Ringing Bell or Smoke Machine:

Technology and Authenticity in the Punch Brothers' "Familiarity"

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In June 1933, John Lomax and his son Alan departed Washington, D.C. in an old Ford automobile, embarking on a cross-country trip. In the trunk was a 350-pound Dictaphone recorder, provided by the American Council of Learned Societies and the Library of Congress's Archive of American Folk Song. Under the auspices of these groups, the Lomaxes were to travel across the United States and document the nation's musical culture.[1] Unlike academically-trained anthropologists, the Lomaxes did not exactly document this musical culture as they found it. John and Alan were looking for what they considered *authentic* American folk music, uncorrupted by the commerce and technology of modern society. According to music historian Karl Hagstrom Miller, when the Lomaxes met a local musician on their trip, they "…didn't ask, 'Share the songs that you enjoy singing.' [They] asked for them to find songs that fit into [their] idea of old time folk songs."[2] In particular, they looked to record "the Negro who had the least contact with jazz, the radio, and with the white man… [who] heard only the idiom of their own race."[3] For that reason, the Lomaxes looked for folk materials on the outskirts of American musical culture—jails in particular.

The "discovery" that the Lomaxes were most excited about on their 1933 trip was a singer and guitarist named Huddie Ledbetter—better known as "Lead Belly"—an inmate at Louisiana's Angola Prison. In a published collection of Lead Belly's songs, the Lomaxes wrote that Lead Belly's "eleven years of confinement had cut him off both from the phonograph and

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[1] Benjamin Filene, *Romancing The Folk*, (Chapel Hill: The University of North Carolina Press, 2000), 49-50.
[2] "How Alan Lomax Segregated Music," *Studio 360*, Thursday, February 5, 2015, http://www.studio360.org/story/how-alan-lomax-segregated-music/.
[3] John Lomax and Alan Lomax, *American Ballads and Folk Songs*, (New York: MacMillan, 1934), xxx.

from the radio."[4] The songs that John and Alan Lomax collected and recorded during their 1933 and subsequent trips became a defining document of American folk culture and a strong influence on American perception of folk music. As typified by their embrace of Lead Belly's music, the Lomaxes propagated an ideal of authenticity in American folk music that emphasized both a song and performer's removal from modern culture. In their minds, a performance by an artist like Lead Belly was unmediated by musical technology and popular contemporary trends, a living time capsule of America's musical roots.

This notion of folk authenticity has played a significant role in the promotion and reception of American folk artists over the past eighty years. Artists as diverse as Hank Williams, Muddy Waters, and Bob Dylan all adopted certain behaviors and performance techniques to project (or in the words of Richard Peterson, fabricate) this sense of rooted, pre-modern authenticity. Williams—an almost mythological figure in the development of country music—famously said that "[y]ou have to plow a lot of ground and look at the backside of a mule for a lot of years to sing a country song,"[5] though he never lived or worked on a farm in his life. While Muddy Waters was a popular and commercially-successful urban blues performer in Chicago in the early 1950s (featuring an electrified, jazz-oriented backing band), a revival of interest in rural blues among white audiences in the late 1950s pushed Waters to change his style in order to conform to this popular notion of authenticity. On his 1959 album *Muddy Waters Sings Big Bill Broonzy*, Waters adopted an older repertoire of traditional blues tunes, and a rough-hewn backwoods rhetoric—a move that proved commercially successful because it

[4] Lomax and Lomax, *Negro Folk Songs as Sung by Lead Belly*, (New York: MacMillan, 1936), xiii.
[5] Quoted in Richard Peterson, *Creating Country Music: Fabricating Authenticity*, (Chicago: University of Chicago Press, 1997), 217.

appeared classically authentic and non-commercial.[6] And in the earliest stages of his performing career, Bob Dylan adopted a look and manner to establish his bona-fides as a singer uncorrupted by the technology and popular trends of modern culture. In contrast to the polished look of commercial folk groups like The Kingston Trio and Peter, Paul, and Mary, Dylan would wear blue jeans and wrinkled button down shirts—the unofficial uniform of the rural working man.[7] Because of this manner and his knowledge of the American folk tradition as canonized by the likes of the Lomaxes, Dylan's original music carried an air of pre-modern authenticity—that is until he went electric.

