

Sound Affects: Sound Therapy, Altered States of Consciousness and Improved Health and Wellbeing

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Abstract

A study using a specific method of sound therapy (Himalayan singing bowls, transitioning to Gongs, transitioning to crystal singing bowls, transitioning to therapeutic percussion) was delivered in two ways – by a live soundbath, where subjects lay on the floor and received around 35 minutes of sound, and by a recording of the same which was available online. The focus of this research was to answer the following questions.

1. Is live sound more or less effective than digitally recorded and delivered sound and across what domains?
2. What are the consciousness altering effects of this method and to what degree are the domains effected?
3. What are the therapeutic benefits of sound induced ASC?

Data was analysed by a test known as a Chi Square analysis which gauges significance. Statistically significant, highly significant and extremely significant data was produced in the domains of Physical Relaxation, Imagery, Ineffability, Transcendence of Time and Space, Positive Mood, Insightfulness, Disembodiment and Unity across both live and recorded studies. These findings have far-reaching implications for the use of sound therapy, specifically sound induced altered states of consciousness (ASC) going forward.

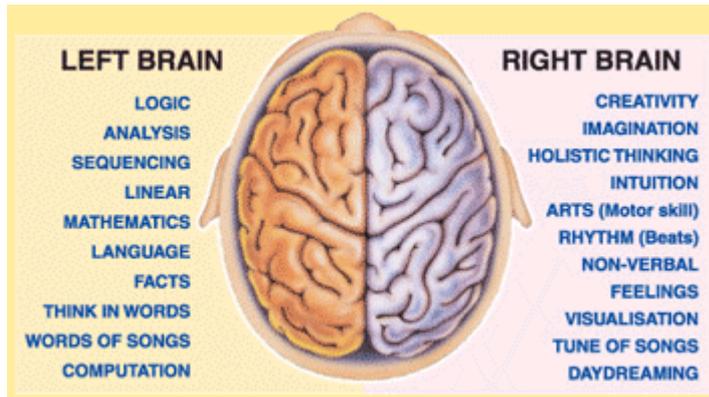
Introduction and Context

For twenty years I have been working with sound therapy I have witnessed people that have received benefit from life-limiting health issues such as anxiety dis-orders, chronic pain, arthritis, irritable bowel syndrome to name a few. Having an enquiring mind, I have always wanted to know more about how and why sound is such a powerful therapeutic tool. In the past I have talked in terms of sound as an energy medicine for balancing the chakras and entraining unhealthy systems to be more healthy using sound frequencies and rhythm, but measuring the impact of sound at this subtle level is really hard to do so it is nigh-on impossible to get reliable data from such studies.

The thousands of case studies undertaken by our students and the team at The British Academy of Sound Therapy (BAST) combined with our ongoing research has provided us with an extensive knowledge base. The valuable feedback from people experiencing treatments and relaxation sessions using sound and voice and have shown us that many there are many common experiences such as seeing colours behind closed eyes, floaty feelings, losing a sense of time and/or having spiritual or mystical experience, for example. These effects are well known in the Holistic Health and spiritual communities and have been attributed to the trance inducing nature of sound and music that has been used by shaman, spiritual practitioners and indigenous populations for thousands of years. Many shaman will tell you that through the music or sound they enter a trance which enables them to communicate with the world of the ancestors/spirits/plants where they gain valuable information which is then used for a variety of different reasons from healing to giving advice. We

all need help and advice from others at times, but what if we could use sound to become our own personal shaman, enabling sound to transform our own awareness?

This led me to begin researching ASC in more depth. When I was studying for a Master's Degree in Music Psychology my first piece of research demonstrated that a short soundbath had altered the hemispherical brain dominance (which side of the brain is dominant in processing information) from the left/logical hemispherical dominance to the right/creative side to such an extent that my professor said I must have made a mistake.



<http://ucmas.ca/our-programs/whole-brain-development/left-brain-vs-right-brain/>

Checking my figures I was assured that the results, were in fact, correct (I will write about this in another article). This was a turning point in my research that made me search for further research on ASC – specifically those that were sound and/or music induced. Unfortunately there was little available featuring sound (I will post links to what I did find). I did find a few research papers featuring meditation and hypnosis and then I came across an interesting piece of research whereby people under the influence of hallucinogenic drugs had reported very similar experiences as the people I had worked with (seeing colours, images, floating etc). This was a green light for me. In the past I have attributed seeing colours to the more subtle realms like the auric field and chakras, and whilst this may partly be true, we cannot know for sure. However, here was a piece of academic research that joined up so many dots for me that it was very exciting indeed! The research I am referring to was by MacLean et al., (2011) McGlothlin et al., (1967, et al., 2011, p.1453) and it suggested that altering consciousness may help nurture a positive culture, encourage openness and result in an increased appreciation of music, the arts and nature. This was suggesting that a greater level of wellbeing was noticed in those that had altered their consciousness – they had ‘opened their minds’.

