

REFLECTION

Summary

For this research, I set out to determine a particular compositional device's degree of subliminal affectivity on music listeners, hopefully learning whether or not it elicits any sort of emotional (or otherwise) response. For the purposes of this study, I have termed this device "the Sedative Effect".

For as long as I have been listening to music, I have always been drawn to, more than anything, songs that contained this particular device, even when I was far too young to know what it was, let alone attempt to explain it. It could be said that the only reason I have a musical career at all was my personal pursuit of this device. From picking out Sedative progressions on the piano at tender ages to the embarkation of a degree in music composition to uncover the mystery of its affectivity, I can safely say I've been chasing this effect my entire life, constantly wondering if I might be the only crazy person in the world who hears it in the profound way in which I seem to. It has gotten to the point where at least 95% of the music I voluntarily listen to contains Sedative progressions in one way or another.

Could some people, like myself, be naturally wired to respond to this particular musical device? Are all people? Does it affect listeners in a certain way, if at all, and if so, can the effects be measured as well as harnessed for specific arms of the music industry (increased efficiency in playlist curation, A&R, music creation, music therapy, more impactful synchronization with visual media)? This study was conducted to answer these burning questions that I have been asking myself for years.

The essential hypothesis of the study: if people hear the Sedative Effect within a piece of media alongside an equivalent piece of media without the Effect, then people are more likely to favor that which contains the Effect due to its unique sound and sonically cathartic

nature. I've learned now that this hypothesis IS indeed true, but at the moment, it does not seem to be with a *majority* of people. Future studies will surely be conducted for additional certainty.

Process

This research was conducted in three parts:

- Part One: Twenty participants were given two personalized playlists on their preferred DSP centered around their favorite genres; preferences were collected by survey. To ensure there would be no subconscious bias (Playlist 1 vs. Playlist 2; Playlist A vs. Playlist B; "first" vs. "second", etc.), each playlist was named after one of each participant's favorite foods, which were also learned via survey. In one playlist, every song listed either heavily contained and emphasized or was entirely based upon one or more Sedative progressions, and in the other, no Sedative progressions were present in any of the songs at all. No two playlists made were identical. The participants, after listening to both playlists in their entirety, were then asked to choose which playlist they overall preferred, and briefly explain why. The purpose of this survey portion was to discover whether or not the continued use of songs containing SIV progressions in a one playlist could influence the listener to favor the playlist overall, the hypothesis being that if one playlist contained only songs containing the Effect and the other contained none, listeners would then find themselves more mentally or emotionally impacted by, and thus favor, the SIV playlist, due to its peculiar sonic appeal.
- Part Two: The same twenty participants surveyed in Part One were asked to watch a scene from the film *Interstellar* as well as a scene from the film *Inception*. Both movies were directed by Christopher Nolan and scored by Hans Zimmer, and for

both movies, Zimmer wrote an iconic theme to play during pivotal scenes. The *Inception* score is built exclusively on an SIV progression, while the *Interstellar* score is not. After watching the two scenes, participants were asked to choose which scene appealed to them most, and explain their reasoning. The purpose of this survey portion was to determine whether or not the use of SIV progressions within a film score could influence an audience members overall reaction to the scene or film they are watching, the hypothesis being that if the two were presented alongside one another, the scene with the SIV score would register as a more impactful scene, due to the “emotional balance” induced by the Effect.

- Part Three: Six artists who were known to commonly utilize Sedative chord progressions were contacted to gain further insight into their motivations behind using these progressions. These artists included the Dandy Warhols, Fly Golden Eagle, Painted Palms, Django Django, Portugal. The Man, and Broken Bells. These particular artists were chosen due to the fact that each of them has at least one album on which SIV progressions are used in at least 50 percent of the listed songs. Painted Palms was the only group to respond, and members of the group were in turn asked in depth about the composition of their 2015 album, *Horizons*, on which 70 percent of the songs used SIV progressions. The purpose of this portion of the study was to determine whether or not and to what extent SIV progressions are knowingly and purposefully used within commercial music to achieve desired effects.

Results and Expectations

- Part One: Out of the two playlists given to participants, the Sedative and non-Sedative, only 40% of participants seemed to favor the Sedative playlist overall.

There were some who did in fact like more songs off their Sedative playlist, but chose to factor the overall flow of the playlist into their final decision. No participant specifically stated the use of Sedative chord progressions in their reasoning for choosing one playlist over another, however one participant noted that songs on their SIV playlist seemed to contain “simpler” chord progressions that sounded more “Western”.

