An evaluation of the role of mystical experiences in transpersonal ecopsychology

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Abstract

This paper explores both transpersonal psychology and ecopsychology individually and in conjunction, followed by an inspection of their relationship with mystical experiences and the impact of these within a transpersonal ecopsychological context. Specifically, nature as a trigger for such experiences is examined, alongside an analysis of the effect of these nature mystical experiences on an individuals' ego-boundaries and their psychological well-being. A special case is made for the re-emerging study of psychedelics – as positive agents of mental health, wellbeing, spiritual and creative growth, and social change – as inherently belonging to a transpersonal ecopsychology. The final thoughts will be based upon a more critical evaluation of these key concepts and their implications in modern psychology.

Keywords: Mystical Experience, Transpersonal, Ecopsychology, Psychedelic, Nature-Relatedness The term transpersonal ecopsychology can be identified as two individual concepts connected by underlying theory and application. Transpersonal psychology is defined as the study of mankind's highest potential through the exploration of altered states of consciousness in which their spiritual, unitive and transcendent nature is recognised and sought to be understood (Lajoie & Shapiro, 1992). It outlines the notion of self-transcendence in altered states of consciousness and their accompanying mystical experiences within a modern psychological framework (Davis, 1998). In comparison, ecopsychology examines the persistent questions rooted in our psyche, our perception of the self and nature, and consequently the way in which we behave (Davis, 1998). The reciprocal communion and bond between humans and nature is outlined and used to understand how we not only approach the external world, but how we understand the self; aiming to heal the rift between nature and the self (Roszak, 1992).

When examining these terms in conjunction, transpersonal ecopsychology can be regarded as the exploration of transcendent states within a natural context to heal the alienation between the external natural world and the intrinsic self. Mystical experiences are suggested to be embedded in this transcendent element, as they are situations in which individuals feel as if they have risen above the conscious self and/or reality, commonly inducing a unitive state in which they experience something larger than themselves (MacLean, Leoutsakos, Johnson & Griffiths, 2012). Therefore, the mere definition of mystical experiences identifies its link with transpersonal ecopsychology as the relationship between our own consciousness and our extrinsic conceptualisation is explored through the transpersonal experience, influencing personal growth and behaviour.

It is imperative that in psychology we bridge disciplines and combine theories (Swan, 2010), and in this context, the concepts of transpersonal and ecopsychology synthesise due to their large common conceptual ground (Winter, 1996), inherently interlinking these two aspects of study. Largely, the compounding element of the two disciplines is self-transcendence as a concept (Walsh & Vaughan, 1993), in which an individual progresses beyond their material conception of themselves and the external world, often by identifying and understanding their own inherent nature (Robinson, 2010). This bottom-up approach of self-exploration involves the individual consciously participating with not only others, but their external surroundings, inducing an empathetic link between the human psyche and nature (Yunt, 2001). This intrinsic relation of the psyche to the surrounding Earth suggests a transcendence of conscious awareness and understanding of its relationship with others, highlighting the connection between transpersonal and eco- psychology; breaking out of our materialistic view of consciousness translates into a more empathic link between the self and nature. The understanding of these two psychological ideologies is vital in comprehending different aspects of our consciousness and escaping our own normative metanarrative (Jones, 2010) to identify how we exist, not only in the world around us, but within ourselves. Therefore, the study of transpersonal ecopsychology outlines an individual's journey to understanding their own consciousness and how this sense of self correlates with the world around them.

The process of understanding our own consciousness is often defined by an experience of the transcendence of time and space, resulting in the belief that it demonstrates an objective truth about reality (MacLean, et al., 2012), drastically influencing the way in which the individual proceeds in life and ultimately behaves in response to the self, others and the external world; this can be defined as mystical experience. Offering a glimpse of a deeper level of reality (Suckiel, 2002), mystical experiences induce feelings of sacredness, peace and unity (MacLean, et al., 2012) whilst remaining an ineffable and noetic concept (James, 1902/1985). This cognitive value of the experience to the individual indicates the lasting effect it has on the self, allowing them to connect their introspective narrative to the world surrounding them.

The conceptualisation of mystical experiences is not a new area of study, the father of modern American psychology, William James, outlined the defining features of these experiences and identified how they affect the individual. James indicates that the induction of such experiences projects the individual from a smallness, their current reality perception, to a vastness in which they experience a progressively wider and profound reality (Suckiel, 2002). By experiencing this vastness, the individual can place their own consciousness into a greater reality and identify themselves as part of a collective rather than as an individual. However, James' notion of mystical experiences can be seen from a more critical perspective. James describes the ineffability of these experiences and how this is a key factor in every individual's experience, however each individual's recollection involves aspects of pantheism and optimism (Hodges, 2011), so how can mystical experiences be ineffable when individuals' descriptions converge?

