Presence Considerations In Music Production

Jack Klotz, Matthew Lombard Temple University {jklotz@temple.edu, lombard@temple.edu}

Abstract

This demonstration by a music industry professional illustrates a series of considerations in the producing and mixing of commercial music related to presence. The goal is to stimulate further research and to work toward the creation of recommendations for music industry professionals so that they can increase audience members' sense of connection with music and performers.

1. Introduction

Music recording and mix engineers, by and large, do not think about presence in their work, at least not in the sense of the term that scholars use in relation to mediated communication.

When it comes to aesthetic considerations in music production, engineers and producers may think along the lines of establishing the listeners' perspective relative to the music; creating or recreating a space in which the music seems to be performed; capturing a rough live, or creating a refined layered, performance; and using musicians or recreating instrument sounds with technology. Each of these will impact the sense of presence, defined here as a sense of connection with music and performers that includes perceptions of physical space, social interaction, and realness or genuine-ness – that is felt by the listener. There are several techniques that are employed by sound engineers during the recording process (the initial "gathering" of the various elements), and more importantly during the mixing process (the final "assembly" of those various elements) to accomplish these goals.

2. Establishing Perspective

In the mix engineer's lexicon, establishing the listeners' perspective is largely a matter of determining where to place the listener relative to the "performance" to which they're listening. The recording engineer will establish the listeners' perspective by their microphone placement and, in instances where multiple microphones are used, the mix engineer determines the listeners' virtual position by manipulating the various elements utilizing three primary tools: panning, reverb and equalization.

The mix engineer uses *panning* controls to position the various sonic elements in the sound field. In the case of stereo, the pan control works like the balance control on a

stereo, shifting volume from left to right in a continuous panorama. In panning, there are two primary considerations: listener perspective and width of the sound "image". In a typical pop music mix, the mix engineer will position the individual pieces of the drum kit (bass drum, snare, tomtoms, etc.) in a specific location in the panorama based on whether the engineer wants to position the listener in the virtual audience, looking at the drummer, or behind the drum kit, in the drummer's seat – placing the listener, if only subconsciously, inside the performance. Whatever the perspective of the listener, the image can be very wide and dramatic or more narrow and natural – a roll across the tomtoms, for example, could seem to fly from one side of the room to the other, or be made to sound as if the drums are set up in a single location in a large room.

A good deal of recording is done in acoustically controlled studios. Some are designed to have a desirable ring or reverberant tone (referred to as *live* rooms), but many are designed to avoid that reverb and are acoustically *dead*. The engineer chooses the style of reverb on a continuum that ranges from natural-sounding, realistic emulation to polished, dramatic, artificial sounds. Reverb defines not only the size of the virtual room (more reverb suggests a larger space), but the performers' locations within that space (in conjunction with panning, above) and the listeners' apparent relative distance from the performers (in conjunction with relative volume in the mix and use of equalization, below).

Equalization (EQ) allows recording and mix engineers to alter the tonal quality of sounds by boosting or cutting the volume of a given frequency. Engineers tend to think in terms of increasing "warmth," adding "punch," making a sound "fatter," and other descriptive terms. EQ can also be one part of creating a sense of closeness or distance. The further away from a sound one is, the less bright (dominated by high frequencies) it will sound; and the closer one is, the more bright it will sound. EQ can thereby be used to manipulate brightness, increasing it to create a feeling of closeness, reducing it to create a feeling of distance.

3. Intimacy and Perception of Content

A comparison of two recordings of the pop song "...Baby One More Time" illustrates the considerations above and their effects on listeners, along with other manipulations discussed below. The 1999 hit version by Britney Spears is a studio production full of electric instruments, synthesizers, drum machines and a wealth of overdubs and studio "tricks"; and the mix features wide panning and lots of big, lush reverbs. A later recording by the British alternative rock group Travis is performed live, in front of an audience, with simple, non-electronic instrumentation; no overdubbing or added reverb; and no panning, and sounds rough, unpolished, and natural. The Travis version is often described as more "real" or "authentic" than Spears' more "manufactured" or "artificial" version. In presence terms, the Spears version seems less intimate, more distant, less connected.

