

INTRODUCTION

SYNESTHESIA: THE UNIVERSAL ANOMALY

DANCE OF THE SENSES

Wherever you may be at the time you are reading this, try to briefly imagine yourself at a packed techno club or clandestine party on a good night. As often happens, the individual conversations of the dancers are blanketed over by the synthetic, faultlessly cycling pulse beat, with only wordless shouts of exultation and encouragement occasionally leaking through during transitional moments or pauses in the musical flux. Yet, in spite of this impossibility of verbalization, *communication* seems to be everywhere: it has simply been displaced onto a different kind of transmitter. We can sense it, for example, in fanning formations of concentrated light beams sweep across the floor like some sort of massive, celestial garden rakes, and in the way that the flickering lights bestow an eerie vitality onto the tangled skeins of fog rising from that same floor. Elsewhere, the dancers' hand gestures and bodily tics synchronize with synthetic noises in uncanny moments that, while spontaneous, look as if they could have been meticulously choreographed. It seems as if their gesturing bodies are *initiating* the sounds rather than responding to them - this can be seen, for example, as an enthusiastic dancer rhythmically opens and closes his hand in sync with the rapid filtering sound of a single synthesizer tone.

As a kind of synergistic relationship unfolds between the sights and sounds in this unique stimulation zone, we might even begin to have an illusory sense of other sensory data perfectly 'meshing' with that provided by the audio-visual experience: perhaps a plethora of new smells will seem to be communicating the same information that is being relayed by the audio-visual output, with even this most maligned of senses contributing to the permeating, re-energizing atmosphere. The organicism of this kind of drama, which is being initiated with the help of sophisticated technology,

seems to paradoxically evoke an ecstatic and atavistic sense of continuity with prior modes of existence, in the process lifting this drama above the banal escapism that its critics will routinely accuse it of.

Much has already been written about how these types of environments' special magic comes from their ability to rekindle a dormant sense of community among the participants; to induce a "seeing of oneself in the other" that is strangely absent from other situations in which close proximity alone does not suffice to create a sense of shared values (e.g. the madness of morning subway commutes in Tokyo, or the daily warehousing of humans in call centers and 'cubicle farms.'). Yet, while not discounting or dismissing this positive aspect of the communal dance environment, I feel that their appeal arises from something more than just the promise of real empathic togetherness in an increasingly alienating and atomized world. I feel that the synergistic quality of the sensory information imbibed in these environments is as much a part of their appeal as the social drama that unfolds there, and that the intake of this data either complements or provides a striking metaphor for the reconciliation of social divisions that often lies at the heart of these events.

RE-SHIFTING THE 'GRAVITY OF EXPERIENCE'

The ascent of the scientific method, and of instrumental rationality, has been accompanied by a relentless drive to slice all observable phenomena into clearly delineated constituent parts. Whatever other benefits this process has conferred, it has not escaped criticism for 'solving' certain problems that were never considered problems to begin with. Phenomenologist Maurice Merleau-Ponty, for example, acidly and memorably proclaimed that "scientific knowledge shifts the gravity of experience so that we unlearn how to see, hear, and generally, feel."¹ As this process has accelerated, the arts have continually done their part to sustain the value of irrational

1 Maurice Merleau-Ponty, *Phenomenology of Perception*, p. 229. Trans. Colin Smith. The Humanities Press, New Jersey, 1962.

thought or pre-rational sensation, and to return to a sense of wholeness uninterrupted by scientific delineations and demarcations, e.g. the 'psychic automatism' or stream of consciousness technique used by the Surrealists. The genesis of avant-garde filmmaking, especially that which used camera equipment as something other than just a recording tool, was also very explicitly associated by its early champions (Hans Richter, Viking Eggeling, etc). with the process of "re-educating the eye"² - a process which, in itself, often involved synchronizing visual information to other types of sensory information. Within the sonic arts, the rebellion against continual scientific subdivision came about with the help of composers like Pierre Schaeffer, who viewed the totality of sound - rather than just harmonic tones - as the fundamental unit of composition (Schaeffer's concept of the *objet sonore*, or "sonic object," also conceptualizes sound as a kind of palpable material perceptible by more than one sensory mode).

The unitary phenomenon that these creators have been aiming at, and what was illustrated in the dance club scenario above, is alternately referred to as synesthesia - a term which is a portmanteau of the Greek *syn* (unity) and *aesthesis* (sensation). Synesthesia is most literally defined as a neurological condition through which the sensory data received by one sensory modality is "translated" by a second, in a way that seems, to the perceiver, to be perfectly natural (to the point where synesthetes are often revolted by what they see as ugly incongruity in 'multi-media' forms like music videos).

