Using a Verbal Analysis of Lady Gaga's *Applause* as a Classroom Exercise for Teaching Verbal Behavior

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Abstract Learning Skinner's (1957) verbal behavior taxonomy requires extensive study and practice. Thus, novel classroom exercises might serve this goal. The present manuscript describes a classroom exercise in which two students analyzed Lady Gaga's song *Applause* in terms of its metaphorical arrangements. Through the exercise, students identified various verbal operants and their subtypes, including those seldom researched by the behavioral community (see Sautter and LeBlanc 2006, *The Analysis of Verbal Behavior*, 22, 35–48), which helped them conclude that Lady Gaga's *Applause* is comprised of two themes: the artist taking control, and the artist-as-art.

Keywords Instruction · Lady Gaga · Metaphor · Music · Musicology · Verbal behavior

Using popular music as an instructional technique for verbal behavior might help teach this difficult subject and could be enjoyable for students (e.g., Ciarocco et al. 2011). We do not know of any literature on using songs to teach behavior-analytic concepts, but we believe Skinner's analysis of verbal behavior would be well suited for this purpose. Other sciences, however, have successfully made use of songs as teaching aides.

Walczak and Reuter (1994) used collections of thematically related songs to aid in teaching sociological topics to an introductory sociology class. Packets containing song lyrics required students to answer assigned questions prior to taking part in group discussions. Students in the course enjoyed the packets, stating that they found the exercise "...to be refreshing, relevant, entertaining, thought-provoking, and effective" (Walczak and Reuter 1994, p. 267). While no data were presented on the effects of the packets on student performance, findings suggested strong social validity. Similar sociological coursework has evolved from Walczak and Reuter (e.g., Ahlqvist 1999, 2001).

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Popular songs have been used as a supplement or alternative to lectures to teach several topics in the psychological fields (e.g., Hughes 1984; Napoletano 1988; Potkay 1982). For example, Leck (2006) concluded lectures on personality theories by playing and discussing relevant songs (e.g., Stevie Wonder's *Superstition* [1972/2000] was played after an operant learning lecture to explore the concept of superstitious behavior). Six homework assignments required students to identify additional songs addressing various course concepts. Compared to a second course without song-based lectures and homework, these students produced significantly higher ratings on course evaluations in terms of the course being more stimulating, the instructor making better use of examples, and in finding the instructor to be more effective. Students from the song-based course scored significantly higher on equivalent exams. It makes sense that incorporating songs into coursework will be an accepted form of delivering lessons and likely to have a positive effect on student learning. With respect to verbal behavior courses, one artist who might prove challenging, yet rewarding to study, is Lady Gaga.

Lady Gaga became a pop culture icon because of her love for her fans, eccentric style, and complex lyrics. Her influence is so great that in 2010 the University of South Carolina offered the course "Lady Gaga and the Sociology of Fame" (Kaufman 2010). In 2013, her album, *ARTPOP*, solidified her a persona as a living, breathing piece of art.

One reason Lady Gaga might prove challenging, yet rewarding in teaching verbal behavior through popular music is that she is known for her mastery of metaphor in song. In *Verbal Behavior*, Skinner (1957) categorized metaphorical extensions under extended tacts. An extended tact is a tact whose stimulus control is shared by other tacts. Metaphors are produced when some stimulus condition sets the occasion for a particular response whose control is shared by properties with other stimulus conditions, and that control is not the control respected (i.e., reinforced) by the verbal community. Metaphors help to bring about additional responses from a listener that would not be available were the tact not in metaphorical extension. In Skinner's example, a young child states that soda tastes as though his foot is asleep (p. 92). Skinner stated that a metaphor is tacted as such until it is accepted by the community. However, we will take a more liberal definition of metaphor by including those current or historical instances in which the controlling property was not necessarily supported by the verbal community. For example, suffering from "a broken heart" is no longer metaphorical as the controlling property is supported by the verbal community; however, for our purposes, we will retain the tact "metaphor" as, historically; this statement was metaphorical.

