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Drugs and the Music Industry: How the Neurological and Visual Effects of LSD and Psilocybin Impact Creativity and Songwriting Abilities

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How Psychedelic Drugs and Music affect 5-HT2A

Because 5-HT2A receptors are believed to alter serotonergic function located in the auditory cortex, psychedelic artists may be more inclined to use their music to create unique experiences. Barrett et al. (2018) investigated the role of 5-HT2A receptor signaling in the neural response to the time-varying neural structure of music in a secondary analysis involving a double-blind, randomized design (p. 9941). Barrett et al. claimed that LSD and psilocybin have significant effects on the brain's perception of music, and that the 5-HT2A receptors are responsible for creating the subjective effects of psychedelic experience (p. 9940). Barrett et al. stated that twenty-five participants received one of the following: (P)trac with placebo before pretreatment with placebo (179 mg Mannitol and 1 mg Auroyl po), (L) treatment with LSD (100 µg po) after pretreatment with placebo (179 mg Mannitol and 1 mg Auroyl po), or (C) treatment with LSD (100 µg po) after pretreatment with ketanserin (40 mg po) (p. 9941). Barrett et al. found the study to suggest that LSD serves to support a deeper or more integrated experience of music (Figure 2), which could explain the wide range of emotional and cognitive effects that are encountered (p. 9946).

The Influence of Psychedelic Drugs On Creativity

Anderson et al. (2019) performed a study in order to determine whether microdosing with psychedelic drugs is related to changes in personality, mental health, and creativity (p. 731). Anderson et al. recruited participants from online forums such as Reddit as well as social media platforms such as Twitter and Facebook (p. 734). Anderson et al. indicated that the participants self-reported their microdosing behaviors and completed questionnaires concerning dysfunctional attitudes, wisdom, negative emotional openness, mind-mindedness, and mood, and that the participants also performed the Unusual Uses Test to assess their creativity (p. 732). Anderson et al. hypothesized that microdosing with psychedelics would lead to increased personal growth and wisdom, improved mood and mental health, and enhanced creativity (p. 733).

Anderson et al. found that microdosing with LSD and psilocybin resulted in decreased scores (based on the Dysfunctional Attitude Scale) on dysfunctional attitudes (b = 8.60, 95% CI = [12.48–4.80], z(56) = 4.49, p < 0.001, r = 0.92 (p. 733)). Anderson et al. noted that microdosing with LSD and psilocybin also resulted in higher creativity scores, with responses being more clever (b = 0.57, SE = 0.13, r(425) = 4.42, p < 0.001, r = 0.13), more uncommon (b = 0.50, SE = 0.15, z(427) = 3.42, p < 0.001, r = 0.14), and more creative (b = 0.74, SE = 0.16, z(425) = 4.69, p < 0.001, r = 0.20) than without the drugs (based on the Unusual Uses Test) (p. 736).

Conclusion

The 5-hydroxytryptamine 2A receptor, 5-HT2A, plays a wide variety of roles that promote brain consistency, with high concentrations of these receptors existing in the neurological, visual, and auditory pathways of the central nervous system. It appears that activation of this receptor tends to be highly correlated with human hallucinogenic potency, as well as a subset of music and musical perception. Psychedelic music has been characterized by feelings of derealization and mysticism, and artists who have experienced with LSD and psilocybin have claimed to have an expanded imagination, along with a heightened sense of mesemism. The research presented in this study explored the relationship between LSD and psilocybin and the engagement of the 5-HT2A serotonergic receptor in the brain, and more remote (b = 22.94, 95% CI = [18.50–27.39], z = 4.49, p < 0.001, r = 0.20) than without the drugs (based on the Unusual Uses Test) (p. 736).

Works Cited


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