Therefore, it is unclear as to what James implies when he refers to mystical experiences as ineffable. Furthermore, James fails to include those individuals who have had these transcendent experiences and not associated them with any significance to the self and their own consciousness (Hodges, 2011). Ultimately, James neglected to include these individuals in his analysis, demonstrating gaps in his theoretical consideration of mystical experiences.

Regardless of the shortcomings of James' notion of mystical experiences, they have remained an instrumental part of transpersonal ecopsychology, with nature being considered a trigger of such experiences (DeMares, 2000; Fredrickson & Anderson, 1999; Williams & Harvey, 2001), due to enhanced feelings of interconnectedness and the associated cognitive and subsequent affective states. The natural environment allows for the alleviation of the mundaneness of daily activities, allowing for the experience of being in another world, promoting a congruence with the desire for reflection and relaxation; whereas man-made environments are more likely to demand effortful attention which conflicts with such desire (Snell & Simmonds, 2015).

This experience of being in another world can also be described as an altered state of consciousness in which the individual experiences a mental-emotional unity with their own consciousness and their surrounding environment, resulting in feelings of awe, bliss and wonder, potentially alongside waking visions and, specifically, in a more natural environment, interspecies communication and cooperation (Swan, 2010). A real-life example is seen in the recollection of

Gifford Pinchot, President Roosevelt's forestry commissioner, when he was pressured by the President to establish new environmental policy (Swan, 2010). Whilst horse riding through a nature reserve, Pinchot was focusing on his feelings of confusion and depression as a result of this pressure and immense work stress, when suddenly he had an overwhelming feeling of adamic ecstasy which ultimately influenced the birth of natural conservation as an American political policy. Adamic ecstasy can be described as an overwhelming sense of unity stemming from a sense of chaos that follows a period of depression (Beer, 2000), which impacts the individuals view of the self and the way in which they work in conjunction with the collective world around them, resulting in a feeling of extreme significance and influencing the individual's future behaviour, and indeed, in this case, the behaviour of a nation.

Here, this mystical experience amongst and due to nature positively affected the individual in a long-term context as they feel as if they have a new perception of their own consciousness and a deeper connection to the Earth itself, influencing their own self-perception and behaviour. Consequently, the phenomenology of mystical experiences lies in the presence of nature itself, triggering such events that alters the individual's consciousness perception and their view of the external world's consciousness.

The experiences that nature triggers can be depicted as an 'awakening' to the relationship between humans and the Earth (Roszak, 2001; Shepard, 1982). As a result of this mystical experience, the individuals' cognitive and affective state is altered and their perception of themselves and their environment changes, ultimately resulting in a behaviour change. This positive behavioural change benefitting both symbiotic organisms is suggested to occur during the breakdown of the individuals own ego boundaries, transcending their own ego-identity to move towards an ecological ego in which there is a connectivity of consciousnesses (Garfield, Drwecki, Moore, Kortenkamp & Gracz, 2014; Hinds & Sparks, 2009; Snell, Simmonds & Webster, 2011).

This relaxation of egoic grasping (Wilber, 1995) aids the growth of the individual and their understanding of and movement towards an ecological self in which they feel an inherent connection to nature and others. Here, the individual overcomes their own ego confinements and thus breaks down the restricting societal views that prevent their transcendence towards this ecological ego (Roszak, 1995) encouraging a sense of open-mindedness and liberation. The conceptualisation of the wider ecological self is evident in Jung's (1959) depiction of the collective unconscious, inherently linking not only mankind but the world in which they occupy. The collective unconscious shelters our species' ecological intelligence from which our culture unfolds, as our own consciousness reflects nature's steady emergence (Roszak, 1992); we ourselves slowly unravel our own ego identity, gradually navigating our own psyche through various life and mystical experiences.