There is one study in the behavioral literature that analyzed lyrical metaphors. Luke (2003) applied Skinner's verbal operant analysis to one of Shakespeare's sonnets and Tupac's *White Man's World* in an effort to identify the meaning¹ of each. Luke chose Shakespeare because most of his work is based in metaphor. Differential meanings were identified through a verbal operant analysis of multiple-line combinations in Sonnet CXXXVIII. In the sonnet's beginning, the speaker believes his lover to be truthful. In the middle of the sonnet, the speaker questions his lover's honesty. Finally, the sonnet concludes when the speaker reveals that both he and his lover are liars, but they will remain together despite this revelation. Similarly, analyzing Tupac's lyrics found that the lyrical assemblage allows the listener to interpret multiple meanings. At

¹ Meaning refers to the characteristic effect on listener responding identified through sonnet/song analysis.

first glance, most of Tupac's lyrics were mands about "'bustin' your fist against the wall," and tacts that added a sense of violence such as "gunshots" and "bleeding" (Luke 2003, p. 112). However, further analysis revealed that the lyrics also referenced Tupac's emotional state, influencing emotional listener responses.

Although the Shakespeare and Tupac analyses were similar, Luke (2003) concluded that the two forms of art were different. Lyrics in music are often accompanied by instruments that can change the experience for both the speaker and the listener, whereas in poetry, the reader is left without such accompaniments (see also Booth 1976; Thompson and Russo 2004).

Romm (2012) compared metaphors in literature (the Bible, Shakespeare's work) to those of well-known speakers (Lincoln, Churchill) and present day artists (Lady Gaga). He explained that Lady Gaga's *Poker Face* was a sexual reference instead of the more obvious assumption of the song being based on the card game. Lady Gaga incorporated metaphors intricately, leading listeners to interpret the song as a man being unable read her poker face, which was a metaphorical extension regarding her emotional responses. However, the often assumed metaphorical extension is incorrect, as Lady Gaga based *Poker Face* on her desires to be with a woman, rather than a man (Romm 2012). Given the less-than-obvious metaphorical extensions Lady Gaga can produce, her work stands to be of interest in creating and verifying a method of teaching verbal behavior through song analysis.

Similar to *Poker Face*, Lady Gaga's song *Applause* (Germanotta et al. 2013) might have multiple meanings and was thus selected for this analysis. Specifically, this analysis was conducted as one of several final project assignments for a master's-level course in verbal behavior conducted over the summer of 2014.

Method

Investigators

Two second-year students enrolled in an on-campus Masters of Science ABA program at a large Midwestern university were assigned to conduct the current analysis. The students were aided by their course instructor, an assistant professor in the same ABA master's program.

Procedures

To satisfy course requirements for a master-level course on verbal behavior, we used Skinner's verbal operant framework to analyze the lyrics and musical accompaniments to Lady Gaga's *Applause*. We analyzed the lyrics by individual lines (see Fig. 1 for the lyrics and italicized, underlined text for verses in the results²), line combinations, song sections, and song-wide combinations (see Fig. 2).

Specific combinations for both Verse 1 (V1) and Verse 2 (V2) involved each line being analyzed (V1:1, then V1:2, etc.) prior to verse-line-based combinations (V1:1 and V1:2 combined). We also analyzed each verse (V1 then V2) and verse combinations (V1 and V2). Chorus analyses were similar to verse analyses, with the exception

² Lyrics from www.azlyrics.com/lyrics/ladagaga/applause.html accessed August 29, 2014