As this ideal of authenticity in American folk music proves to be quite robust, into this deep thicket of expectations steps the bluegrass string band known as the Punch Brothers. Led by the MacArthur grant-winning mandolinist Chris Thile, and featuring Noam Pikelny on banjo, Chris Eldridge on guitar, Gabe Witcher on fiddle, and Paul Kowert on bass, the group's music has been categorized as "progressive bluegrass"[8] and "country-classical chamber music."[9] While the group features the instrumentation of a standard bluegrass string band and though each member is steeped in American Old-Time music, the Punch Brothers have used these traditional sounds to explore a wide variety of musical styles and forms. While their 2008 debut album *Punch* featured a forty-minute symphonic suite called "The Blind Leading the Blind," the group has also covered a wide variety of contemporary pop songs (a cursory YouTube search finds videos of the group playing songs like "Reptilia" by the Strokes, "Dead Leaves and the Dirty

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[6] Filene, 119.
[7] Ibid, 206.
[8] Craig Havighurst, "Bluegrass Suite Packs a Progressive 'Punch,'" *All Things Considered*, National Public Radio, February 29, 2008.
[9] Stephen Holden, "Covers and Classical Moves From a Bluegrass Virtuoso," *The New York Times*, February 22, 2008.

Ground" by the White Stripes, "Just What I Needed" by the Cars, among others). But on their most recent album, *The Phosphorescent Blues*, the group explores musical gestures and tropes associated with various popular forms of electronic music—such as dubstep, techno, and electronic dance music—styles that I will group under musicologist Joanna Demers's metagenre title of "electronica."[10]

A traditional bluegrass string band appropriating the musical gestures of contemporary electronica has very rich implications from the standpoint of folk authenticity. This embrace of a language of contemporary technology would at first glance seem to defy the well-established, traditional notions of authenticity. However, it is telling that the Punch Brothers do not utilize synthesizers, sequencers, and laptops to perform the music on *The Phosphorescent Blues*, but rather translate electronica's musical vocabulary into their acoustic instrumentation. In this paper, I will show how the Punch Brothers acoustically represent a variety of tropes and gestures associated with electronica throughout the first track of their album, a 10-minute song-suite called "Familiarity." Instead of evaluating whether this song is an example of authentic folk music in the traditional Lomaxian sense, I will discuss *how* the deployment of these musical gestures reflects the Punch Brothers' own sense of musical authenticity, one that is distinct from the traditional definition, yet still retains a sense of technological anxiety.

Familiar sounds played in unfamiliar ways

Like its predecessor "The Blind Leading the Blind," the song "Familiarity" reflects an interest in long-form composition in the Western Classical tradition. The song follows an A-B-A' form, with the A and B sections existing in a contemporary electronic milieu, and the final A' section acting as a traditional folk translation of the A section's thematic material. In the first two

[10] Joana Demers, *Listening Through the Noise*, (Oxford: Oxford University Press, 2010), 5.

sections, the composition features a series of common electronic sounds and syntactical tropes translated into acoustic form. From a sonic standpoint, the group attempts to mimic the pure sound of classic synthesizers by having fiddle player Gabe Witcher and bassist Paul Kowert play long pads without vibrato. With Witcher playing in a low range and Kowert playing in a very high range, the instruments are able to blend together to produce a singular, synth-like timbre. By utilizing close miking and a low-C extension, Kowert is also able to mimic the rich, thundering sounds of a contemporary dubstep synth bass. In the studio, the band is aided by session drummer Jay Bellerose, who tunes his drums in a way to mimic the noisy, punchy sounds of an electronic drum machine.[11]

From a syntactical standpoint, the group plays a series of gestures that in an electronic piece are achieved through some kind of (normally digital, but not necessarily so) processing: arpeggiation, looping, delay, and playing a sound backward (reversal). While arpeggiation and looping are musical gestures that aren't necessarily exclusive to electronic music, they are used so commonly as to be tropes of the style. Delay and sound reversal are two common effects found throughout a whole range of electronic pieces. A delay effect records a snippet of sound and then plays it back repeatedly at a certain interval, the volume decreasing with each iteration; an electronic form of an echo. In sound reversal, a snippet of recorded sound is literally played in reverse, resulting in a crescendo that generally flairs dramatically at the end as the reversed sound reaches the original sound's point of attack.

In the form chart below, I will show where all of these sounds and gestures occur in "Familiarity."

[11] On tour, fiddle player Gabe Witcher doubles on drum set, covering some drum parts with his feet while playing fiddle with his hands. See http://teamcoco.com/video/punch-brothers-02-09-15 for an example.

