

The noetic connection: synaesthesia, psychedelics, and language

Diana Slattery

Rensselaer Polytechnic Institute, USA
slattd@rpi.edu

Abstract

The literatures that touch on synaesthesias—scientific, art-historical, literary, phenomenological, ethnographic, psychedelic—vary widely in their definitions, their interpretations, and their degree of comfort with the first-person, subjective nature of experiential reports. The significances given to synaesthetic experiences are similarly wide-ranging. This paper explores the relationships among synaesthesias, psychedelic experience, and language, highlighting Terence McKenna's synaesthetic language experiences on DMT and magic mushrooms. We describe the complexities of creating and performing with the *Synestheater*, a system that provides the means to weave together, in multiple mappings, two or more complex visual, aural, and linguistic systems in live performance.

Keywords: language, psychedelic, shamanism, synaesthesia

Everything is deeply intertwined.

Ted Nelson

1 Introduction

Contemporary neuroscience (Cytowic 1995, Marks 2000, Harrison 2001) views synaesthesia as a rare, (perhaps abnormal, perhaps pathological) 'condition'. Visionary artists, (Blake, Scriabin, Kandinsky, the French symbolists) link synaesthetic perception to a spiritual dimension. The phenomenologist David Abram, based in Merleau-Ponty, the phenomenologist of perception, locates synaesthesia as fundamental to perception and language, both spoken and written. Ethnographic reports of ayahuasca shamanism in the Amazonian rain forest (Luna and Amaringo 1999) describe the centrality of the icaros, the shaman's songs, that guide and create the content of the visionary experience on many levels, calling visual forms and presences into being with sound. Reports of psychedelic synaesthesias (James ????, Pankhe 1971, McKenna 1991, Munn 1973, Narby 1998) link the states of multisensory perception to noetic experience of deep insights into the nature of reality and consciousness, and their profound intertwinement. A range of contemporary artistic practices, especially in immersive, interactive, electronic media environments seek to create, or invoke, synaesthesias. The psychedelic connections to the creation and participation in many of these experiences (rave culture, *Burning Man*), and their enabling technologies, such as computer graphics, are common knowledge.

This paper details one example of such artistic experimentation. The *Synestheater* is a software implementation that can link the sensory qualities of two or more intricate systems, each producing complex, aesthetic forms in differing sensory modalities through an intermediate zone (the intertwingulator) where mappings can be constructed and tested in performance. The *Glide* system of dynamic, multidimensional visual language is mapped to keyboard input from a MIDI synthesizer or from the EIS (Expanded Instrumentation System) to create a variety of synaesthetic performances. The collaborators acknowledge the dual difficulties: technological and aesthetic. Making it work on the one hand and designing and performing a meaningful aesthetic experience with these highly complex instruments are interdependent challenges.

2 Neologisms in Ancient Geek

Xanadu never shipped, but Ted Nelson's word still bears fruit, now in the context of synaesthesia. *Intertwingle*: itself a blended word (to say it is to do it: noeto-poetic?), a braid of intertwining, mingling, perhaps twisting together, the deepness of which suggests the mycelial networks of brain and WWW; the immersive, multisensory bombardment of a rave; googling around the fractal depths of contemporary dataspace; navigating by synchronicities, 'hints and allegations'; dense heterarchies of meaning emerging and dissolving; connecting paths and patterns, linkings, unlinkings. And this theme of intertwingularity is the common ground underlying the discourses of synaesthesia, whatever the variances among epistemological theme parks, or the bewildering richness person to person in experiential reports, whether those reports are quoted in neuroscientific works, the *Vaults of Erowid*, William Blake's visions, or the heavenly or hellish trip reports of Aldous Huxley.

3 A synaesthetic sampler

Sounds seem to affect what I see. I see music; the textures of rhythms and the colours of melodies float before my eyes ... My visual images alter or change whenever I hear a sound or noise ... Sight, feeling, motion, texture, thinking, sound—all are one ... The interaction between sight, music, and physical feeling is most remarkable.
(Dobkin de Rios and Janiger 2003 48)

When I get there I lie down with my eyes closed and sunglasses on, there is some interesting synaesthesia going on, corresponding patterns in regards to distance and volume and other characteristics of the sounds I hear. The most interesting 'looking' sound comes from a moped that passes by on the bike road below the hill.
(DOM, Vaults of Erowid)

I experienced powerful synaesthesia between hearing and touch. I ran my hands over the sharp edges of the springs underneath my girlfriend's bed and simultaneously heard, felt, and saw an intense static/sharp/bright sensation.
(5-MeO-DMT, Vaults of Erowid)