Perhaps because the campaign to re-educate the senses through their re-integration is so closely associated with the irrational urges of representatives from the historical avant-garde art movements, and also congruent with the aims of numerous mystical movements, this subject has

2 "...after centuries of naturalistic paintings, people had lost the gift of perceiving pure plastic forms and colors and of appreciating light and line relationships that did not represent or symbolize anything. Creators of abstract films, like Marcel Duchamp, Viking Eggeling, and Hans Richter, were engaged in reeducating the eye." Esther Levenger, "Czech Avant-Garde Art: Poetry for the Five Senses." *The Art Bulletin*, Vol. 81, No. 3 (Sep., 1999), pp. 513-532.

been off limits for serious academic research until very recently (from the 1990s onward, there is a marked increase in academic papers containing the words “synesthesia” or “cross-modal” in their titles). Countless criticisms have been flung at the unreliability of synesthetes’ testimonials, though pioneering synesthesia researcher and neurologist Richard Cytowic defends their accounts on the basis that “there is a remarkable consistency among subjects, with all of them claiming to have had the experience as long as they could remember, everyone reporting that the secondary sensations remain constant over time, and all and sundry amazed that others like them exist.”³ While most synesthetes will eventually come to recognize their unique perceptive abilities as an illusion rather than the way of objectively perceived reality, they rarely find it necessary to seek treatment for this and would find the loss of their synesthetic faculties traumatic and disabling.

This condition is not at all limited to the sort of sight-sound synthesis that music videos aim for, and we should immediately get it out of our heads that any and all audio-visual, “multi-media” experiences represent the full content of “synesthetic” experience. Synesthesia marshals the conventionally recognized five senses in all kinds of different combinations: synesthetes will report an ability to ‘taste shapes,’ for example, to ‘hear colors’ or perhaps even to ‘smell sounds’. The most commonly reported type of synesthesia is color-grapheme synesthesia, or a condition in which textual elements like letters or words may be bonded to single colors (to the point where many synesthetes have their own carefully systemitized ‘color alphabets,’ and also leading to the mental imaging of colors as being ‘red’ or ‘blue’ even though they may appear on a page before the viewer’s eyes in basic black). More esoteric forms of synesthetic hallucination have been reported, such as “mirror-touch synesthesia” (in which the observation of another person being touched will cause a tactile response in the observer) and audioalgesic synesthesia (in which certain

3 Richard Cytowic MD, *Synesthesia: A Union of the Senses*, p. 7-8. MIT Press, Cambridge MA, 2002.

sounds can produce a haptic sensation of pain in areas of the body not normally associated with hearing).

Invoking these kinds of hallucinations may confirm what the phenomenologist Casey O'Callaghan says of synesthesia - that it is too "systematic and persistent" to adapt to environmental conditions in a way that would really benefit its hosts, and that synesthetic responses are to be clearly differentiated from more "advantageous" forms of learned cross-modal correspondence (which are "intelligible solutions to unusual or extraordinary situations.")⁴ However, a counter-argument comes from some famous cases whose inherited synesthesia gave them an exceptional ability to memorize key information - an ability stemming from the ability to mentally associate a name or date with a color as well as with its phonetic sound, thus giving numerous ways to assist in memory recall.

Statistically, synesthesia of the inherited variety (rather than a learned or adventitious kind) affects only a small percentage of the adult population. This often leads to an outcast status among those who speak openly of their unique ways of sensing and perceiving - especially during the formative periods of their lives - and especially since legitimate synesthetes' perceptions are often attached to strong and irrevocable emotional resonances. However, there is some evidence - particularly in the psychological studies conducted by Daphne Maurer & Catherine Mondloch - that a much larger segment of the population experiences it at some point in their lives, particularly in their developmental or neo-natal stages. Owing to the process of physiologic necrosis, which involves a sort of "pruning" of superfluous neuronal connections in the infant brain, the decrease of synesthetic perception with age is a given for all but the aforementioned small number of adult synesthetes. If we go further back still, to the pre-natal period of human life, we encounter another synesthetic state in which "there is no clear biological border between feeling and hearing [...] these are the two sensations with which

4 Casey O'Callaghan, *Sounds: A Philosophical Theory*, pp. 174-175. Oxford University Press, Oxford, 2007.

we have the longest continuous experience.”⁵ Furthermore, the status of synesthetes as “cognitive fossils” that still perceive in ways similar to their ancestors in the mammalian order is a topic of much spirited debate (although that debate is beyond the scope of this introductory chapter, and will have to be returned to later).