V1:1 I stand here waiting for you to bang the gong
 V1:2 To crash the critic saying, "Is it right or is it wrong?"
 V1:3 If only fame had an I.V., baby could I bear
 V1:4 Being away from you, I found the vein, put it in here
 C1:1:1 I live for the applause, applause, applause
 C1:1:2 I live for the applause-please
 C1:1:3 Live for the applause-please
 C1:1:4 Live for the way that you cheer and scream for me
 C1:1:5 The applause, applause, applause
 C1:2:1 Give me that thing that I love (I'll turn the lights out)
 C1:2:2 Put your hands up, make 'em touch, touch (make it real loud)
 C1:2:3 Give me that thing that I love (I'll turn the lights out)
 C1:2:4 Put your hands up, make 'em touch, touch (make it real loud)
 C1:3:1 (A-P-P-L-A-U-S-E) Make it real loud
 C1:3:2 (A-P-P-L-A-U-S-E) Put your hands up, make 'em touch, touch
 C1:3:3 (A-P-P-L-A-U-S-E) Make it real loud
 C1:3:4 (A-P-P-L-A-U-S-E) Put your hands up, make 'em touch, touch
 V2:1 I've overheard your theory "nostalgia's for geeks"
 V2:2 I guess sir, if you say so, some of us just like to read
 V2:3 One second I'm a Koons, then suddenly the Koons is me
 V2:4 Pop culture was in art, now art's in pop culture in me
 C2 (see C1:1:1 through C1:3:4)
 B1:1 (touch touch touch touch now ooh-ooh-ooh-hoo (repeat)
 C3 (see C1:1:1 through C1:3:4)
 Outro A-R-T-P-O-P

Lyrics from www.azlyrics.com/lyrics/ladagaga/applause.html accessed August 29, 2014

Fig. 1 Lyrics to Lady Gaga's *Applause*

that there are three lyrically identical choruses. In addition, each chorus included three different subsections, and individual analysis of each line within the chorus subsection took place before being compared to the subsequent lines within the subsection. Due to the repetition of some of the lines, a combination of lines was analyzed (e.g., C1:1:1–3 and C1:1:4–5). We then compared each subsection in sequential order (i.e., C1:1:1–4, C1:2:1–4, and C1:3:1–4). Finally, we conducted combinational analyses across all the three choruses (i.e., C1, C2, and C3) in a sequential order. The final combinational analyses evaluated the verse to chorus (e.g., V1 and C1), and all verses and all choruses sequentially in a whole-song analysis.

We interpreted³ verbal operants and their subtypes to produce a more in-depth analysis. Verbal operants and subtypes analyzed included mands, duplicates, echoics, copying text, mimetics, codics, taking dictation, textuials, intraverbals, tacts, extended tacts, generic extensions, metaphorical extensions, metonymical extensions (including synecdochical and solecistic), nominations, and abstractions. We also considered audience and stimulus control variables in our interpretation.

We completed the analysis by considering the song's instrumental component and used all analyses to attempt thematic interpretations. We then conducted a post-hoc exploration of outside sources to evaluate the veracity of our interpretations. This confirmatory analysis was conducted after the assignment was graded, because the project was evaluated on the use and understanding of the verbal operants, and not on perfect correlation to the song's true meaning.

³ As we cannot identify conditions that resulted in each verbal operant's production, we are at best able to guess what verbal operant might be in effect through this topographical analysis.

Fig. 2 Strategic combinations

Results

Verse 1

I Stand Here Waiting for You to Bang the Gong

Consistent throughout the analysis, metaphorical properties are identified in each line. Results are based on attempts to identify this extension by comparing the line to its surrounding lyrical segments. In this first line, the gong is identified as evoking two possible responses: (1) the gong signals the end of her career or (2) it signals the beginning. For the former, it is possible the line's meaning is derived from *The Gong Show*, in which a gong's sound terminated contestants' performances (McKee [n.d.](#)).

Opposing this meaning is the idea that in many cultures, a gong signals the beginning of some event; for example, the opera gong in Chinese operas signals the entrance of players and identifies specific points of the play (Gong n.d.).

To Crash the Critic Saying, “Is It Right or Is It Wrong?”

V1:2 completes V1:1 by stating the gong is in relation to critical judgments about her work. From a verbal operant standpoint, V1:2 provides the listener with details regarding the characteristic reinforcement that would eliminate the influential variables producing the mand in V1:1. The mand now states that a gong crash (a metaphor itself) is required to deal with critics. But how the critics are dealt with requires further analysis. In one meaning, the gong crash might be a competing stimulus to critical reviews, making it unlikely that Lady Gaga can hear critiques of her work. The other possibility is that the gong is a terminating stimulus, which can make the mand spanning V1:1–2 read “Stop others from criticizing my work.”

