

Scales, Saussure, and Socialization: Applying CHAT and Linguistic Theory to Music Notation

Shannon Harman

Drawing on her own experience as both a musician and writer, Shannon Harman uses cultural-historical activity theory (CHAT) to compare different types of music notation to genres of writing. She illustrates how various types of music notation are functionally similar, yet she finds that the differences in their modes of production, distribution, and socialization lead people to view these types of notation and their users very differently.

When I was eight years old, I started taking piano lessons. Every week for years my mom would drop me off for my lessons, and I would happily trot off with a pile of lesson books about standard notation and music theory tucked under my arm. I would later bang away on my electronic keyboard every day after school, attempting to sight-read more and more challenging pieces. One day my dad came downstairs while I was practicing. I had a particularly dense and tricky progression I was working on, and my dad picked up the music book and said, “I don’t know how you can read all of this; it’s like a different language!” My dad was joking with me, of course, but his comment was actually very insightful; music notation is similar to language in that it, too, is textual (and by that I mean you have to be able to read and write it) and, thus, a genre of writing. In this article, I will be using cultural-historical activity theory (CHAT) to look at how different forms of music notation, specifically standard notation and tablature, work as genres of writing.

So What Exactly is Notation? And What's a Genre of Writing? And What's CHAT?

You might be a little confused by some of the terminology I just used (totally OK; that was me not too long ago). Let's start with the idea of a **genre**. You might have heard the word genre, but never applied to writing. Well, when we English-y types say "genre" what we are really referring to is a category or type of writing. You probably know of a number of different types or genres of writing. Fantasy novels are a genre of writing, for example. They have very specific characteristics that you can recognize: they are fictional, they are generally fairly long, they can be simple stories or complex stories, they are generally told from first or third person, and so on. This makes them significantly different from other types or genres of writing. They are very different from the persuasive essays that you may have had some experience with in school. These essays are formal, certainly not fictional (I hope!), much shorter, and so on. Both novels and essays are types of writing, but they are so different that we consider them different genres of writing with their own unique "genre characteristics" or "genre features" like the ones I just listed.

So now that you know what genre is and what genre features are, you might be wondering about **cultural-historical activity theory** (CHAT). CHAT is, at its most basic, a helpful means of understanding how different genres of writing (or "texts") are made, how they work, and who they impact. There are a number of other terms wrapped up in CHAT that I will be using throughout this article that are important to understand. First, in looking at how a text is made and where it goes, the terms "production" and "distribution" are really helpful. **Production** refers to anything that goes into actually making the text, whether that means the physical objects that created it—like a computer or printing press—the person or people who made the text, or even the assumptions that those people had about what that text ought to be. (For example, you generally assume, without even realizing it, that a Facebook status should not be as long as a novel, which might seem silly, but it is something that you consciously or unconsciously take into consideration when writing a Facebook status.) **Distribution**, then, refers to where that text, once it is produced, actually goes (Walker 75). Who is the text for and how does it get to them? Is it a hardcover novel that was shipped to a bookstore for specific people to buy? Was it a blog post that is available electronically for anyone to read?

After looking at production and distribution, I will talk about "reception" and "socialization," both of which focus on how different audience members, readers, users, etc., use a text once it is distributed. **Reception** refers to what people do with a text (Walker 75). Do they use it the way its author(s) intended? Do they repurpose it and use it for something completely new? **Socialization**, on the other hand, refers to how people not only use the text, but also how they talk about it, as well as its importance and use in our society. So, for example, the way we talk about e-mail and the assumptions we make about what it

should look like (a greeting, a body, etc.) is significantly different from the way we talk about a sonnet (which is a type of poem). You probably write far more e-mails and know a lot more about e-mails than you do about sonnets; thus, we could argue that e-mails are a more actively socialized kind of writing.