UNITY AND UNIVERSALITY

By now, it is probably clear that a truly “synesthetic” art is impossible to achieve for anyone but clinically recognized synesthetes. Yet if we merely scratch the surface of cultural production over the past few centuries, and make even a cursory survey of our own linguistic and semiotic conventions, the habit of *simulating* this condition seems very widespread. Not only has artwork of a “cross-modal” nature persisted and resisted the many thematic vicissitudes of the art world, but cross-modal communication itself has become an invaluable tool for making obscure and complex concepts more easy to intuit. Bulat Galejev, one of the leading thinkers dealing with synesthetic art and culture, also argues for a kind of universality of this condition - if not as a paradoxical anomaly that is universally experienced, then certainly as a phenomenon whose nature is universally *understood*:

...everyone can understand synesthetic transferences in poetic and ordinary language (such as “bright sound” or “flat timbre”). As I have shown before, synesthesia is an essential aspect of language and, more generally, of all figurative thinking, including all imaginative thinking (for all kinds of art, including music).⁶

Galejev’s comments here lend credence to a theory that I will expand on later in this book: i.e. that some vestigial traces of synesthesia still drive our species-wide capacity for understanding how certain stimuli could be interpreted by two or more senses.

5 Paul DeMarinis, “Gray Area.” *Leonardo*, Vol. 29, No. 4 (1996), pp. 270-272.

6 Bulat Galejev, “Evolution of Gravitational Synesthesia in Music: To Color and Light!” *Leonardo* vol. 36, no. 2 (2003), pp. 129-134.

Indeed, a fascinating thing about synesthesia is its resilience in the public imagination, and its consequent ability to be adopted by any and all human cultures and ideological inclinations as being “their own.” From the medieval concept of the *Harmonia Mundi*, to the Russian Futurist and Constructivist dalliances with *intra-modal* synesthesia (in which single colors were inextricably bound to single shapes) there have been centuries’ worth of globally dispersed studies into the phenomenon of sensory unity. Gene Youngblood states that synesthesia is “as old as the ancient Greeks who invented the term,”⁷ although even they most certainly did not inaugurate the concept itself, despite having coined the term we still use to describe cross-modal perception. More recently, i.e. within the past two and a half centuries, numerous speculations have also been made into the possibility of non-synesthetes “training” themselves to perceive their environment as legitimate synesthetes do, and to reap a variety of spiritual or evolutionary rewards from this process.

More interesting still have been the speculations that, insofar as there is some survival of consciousness post-mortem, it will involve a return to the synesthetic perception of all phenomena. It has not been uncommon for individuals to step beyond the bounds of mortality itself with their synesthetic speculations, as is the case with Columbia theology professor Mark Taylor musing on the afterlife (he writes that “through a synaesthesia I do not understand, I hear the night beyond the night as an endless murmur, something like the white noise that is indistinguishable from silence.”)⁸ The conception of sentient human life as being “book-ended” by periods of pre-natal and post-mortem synesthetic consciousness takes us into spiritual territory that I don’t expect will interest all readers of this text, but it is still essential to make a survey of this type of thought in order to better comprehend the enduring attraction to synesthesia.

7 Gene Youngblood, *Expanded Cinema*, p. 81. Clarke, Irwin & Company Ltd., Toronto / Vancouver, 1970.

8 Mark C. Taylor, *Field Notes From Elsewhere: Reflections On Living And Dying*, p. 4. Columbia University Press, New York, 2009.

We will soon discover more examples showing that synesthesia, and related creative developments, are not the exclusive province of one ideology or nation. The geographic diversity in approaches to the idea of sensory fusion, and their distribution across the timeline of human cultural and technological developments, are indeed notable. Yet this book could capably investigate the synesthetic arts as they developed within a single country, and still contain enough material between its covers to be fascinating. The aforementioned Russia, for example, has long been a wellspring for much of the activity relating to synesthetic studies. The deeply ambitious and mysticism-infused compositions of Aleksandr Scriabin approached synesthesia from the viewpoint of an individual who "gradually came to encompass all of the Symbolists' philosophical and religious obsessions: the Scriptures, the philosophies of Nietzsche and Schopenhauer, the ecumenical religion of Vladimir Solovyov (1853-1900), and the Theosophical Doctrine of Madame Helena Blavatsky (1831-1891)."⁹ Certain Romantic compositions of Nikolai Rimsky-Korsakov (specifically his 1890 opera *Mlada*) and of Vladimir Kandsinsky (*The Yellow Sound*, 1911) cemented the Russian role in synesthetic study for this time period - it was also Kandinsky whose synesthetic theories partially laid the groundwork for an entire galaxy of abstract art to come.