The line combination of V1:1–2, when analyzed on its own, has a different meaning than the individual line analysis. Each line has two possible meanings, neither of which can be deduced from the lyrics without additional details. Lady Gaga leaves listener responses variable, and the listener is not sure if Lady Gaga is saying she wants to ignore but allow, or end the criticism.

If Only Fame Had an I.V., Baby Could I Bear

V1:3, like V1:1, is difficult to analyze independent of the subsequent line (V1:4). Specifically, “fame” is a tact of an unknown number of particulars related to Lady Gaga’s career (e.g., recognition, fan base, money, awards). That fame is to stand for other particulars makes this line a metonymical extension.⁴ A metonymical extension (i.e., metonymy) substitutes one tact for another tact that frequently accompanies the former (Skinner 1957, pp. 99–100). Fame also likely serves as a metaphor for “The Fame,” which was the name of Lady Gaga’s first major album. The success, however defined, that accompanied that release is thus missing from the present. Fame—whatever it means—is necessary for Lady Gaga.

In medicine, an I.V. provides medication, sedatives, hydration, and so forth. Another similar meaning of this phrase relates to drug dependency. Intravenous drug administration might produce quick results, and this line evokes responses regarding the drug addict who needs an immediate “fix.” Lady Gaga was undergoing a major surgery and recovering while she was writing this song, and the metaphor might therefore have real-world connections to fan support being an analgesic (e.g., Wass 2013).

Being Away from You, I Found the Vein, Put It in Here

This verbal operant, extending from V1:3–4, is a multiple tact and intraverbal with the last phrase as a request (a mand subtype). She states she found the vein, a tact, while the reference to a vein also acts as an intraverbal to the I.V. reference. As discussed, Lady

⁴ Technically, this is a synecdochical extension of the metonymical type, but we will refer to the metonymical extension throughout as the umbrella term (cf. Skinner 1957, pp. 99–100)

Gaga wrote *Applause* while on leave from performing. While being away from performing, and thus her fans, she found a source of connection to them through writing this song (i.e., the vein is a metaphor for that connection). The mand, “Put it in here,” is a request for the I.V., or the connection, to continue because it is preferred to its absence. Metaphorically, her connection to her fans is an addiction.

It is appropriate here to remind the reader that we have identified two broad meanings in the song *Applause* (the artist taking control; art-as-artist). Finding two (or more) meanings is consistent with the claim that Lady Gaga expertly incorporates metaphorical extension in her work (Romm 2012). Therefore, each line, line combination, and each song may evoke multiple listener effects. While V1:1–2 made it difficult to provide evidence for the two conclusions, relating them to V1:3–4 permits more clarity. Consider that in the first verse, we can identify the beginning artist who is unsure or wary of criticism and wants it to be removed. The new artist faced with such criticism must come to better control his or her medium if one is to continue to hold such a title (i.e., artist). As lacking control is aversive, identifying a solution to the problem can bring a sense of relief (e.g., V1:3–4). In this sense, fame as metonymical extension relates to success had when one has produced art that is appreciated.

In relation to the analysis of the artist gaining control, fame, however defined, was initially manded in magical or superstitious form (i.e., “If only fame were an I.V.”). Such manding is similar to wishful thinking (Skinner 1957, p. 49). However, the artist, once she or he gains control over the medium, can gain greater control over the art’s particular effects.

In terms of art-as-artist, we find that art is appreciated only when an audience is present to tact the work as being art. If fame is seen as a metonymical extension for Lady Gaga’s fan base; then, the metaphor appears to work in this sense. Critics might not endorse the art, but the critic is not the only source of acknowledgement.

Chorus 1

C1:1:1–3 repeats the word “applause” five times. In Chorus 1, C1:1:1–3 take on tact characteristics, and C1:1:4–5 refine the tact by stating that cheering and screaming are aspects of the applause. As line C1:1:4 and C1:1:5 are being sung, a drum line starts that resembles the rhythmic characteristics of clapping. The music suspends momentarily and resumes with the start of C1:2.

