ZERO METAPHOR: HOW THE KALEIDOSCOPIC POINT ESCAPES THE TAUTOLOGY OF METAPHOR

Is “the kaleidoscopic point” a new philosophical concept? Or is it simply a rarefied form of the more recognizable metaphor?

As an academic question, metaphor and its uses might fall somewhere in the spectrum between philosophy of language and epistemology. But as a practical question, informational arrangement (whether metaphoric or kaleidoscopic) signals issues of broader significance for choice, and sociocultural structures. Behavioral economist Dan Ariely suggests as much in his 2008 TEDtalk when he demonstrates that the structure of the experience of a DMV form can have radical effects on attitudes to organ donation. In this talk, Ariely terms this phenomenon the “decision illusion.”

And as Macknik et. al. demonstrate in “Attention and Awareness in Stage Magic: Turning Tricks into Research,” exploitation of informational arrangement lies at the core of magic tricks. According to Macknik et. al. magic tricks harness the perceptual mechanics of vision and other cognitive processes to produce illusion.

Both the kaleidoscopic point and the metaphor could at least be grouped together (at least theoretically) under the collective banner of informational superstructures; that is to say, super-concepts that arrange and perhaps correlate disparate phenomena. With the metaphor, sailing might be more easily understood as farming: The dreadnought plowed the seas, for example. The correlation of phenomena with the kaleidoscopic point however, seems at first blush more indirect. The kaleidoscopic point seems to fixate more on a kind of spatial orientation. Like a stellar constellation, the kaleidoscopic point speaks to things or ideas with similar concepts arranging themselves in a way to make an easy transition from one to the next.

To attempt a working definition, the kaleidoscopic point deals with the impact and arrangement of various kinds of vectors (sociocultural, ideological, political, desire), the appearance of which open the idea of perpetual alteration. With the kaleidoscopic point the once-clear definition between the engineered (human-made) and the natural becomes subsumed by a discourse of linearity (or perhaps multiple lineages); we are this now, what might we become at some later point?

Hence the kaleidoscopic point does not adhere to the the simple linearity of the
metaphor. For one, no hierarchy is assumed as it is with metaphor. When we say *the ship plowed the seas*, we insert the hierarchy of the unknown as a distant thing. Here we have the idea of farming, which we seem to say with our example metaphor, “this is easily understood.” But this novel thing of sailing—which you may never experience—may employ the idea of farming to be more easily “accessed” by you. In this case, the metaphor establishes a hierarchy of the unknown, assuming that sailing is less familiar than farming to readers.

High Modernity’s wrestlings with the notion of “knowability” through experimentations of form (Joyce’s *Ulysses* retelling of the Greek epic as a day-in-the-life in early twentieth century Dublin, for instance) rather than the erection of new mythological edifices, seem more easily encompassed by the kaleidoscopic point. The kaleidoscopic point is about arrangement, about adjustment; if I tweak this element in relation to these two, what can I produce?

The term “sequential art” to describe the art of comicbooks may hold a clue to a deeper truth about the kaleidoscopic point. Although narrative carries readers through from one point to the next, reading comics’ stories might not be as simple a task as watching a film. Since readers’ eyes can fall on only one element of a comics panel (either image or text), readers must themselves arrange their “access” to the information on the page. Will they read the text first, then scan the image? Bypass the text altogether in the hope of gleaning sufficient information from the sequenced images? These two, parallel “vectors” of image and text (left to the reader to arrange) lie at the heart of the kaleidoscopic point. There is a complementary nature to the connection of these “vectors,” a complementarity that does not preclude either of the “vectors.”

**The Panopticon versus the Black Hole**

We might argue that kaleidoscopic point (as a point of different kinds of light mixing) sits at the center point of a spectrum. On the ends of this spectrum would be a point of absolute illumination, and a point of absolute darkness. While such a continuum may be easy to imagine, in practicality it becomes harder to equate these two endpoints when we input existing entities onto this spectrum. Here is an attempt. As a point of absolute darkness, let’s consider the black hole or collapsed star as one type of informational superstructure. As a point of absolute illumination, we can think of the Panopticon, as yet another. But the very act of thinking in concrete terms seems
to radically destabilize the notion of these entities being correlated. A black hole is something proper to a strictly scientific discourse of astrophysics. A discourse of sociology is needed to understand the Panopticon. First proposed by utilitarian thinker Jeremy Bentham, the Panopticon was popularized by French sociologist Michel Foucault as the metaphor for power exchange in industrial society.