'Your name, Richard, tastes like a chocolate bar', she writes, 'warm and melting on my tongue'.
(Cytowic 1995 14)

The spirits one sees in hallucinations are three-dimensional, sound emitting images. In other words, they are made of their own language, like DNA.
(Narby 1998. 71)

Through his icaro, he also calls the rainbow with the whole range of colours that the boa yakumama has. He sings the icaro of the diamond, the gold, the silver, and of all the

precious stones in order to put them on the woman to protect her ...
(Luna and Amaringo 1999 112)

The first thing I saw was the 'visible language'! ... The 'elves' appeared. They sang/I saw/read/felt/heard. They are 'made out' of the visible language. The message is conveyed by the medium itself in several simultaneous sensory modalities.
(DMT, Vaults of Erwid)

The ancient wise men, to describe the kaleidoscopic illuminations of their shamanistic nights, drew an analogy between the inside and the outside and formed a word that related the spectrum colours created by the sunshine in the spray of waterfalls and the mists of the morning to their conscious experiences of ecstatic enlightenment: these are the whirlwinds he speaks of, gyrating configurations of iridescent lights that appear to him as he speaks, turned round and round and round himself by the turbulent winds of the spirit.
(Munn 1973)

4 The noetic disconnection

From this small sampling of quotes, it seems clear that under the broad rubric of 'synaesthesia' almost any sensory—and/or emotional—and/or cognitive experience can be cross-linked. Neuroscientist Richard Cytowic narrows the definition of synaesthesia to:

the involuntary physical experience of a cross-modal association. That is, the stimulation of one sensory modality reliably causes a perception in one or more different senses. Its phenomenology clearly distinguishes it from metaphor, literary tropes, sound symbolism, and deliberate artistic contrivances that sometimes employ the term 'synaesthesia' to describe their multisensory joinings.

Cytowic estimates the occurrence of the synaesthetic experience to be statistically rare, one in 25,000. When psychedelics are the test-bed of synaesthesias, the occurrence of synaesthesias increases dramatically:

It is reasonably common for individuals who take hallucinogens to report that their senses become mixed. Given the illicit nature of the topic it is hard to find reliable data on this issue, but a recent web-based questionnaire conducted by Don DeGracia suggested that, of a total of 62 respondents who admitted to using hallucinogenic compounds, 45.9% reported synaesthetic symptoms. Clearly the most common manifestation (over 90%) was to see sounds. Now, just as with the patients described in the last section, it would be prudent to treat such accounts with an element of caution, as it can be hard to dissociate 'true' synaesthesia from possibly imagined forms of the condition. (Harrison 2001)

Questioning the reality or validity of these experiences in the scientific discourses is common, and interesting ambivalences arise in the handling and evaluation of first person reports. On the one hand, Cytowic invokes *The varieties of religious experience*, in which William James spoke of *ecstasy's four qualities of ineffability, passivity, noesis, and transience*,

claiming that:

These same qualities are shared by synaesthesia.

Further, in the section titled "The rejection of direct experience", Cytowic states that:

Questioning [synaesthesia's] reality without first having some technological confirmation shows how ready we are to reject any first-hand experience. We are addicted to the external and the rational. Our insistence on a third-person, 'objective' understanding of the world has just about swept aside all other forms of knowledge.

At the same time, this very ineffability, is, for Cytowic, a bug not a feature. He sympathizes

with Heinrich Kluver, who, in trying to get his subjects to report on their mescaline hallucinations,

was frustrated by the vagueness with which subjects described their experience, their eagerness to yield uncritically to cosmic or religious explanations, to 'interpret' or poetically embroider the experience in lieu of straightforward but concrete description, and their tendency to be overwhelmed and awed by the 'indescribability' of their visions ... Similarly, once Kluver got his subjects past elaborating or, even worse, explaining what they saw ... [emphasis added]

Clearly the noetic aspect of the experience is to be edited out by the 'phenomenological' psychologist. Cytowic's own example of pruning direct experience:

In explicating MW's description of mint, I distinguished between his factual description of curved, smooth, and cool tactile attributes, and his analogical explanation of the taste as 'cool glass columns'.

For Kluver, Cytowic, and Harrison, the scientist's subjects' data are inherently untrustworthy in some way, needing to be refined in such a way as to (conveniently) fit the categories established by the scientist for that experience. More significantly, perhaps, interpretation is the privilege of the scientist; profound noesis, often a part of synaesthetic experience, psychedelic or otherwise, is stripped from the 'primary experience', invalidated, and tamed by the scientific reduction of 'only the facts'.