C1:2 consist of a series of mands. C1:2:1 is a request, though the listener is assumed to know the characteristic(s) of the reinforcement: “the thing that I love.” C1:2:1 is followed with an immediate response by Lady Gaga, shown in parentheses in Fig. 1. Here, turning the lights out has two possible meanings: (1) the end of a performance or (2) nighttime-related occurrences. In the first identified meaning, turning the lights out signals an upcoming encore should the audience request, by applauding, the artist to return to stage one more time. As for the second, it is possible she is referencing nighttime, which could be related to sleeping or to sexual activity. It is more likely a reference to sexual activity, because she has made similar references in other songs (e.g., *Poker Face*; Romm 2012). Specifically, the sexual act is made comparable to receiving applause, being the height of the ecstasy. Thus, C1:2:2, like C1:2:1, is a mand. However, C1:2:2 takes on more command-like characteristics in that Lady Gaga is no longer offering compensation for compliance, and thus, one may infer, potentially

incorrectly, that a threat is implied. The instructions in C1:2:2 are clear: to raise your hands up and clap. Lady Gaga further refines the putative command by noting that the clapping should be of a greater magnitude. Again, C1:2: could imply that her fans need to clap louder for an encore, or it could be related to advances in a sexual act (this is in line with Verse 1's drug-euphoric metaphor). What is contacted through fame and applause are pleasurable emotional responses, whatever they may be.

Finally, the last subsection of the chorus, C1:3:1–4, repeats C1:2:2 while spelling out the word “applause.” The lines in C1:3:1–4 are repeated to provide additional mands to sustain the behavior of clapping throughout the chorus. These lyrics are accompanied with simultaneous hand-clapping sounds. During this portion of the song, Lady Gaga includes the subtle, yet audible, spelling out of “applause.” Much like the musical accompaniment to be analyzed later, spelling “applause” in the song is perhaps more supportive of the operant (i.e., mand) rather than being an independent, isolated tact.

Verse 2

I've Overheard Your Theory “Nostalgia's for Geeks”

As in Verse 1, Verse 2 of *Applause* comprises several related metaphorical extensions. Thematically, the verse addresses Lady Gaga as art itself and explores how her artistic behavior has been shaped. V2:1 might reference Lady Gaga's experiences with criticism. Borrowing from the relational framing literature, we can build an argument that experiential avoidance of aversive conditions may lead to worsening conditions, or at least fail to permit us to move forward (see Törneke 2010, e.g., pp. 148–149). Rather than avoid her past, Lady Gaga confronts it, accepts it, and in doing so, moves forward. In this sense, nostalgia is a reference to the past. The insult (i.e., “[is] for geeks”) then suggests that some have cautioned Lady Gaga to not analyze the past, favoring instead to invest those efforts into future work.

I Guess Sir, if You Say So, Some of Us Just Like to Read

Grouping V2:1 with V2:2, we find further support for the arguments we put forth regarding V2:1. Specifically, “read” acts as a metaphor and is intraverbally related to “geek.” Stereotypically, a “geek” refers to intellectual rather than social pursuits, particularly in science or mathematics. As a metaphor, V2:2 might refer to her learning to deal with criticism from others and the value she places on analyzing past successes and failures. By “reading,” Gaga might be interpreting what she did or did not do well, using this information to shape her behavior with respect to her art. By reading into critiques of her past, she more effectively creates and controls art, in the sense that what is produced is more readily accepted (though perhaps only by her fan base). What is important is that Lady Gaga finds use in an analysis of historical acts, even when others may endorse a different perspective.

One Second I'm a Koons, then Suddenly the Koons Is Me

V2:3 references Jeff Koons, a famous American artist and sculptor. Lady Gaga used “Koons,” the name of a member of her creative team, as a metaphor for “art.” Of

concern is how the listener responds to “Koons.” Consider the following two reinterpretations from V2:3: “One second I’m the artist (like Koons), then suddenly the art (Koons’ product) is me,” or “One second I’m the art (Koons’ product), then suddenly I’m the artist (like Koons).” Here, we can consider Koons-as-artist and Koons-as-art (i.e., his products) for our two metaphors. These two metaphorical extensions, when used in Lady Gaga’s song, are metonymical. Skinner (1957) notes that metonymical extensions are unidirectional (pp. 99–100). However, Lady Gaga’s use of Koons as interchangeable metaphors in a reciprocal nature shows a possible exception to Skinner’s statement. Here, the part represents the whole, and the whole represents the part. Koons might be his art, or his art might be him. A slight reinterpretation retains Skinner’s formulation in that Koons-as-artist may be metonymical in the sense that Koons is part of the pop art community and thus, helps bring pop culture to her music (cf. V2:4).