The researchers in the above named research used a questionnaire which gave me the basis upon which I could create an effective way of measuring responses to the sound. I began a study which asked the following questions.

1. Is live sound more or less effective than digitally recorded and delivered sound and across what domains?
2. What are the consciousness altering effects of this method and to what degree are the domains effected?
3. What are the therapeutic benefits of sound induced ASC?

Methodology

To first identify whether there was a difference between live and recorded therapeutic sound two studies were undertaken - a live study comprising 15 people who received a soundbath relaxation session lasting approximately 35 minutes (I would have liked to have worked with more people but time was short). The sounds played during the soundbath session were recorded and made available online for 64 participants that volunteered to take part. Participants of the recorded study were asked to listen through headphones.

Information was gathered using a 6 point Likert scale questionnaire which asked people to score their experience from 1 (not at all) to 6 (extremely - more than at any time). This questionnaire was an amalgamation of several questionnaires used in previous studies to measure ASC (mostly using hallucinogens). The questionnaires were a version of the OAV by Dittrich et al., (1998-2010) adapted from the original by Studerus et al (2010), the Mystical Experience Questionnaire (MEQ) Hood, (2003) Revised by MacLean et al (2012) and additional questions relating to health and wellbeing were added by myself. The 65 questions asked were grouped within the following domains. Anxiety, Positive Mood, Experience of Unity, Spiritual Experience, Insightfulness, Disembodiment, Impaired Control and Cognition, Imagery, Ineffability, Transcendence of Time and Space, Emotional Observations and Physical Relaxation.

Findings

These findings provide further understanding of the depth at which live therapeutic sound compared to a recording is experienced. On the whole the experience in a live study seemed to be more emotionally moving, with participants being able to put their experience into words and experiencing joy. I think this may be due to the presence of the instruments and that the vibrations can be felt travelling through the body, whereas the recorded study seemed to create deeper introspection and a deeper ASC. I think this is rather like comparing being at a live concert to listening to an MP3 recording – the former is more rousing, and the latter more immersive. Both groups seemed to benefit from the relaxing effect of the sound and lost their usual sense of time and space.

Domain	Question Asked	Live Study	Significance	Online Study	Significance
Experience of Unity	Everything seemed to unify into a oneness	0.1676		0.0335	*POS
Positive Mood	I experienced profound peace and tranquillity within	0.4666		0.0229	*POS
	I had feelings of joy	0.0199	**POS	0.0514	NS
Insightfulness	I gained insightful knowledge that was experienced at an intuitive level	0.0514	BORDER	0.0008	***POS
Disembodiment	I felt as though I were floating	0.2206	NS	0.0069	**POS
Complex Imagery	I saw scenes rolling by behind my closed eyes	0.7029	NS	0.0001	***POS
Audio-Visual synesthesiae	Noises and sounds seemed to influence what I saw	0.0474	*	0.0121	*

Elemental Imagery	I saw regular patterns behind closed eyes	0.5786	NS	0.0516	BORDER
	I saw colours behind my closed eyes	0.5786	NS	0.0038	**
Ineffability	The experience cannot be described adequately in words	0.0053	**POS	0.4655	NS
	I could not do justice to my experience with words	0.0514	*POS	0.2724	NS
Transcendence of time and space	I lost my usual sense of time	0.0005	***POS	0.0058	**POS
	I lost my usual sense of space	0.0007	***POS	0.0058	**POS
	I was in a realm with no space boundaries	0.5786	NS	0.0140	*POS
Physical Relaxation	My muscles felt relaxed	0.0033	**POS	0.0001	***POS
	Physical tension drained from my body	0.0019	**POS	0.0413	*POS
	My breathing felt relaxed and steady	0.0001	***POS	0.0001	***POS

Key – BORDER = borderline

NS = not statistically significant

*** = statistically significant**

**** = highly statistically significant**

***** = extremely statistically significant**

Limitations

I think this piece of research could be improved with a larger study, and a more balanced live-online ratio. Some of the questions asked could be refined further, for example the question 'physical pain disappeared' was asked and would only apply if there was physical pain in the first place. Also some participants in the live study commented that they could not relax as much as they wanted to because they were uncomfortable laying on the floor, so this would need to be addressed in future studies.

Future Implications

I see this research as providing a useful platform for our work at The British Academy of Sound Therapy going forward. Altered State Therapy has been used in conventional healthcare setting for mental health conditions as well as drug and alcohol misuse. I think this is because the openness that an ASC creates enables a softness to be experienced, a loosening of the boundaries and of any control related issues. This loosening was also observed on the physical level with the relaxation of muscles and the draining of physical tension being reported. I see further research being beneficial that explores stress-related imbalances and chronic pain – I intend to undertake more research into these areas in the near future.

Conclusion and Acknowledgements

This has been an enlightening and rewarding study that has not been without its challenges! Statistics are not my favourite subject and so thanks go to Phil Warren and Dr John Young at Portsmouth University who helped me to make sense of my data, as well as Dr Nigel Marshall of Roehampton University who was my mentor through this research programme. Thanks go to all of the research participants for without you, this data would not exist and to my long suffering husband who watched me pounding the keyboard and scratching my head for hours on end!