When considering the ecological factor of our own consciousness, literature refers to the id as the access point for this natural influence. The untamed selfishness of the id represents the relationship between our own psyche and the surrounding cosmos, allowing the influence of the Earth on our own consciousness, with Roszak referring to the literal access of the Id to the symbolic figure Mother Earth, also known as Gaia (Roszak, 1992). Therefore, the symbolic persona of Gaia is said to be integrated into our own consciousness and emanates the voice of the Earth through our own ego identity, supporting the idea of an ecological ego that connects the consciousness of the entire species and inherently links us to the Earth. Subsequently, the way in which mystical experiences encourage a connectedness to the natural world is rooted in our own psyche, breaking down our own egoic boundaries to reveal the inherent connection of the id and Mother Earth herself.

Our transcendence of the self and the deterioration of the confines of society not only reveal our innate connection to nature through mystical experience, but positively affects psychological wellbeing. Generally, mystical experiences are seen to improve psychological wellbeing, irrespective of other variables such as religiosity (Ellison & Fan, 2008), however literature suggests that the setting in which the mystical experience takes place influences the extent to which the individuals' mental health is affected. There have been significant positive associations with a sense of connectedness to nature, in relation to spirituality, and psychological wellbeing (Kamitsis & Francis, 2013) with a greater engagement with a natural setting increasing feelings of interconnectedness and transcendence.

The experience of interconnectedness increases empathy for the self and others (Hennigen, 2010; Mayer, Franz, Bruehlman-Senacal & Dloiver, 2009; Snell, Simmonds and Webster, 2011). The more contact an individual has with nature, the less psychological stress experienced by the individual (Wells & Evans, 2003), therefore increasing positive mood, better enabling them to approach difficult life experiences. This positive psychological functioning is associated with improved cognitive ability (Mayer, Franz, Bruelhman-Senacal & Dloiver, 2009), further implicating nature in the growth of an individual.

Here, this can be suggested to provide a rationale for the study of transpersonal ecopsychology as it can be used to understand not only own connectedness with nature and the way it affects behaviour, but it can give an insight into possible mental health interventions and enable us to comprehend how we can aid the growth of the individual. Subsequently, the role of mystical experiences in transpersonal ecopsychology relates to the individual in all aspects of their psyche, influencing their cognitive, affective and behavioural patterns to shape them as a human-being interwoven with the Earth. One such avenue for pursuing the potential benefits to mental health that is currently receiving considerable attention and can be considered as existing within the intellectual envelope of transpersonal ecopsychology is the growing research renaissance of psychedelic-assisted psychotherapy in the treatment of depression, anxiety and addictions, as well as prophylactically for enhanced mood, wellbeing, prosocial behaviour, empathy, creativity, cognitive flexibility, openness and spirituality (Jungaberle et al., 2018). The psychedelically-induced mystical experience appears to be key in these transformations to mental health, with those studies which have explored the use of psilocybin for the treatment of addiction, anxiety and depression in relation to the mystical experience finding it to be a significant indicator of the improved clinical efficacy of the treatment (Johnson, Hendricks, Barrett & Griffiths, 2019).

Concomitant benefits of the positive use of psychedelics is also apparent with self-reported increases in empathy (DeGracia, 1997: Lerner & Lyvers, 2006), which when measured following the supervised administration of psilocybin reveals that emotional (i.e., state) empathy but not cognitive (i.e., trait) empathy is enhanced sub-acutely, the following day (Mason, Mischler, Uthuag & Kuypers, 2019; Pokorny, Preller, Kometer, Dziobek & Vollenweider, 2017). Additionally, those being treated for depression with psilocybin who endorse the drug's effectiveness all reported a renewed sense of connection or connectedness (Watts, Day, Krzanowski, Nutt & Carhart-Harris, 2017), and increased social connectedness following the use of psychedelics was also associated with enhanced wellbeing (Carhart-Harris, Erritzoe, Haijen, Kaelen & Watts, 2018).

There are ecopsychological factors apparent in these mental health benefits also. Emerging evidence indicates that the 'recreational' (non-clinical) use of psychedelics increases feelings of empathy (Masters & Houston, 1966) and connectedness to nature, as well as tending to increase concern for and interaction with nature (Luke & Yanakieva, 2016; Stagno, 2018), and is associated with nature relatedness in terms of self-identification with nature and the desire to be in natural environments (Forstmann & Sagioglou, 2017). Furthermore, the influence of nature relatedness on pro-environmental behaviour is mediated by the lifetime use of psychedelics (Forstmann & Sagioglou, 2017), with many reporting that their use of psychedelics influenced them, among other pro-ecological behaviours, to change their diet and increase gardening behaviour, while some became more involved in ecological activism and even switched to more ecologically-orientated careers (Luke & Yanakieva, 2016).