Pop Culture Was in Art, Now Art’s in Pop Culture in Me

V2:4 further emphasizes the art-as-artist theme by expanding V2:3. In V2:4, Lady Gaga continues the reciprocal relation between art and artist. That is, she states that pop culture was once in art (e.g., Andy Warhol), but now has come full circle, so to speak, by incorporating art into pop culture through her work. There are, like elsewhere, multiple meanings to these statements. Consider that Lady Gaga is bringing art to pop culture through fashion and more traditional art forms like sculpture and painting (see the Koons references above). More literally, Lady Gaga commissioned Jeff Koons to create a sculpture of herself. The lyrical metaphor takes on literal meaning when recognizing that the sculpture of Lady Gaga (art) is now in pop culture (her album cover, which portrays the sculpture).

Verse 1 and Verse 2

The instrumental portions of both verses, V1 and V2, are different from the rest of the song. During both verses, there is a faint “Ga...Ga...” accompanying the lyrics. The chanting might represent her fans cheering and shouting, “Gaga! Gaga!” In this sense, the chanting of “Ga...Ga...” might help evoke responses related to the cheering crowd. However, we consider the chanting to be supportive to the overall analysis rather than a unique contribution to song meaning.

Verse 1 and Chorus 1

In the earlier analysis of V1, we considered that criticism is aversive to the artist. The artist can remove aversive criticism by having control of her artwork, thus bringing about alternative responses from her critics. Lady Gaga’s art is close to her fans; therefore, to control her artwork is to hold influence over the audience. C1 provides the artists’ first attempt to gain control over one audience—her fans—through manding. The instrumental accompaniment transitions from the drum rhythmic techno-beat during V1 to a gradually escalating clapping-like drum track. This drum track culminates in a near cacophony of music with C1:2:1 and extends until C1:3–4. At this point, it is still unclear if the artist is trying to address the

critics through her fans. It is possible that the critics will shift their opinion of her if they see the interaction between the artist and his or her listeners. In other words, by avoiding interaction with the negative audience (critics), Lady Gaga may achieve greater overall reinforcement through focusing her efforts on her art, which is for her fans.

By comparing Verse 2 to Verse 1, we witness the song's evolution. Verse 2 displays a more controlled Lady Gaga. A shift from a state of chaos to control over her medium can be observed in the second verse. Here, we observe a shift from her chaotic state of criticism and fame addiction to indifference. She is behaving more confidently and demonstrates greater audience control. This theme is supported in later versions of the chorus.

Verse 2 and Choruses 2 and 3

C2 and 3 are compared together against V2 as there is no intervening verse between these choruses. There is, however, a bridge between C2 and 3, although its metaphorical interpretations are limited, and thus not included in this analysis. Thematically, the transition from V1 to V2 (see above) in the sense of the artist taking control is mirrored in the transition between C2 and C3 (and C1 to C2 to C3, see below). As we explored these relations above, it would be inappropriate to repeat them here. The point remains, however, that changes in lyrics (V1 to V2) and musical accompaniments (C1 to C2/C3) are supportive of the song's meaning being related to one of artistic growth, particularly in controlling one's medium (and its subsequent effects on an audience).

Chorus 1, Chorus 2, and Chorus 3

Lyrical interpretations of the three choruses are identical. However, the instrumental portions that accompany each chorus are different, C1 and C2 transition from their previous verses with the same slow beat of drums. While C1:1 is accompanied with only drum beats, C1:2 includes clapping hands with the drums. Distinct from the first two choruses, the transition into C3:1 is not accompanied with the slow beat of drums. Instead, C3:1 immediately starts with clapping hands and escalates to cheering and screaming. It is noteworthy that there is no verse prior to C3; only a bridge is present between C2 and C3.