Finally, you may be wondering what music notation is. There are actually many different forms of music notation, including (but not limited to) standard notation, tablature (“tabs” for short), chord charts, and the Nashville Number System. In my own composing, I primarily use standard notation and tablature, which are arguably the most complex forms of music notation. Standard notation is the kind of music notation you probably think of when you hear Mozart or Bach, but its roots actually far predate them. To give you a brief (and highly simplified) history of standard notation, we have to start with the hymns and chants (a type of a cappella singing, meaning it was not accompanied by any instruments) that were used in worship in the Jewish liturgy before Christ and then later after Christ in the early centuries of Christianity (Wellesz 1). These hymns and chants had to be sung in a very specific manner (obviously, or they would have ended up with completely different songs!), so, as a result, the early Christian church developed a sort of “punctuation” in writing to indicate things like pitch (Wellesz 2). This punctuation slowly evolved in complexity over the centuries, indicating not only the pitch of the note, but the duration of the note, how loud or soft it should be, and more. It didn’t evolve into what we think of as modern standard notation, though, until around the fifteenth century A.D., when the liturgical practices of the Christian church underwent a shift as they were heavily influenced by secular music practices, which brought new, more complex, and more varied musical forms to the church, and, thus, required more complex notation that made the circulation of different musical forms possible at different times in the liturgical year (Harrison 82). This, in combination with the later invention of the printing press, which made printing and circulating music notation on a large scale possible, led to the development of what we know today as standard notation. Because of the political power and importance of the church at that time, standard notation became the norm for upper-class musicians.

This type of notation uses a system of notes placed on a staffs to indicate information such as pitch, time, and loudness. Figure 1 below shows a G major scale written in standard notation.



Figure 1: G major scale written in standard notation. Image created by the author.

When I first began learning to play the piano and studying music theory, I learned to read standard notation (and I learned its associated history as well). I was not introduced to any other forms of notation until much later, when I began playing other instruments, particularly guitar and bass guitar. I noticed that my friends who also began their music careers playing piano or any orchestral instruments (such as woodwinds or brass instruments) also learned standard notation. Not everyone I know who plays an instrument learned standard notation, though. My brother is a great guitarist. He started learning to play the guitar at the same time I started learning to play the piano. I did not start playing the guitar until a few years later, and I focused on acoustic techniques while he focused on electric. As a result, he can play using certain electric guitar techniques with a finesse that I just can't seem to manage (yet!). But he can't read standard notation. In fact, a lot of my guitarist friends who started their music education playing guitar rather than piano or orchestral instruments can't read standard notation. Instead, they learned to read and write music in the form of a type of notation called tablature.

Tablature actually developed around the same time as standard notation. What we know today as modern tablature evolved from German and, later, Italian and French lute tablature that appeared during the fifteenth century (Minamino 3). The lute, invented in the late thirteenth century, became popular across Europe during the Renaissance and, as techniques for playing the lute became more complex, the need for some form of notation arose (Minamino 3). This early tablature was quite complex. It differed from standard notation in that the symbols did not represent sounds, but, rather, represented positions on the fretboard of the lute. (The fretboard is the long neck on a stringed instrument where the player presses down on the strings to produce different pitches.) Different numbers, or sometimes letters, placed on a visual representation of a fretboard would indicate to musicians where to place their fingers on the fretboard and what strings to pluck.

Today, tablature is commonly used by guitar players. Once I began playing guitar, my teacher required me to learn and use tablature rather than the standard notation I was accustomed to at that point. In modern guitar tablature, there are six lines, each representing one of the six strings on a guitar, with the top line representing the highest string, also called the first string, and the bottom line representing the lowest string, also called the sixth string. The lines in between represent the respective strings in between the first and sixth strings. Numbers are then placed on the lines to indicate which fret should be played on which string. For example, the number three written on the top line indicates that the guitar player should place a finger on the third fret of the first string. Figure 2 on the next page shows a G Major scale, the same scale shown in Figure 1, but this time written in tablature.

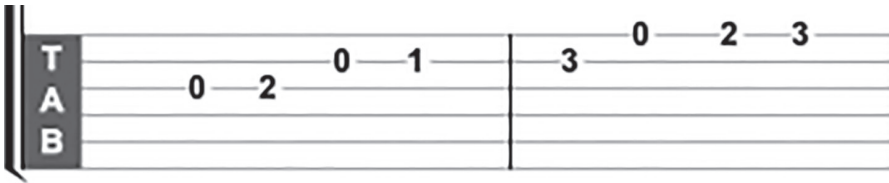


Figure 2: G Major scale written in tablature. Image created by the author.