The interest in synesthesia's cultural applications was not at all diminished, either, after Russia's turbulent transformation into the seat of the Soviet empire: the filmmaker and theorist Sergei Eisenstein, who has long since confirmed his place as the foundation stone for avant-garde cinematic techniques, called upon the aesthetics of Japanese *kabuki* theater and the "organic wholeness" principle of Hegel in order to develop the then-radical film montage technique (see the "Battle on the Ice" sequence in *Alexander Nevsky*) that we now perceive as a common feature of the most mainstream cinematic fare.

As evinced by Eisenstein's own influences, even a nation like Russia, with its unimpeachable track record of synesthetic theory and practice,

⁹ Simon Morrison, "Skryabin and the Impossible." *Journal of the American Musicological Society*, Vol. 51, No. 2 (Summer, 1998), pp.283-330.

remains just another player in the cultural history of synesthesia. It can be intriguing to note the role that a national spirit plays in deciding the extent of synesthetic study, though it is equally intriguing to see what happens when cultural ‘imports’ are reinterpreted by the locals, as was the case when the heavily synesthesia-flavored French Symbolist poetry (of Baudelaire, Verlaine, Rimbaud etc). spawned a uniquely Japanese movement known as the *shin-kakukanha* [新感觉派 "New Sensualists"], who saw in the French poets an echo of Basho's *haiku* poetry during Japan's Meiji Restoration era. A striking amount of cross-modal creativity is cross-cultural as well.

In the process of uncovering and comparing the salient features of multiple “cultural synesthesias” as they appear in distinct territories of the globe, this journey will naturally require us to make yet more important distinctions: with the example of the Anangu peoples in Australia's western desert, we can compare the Western conception of synesthesia as a mental occurrence with one that the local culture considers a “transformation of the whole body,”¹⁰ a perceptive quirk that causes concepts like “greenness” to refer to much more than just perception of color (within the same culture, songs are sensed as having *mayu* or flavors). Branching off from this discussion, many readers will rightly wonder how synesthesia as experienced by clinical synesthetes differs from that induced by psychedelic drugs or by certain types of folk medicine (the multifarious “plant allies” researched by the late Terence McKenna). Studies of the latter show us that synesthesia as a means of orienting oneself in a natural environment is, among pre-modern or traditional cultures, far from an uncommon feature.

For example, ethnographer Marina Dobkin de Rios noticed during her initiation into Peruvian ayahuasca ceremony, effects such as “the mind's eye fill[ing] with a rather complex and detailed panorama of primary colors and variegated forms,” whose whirling chaos she saw as a synesthetic correlation to her “perception of the speed of the healer's music”

10 Diana Young, “The Smell of Greenness: Cultural Synesthesia in the Western Desert.” *Etnofoor*, Vol. 18, No. 1 (2005), pp. 61-77.

(conversely, she noted how “a lack of vision in various ayahuasca sessions could generally be correlated with inadequate musical ability on the part of particular healers.”)¹¹ Furthermore, Dobkin de Rios claimed that the ritual inculcation of synesthesia was very much a deliberate part of healing ceremonies rather than simply an unintended consequence, and that this fact was not limited to the specific groups she personally observed.¹² All this aside, the synesthetic and psychedelic worlds are not entirely the same despite a good deal of perceptual commonalities: one fact we will return to is the discovery that many clinical synesthetes have experienced no additional quirks of perception when experimentally dosed with psychedelic drugs.

SYNESTHESIA AND TECHNOLOGY

Because we live in an age that is typified by dramatically expanding technological re-shaping of our individual bodies and natural terrain, it seems like a near-certainty that much of this book’s narrative will be the story of how increased cross-modal perception has gone hand-in-hand with new technology. However, it is my sincere hope that this book will not be read as a simplistic piece of techno-utopian proselytizing, nor as a book that argues for an evolutionary process in which technology drives culture (rather than a more mutual arising of culture and technology). Scenarios like the one opening this chapter are a very good example of how cross-modal sensory stimulation can either lead to or symbolize a completely new “way of life,” yet the level of technological advancement necessary for this lifestyle transformation can vary wildly. Such synesthetic rituals as the Japanese tea ceremony have also been viewed as a whole

11 Fred Katz and Marlene Dobkin de Rios, “Hallucinogenic Music: An Analysis of the Role of Whistling in Peruvian Ayahuasca Healing Sessions.” *The Journal of American Folklore*, Vol. 84, No. 333 (Jul. - Sep., 1971), pp. 320-327.

