812.

Likewise, the portion of the Joyful Noise ostinato that overlaps with the Dark Horse ostinato consists of a manifestly conventional arrangement of musical building blocks. Joyful Noise and Dark Horse contain similar arrangements of basic musical features mainly in that both employ the pitch progression 3-3-3-3-2-2 played in a completely flat rhythm. This combination is unoriginal because it is really nothing more than a two-note snippet of a descending minor scale, with some notes repeated. *See Skidmore*, 952 F.3d at 1070 (holding that descending scales

are not copyrightable). Allowing a copyright over this material would essentially amount to allowing an improper monopoly over two-note pitch sequences or even the minor scale itself, especially in light of the limited number of expressive choices available when it comes to an eight-note repeated musical figure. See *Satava*, 323 F.3d at 812 & n.5 (expressing concerns over monopolization when limited creative choices are available); see also *Skidmore*, 952 F.3d at 1079–80 (Watford, J., concurring) (“There are relatively few ways to express a combination of five basic elements in just four measures, especially given the constraints of particular musical conventions and styles . . . . [O]nce [the artist] settled on using a descending chromatic scale in A minor, there were a limited number of chord progressions that could reasonably accompany that bass line (while still sounding pleasant to the ear.)”); *Calhoun v. Lillenas Publ’g*, 298 F.3d 1228, 1232 (11th Cir. 2002) (per curiam) (recognizing “the limited number of musical notes (as opposed to words in a language), the combination of those notes[,] and their phrasing”); *Darrell*, 113 F.2d at 80.

Consequently, insofar as it combines musical building blocks in the same way that the Dark Horse ostinato does, the Joyful Noise ostinato lacks “the quantum of originality needed to merit copyright protection.” *Satava*, 323 F.3d at 811. If we were to hold otherwise, “it is hard to believe that any collection” of pitches arranged in a flat rhythm “could fail” to meet the originality threshold. *Feist*, 499 U.S. at 364–65 (recognizing that “some works must fail” the originality requirement).<sup>9</sup>

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<sup>9</sup> As in *Satava*, we certainly do not suggest that Joyful Noise as a whole is lacking in original expression. See 323 F.3d at 812 (“We do not mean to suggest that [the artist] has added nothing copyrightable to his

#### IV. Plaintiffs' Remaining Arguments

Two other issues warrant brief commentary. First, plaintiffs' opening brief contended that the district court improperly relied on evidence outside the record submitted by amici after trial, namely amici's representation that they had found many tunes similar to the *ostinatos* at issue here in musical databases. Why that might be relevant to our *de novo* review is not entirely clear, as neither defendants nor amici have brought this material to our attention on appeal. Regardless, the district court referred to this material only in a single "*see also*" cite following a lengthy string cite to the trial record. Striking this from the court's order would have no noticeable effect on its thorough 32-page analysis.

Second, we reject plaintiffs' suggestion that it was improper for the district court to grant JMOL after previously having denied summary judgment on the issue of extrinsic similarity, which is unsupported by any authority. A trial judge has had the benefit of hearing testimony and a full presentation of the evidence when ruling on a post-trial JMOL motion, which may occasionally give her new insights into the legal sufficiency of the evidence. *See, e.g., Lies v. Farrell Lines, Inc.*, 641 F.2d 765, 772 (9th Cir. 1981). While JMOL and summary judgment are procedurally similar, there is no rule preventing a trial judge from reconsidering her views on a case's merits.

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jellyfish sculptures.”). But once we “disregard the non-protectible elements” in *Joyful Noise*, *Skidmore*, 952 F.3d at 1070, we are left with no objective similarities between *Joyful Noise* and *Dark Horse* that may serve as the basis for plaintiffs' copyright claims, *see, e.g., Benay*, 607 F.3d at 624 (extrinsic test requires “articulable similarities” between works).

**CONCLUSION**

Plaintiffs failed to put forward legally sufficient evidence that Joyful Noise and Dark Horse are extrinsically similar works with respect to any musical features protectible under copyright law. Consequently, we affirm the district court's order vacating the jury award and granting JMOL to defendants.

**AFFIRMED.**