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Love & Ecstasy: The Universal Virtue and the Individual Experience

American positive psychologist Barbara Fredrickson writes extensively about their conception of love in their book *Love 2.0*. While love is typically considered a strong act of affection, a sublime mental state or even an abstract virtue, Fredrickson uses an alternative definition. While never clearly stating a definition, Fredrickson contrasts the common idea of love with the pattern of results from biological processes and systems. These are complex phenomenon, with similarities to those described by American science author Steven Johnson in “Myth of the Ant Queen,” and American philosopher and professor Alva Noë in “Air Guitar Styles.” Using Fredrickson’s approach informed by biomechanics, a detailed and deterministic explanation can be used to describe emergent patterns, such as tribal behavior, artificial intelligence, and urban development.

The kind of love Fredrickson describes is contagious. This can have profound effects when multiplied at scale, such as in a pop concert. Summarizing several studies in the effects of oxytocin, Fredrickson writes that oxytocin “can jump the gap between people such that someone else's oxytocin flow can trigger your own. A biochemical synchrony can then emerge that supports mutual engagement, care, and responsiveness” (Fredrickson 128). The effects that oxytocin has on one person acts as a triggers for the release of oxytocin in another. This forms a cycle of positive feedback. Therefore one can view a large gathering of people, such as a pop concert, as a super spreader event of love. To begin their essay, Noë writes about the anecdotal

experience of goers to such a concert, saying that they don't talk about music, rather "They'll tell about the excitement, the thrill, the person or people on the stage, his or her sex appeal, how it felt to be there, in the presence of greatness, part of a crowd, a sense of connection to the star or to the audience" (Noë 168). Concert goers aren't there for artistic appreciation, or philosophical engagement. Rather they are there for an ecstatic experience. Unrecognized by the most of these individuals, there are certain biological characters that work to create these experiences.

Specifically, oxytocin, which is stimulated by trust, intimacy and connection. Furthermore, these fans are having synchronous experiences, to the extent that they feel like part of a tribe. This relates to Fredrickson's concept of resonance. The word resonance comes from the Latin *resonanare*, meaning resound or echo, literally *re* (back or again) *sonare* (emit sound).

Fredrickson states that many aspects of love will reproduce themselves, such as oxytocin inducing oxytocin stimulating behaviors, and in Uri Hasson's brain coupling. It is evident that a similar kind of resonance is happening with the pop fans. This is the mechanism for the similar qualities of pop fans, and thereby the mechanism through which unconnected fans can become a unified whole.

As discussed previously, "Love" is a resulting pattern of biomechanics, distinct from attraction, affection, or ecstasy. This loosely grounded understanding raises interesting questions about other emergent phenomenon. Fredrickson's most coherent explanation of love is this: "I describe love's biology as a system, a whole comprised of several interacting parts. You can think of love, or positivity resonance, as one of the more complex and recurrent scenes nested within the act of your day" (Fredrickson 121). From Fredrickson's point of view, the body is a system of connected parts, which can resonate with the frequency of "positivity." This phenomenon is what love is. Therefore, ecstatic experience, or the emotional and anecdotal perspective of "positivity

resonance”, doesn’t originate from a single source. Rather it can be traced back to a multitude of physical and chemical circumstances that caused it. This can be related back to a pop concert. Excitement of individuals biological agents, such as oxytocin, work to produce “love” in the whole crowd. However this is not the most profound application of Fredrickson’s thinking. Oliver Selfridge is a well awarded computer scientist, who introduced many critical concepts to neural networks and artificial intelligence in general. Johnson recounts Selfridge’s idea of Pandemonium thusly: “The brilliance of Selfridge's new paradigm lay in the fact that it relied on a distributed, bottom-up intelligence, and not a unified, top-down one. Rather than build a single smart program, Selfridge created a swarm of limited miniprograms, which he called demons” (Johnson 201). In other words, “smartness” comes not from a monolithic source, but from an emergent pattern of many entangled “demons.” There is a striking similarity between this system and the body’s love system. Is oxytocin a “demon” in human body, screeching when certain triggers are satisfied? When Selfridge’s program is run, many demons will activate, or “screech” and activate other demons. Is this a kind of “positivity” resonance? If yes, than Fredrickson’s conception of love is applicable to many systems. The one Fredrickson describes is the mamalian love system. Other systems which produce love can be composed of multipul people engaged in mass resonance such as the pop concert’s system of love, or even out of artifical elements, such as with Selfridge’s demons. In this way Fredrickson’s love can be seen as the archetypal result of a system’s positive feedback, distinct from the mechanism of feedback, or the experience of positivity.

Extrapolating from these small scale examples, similar machinations of love can be described on a large scale. One of Johnson’s core explorations centers around the development of Manchester. Manchester is complex “because it has a coherent personality, a personality that

self-organizes out of millions of individual decisions” (Johnson 194). That is to say that individual citizens of Manchester repeatedly took the same action, resulting in a large scale “personality” of Manchester. Examining the individual, there are biological factors that influence their actions. When in an oxytocin favoring context, Mancunians are likely to taking actions based in trust and kindness, further favoring oxytocin in the kind of feedback discussed previously. This kind of synchronization is likely responsible for some of Manchester’s patterns; That is patterns can be formed from sustained “positivity” resonances. Those same Mancunians can also be seen as agents in Manchester’s love system. “shape your motives and behaviors in subtle ways, yet ultimately, their actions serve to strengthen your relationships and knit you in closer to the social fabric of life” (Fredrickson 122). Essentially, the actions of the love system’s components influence the actions of the whole; typically this is in favor strong relationships and a stable social reality. While 19th century Manchester is not desirable from a humanist view point, it does display a kind of stability. Manchester was a huge industrial center, and was cleanly divided between social classes. Although this division may at first seem counter to the ideals of love, when seen as resonance, one can see how each section of Manchester is resonating with itself. It is even arguable that the different sections, or tribes, of Manchester could resonate on different frequencies, in a kind of harmony. Taken from a distance, Manchester shows similarity to the pop concerts. Both feature groups of individuals, who spread certain states to each other and form a resonance, or “love” as a result.

When viewed as the resulting pattern from a biological system, “love” can be found in many unexpected places. “Positivity” resonance can be observed in social groups big and small, and even in groups composed of computer programs. Truly, this kind of love does transcend the typical uses of the word, such as for affection, attraction, or ecstasy. The shared feelings of

individuals can be viewed as signs of group movements. And the resulting actions of those feelings add together, becoming a pattern. When the total of all this micro-moments is summed, one finds a powerful resonance of love.

Works Cited

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