12 “Most traditional drug-using societies not only recognize this scrambling of sensory modalities, but actually *program* [italics mine] their rituals so as to heighten all sensory modalities.” Marlene Dobkin de Rios and Fred Katz, “Some Relationships between Music and Hallucinogenic Ritual: The ‘Jungle Gym’ in Consciousness.” *Ethos*, Vol. 3, No. 1 (Spring, 1975), pp. 64-76.

"way of life" (specifically as *chadou* [茶道、"way of tea"]) of which Hamamoto Soshun claims "[the] true practice of Tea brings all senses to function simultaneously and in accord, and leads us to the realm of immovable tranquility."¹³ In sharp contrast to the modern club experience with its computer-driven showers of stroboscopic light and carefully sculpted electronic sound, the implementation tools of the *chadou* are uncomplicated to the point of being brutally austere. I contend, though, that both of these modes of synesthetic experience are capable of unlocking hitherto unrealized nuances of perceptibility.

THE MORALITY OF SYNESTHESIA

In the end, I feel that it will be necessary for me to also try to justify the propagation of synesthetic and cross-modal creativity on moral or ethical grounds. Already, given the breadth of scientific and esoteric thinking that considers synesthesia a return to 'the primordial' or to some originary form of sentient life, my work here is going to be questioned - after all, is a less developed form of life necessarily a 'better' one? Why would we wish to return to a way of perceiving that we have presumably evolved out of, or that naturally recedes as we grow from infants to adults? And, as regards evolution, was the capacity to sense synergistically *lost* when we claimed for ourselves an elevated place among the biosphere's inhabitants, or was it merely *disowned*?

Plenty of theorists have already come to an ethical conclusion: that the encouragement of synesthetic communication is essential to our development as more efficient, empathetic and less generally destructive creatures. For Youngblood, who wrote in the early 1970s that "synaesthetic cinema [...] can function as a conditioning force to unite us with the living present, not separate us from it,"¹⁴ the ethical value of this activity was

13 Steve Odin, "Blossom Scents Take Up the Ringing: Synaesthesia in Japanese and Western Aesthetics." *Soundings: An Interdisciplinary Journal*, Vol. 69, No. 3 (Fall 1986), pp. 256-281.

14 Youngblood (1970), p. 82.

clear and unequivocal. As such, he would very likely see the scenario that opened this chapter as having this same positive effect in a different setting, and with different communications media.

To be sure, not all that calls itself 'synesthetic' culture will end up having any kind of long-term significance, and not every novel fusion of sensory data will have any use beyond simple narcissistic self-indulgence (a good fictional model for this is provided by the decadent, misanthropic aesthete Jean des Esseintes from Huysmans' classic novel *A Rebours*). We cannot expect all the synesthetic culture of today and tomorrow to be any freer from bogus attempts at transcendence than the psychedelic explosion of the 1960s, and much of this culture may never rise above a status as a hip lifestyle affectation. Meanwhile, given the term's attractiveness to theorists of synergy and holicism, it is likely to be highly misused or misapplied: even in Youngblood's well-considered classic *Expanded Cinema*, the definition of synesthesia as "cross-modal correspondence" is almost completely ignored in favor of a more ambiguous, personalized definition concerning the unrestricted flow of "psychic impulses" and the totality that will be perceived as a result. Youngblood and other like-minded thinkers have occasionally attempted to redefine synesthesia as being something more profound than "unity of the senses" - if anything, Youngblood seems to suggest that an understanding of the "human sensorium" will come about as a result of shedding other deeply ingrained psycho-sexual inhibitions, and not the other way around.

Nevertheless, this book will attempt to argue that the opposite is true: namely, that understanding of the synesthesetic impulse is as valid a starting point as any towards larger and more far-reaching awakenings. What happens after these awakenings is up to each individual to ultimately decide, and I can only steer people so far in a certain direction. If the synesthetic experience affords individuals the opportunity to "merely" be fascinated by the world anew, and to once again view life as being more than just a death sentence, then this is already a "net gain" where I am

concerned, and I would not wish for any greater species-wide benefit than this. However, the tale of the synesthetic impulse throughout history is worth telling for reasons that go beyond even this very therapeutic and beneficial fascination: knowing its history, and the myriad reasons for its persistence throughout very different eras of human endeavor, is to know much about the forces guiding 'human endeavor' itself.