Section	Time	Salient electronica gestures
A	0:00-0:05	Arpeggiation in the mandolin (then banjo & guitar)
	0:06-0:07	Sound reversal in fiddle and bass
	0:08-0:33	Arpeggiation continues
	0:34-0:57	Fiddle and bass mimic synth patch over arpeggiation
	0:58-1:00	Mimicked delay effect in fiddle and bass
	1:01-1:14	Synth-like strings and arpeggiation continue
B-1	1:15-1:21	Delay effect in fiddle and bass foregrounded
	1:22-1:53	Additive rhythmic loop
	1:54-2:02	Sound reversal, then delay in fiddle and bass
	2:03-2:37	Rhythmic loop and synth-like strings
	2:38-2:48	Overdubbed vocals evocative of Brian Wilson[12]
B-2	2:49-3:05	4-on-the-floor dance beat, featuring drum set mimicking drum machine (at around 137-138 bpm, an ideal dubstep or breakbeat tempo)[13]
	3:06-3:37	Banjo arpeggiation added
	3:38-3:43	Atmospheric release, leading to beat drop (again evocative of dubstep)
	3:44-4:04	Beat drops, full band returns
	4:05-4:19	More Brian Wilson-esque vocals, accompanied by deep, synth-like bass
B-3	4:20-4:47	Beginning of repeating vamp and slow build
	4:48-4:57	Banjo arpeggiation added

[12] While the group uses overdubbing to create a choral texture on the studio recording, multiple members of the group sing those separate parts in a live situation. See https://www.youtube.com/watch?v=bmSoJONyhgg for an example.

[13] Peter Jenkins, "Dubstep Basics: An Introduction to Dubstep Production," *Sound on Sound*, July, 2010, http://www.soundonsound.com/sos/jul10/articles/dubstep.htm. The section also features handclaps, another hallmark of Dubstep.

	4:58-5:35	Arpeggiation foregrounded in fiddle
	5:36-6:01	Tonal syntax overtaken by noise (another typical electronica gesture)[14]
A’	6:02-10:23	A lilting, straight-folk transformation of the A section melodic material

The question to answer now is why these musical gestures should be interpreted as acoustic representations of electronic sounds and tropes, rather than just musical gestures that signify no more than themselves. Arpeggiation and repetition are elemental musical ideas that predate the emergence of electronica, and even the representations of delay and reverse effects could be seen as simple decrescendos and crescendos, respectively. However, there are notable characteristics of each gesture that confirm their nature as signifiers of electronica.

In terms of the arpeggiation featured throughout “Familiarity,” its electronic signification comes from the mechanical evenness with which the arpeggios are played, across all of the instruments. Each note is articulated as evenly as possible, rather than phrased into a larger group. This is heard most clearly when fiddle player Gabe Witcher starts playing arpeggios at the 4:58 mark. Instead of playing several arpeggiated notes per bow movement, as would be typical in a more classical setting, Witcher bows each note individually, creating the sense of mechanical evenness. The regular contours of the arpeggiated figures also emphasize their electronic signification. The arpeggios almost always move up and down in a predictable, linear fashion, rather than in a freer, more through-composed fashion. This contour is evocative of the arpeggiator function found on most synthesizers. A synth player must only hold down a single chord, and the synthesizer will automatically arpeggiate those notes in a regular, programmed way.

[14] Demers, 103.

It is not the use of repeating loops in and of themselves that signify elements of electronica in "Familiarity," but how these loops are constructed and deployed. The most notable rhythmic loop in the song is the one that undergirds much of the B section. This loop, beginning at 1:15, is constructed in a transparently additive way. The loop begins with the bass and fiddle playing their representation of a delay effect. Then the banjo adds another figure on top of the bass and fiddle, and the music repeats. Finally, the mandolin and guitar add their percussive strumming to complete the loop before Chris Thile's vocals return. This clear additive process is particularly emblematic of live looping paradigms in contemporary electronic music.[15] In those contexts, performers must record each element of the looping figure by itself, adding these sounds one at a time before moving into a vocal section that sits on top of the repeating vamp. The mannered quality of the loop buildup in "Familiarity" is quite evocative of this common electronic gesture.

The reason why we should interpret the Punch Brothers as rendering the electronic effects of delay and reversal in acoustic form rather than just playing crescendos and decrescendos is because of how closely these gestures hew to the qualities of these effects as practiced in electronica. The delay effects for instance feature a 4:3 polyrhythm—you hear the original sound propagate four total times in the span of three beats. This rhythmic ratio is a telltale marker of a delay effect and is particularly common in dub reggae music.[16] Because the band replicates the nuances of the effect so closely, it quickly becomes a signifier of electronic music. The band's performance of sound reversals also closely captures the nuances of that

[15] The artists Andrew Bird and tUnE-yArDs are two of the most accomplished users of live looping in contemporary popular music. See https://www.youtube.com/watch?v=TrwaDlrXB6w and https://www.youtube.com/watch?v=mTQl1QGKToI for good examples.
[16] See https://youtu.be/Rl2BmVSyykk?t=2m53s for a good example. Both the electric guitar and voice are effected with a tape delay that results in a 4:3 polyrhythm.

particular effect. Perhaps the most notable feature of that effect—especially when reversing a sound like a guitar strum or cymbal crash that has a fast articulation and quick decay—is the dramatic ramp up in volume at the very end of the sound, rather than the more gradual build of a typical crescendo. The crescendos as performed by Gabe Witcher on fiddle and Paul Kowert on bass have that characteristic flair at the end, clearly signifying the effect of sound reversal.