- Part Two: A majority of participants ultimately chose the Sedative (*Inception*) scene. While the score was often cited as a reason for participants’ final decision, only two participants who chose the Sedative scene specifically cited the chord progression used in the scene. What’s more, each of these participants also chose their Sedative playlist over their non-Sedative playlist, so there is some consistency there, which is all I was hoping for (even if it was only 10% of respondents!)
- Part Three: I conducted an in-depth analysis of the Painted Palms album *Horizons* and sent it to the group. In return, their producer, Reese Donohue, gave me an even more in-depth confirmation of what I had assumed, which was that there was conscious and intentional motivation to use the Sedative Effect in their work. Even better, Reese provided me with the perfect way to describe the impact the Effect has on their songs and every song it’s used in: its ability to bring “emotional balance” to the music.

Initially, I expected results that would more closely resemble my hypothesis, that would more closely resemble *me*, but that is not necessarily what I ultimately received. It is indeed possible that had I conducted the research in different ways, I might have gotten the answers I was looking for, but it is good that these mistakes were made, and all I can do at this point is learn from them. That being said, the Painted Palms response was all of the

motivation I needed to continue this research, because now I know for sure that at least one other person out there hears what I hear, to an extent, and that alone is sacred to me.

Next Steps

The ultimate goal is further exploration into this topic to the deepest possible depths. I look forward to continuing this research by developing additional research studies using methods both similar and completely different from those already used.

Method A: Giving participants a multiple-choice question, in which the answers are all segments of a particular song in their preferred genre. The song, ideally, would not contain much of the Effect at all, but would use it in specific moments that could easily lend themselves to isolation. One option would be the segment of the song containing the Effect, while the others would be segments of the song entirely void of it. Participants would then be asked to choose which segment appealed the most to them, and as a follow up, asked to explain the reasoning behind their decision.

Method B: Using an EEG (electroencephalography) monitor and tracking a participant's brain activity as they listen to the Effect. Numerous studies have been performed using EEGs to attempt to establish consensus on music's many diverse effects on the brain, and many of them have proven, in one way or another, music does in fact have an effect on our minds as well as our emotions. If the Sedative Effect registers on a subconscious level with at least some percentage of people, it's possible that its influence could be further proven by prompting a visual representation of its neurological effects.

Method C: Instead of two, participants could be given just one playlist, but one playlist containing an equal amount of SIV and non-SIV songs. Composing this portion of the survey in this way would offer two additional benefits: it would effectively save time, and alternating back and forth between SIV and non-SIV songs could make the playlist feel more

varied, thus reducing the possibility of a repetitive impression and perhaps make the playlist even easier and more enjoyable to listen to.

Contribution

I hope, if anything, this research will act as a sort of example that shows that someone is in fact looking into this topic in depth; I'm unsure as to how many people are as sensitive to the Sedative Effect as I am, but if there more out there, this research may be used to capture the attention of those people, as well as the attention of anyone who might be in pursuit of a similar or similar concepts.

If I can eventually prove the Effect is as influential as I personally believe, I can then carry this research with me, employing it in the ways I see it having incredible potential:

- Music Supervision: It's possible the hypothesized degree of subliminal influence the effect has could be used to affect an audience's perception of a film with just the chosen songs alone.
- Musical Composition/Production: The Effect could be an additional tool for composers and producers alike who might happen to be looking for a way to add more complexity to their music as well as a sense of emotional balance.
- Curation: Valuable knowledge was acquired regarding the different ways in which music consumers listen to playlists, and the proper techniques to formulate these playlists combined with the Effect could offer a sort of shortcut to make them more efficiently, as well as more impactful.
- Music Therapy: If, in a future study, it is determined that there is correlation between the Effect and particular reactions in the brain (particularly a feeling of catharsis or relaxation), it's entirely conceivable that use of the Sedative Effect would be a standard in "therapeutic" or "relaxing" music to reduce anxiety.

- Marketing: If the effect is eventually proved to have significant subliminal influence, it's possible that it would be highly effective in the area of sonic branding, giving businesses and advertisers who find a way to incorporate music with the effect into their campaigns a bit of a competitive edge.

Personal Impact

This research was incredibly rewarding. While I might not have ended up with the results I had expected, I can safely say that I have experienced a significant amount of growth throughout this entire process. I was desperately hoping for a concrete and solid answer to the questions I've been asking myself for almost as long as I've been alive, and that is not what I received in the end. What I gained instead might have actually been better and more valuable: a more nuanced way to look at people's differing preferences in both music consumption AND composition, and insight into why those preferences exist. I had to learn to let go a little bit. I had to step outside of myself and my incredibly strict preferences to acquire some insight into what is really going on inside of other people's minds when they listen to music. I didn't know that was something I wanted when I began this journey, but now, I consider it to be precious.

After the entire process was over, it was very easy to see what was done right and what was done wrong in each method. Though I do believe I did some things right, I'm even more thrilled about the mistakes I made, and I am incredibly excited to carry the lessons I learned from them into subsequent iterations of this research and do it the right way.