Sound has been used for consciousness transformation, health and wellbeing for thousands of years and although this field is rapidly growing, there is still so much left to learn. I hope that this piece of research contributes to the growing field of sound therapy and therapeutic sound as a whole.

Bibliography

- Banquet (1973), Spectral analysis of the EEG in meditation, *Electroencephalography and Clinical Neurophysiology*, v.35, 2, 1973, pp 143–151
- Clarke, D (2011) Music, phenomenology, time consciousness: meditations after Husserl. In Clarke, D and Clarke, E. (2011) *Music and Consciousness, philosophical, psychological and cultural perspectives*. Oxford University Press: Oxford
- Cook-Greuter, S. (2000), Mature Ego Development: A Gateway to Ego Transcendence? *Journal of Adult Development*, v 7, 4, p. 227-240
- Damasio, A. (2012), *Self Comes to Mind*, London: Vintage Random House
- Dietrich, A (2002) Functional neuroanatomy of altered states of consciousness: The transient hypo-frontality hypothesis. *Consciousness and Cognition* v.12 (2003) p.231–256
- Dietrich, A. (2004), Neurocognitive mechanisms underlying the experience of flow, *Consciousness and Cognition*, V13 (2004) p.746-761
- Dittrich, A. (1998), The Standardized Psychometric Assessment of Altered States of Consciousness (ASCs) in Humans, *Pharmacopsychiatry* 1998; 31: 80-84
- Dobkin de Rois, M. (2003), The role of Music in Healing with Hallucinogens: Tribal and Western Studies, *Music Therapy Today* Vol IV (3), June 2003
- Griffiths, R. Johnson, M. Richards, A. Richards, B. McCann, U and Jesse, R (2011) Psilocybin occasioned mystical-type experiences: *Psychopharmacology* (2011) 218: p. 649–665
- Griffiths, R. Richards, W. McCann, U and Jesse, R (2006) Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance, *Psychopharmacology* (2006) 187:p.268–283
- Hartong, L. (2001) *Awakening to the Dream*, Non-Duality Press: Salisbury
- Hubner, C. (2007), EnTrance: Entrance to wider worlds or mystification of mere relaxation? *Music Therapy Today*: Vol.viii, (2) July 2007, p.257 – 293.
- Fischer, R. (1973), A Cartography of the Ecstatic and Meditative States, *Leonardo*: Vol 6 (1) p. 59-66

Jorg, F. (2007), Researching music and altered states in therapy and culture, *Music Therapy Today*, v. (3), 2007. p 306-323.

Klein, B (2010) The 5D-ASC Test for Non-Ordinary States of Consciousness PhD student, *General Psychology*, Walden University paibeiramar.org/Walden_papers/Tests&Meas_5D-ASC.doc [Cited 12.04.13]

Koen, B. Barz, G, Brummel-Smith, K (2008) Introduction: Confluence of Consciousness in Music, Medicine and Culture. In *The Oxford Handbook of Medical Ethnomusicology*. p.5 - 17. New York: Oxford University Press.

MacLean, K. Johnson, M. Griffiths, R (2011) Mystical experience occasioned by the hallucinogen psilocybin lead to increases in the personality domain of openness. *Journal of Psychopharmacology*: 25(11), 1453-1461

Porath, N. (2008), Seeing sound: consciousness and therapeutic acoustics in the inter-sensory shamanic epistemology of the Orang Saki of Riau (Sumatra) *Journal of the Royal Anthropological Institute* 14 p.6457-663

Roseman, M. (2004) A Fourfold Framework for Cross-cultural Integrative Research on Music and Medicine. In *The Oxford Handbook of Medical Ethnomusicology*. p.18 – 41. New York: Oxford University Press.

Rouget, G. (1985), *Music and Trance, A Theory of the Relations Between Music and Possession*. University of Chicago Press

Studerus, E. Gamma, A. Vollenweider, FX (2010) Psychometric Evaluation of the Altered States of Consciousness Rating Scale (OAV). *PLoS ONE* 5(8):e12412 p.1 – 19

Taborsky, E (1999), *Evolution of Consciousness*, BioSystems, Elsevier 51 p153-168

Travis, F. Shear, J. (2008), Focussed attention, open monitoring and autonomic self-transcending: Categories to organise meditation from Vedic, Buddhist and Chinese traditions. *Consciousness and Cognition*, V19 (2010) p1110 - 1118

Verheyden, S. Maidment, R. Curran, V (2003) Quitting Ecstasy: An investigation of why people stop taking the drug and their subsequent mental health. *Journal of Psychopharmacology*, V17 (4) p 371-378

Weinel, J. (2012), *Altered States of Consciousness as an Adaptive Principle for Composing Electroacoustic Music*. PhD Dissertation, Keele University