Technological anxiety and authenticity

If the Punch Brothers are so clearly and effectively representing sounds and gestures of electronica music as I have shown above, the question becomes why. Why not just write a 10-minute electro-pop anthem with all the capabilities of electronic instruments and digital sequencing? What is the importance of taking these gestures and bringing them into an ostensibly folk realm? On the one hand, the song could be a superficial show of technical virtuosity, as the band shows off how closely it can mimic the lingua franca of today's electronic music. This kind of virtuosity is reminiscent of the American tall tale of John Henry, a steal driver who could drill faster than a steam-powered hammer, but died after racing and beating that machine in a contest. Perhaps then "Familiarity" can be interpreted as a musical analog of the John Henry story, an instrumental tall tale.

However, the tale of John Henry also articulates a strong sense of anxiety about the impact of technology in modern society. The whole motivation for John Henry battling the steam hammer stems from a desire to prove a human worker's worth against an impersonal, mechanical modernity. If we look at the lyrical content of "Familiarity," we can find a parallel anxiety toward modern technology—in this case, modes of digital communication and social interaction. The song is littered with references to these technologies: ringing phones, wireless internet,

sharing and saving on social media.[17] However, the lyric's speaker feels adrift in this sea of technology, looking for true human interaction and spiritual transcendence in this sea of superficial connections, even mistaking a smoke machine at a modern dance club for a thurible, a metal censer that burns incense in various Christian services. The speaker laments that "I've forgotten how it feels… to love or someone or thing for real," and cries out "God help us feel it" during the long build at the end of the song's B section.[18] This fear of social distancing via digital media is also elegantly expressed in the full album's cover art, a depiction of two people kissing, but with sheets over their heads.[19]

This technological anxiety expressed in the lyrics thus becomes the motivation for the Punch Brothers' acoustic representation of electronic sound. Just as various social media platforms create a disconnect between the sentiments expressed through them and their human origins, three out of the four most salient electronic gestures in "Familiarity"—arpeggiation, looping, and delay—create a disconnect between the sound produced and the physical human gesture that led to it as practiced in an electronic context. In terms of arpeggiation, most synthesizers include a built-in arpeggiator that will automatically cycle through the notes that a player is holding down. A synth player only needs to make one physical gesture—pushing down a few keys—to create a whole stream of notes. In terms of looping, especially in the live looping paradigm outlined above, a player only has to physically create a sound once, and the looping apparatus will continue to propagate that sound at a regular interval. The delay effect works in much the same way as looping—an electronic apparatus continues to propagate a sound after its

[17] An accurate copy of the lyrics to "Familiarity" can be found at http://lyrics.wikia.com/Punch_Brothers:Familiarity.
[18] Ibid.
[19] See http://www.nonesuch.com/journal/nonesuch-releases-punch-brothers-t-bone-burnett-produced-phosphorescent-blues-january-27-2015-2014-12-03

initial gesture. In a live performance of electronica, these sounds can create an uncanny quality, as there is a disconnect between what the audience hears and what it sees making those sounds compared to what an audience can expect in an acoustic context.[20]

The Punch Brothers are thus attempting to rehumanize these mechanically-mediated gestures in "Familiarity." Throughout the whole song, every single sound produced can be traced directly to a single human gesture—a slide of a bow, a strum of a pick, a pluck of a finger. Just as the lyrics reflect a fear of how digital media can facilitate social inauthenticity, the instrumental parts reflect a fear of how digital technology can facilitate musical inauthenticity. With this in mind, it seems that the Punch Brothers buy into the Lomaxes' notion of authentic folk music needing to be divorced from contemporary technology. The acoustical representation of electronic sound is a means of highlighting the inherent disconnects between produced sound and human gesture in electronic music. Technologies like synthesizers, sequencers, loopers, arpeggiators, and effects units corrupt music by corrupting sound's origins in the human body.