Since the musicians I knew who read standard notation and tablature were both equally technically skilled at their instruments, the difference between the two types of notation initially did not strike me as particularly significant. I did not realize that people have radically different assumptions about these forms of notation as texts until someone asked me if I could read “music.” I realized that what that person was really asking was whether or not I could read standard notation. In spite of the similarities between the histories of standard notation and tablature and the aspects of music that they both communicate to musicians, there is still an assumption among many musicians (and non-musicians) that standard notation is THE form of music, and, as a result, all other forms of notation are implicitly framed as substandard and, consequently, their users as less technically or theoretically proficient. But is this really the case?

Spoiler: Tabs Are Just as Complex as Standard Notation! (Comparing Genres)

After comparing the history and development of standard notation and tablature, I then dug up some of my old sheet music (which is standard notation) and tabs in order to compare the genre features of each. I noticed that both do share certain important genre features; foremost among them being that they actually communicate much of the same information. It becomes evident from the above history of these types of notation that they have both evolved into texts and, in some ways, languages of their own in that they communicate certain things to the reader just like language does. In theorizing about language, the famous linguist Ferdinand de Saussure describes the manner in which individual words (or the sounds comprising them) indicate specific objects, ideas, persons, etc., to the person reading or hearing the words/sounds (Saussure 7). For example, when I write (or speak) the word “dog,” my reader (or listener) immediately conjures up an image of furry, four-legged canine—in other words, the reader immediately thinks about an actual dog. In this case, according to Saussure, the word “dog” is said to *signify* (or represent) an actual dog because that is what we think of when we hear the word “dog.” Thus, the word “dog” is what Saussure calls a *signifier* for an actual dog, which is the *signified*.

In precisely the same manner as language, different symbols and their complex relationships with one another in music notation serve to signify certain pitches, tempos, pitch duration, and more. In language, if a person does not know English, the English word “dog” would not serve to signify an actual dog to him/her; instead, to that person, the word “dog” would just be a random sound that does not mean anything. Similarly, in music, if a person does not know the particular notation, he/she would not know that the first note on the top staff in Figure 3 below represents and signifies the note G. It is the same with tablature. If a person does not know how to read a tab, then he/she would not know that the first number zero in the tab in Figure 3 below signifies both the note G *and* plucking an open string (which means that you do not press any frets on that string when you play it).

The image shows two musical staves for the G Major scale. The top staff is standard notation, featuring a treble clef, a 4/4 time signature, and a key signature of one sharp (F#). The notes are G, A, B, C, D, E, F#, and G. The bottom staff is guitar tablature, with a vertical label 'TAB' on the left. The fret numbers are 0, 2, 0, 1, 3, 0, 2, 3, corresponding to the notes above.

Figure 3: G Major scale shown on the top staff (the lines with the notes) as standard notation and on the bottom staff (the lines with the numbers) as tablature. Image created by the author.

So, just as words strung together make up sentences that make up larger texts, notes and other music symbols strung together make up progressions that make up songs, which are texts of their own. A person has to know the language of the notation in order to be able to read it.

But why is this important? Well, if both standard notation and tabs can be theorized as language in this way, if they both serve to signify the same aspects of music (in the way that the first note on the top staff of Figure 3 and the first number zero on the bottom staff of Figure 3 both signify the note G even though the two staves look radically different), then neither is more or less complex than the other. They simply use different symbols and structures as signifiers. It is similar to the way English uses the word “dog” to signify an actual dog whereas Spanish uses the word “perro” to signify precisely the same dog. They are different words/sounds, but they mean the same thing, and we would not claim that Spanish is more complex than English or vice versa; we simply recognize that they are different.

OK . . . So Tabs and Standard Notation Have Similar Histories and They're Both Complex. What's the Big Deal?