Progressing from C1 to C3 with respect to the drum track further supports the argument that at least one meaning of *Applause* comprises transitioning from amateur to professional artist. Consider that the drums move from a mechanical-sounding steady beat to the more organic production of clapping. Such evolution might represent the transition from an artist unsure of herself to one who controls her medium. While the drum/clap-beat present in the choruses might require additional analyses to determine its verbal nature (if, indeed, such an analysis is possible), it should not therefore be excluded from the current analysis. Such additional analyses can advance our conceptualization of verbal behavior and how nonverbal stimuli alter or support meaning. In other words, additional efforts will be needed to explore a potential verbal behavior conceptualization of music.

Discussion

A class assignment to interpret the song *Applause* by using various verbal operants resulted in a general method of song analysis. While we are unable to make any claims as to the utility of our methods in dissecting song meaning as compared to other approaches (e.g., lay interpretations), we rest our arguments on the ability of these methods to aid students in contacting new means of exploring Skinner's verbal operant taxonomy with a secondary goal of accurate song analysis.

Examining each line led occasionally to mixed, vague, or incomplete interpretations. For example, V1:1 is uninterpretable on its own as no supporting referents are made to how the banging of a gong should be responded to. However, through several combinational analyses, we identified two themes that carried throughout the song: (1) the artist taking control and (2) artist-as-art. The first theme, the artist taking control, takes form as the song progresses. At the outset, the artist struggles with her responses to criticism. Fame reduces the aversive properties correlated with criticism and is thus sought after with great fervor. In the second verse, the artist becomes dismissive of criticism, and relatedly the efforts involved with appeasing the critics, thus avoiding or escaping a negative audience (i.e., an audience in which punishment is likely for a particular response class). Instead, she sees herself as an artist who is honing her craft in which success is measured in influencing listener responding. The evolving chorus's musical accompaniment is referential with respect to a greater command of her audience.

The artist-as-art theme is demonstrated in multiple verses (e.g., V2:2–4). These verses consider the reversible nature of artist-as-art with Jeff Koons and metonymies (e.g., art and pop culture; see Skinner 1957) and by stating the dual role of artist-as-art in altering performance based on feedback (i.e., V2:2). With this theme, Lady Gaga used metonymical extensions to form herself into art and the art into herself. Thus, within each verse, there is an interplay between two ends of a spectrum that become circular.

Confirmatory Analysis

While it was not possible to conduct the current analysis without noting some information known to the authors (e.g., Lady Gaga's hip surgery), we attempted to limit fact-checking our translation as we proceeded. The purpose of avoiding interpretive confirmation during the analysis was to find how close an analysis based on our methods would come to identifying the correct metaphorical extensions in *Applause*. With our analysis completed, we tested our interpretation against Lady Gaga's explanations for the song via Twitter posts (Lansky 2013) and interviews (Blatt 2013).

Lansky (2013) collected five of Lady Gaga's Twitter posts from September 18, 2013 that pertained to the artist's explanation for *Applause*'s lyrics. As cited in Lansky, Lady Gaga writes,

'Applause' is a very meaningful song to me, because it addresses what many think of 'celebrities' today, that we 'do it' for the attention. But some of us are 'artists' in this group called 'celebrity,' & what we create doesn't live on unless theres [sic] an audience to remember it. So I may need your attention at first, so I

can sing you my song. But its [sic] the ‘Applause’ after that let [sic] me know if I’ve entertained you. Entertainment makes people happy, I live for the ‘Applause,’ to know I’ve spread that. I live to hear you cheer, to just be a part of that. I believe in show business. The ‘Applause’ is what breeds that thing that I love. When I know i’ve [sic] made you happy. When I know it was good.

Although Lady Gaga does not state our precise interpretations, her explanations are consistent with our first interpretation. Specifically, Lady Gaga’s Twitter posts discuss the feedback received via her fans that have shaped her artistry. Our second interpretation is neither directly supported nor disconfirmed. Namely, Lady Gaga refers only to her song as being an artistic creation, and no reference to herself as art is provided. To our knowledge, no credible information is available to confirm or contradict our second interpretation.