However, there are aspects to the recording of "Familiarity" that complicate the Punch Brothers' own notions of musical authenticity. Despite the fact the group acoustically represents various electronic sounds and tropes, it also utilizes different technologies to heighten the expression of different sections. In the B section for instance, Chris Thile's voice is recorded with significant added reverb. It certainly is not naturally occurring reverb from a large space, as the other instruments, including Thile's own mandolin, continue to have a dry and punchy quality. This use of reverb can be interpreted both as a signifier of various dub styles (whether

[20] This concept is discussed in depth by musicologist Brian Kane in his recent book, *Sight Unseen: Acousmatic Sound in Theory and Practice*, especially in chapter 7 on Les Paul's use of recorded playback in live performance. Oxford: Oxford University Press, 2014.

dub reggae or dub techno), all of which use reverb extensively,[21] and as a means of expressing the emotional distance the speaker feels from other people as a result of digital forms of communication. This reverb is magnified and mixed with a great deal of distortion at the end of the song's B section, as Thile's voice becomes overwhelmed by noise. These uses of reverb and distortion are thus used to express the song's anxiety about technology creating social distance, as they literally create the distance and disorientation that the lyrics speak about.

And yet while the group uses musical technology to express anxieties about media technology, they also use musical technology to heighten the sense of physical intimacy between performer and listener in the song's final section. After the reverb and distortion that overwhelms the song at the six-minute mark dissipates, a soft, lilting duet between the mandolin and guitar enters. Both instruments feel extraordinarily close to the listener. One can hear every nuance of the music, even the sound of fingers sliding along strings, or the uneven articulation of a slow strum. This heightened sense of intimacy can only be achieved through close miking. While the performers are playing their instruments very softly, a sensitive microphone is able to pick up all of those soft sounds very clearly. The recorded sound is then amplified to extreme degree. Because of the relative balance between the sound of the music—the strumming, bowing, and singing—and the sonic artifacts like fingers moving on strings and breath sounds, the listener construes the sound to be very soft and very close by, creating an extreme sense of intimacy as to assure the listener of an authentic interaction with live human performer.

It would then seem that the Punch Brothers fall into the same irony as forebears like Lead Belly, Muddy Waters, and Hank Williams—these artists music use different kinds of musical technology to show their removal from contemporary technology and create a sense of

[21] Demers, 101.

authenticity with the listener. However, I feel that the group isn't necessarily attempting to construct authenticity in the same way as the earlier artists. The fact that the group gleefully covers a variety of modern pop material shows that they are not concerned with creating or preserving an authentic folk canon like the Lomaxes were. The group, and Chris Thile in particular, seems to have a more ambivalent relationship toward the music of their own time, especially music that is deeply mediated by musical technologies. This ambivalence is well illustrated in a pair of tweets by Thile from November, 27th, 2013:

> Fun activity for fellow pre-old men: count how many insipid drum loops you hear on days not spent actively hiding from insipid drum loops.[22]
>
> 2 of 2 NMTtPfMMt(DE): I'm in awe of Sufjan Stevens' drum and drum programming management on Age of Adz and All Delighted People.[23]
>
> *Note: The acronym at the beginning of the tweet stands for "Nice Music Tweets to Pay for Mean Music Tweet (Drum Edition)"*[24]

What this pair of statements expresses is a belief that different kinds of musical technologies do not inherently corrupt music and make it inauthentic. Drum loops aren't necessarily insipid, it's just that in Thile's mind, the vast majority of them are. Thile's technological anxiety—both musical and social—isn't as much about the technologies themselves, but how they are used. Gestures like arpeggiation and looping are what modern musical machines do well. It doesn't require much instrumental skill to hold down the keys of a synthesizer and let the arpeggiator unleash a fast stream of notes. It also isn't difficult to make an additive loop in a modern digital audio workstation like Logic or Ableton—one can create a lot of music just by copying and pasting a single idea. What a song like "Familiarity" expresses isn't necessarily a completely dystopian fear of emerging technology, but rather a warning about using technology uncritically.

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[22] https://twitter.com/christhile/status/405797824115535872
[23] https://twitter.com/christhile/status/405803525495480320
[24] https://twitter.com/christhile/status/405801765024456704

When the Punch Brothers replicate electronic gestures in “Familiarity,” it is clear that these gestures are completely intended because of how much effort it takes to be able to carry out that kind of mimicry. In “Familiarity” and throughout the rest of *The Phosphorescent Blues*, the Punch Brothers use the technique of rendering electronic gestures in an acoustic way to draw the listeners’ attention to the real meaning of these sounds and gestures, beyond simple genre signification. Instead of offering an overly simplistic and cynical definition of folk authenticity through their music, the Punch Brothers reveal just how tricky the notion of authenticity is to pin down, especially when modern technology is involved.