A prospective study of the non-clinical use of psychedelics also found that nature-relatedness significantly increased after the use of psychedelics for at least two years and was positively associated with taking the psychedelics in natural surroundings and with subsequent increases in wellbeing (Kettner, Gandy, Haijen & Carhart-Harris, 2019). Clinical research too echoes these trends as the treatment of depression with psilocybin was found to significantly increase nature-relatedness for at least 12-months (Lyons & Carhart-Harris, 2018), and the universal increase in the sense of connectedness associated with reduced depression from psilocybin treatment often came with an enhanced sense of interconnectedness with nature, and an increased sense of respect and care for it (Watts & Luoma, 2020). What remains currently lacking is closer inspection of the role of the nature-based transpersonal experience in mediating these psychedelic transformations in attitude, wellbeing and behaviour (Luke & Yanakieva, 2016), such as the importance of transpersonal experiences of interspecies communication and connection (Krippner & Luke, 2009; Luke & Kittenis, 2005), and the integration of shamanic and animist perspectives arising from these encounters (Luke, 2013, 2017, 2019).

This nexus of enhanced mental health, wellbeing, empathy, connectedness and biophilia emerging from mystical experience and transpersonal encounters apparent with the positive use of

psychedelics very much places the growing mainstream psychological and medical research of psychedelics within the remit of transpersonal ecopsychology, and highlights the growing relevance of this approach to the shifting landscape of psychiatry in transition towards more holistic rather than purely pharmacological interventions.

In contrast, the conceptualisation of transpersonal ecopsychology has been openly criticised regarding its view of the self and the way in which that affects behaviour. By considering the link between the psyche and nature as innate, ecopsychology verges on the boundary of universal existentialism in which the cross-cultural aspect of psychology is ignored due to the lack of consideration of individual differences across different cultures and ethnicities (Boston, 1996). By indicating that all humans have a psyche-nature connection, it ignores the possibility that not everyone has the same uniform interconnectedness with the earth due to their different perceptions of consciousness and societal patterns; ultimately demonstrating the potential lack of inclusiveness of ecopsychology, unless this shortcoming is monitored, measured and accounted for.

Furthermore, private transpersonal experiences occur in the shared physical world and therefore the normative factors of society must be taken into consideration, indicating that a single psychological standpoint cannot be adopted (Cunningham, 2007). This suggests that various disciplines must be used alongside psychology to understand the way in which the transpersonal affects the individual and their view of the external world. However, society is engrained into our own consciousness and therefore we internalise the norms presented from our own culture and thus the transpersonal aspect activated through mystical experience allows for the understanding of the way we form both our private and public encounters. Therefore, our adopted societal norms shape the way in which we think and behave, indicating that they cannot be separated for individual analysis, demonstrating support for transpersonal psychology. Ultimately, the way in which mystical experience opens the individual's psyche to the realisation of their connection with nature may not be a universal concept, but it allows the societal boundaries that are inherently present in our consciousness to be overpowered and encourages transcendence, providing a rationale for the study of transpersonal ecopsychology and its accompanying mystical experiences. To conclude, the role of mystical experiences, psychedelic or otherwise, in transpersonal psychology is a vital one as they enable the personal growth of individuals by encouraging an alteration in their perception of their own concept of self and their external world. Mystical experiences are often triggered, or at the very least enhanced, by a natural setting and prompt an 'awakening' in which the individual experiences the transcendence of the self and their internalised societal boundaries to move towards a collective ecological ego. This transcendence positively affects psychological wellbeing and facilitates personal growth, enabling the individual to grow as a person and accept their place within the world and their relation to nature, ultimately dictating their future behaviour. Despite the criticism of a link between ecopsychology and universal existentialism, and the issues surrounding James' notion of mystical experiences, the field of transpersonal ecopsychology and its relation to mystical experiences remains a potent force in understanding the human psyche and the way in which consciousness is not only perceived as an

References

Beer, M. D. (2000). The nature, causes and types of ecstasy. *Philosophy, Psychiatry and Psychology,* 7(4), 311-315.

Boston, T. (1996). Ecopsychology: An Earth-psyche bond. The Trumpeter Journal of Ecosophy, 13(2).

Carhart-Harris, R.L., Erritzoe, D., Haijen, E., Kaelen, M., & Watts, R. (2018). Psychedelics and connectedness. *Psychopharmacology*, *235*(2), 547-550.

entity, but how it connects us to our own species and the Earth.