The descriptive potency of natural language is put to the test in the discourses of synaesthesia and psychedelics.

Hallucinogenic discourse, both of scientific and 'recreational' nature, faced a similar rhetorical dilemma as the rest of the ecstatic traditions it responds to: It must report on an event which is in principle impossible to communicate. Writers of mystic experience

from St. Theresa to William James have treated the unrepresentable character of mystic events to be the very hallmark of ecstasies. Hallucinogenic discourse faced a similar struggle in the effort to report on the knowledge beyond what Aldous Huxley (and Jim Morrison ...) described as the "doors of perception" (Doyle).

5 The noetic connection

Jose Arguelles, in his analysis of William Blake, quotes the famous lines of Blake's adopted by Huxley to describe the psychedelic visionary state:

If the doors of perception were cleansed, everything would appear to man as it is, infinite. For man has closed himself up, till he sees all things through narrow chinks of his cavern.

Arguelles gets to the heart of the synaesthetic matter in this passage:

History is the result of an over-elaboration and separation of the senses. Blake's vision of man's natural condition and the condition man shall return to following the apocalyptic disclosure of the present era – is that of a psycho-sensory unity in which each sense is not a narrow chink walled off from the other senses but in a state of communication with them. This state of sensory interfusion, often referred to as synaesthesia, is presupposed by a consciousness in which body and soul are realized to be one, and in turn presupposes a social order so totally different from the present one that its closest approximation is to be found in the remnant of so-called primitive societies. (Arguelles)

David Abram, following Merleau-Ponty, finds this synaesthetic unity in the very nature of perception itself.

Although contemporary neuroscientists study 'synaesthesia'—the overlap and blending of the senses—as though it were a rare or pathological experience to which

only certain persons are prone (those who report it as ‘seeing sounds’, ‘hearing colours’, and the like), our primordial, preconceptual experience, as Merleau-Ponty makes evident, is inherently synaesthetic. The intertwining of sensory modalities seems unusual to us only to the extent that we have become estranged from our direct experience (and hence from our primordial contact with the entities and elements that surround us.) ... Synaesthetic perception is the rule, and we are unaware of it only because scientific knowledge shifts the centre of gravity of experience, so that we have unlearned how to see, hear, and generally speaking, feel, in order to deduce, from our bodily organization and the world as the physicist conceives it, what we are to see, hear, and feel. (Abram)

Walter Pahnke, of the famous “Good Friday” experiment in the heyday of Harvard psychedelic research, describes the noetic aspect of the psychedelic experience as one of its main features, along with synaesthesia:

The Noetic Quality, as named by William James, is a feeling of insight or illumination that, on an intuitive, non-rational level and with a tremendous force of certainty, subjectively has the status of Ultimate Reality. This knowledge is not an increase of facts but is a gain in psychological, philosophical, or theological insight. (Pahnke)

6 Psychedelic language

All language is psychedelic by definition, functioning to make manifest the mind, to bring thoughts, feelings, information, from the interior of one mind and make them available to be interiorized in another. David Porush calls this “technologically mediated telepathy”. And Porush, Abram, and Erik Davis all relate the story of how this psychedelic, originally synaesthetic, oral language-making connected us deeply and

reciprocally to our natural environment, a mutual be-speaking that was progressively lost when writing, and most particularly alphabetic writing, froze knowledge-making into eternal signs in rows on flat surfaces, signs you could come back to—and they hadn’t changed. These signs deployed progressively deeper disconnections—among the senses, between time and space, between reason and emotion. The alphabet: the cybernetic technology that changed everything. Synaesthesia, in this light, comes to stand for the promise of reconnection, of noesis, of recovery of some long lost unity, within ourselves, among ourselves, within the world. Psychedelics produce synaesthesias with a noetic quality, at intense, supersaturated, high-bandwidth delivery rates, as well as bringing tales of new forms of language that both create and express these altered states of consciousness. They may appeal to some deep longing for knowledge not delivered as information arranged in hierarchical tree structures, carefully categorized, 1.0, 1.1, 1.11, but arriving live and lively, gesturing, zany, perhaps, even alien. Terence McKenna’s accounts of the DMT self-transforming machine elves made of language dispensing unbearably high-speed, condensed blasts of pure and extraordinarily alien gnosis, and the mushroom experiences reverberating with the logos, seen and heard in synaesthetic unity, weird as they are, have been reported, in varying forms, by many others. Do the reports of synaesthesias in the scientific literature of psychedelic-like weirdnesses (“Richard, your name is like chocolate melting in my mouth”) leaking into baseline consciousness, (strangeness usually kept in bounds by the state-bound nature of other forms of consciousness—dreaming, meditating, drugs—according to Roland Fischer’s model of mind-states) fascinate us in the same way? There are entire classes of synaesthesias attached to letters, numbers, flavoured and coloured linguistic objects. McKenna himself

comes back to these language experiences time and again in his books and lectures: new forms of language perceived, theories of the evolution of language and consciousness catalysed by psychedelics:

Perhaps a human language is possible in which the intent of meaning is actually beheld in three-dimensional space. If this can happen on DMT, it means it is at least, under some circumstances, accessible to human beings. Given ten thousand years and high cultural involvement in such a talent, does anyone doubt that it could become a cultural convenience in the same way that mathematics or language has become a cultural convenience? (McKenna)

7 The Synestheater

Designing and building the *Synestheater*, an interface that couples two or more complex artistic systems, each organised around a different sensory modality (the aural, the visual, the kinaesthetic—the linguistic in motion, gesturing) is challenging technically. But the mapping of aspects of the aural experience to properties of the visual experience in such a way that in performance an aesthetically satisfying experience is created is largely unexplored territory. We have, with the advent of sophisticated tools emerging from rapidly evolving technology based on the Protean sorcery of the CPU, come to a point where we are building new instruments—and instruments with which to build instruments—at a much faster rate than we are learning to play them in an artistically mature manner. How many years does it take to master a musical instrument? An abstract animation technique? How can they meaningfully link? How can our perceptions be re-educated to encompass multiple sensory modalities and make magic in these unexplored, complex, subtle, infinitely variable synaesthetic zones? And yet, we keep doing it, always on the verge of overwhelm,

drowning, or going with the flow. As Terence McKenna put it:

Information is loose on planet three ... Earth is a place where language has literally become alive.

The cyberspirits are out of the bottle. Chiasmatics 101. And if all knowledge ultimately comes down to what we sense, what new things will we know in what new ways when we get just a little more in control, not of the waves, but of our ability to stay on our feet on the surfboard as we ride the rainbow serpent down the wave-ways into the great unknown, reached by connecting new pathways in the mind?

References

- Abram, D. (1997) *The spell of the sensuous*. Vintage Books, New York.
- Arguelles, J.A. (1975) *The transformative vision: reflections on the nature and history of human expression*. Shambala, Berkeley and London.
- Cytowic, R.E. (1995) Synaesthesia: phenomenology and neuropsychology, a review of current knowledge. *Psyche, An Interdisciplinary Journal of Research on Consciousness* 2(10).
- Dobkin de Rios, M. and Janiger, O. (2003) *LSD: spirituality and the creative process*. Park Street Press, Rochester, Vermont.
- Doyle, R. (2003) LSDNA. In Thurtle, P. and Mitchell, R. (eds). *Semiotic flesh: information and the human body*. Seattle.
- Fischer, R. (1971) A cartography of the ecstatic and meditative states. *Science* 174(4012).
- Harrison, J. (2001) *Synaesthesia: the strangest thing*. Oxford University Press, Oxford.
- Kluver, H. (1966) *Mescal and the mechanism of hallucinations*. University of Chicago Press, Chicago.
- Luna, E. and Amaringo, P.C. (1999) *Ayauasca visions: the iconography of a Peruvian shaman*. North Atlantic Books, Berkeley.
- Marks, L.E. (2000) Synaesthesia. In Cardeña, E., Lynn, S. and Krippner, S. (eds) *Varieties of anomalous experience: examining the scientific evidence*. American Psychological Association,

- Washington, DC.
- McKenna, T. (1991) *The archaic revival*. Harper, San Francisco.
- Munn, H. (1973) The mushrooms of language. In M. Harner (ed.). *Hallucinogens and shamanism*. Oxford University Press, Oxford.
- Narby, J. (1998) *The cosmic serpent: DNA and the origins of knowledge*. Putnam, New York.
- Pahnke, W.N. (1971) The psychedelic mystical experience in the human encounter with death. *Psychedelic Review* 11.
- Porush, D. (1998) Telepathy: alphabetic consciousness and the age of cyborg illiteracy. In Dixon, J. B. and Cassidy, E. (eds) *Virtual futures*. Routledge, London and New York, pp. 45–64.
- Ternaux, J-P. (2003) Synaesthesia: a multimodal combination of senses. *Leonardo* 36(4).
- Vaults of Erowid. www.erowid.org