In proceeding with my research, after comparing the history of standard notation and tabs as well as the ways in which they work to signify aspects of music, I was left wondering why, given the similarities between them and the fact that neither is more complex than the other, musicians still assume that standard notation is music and that “tabs don't count,” (to quote one of my friends who could read both standard notation and tabs). In looking back on my own experience with these different forms of notation, I found that the primary difference between standard notation and tablature centers not so much on their complexity or the different symbols they use to signify pitch, loudness, duration, and more, but rather on their production, distribution, reception, and socialization, if we think of them in the CHAT terms that I described in the beginning of this article.

When I started researching the ways in which standard notation and tablature are produced, I once again went back to my own experience and pulled out all of my own old sheet music and tabs and went through them to see how and where I acquired them. When I was learning how to play the piano, if I wanted the sheet music for a song, I had to go to a music store and actually purchase official sheet music. All of the sheet music I have is official sheet music (by official, I mean that it is standard notation professionally produced by the copyright owners of the song). It is almost impossible to find sheet music anywhere else, even the Internet, because musicians and producers are very thorough in ensuring that illegal copies are not produced and distributed via the Internet, and because (accurate) sheet music is so complex that it often takes a professional, or at least a musician with expertise in transcribing music via standard notation, to produce sheet music. Even more importantly, going back to the history of standard notation that I talked about before, sheet music is considered “professional,” and it is the “standard” (hence the name) in the music industry given its history as the primary form of music notation circulated within the church and among “high-class” musicians and composers throughout European and American history from the fifteenth century forward. So the production of sheet music today is controlled and shaped by the copyright laws (only the copyright holder can legally produce it), by the need for a professional to write it given its complexity, and by the need for the correct software for writing in standard notation, which can be very expensive, therefore limiting access and necessitating professionals who can afford that software. It is a highly controlled and policed process, both because of the difficulty of acquiring the software and the professionals to write the notation, and also because of copyright laws here in America that limit who can reproduce such a text.

Tablature, on the other hand, is everywhere. Copyright law still applies to tablature, of course, but I know from my own experience that it is not policed with the severity that standard notation is given that it is not applicable across all instruments in the manner that standard notation is (tabs are only used for stringed instruments) and, thus, it is not used in the same professional contexts. It is possible to buy official tablature, but it is not as common. It is far more common for guitarists (and musicians who play other stringed instruments) to learn a song by ear and then write up a rough tab of it either for personal use or for sharing online. It is a completely different production process. Many of my friends produce their own rough tabs by ear, rather than paying money for official tablature. Since they play by ear, they do not feel the need to write tabs that are as complex as official tabs, and it is these less complex tabs that then get circulated. For example, my brother never has time signatures on his tabs because he already knows the time signature from his own familiarity with the song. (A time signature tells the musician how fast to play and how many notes are in a measure; songs are broken down into what are essentially smaller pieces called measures that help determine the flow of the song and help musicians keep track of where they are.) I also know some musicians who write and then share their tabs online; they do not include time signatures either because their assumption is that anyone looking for the tab for a given song is already familiar with that song and/or can simply play along, learning the song by ear. It is a much less rigid production process than that of standard notation.

The production of sheet music in standard notation and tablature leads me to distribution and reception, because these two wildly different production processes affect who has access to these different types of notation. The production of sheet music as it has been shaped by the history of standard notation and its evolution as THE form of music notation has led to far more limited access. Because it is written by professionals and owned by the musicians and recording companies who hold the copyright of the song, it is distributed via highly controlled channels; it is sold as complex and precise official sheet music specifically through music stores (in-store or online). This then affects the reception of the text because it means that only those musicians who can afford the official sheet music have access to it. It raises the stakes for acquiring the sheet music. For example, I will not purchase sheet music if I just want to learn a song for fun or my own personal reasons. I do not see the point in paying money for it. I will only purchase it if I need it for professional reasons (like when I was playing in my high school band). Even though I may have the money, I do not necessarily want to spend it. I need both the money and a pretty good reason to buy the sheet music. I have a number of friends who feel the same way about sheet music. They just do not have the resources and/or any reason to purchase sheet music. I think this explains why sheet music remains circulated largely in highly professional contexts. Such contexts are the target for both its distribution and reception.