Cunningham, P. (2007). The challenges, prospects, and promise of transpersonal psychology. *International Journal of Transpersonal Psychology, 26,* 41-55.

Davis, J. (1998). The transpersonal dimensions of ecopsychology: Nature, nonduality, and spiritual practice. *The Humanistic Psychologist*, *26*(1-3), 69-100.

DeGracia, D. J. (1997). *Psychedelic drugs and the awakening of kundalini*. Unpublished manuscript, Wayne State University.

DeMares, R. (2000). Human peak experience triggered by encounters with cetaceans. *Anthrozoos: A Multidisciplinary Journal of the Interactions of People & Animals, 13*(2), 89-103.

Ellison, C., & Fan, D. (2008). Daily spiritual experiences and psychological well-being among US adults. *Social Indicators Research, 88*(2), 247-271.

Forstmann, M., & Sagioglou, C. (2017). Lifetime experience with (classic) psychedelics predicts proenvironmental behaviour through an increase in nature relatedness. *Journal of Psychopharmacology*, *31*(8), 975-988.

Fredrickson, L., & Anderson, D. (1999). A qualitative exploration of the wilderness experience as a source of spiritual inspiration. *Journal of Environmental Psychology*, *19*, 21-39.

Garfield, A., Drwecki, B., Moore, C., Kortenkamp, K., & Gracz, M. (2014). The oneness beliefs scale: Connecting spirituality with pro-environmental behaviour. *Journal for the Scientific Study of Religion, 53*(2), 356-370.

Hennigen, K. (2010). Therapeutic potential of time in nature: Implications for body image in women. *Ecopsychology*, *2*(3), 135-140.

Hinds, J., & Sparks, P. (2009). Investigating environmental identity, well-being, and meaning. *Ecopsychology*, 1(4), 181-186.

Hodges, M. (2011). The claims for mysticism in The Varieties of Religious Experience. *Journal of Speculative Philosophy*, *25*, 396-411.

James, W. (1902/1985). *Varieties of religious experience*. Cambridge, MA: Harvard University Press.

Johnson, M. W., Hendricks, P. S., Barrett, F. S., & Griffiths, R. R. (2019). Classic psychedelics: An integrative review of epidemiology, therapeutics, mystical experience, and brain network function. *Pharmacology & Therapeutics, 197*, 83-102.

Jones, P. N. (2010). Anthropology, consciousness and space. Anthropology News, 51 (9), 43-44.

Jungaberle, H., Thal, S., Zeuch, A., Rougemont-Bücking, A., von Heyden, M., Aicher, H., & Scheidegger, M. (2018). Positive psychology in the investigation of psychedelics and entactogens: A critical review. *Neuropharmacology*, *142*, 179-199.

Jung. C. G. (1959). *The archetypes and the collective unconscious*. Princeton, NJ: Princeton University Press.

Kamitsis, I., & Francis, A. (2013). Spirituality mediates the relationship between engagement in nature and psychological wellbeing. *Journal of Environmental Psychology, 36,* 136-143.

Kettner, H, Gandy, S., Haijen, E. C. H. M., & Carhart-Harris, R. (2019). From egoism to ecoism: Psychedelics increase nature relatedness in a state-mediated and context-dependent manner. *International Journal of Environmental Research and Public Health, 16,* 5147.

Krippner, S., & Luke, D. (2009). Psychedelics and species connectedness. *Bulletin of the Multidisciplinary Association for Psychedelic Studies, 19 (1),* 12-15.

Lajoie, D. H., & Shapiro, S. (1992). Definitions of transpersonal psychology: The first twenty-three years. *The Journal of Transpersonal Psychology, 24*(1), 79-98.

Lerner, M., & Lyvers, M. (2006). Values and beliefs of psychedelic drug-users: A cross-cultural study. *Journal of Psychoactive Drugs, 38*, 143-147.

Luke, D. (2013). Ecopsychology and the psychedelic experience. *European Journal of Ecopsychology, 4*, 1-8.

Luke, D. (2017). *Otherworlds: Psychedelics and exceptional human experience*. London: Muswell Hill.

Luke, D. (2019). Eco-consciousness, species connectedness and the psychedelic experience. In J. Hunter (Ed.), *Greening the paranormal: Exploring the ecology of exceptional experience* (pp.181-188). London: August Night Press.

Luke, D. P., & Kittenis, M. (2005). A preliminary survey of paranormal experiences with psychoactive drugs. *Journal of Parapsychology, 69*(2), 305-327.