3.1. Studio vs. Location

In presence terms, the difference between a studio and location recording is not just the (potential) difference in the apparent size of the space and locations of the listener and performer(s), but the degree to which the performance seems "alive," "real," and "heartfelt," all of which impact the degree of connection the listener feels with the music and performer.

A studio recording of "Rock n' Roll All Night" by the 1970s rock group Kiss had been unsuccessfully marketed as a single, but one year afterward, the "live" version proved to be their breakthrough hit. The performers' energy is significantly improved compared to the studio version, making the overall sound more compelling, and creating a sense of being present at the concert and a heightened feeling of social presence (parasocial interaction [1]) for the listener.

3.2. Tracking & Overdubbing vs. Recording "Live"

In music production parlance, recording performers "live" does not necessarily refer to capturing a concert performance. It also refers to studio recordings where musicians perform together. The other approach to studio recording is called overdubbing and involves performing each instrument separately and layering them together.

According to legendary record producer Sir George Martin, "In order to make a good record, you have to have fun doing it – that feeling is passed directly to the audience. It can't be faked or inserted after the fact with any piece of technology. It's either there or it's not" [2]. Excessive overdubbing is likely to reduce the sense of fun among the musicians and thereby reduce presence for listeners.

Fun is evident in the Beatles' recording of "Twist And Shout" from early 1963, which was recorded in one take with all members of the band playing and singing together in the studio – a performance given at the end of a 12-hour day of recording with the lead vocalist, John Lennon, suffering from a bad head cold. Conversely, Steely Dan's 1976 hit "Peg" reveals a "perfect" performance, instrumentally and vocally. While still a very good record, it lacks the energy, the "fun" and the level of connection of "Twist And Shout." The production is "slick" and the recording is "clean," but this lessens the sense of genuineness.

3.3. MIDI vs. Musicians

Removing human musicians from the process reduces even further the possibility for energy in the performance. MIDI makes it not only possible, but relatively easy for a composer to perform all of the parts of a composition him or herself, exactly as they hear them in their mind's ear. The trade-off between control and energy can be heard in two Stevie Wonder songs, 1976's "I Wish" which was done "live" in the studio by musicians playing instruments, capturing the social interaction of the musicians, and "That Girl" from 1982 performed by Wonder alone, using MIDI.

Conclusions

Professionals in the recording industry use a variety of sophisticated tools and techniques that create for listeners a sense of 'being there' in real or created recording spaces in which they react and even seem to interact with genuine or 'real' music and performers. These recordings strengthen the sense of connection listeners feel with performers as well as their music. In commercial terms, when fans can connect with these artists by listening to their recordings they should be more loyal customers, which can lead to greater commercial success and longevity for such performers.

There are intriguing opportunities for research in this area. One possibility would be to test market various versions of the same song, each using different combinations of the approaches described above, with listeners in various demographic groups, and measure different aspects of presence, emotional reactions to the music and performers, and purchase intentions.

If presence scholars were to develop guidelines for professionals in the recording industry, the suggestion could be to record on location rather than in studio, have the performers all perform together rather than using overdubbing, and reduce dependence on computercontrolled synthesis whenever possible and instead make use of performing musicians. When mixing, engineers should lean away from the "larger than life" approach of exaggerated panning, bright EQ and large, bright reverbs, and more toward the "intimate" approach of narrower panning, warm EQ and smaller, warmer reverbs. In short, by either capturing music in or more accurately replicating real spaces and by embracing the imperfections that make a musical performance human, one increases the possibility for one's recording to make human-to-human contact.

References

- [1] Horton, D., & Wohl, R. R. (1956). Mass communication and para-social interaction: *Observations on intimacy at a distance. Psychiatry*, *19*(3), 215-229.
- [2] Martin, George. (2000). The Making of Sergeant Pepper. Lecture given at the Sanders Theater, Harvard University on October 12. Cambridge, Massachusetts, USA.