The far more informal production process of tablature, on the other hand, leads to an equally informal and far more widespread process of distribution and reception. It also leads to the repurposing of tabs both as individual texts and as a whole genre in a way that I have never seen happen with standard notation. As I mentioned before, I know a lot of musicians who write their own tabs and then share them online, which results in a far broader distribution of tabs than sheet music. In fact, a quick Google search for guitar tabs reveals numerous sites, such as Ultimate Guitar, Guitar Tab Universe, 911 Tabs, and Ultimate Tabs, all devoted to collecting user-submitted tabs, which users transcribe themselves by ear. These sites have collected hundreds of thousands and sometimes millions of user-generated and submitted tabs, which are then available to download for free, as well as available to other users for modification. I have downloaded tabs from many of these sites in order to learn certain songs, and I know people who have corrected, altered, and added to many of these tabs and re-uploaded them. So this particular form of distribution has created a community of musicians, mostly guitarists, who are continually freely sharing, exchanging, and building off of one another's knowledge. One of the key features of the reception of tablature that is far different from standard notation is the ability for audience members to repurpose it. Thus, what I ultimately discovered is that these two genres have completely different trajectories from the moment of their production all the way through their reception by their respective audiences. By **trajectory** (which is another CHAT term), I simply mean the overall path that a text follows from its production to its distribution to its reception and socialization. In other words, who is it made by and where does it eventually end up? As you can see, the answer to this question is radically different in the case of standard notation versus tablature.

What I Took Away from My Research: There Is So Much More to Texts Than Their Genre Features

So what did this all mean? What did I take away from research into these particular genres? I think my research serves to illustrate how different genres can be compositionally similar, with similar genre features and similar linguistic functions and purposes, yet can interact with the world, society, culture, and audiences in incredibly different ways. In CHAT terms, this has to do with the socialization of the genre and the individual texts within that genre. While looking at the history of standard notation and tablature, I noticed that standard notation carried a lot more weight and prestige simply because, like I said, it was the Christian Church producing it and printing it, and the Church was very politically powerful at the time that standard notation was initially being developed and circulated. Tablature, on the other

hand, was used by common lute players; it did not have the same influence. This clearly remains the case to some extent. While the two may have the same purpose and may be structured around some of the same genre features, the ways in which musicians produce, distribute, and receive them completely alters how we view them as texts. It has been my own experience that people do not think as highly of tablature as of standard notation. There is this assumption that tablature is not *music*, that its users cannot possibly be as technically proficient as musicians who read standard notation. Thus, I think this comparison shows just how powerfully different genres of writing can work as vehicles for certain assumptions about people, and it also shows that certain genres can become associated with certain beliefs. We as writers have to take into consideration more than just the features of the genres we produce. We have to consider what people already believe about that genre and consider how those beliefs can affect how people use that genre.

Works Cited

- Harrison, Frank LL. "English Church Music in the Fourteenth Century." *New Oxford History of Music: Ars Nova and the Renaissance*. Eds. Dom Anselm Hughes and Gerald Abraham. Volume III. New York: Oxford UP, 1960. 82–106. Print.
- Minamino, Hiroyuki. "An Invisible Notation: On the Invention of German Lute Tablature." *Discoveries* 17.2 (2000): 3–13. Web. 14 Oct. 2014.
- Saussure, Ferdinand de. "Course in General Linguistics." *A Critical and Cultural Theory Reader*. Eds. Anthony Easthope and Kate McGowan. Toronto: U of Toronto P, 2004. 5–11. Print.
- Walker, Joyce R. "Just CHATting." *Grassroots Writing Research Journal* 1 (2010): 71–80. Web. 14 Oct. 2014.
- Wellesz, Egon. "Early Christian Music." *New Oxford History of Music: Early Medieval Music Up To 1300*. Ed. Dom Anselm. Volume II. New York: Oxford UP, 1954. 1–13. Print.



Shannon Harman is a second-year Master's student studying literature and rhetoric and composition at Illinois State University. An avid fan of metalcore, when she's not writing papers, she's probably writing music.