Luke, D., & Yanakieva, S. (2016, June). *The transpersonal psychedelic experience and change in ecological attitude and behaviour.* Paper presented at the International Conference on Psychedelics Research, Stichting Open, Amsterdam, 3rd-5th June.

Lyons, T., & Carhart-Harris, R. (2018). Increased nature relatedness and decreased authoritarian political views after psilocybin for treatment-resistant depression. *Journal of Psychopharmacology, 32*(7), 811-819

MacLean, K., Leoutsakos, J., Johnson, M., & Griffiths, R. (2012). Factor analysis of the Mystical Experience Questionnaire: A study of experiences occasioned by the hallucinogen psilocybin. *Journal for the Scientific Study of Religion*, *51*(4), 721-737.

Mason, N. L., Mischler, E., Uthuag, M. V., & Kuypers, K. P. C. (2019). Sub-acute effects of psilocybin on empathy, creative thinking, and subjective well-being. *Journal of Psychoactive Drugs*, *51*(2), 123-134.

Masters, R. E. L., & Houston, J. (1966). *The varieties of psychedelic experience*. London: Turnstone.

Mayer, S., Franz, C., Bruehlman-Senacal, E., & Dloiver, K. (2009). Why is nature beneficial? The role of connectedness to nature. *Environment and Behaviour, 41,* 607-643.

Pokorny, T., Preller, K. H., Kometer, M., Dziobek, I., & Vollenweider, F. X. (2017). Effect of psilocybin on empathy and moral decision-making. *International Journal of Neuropsychopharmacology*, 20(9), 747–57.

Robinson, O. (2010). Modernity and the transmodern shift. In O. C. Robinson & D. Lorimer (Eds.), *A new renaissance: Transforming science, spirit and society* (pp. 91-102). Edinburgh, Scotland, UK: Floris Books.

Roszak, T. (1992). *The voice of the Earth: An exploration of ecopsychology*. London: Simon & Schuster.

Roszak, T. (1995). *The making of a counter culture: Reflections on the technocratic society and its youthful opposition* (originally published in hardback 1969). Berkeley, CA: University of California Press

Roszak, T. (2001). *The voice of the earth: An exploration of ecopsychology* (2nd ed.). Grand Rapids, MI: Phanes Press.

Shepard, P. (1982). *Nature and madness*. Athens, GA: University of Georgia Press.

Snell, T., & Simmonds, J. (2015). Mystical experiences in nature: Comparing outcomes for psychological well-being and environmental behaviour. *Archive for the Psychology of Religion*, *37*(2), 169-184.

Snell, T., Simmonds, J., & Webster, R. (2011). Spirituality in the work of Theodore Roszak: Implications for contemporary ecopsychology. *Ecopsychology*, *3*(2), 105-113.

Stagno, C. M., (2018). *Exploring psychedelics as an avenue for degrowth centred behavioural change*. Unpublished masters thesis (MSc Ecological Economics), University of Edinburgh.

Suckiel, E. K. (2002). The authoritativeness of mystical experience: An innovative proposal from William James. *International Journal for Philosophy and Religion, 52,* 175-189.

Swan, J. (2010). Transpersonal psychology and the ecological conscience. *The Journal of Transpersonal Psychology*, *42*(1), 2-25.

Walsh, R., & Vaughan, F. (1993). *Paths beyond ego: The transpersonal vision*. New York: Tarcher/Putnam.

Watts, R., Day, C., Krzanowski, J., Nutt, D., & Carhart-Harris, R. (2017). Patients' accounts of increased "connectedness" and "acceptance" after psilocybin for treatment-resistant

depression. Journal of Humanistic Psychology, 57(5), 520–564.

Watts, R., & Luoma, J. B. (2020). The use of psychological flexibility model to support psychedelic assisted therapy. *Journal of Contextual Behavioural Science*, *15*, 92-102.

Wells, M., & Evans, G. (2003). Nearby nature: A buffer of life stress among children. *Environment and Behaviour, 35,* 311-330.

Wilber, K. (1995). *Sex, ecology, and spirituality: The spirit of evolution.* Boulder, CO: Shambala Publications.

Williams, K., & Harvey, D. (2001). Transcendent experience in forest environments. *Journal of Environmental Psychology*, *21*(3), 249-260

Winter, D. (1996). *Ecological psychology: Healing the split between planet and self*. New York: HarperCollins.

Yunt, J. D. (2001). Jung's contribution to an ecological psychology. *Journal of Humanistic Psychology*, *41*(2), 96-121.