Lady Gaga’s *Applause* appeared on her third studio album and was written while she was on break from touring due to hip surgery (Blatt 2013). Similar to her previous work, such as *Poker Face*, the lyrics for *Applause* consist of complex metaphors that can be further analyzed to identify the song’s theme (Romm 2012). Given the complexity of interpreting Lady Gaga’s work, the instructor selected this song to provide a challenging unique class assignment to help students explore Skinner’s taxonomy of verbal behavior. The educational benefits of this approach are discussed below, as are areas for improving our initial analysis.

Educational

As a catalyst to promote further exploration of the verbal behavior taxonomy, the analysis of *Applause* proved successful. Students contacted many sub-classifications of verbal behavior infrequently explored in the literature (e.g., metonymical extensions; Sautter and LeBlanc 2006). Consistent with Walczak and Reuter (1994), students involved in this class project noted anecdotally that the project was enjoyable and educational. However, both students stated they would have preferred an alternative song. Although the instructor selected *Applause* as a challenging exploration of verbal operants, other instructors might permit students to select their own songs. Instructors should be cautious in allowing any song, because some lyrics might provide minimal opportunity for engaging analysis.

The present analysis is not without its limitations, and several areas of improvement for classroom use are identified. First, our analysis was limited to the work of two students who spent several weeks analyzing and re-analyzing lyrics with the help of their professor. The students were selected by the professor to complete this project, because he believed they would be successful in the analysis. Others (e.g., Walczak and Reuter 1994) have instead used classroom discussions as the point of contact with interpretation after students listened to the selected song and read its lyrics. Although discussions based on song lyrics have centered on concepts (e.g., Daehler and Miller 2004; Leck 2006; Walczak & Reuter), a discussion-based approach could be adopted to teach the verbal behaviors taxonomy as it relates to lyrical interpretations. Students should be cautioned not to seek preexisting lyrical interpretations, for fear of hampering the in-class analytic process. We also believe that any class-based interpretation should be student-led. The instructor provides feedback on the accuracy of verbal operant

understanding and use, and encourages exploration with verbal operants not yet incorporated in the discussion. Alternatively, a class-based discussion might benefit individual lyrical analyses by first providing a model by which to conduct such investigations.

Second, what effect verbal behavior-based interpretations of song lyrics have on student understanding and subsequent application is yet to be seen. Pre- and post-tests between groups with and without an exercise in lyrical analysis might prove useful to gauge whether this instructional technique works to refine student understanding of the verbal behaviors taxonomy. Additional interest exists in collecting social validity measures, particularly with respect to any automatic reinforcement contacted from completing the exercise, to help justify the efforts required in managing interpretations as assignments.

Third, our analysis was limited to only verbal operants. There is no reason that the entire range of behavioral principles could not be included. For example, our analysis of *Applause* might have been extended by discussing the potential S^D , S^A , and S^{DP} (see O'Donnell 2001) characteristics of critics and fans, motivating operations related to I.V. administrations, and any emotional (i.e., respondent) reactions to lyrics, music, and combinations of music and lyrics, to suggest a few concepts and topic areas that are not specific to verbal behavior. By including behavior-analytic topics that are not specific to verbal behavior, an understanding of verbal behavior's interrelation with nonverbal behavior could be better addressed.

Finally, our analyses are limited in that they are speculative at best, as we had no direct access to the original conditions under which the song was produced. As Skinner (1957) noted of poetry

It is too late, or course, to reconstruct the process of composition with any hope of accuracy. We do not know the order in which the parts or a poem were first emitted or written down, what changes were made, how many opportunities for thematic connections were provided, or in what order self-echoic or other formal sources of strength could be effective. (p. 249)

The same can be said of musical work, particularly as one considers that song refinement can incorporate the guidance of many individuals at different stages of the song's development. Thus, we suggest the methods proposed here remain as a classroom exercise to aid in learning about verbal operants and not to be taken as any particular proof of song meaning, except as confirmed by reliable sources afterward.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

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