The Panopticon itself remains similar in its physical construction in both Foucault and Bentham. Imagine a building in which small compartments (offices, tiny classrooms, prison cells) are arranged floor-to-ceiling around an atrium. Each compartment, just big enough to house a single individual in their solitary task, is segregated off from the next (floor, ceiling and side walls) by solid concrete. A concrete outer wall behind the subject divides the compartment from the outside world. The side facing the atrium, however, is covered in glass. The atrium itself is not empty, but contains a perpetually illuminated tower. This tower, the Panopticon, is the singular point responsible for observation. Foucault’s (200-201) contention is that the pervasive nature of surveillance in such an environment enforces a culture of individuals constraining themselves rather than relying on the visible exercise of power by an external authority.

On the other end of the spectrum is the black hole. Writing in The Black Hole War physicist Leonard Susskind describes a decades-long debate between himself and cosmologist Stephen Hawking that ultimately solidifies our understanding of black holes as informational systems. Historically, the debate between the two camps (Susskind is joined in his opposition to Hawking’s view by Dutch physicist Gerard t’ Hooft) arises from a private seminar held in 1981. It was at this seminar that Hawking described, using the advanced mathematical representation of a Penrose diagram (Susskind 21-23), the transformation of matter in a black hole.

In keeping with the laws of thermodynamics, Hawking conceded that information (the underlying structure that might manifest as either matter or energy) would be retained within a black hole (Susskind 22). Tossing a coin into a black hole for example, might see the coin itself atomized. But molecules themselves would contain the informational structure that would allow for the reconstruction of the exact coin that was originally tossed in. This effect is predicted by the law of conservation of information which states that information can never be lost.

But in describing black hole evaporation, Hawking asserts exactly this; that information is indeed lost (Susskind 21-22). Hawking contends that a particular
kind of decay, black hole evaporation, would necessarily result in the informational structure of any energy or matter having entered the black being permanently lost (Susskind 22). The Black Hole War, then, is a description of Susskind’s struggle to articulate the physics and the mathematics needed to refute Hawking’s claim. In a sense then, the book is a linear narrative of Susskind’s rescue of the core principles of quantum mechanics and the laws of thermodynamics.

With the two structures now deeply embedded in their discourses (the Panopticon in sociology and the black hole in astrophysics), a simple metaphor seems insufficient. What is called for, to fully communicate the two structures is more complexity rather than less. In this way ‘skirmishes’ might be uncovered; points of connectivity where the aesthetic mechanics of each individuated structure might successfully segue into the next.

To further describe these two individuated structures: Susskind works for nearly three decades to produce an argument that would counter Hawking’s claims, while Foucault’s Panopticon represents the realization of a project begun as early as his Birth of the Clinic. Susskind deduces two principles that, when taken together, successfully counter Hawking’s position. To avoid getting mired in the specific discourse of physics, I will simply resurrect the concepts of complementarity and the holographic principle, without conjoining them to invalidate Hawking’s original assertions.

**Complementarity and the Holographic Principle**

To evolve the concept of complementarity, Susskind returns to the work of Niels Bohr, who was always a stickler for language (Susskind 244). Bohr frequently attested that much of the confusion surrounding the counterintuitive principles of quantum theory could be cleared away simply through the correct and precise use of language. One such example was the nature of light, which could exist as both particle and wave. Bohr’s insistence was that light be described as existing as “particle or wave,” as the two states complement each other (Susskind 244).

Susskind’s insight was to extend this notion of complementarity to the description of a black hole. Susskind contends that the experience of falling into a black hole and perceiving your atomization from inside its event horizon complements the experience of viewing a body fall into a black hole and be atomized (Susskind 254). The two images are different, Susskind asserts, and the physics of what happens inside the black hole and what happens at its edge are at variance with each other.
The second precept, the holographic principle, stems directly from a prediction made by string theory, the mathematics that offers one description (arguably the most accurate description) of quantum theory. The principle at the root of Susskind’s investigation is a mathematics that predicts that even the tiniest part of the universe, an atom say, should be as large as the entire universe (Susskind 293). Naturally this principle is deeply counterintuitive. Mega-scale structures of that magnitude would be clearly noticeable. Susskind’s process in resolving this paradoxical prediction did not so much begin with the principle itself (one usually simply ignored by quantum theorists prior to Susskind’s resolution (Susskind 293)), but began with an observation about photographs (Susskind 296-297).

Susskind observed that in a traditional painting relative size and distance can only be inferred by the viewer, not actually measured. There is no way to say for certain that the church tower in the distance is actually in the distance. Perspective is a game of the mind encoded by the painter. Moreover, with photographs, the medium producing what minds interpret as images is not paint, but chemicals on film. And in digital cameras, that medium is an array of pixels.

Susskind further points out that a hologram is wholly different in structure to either a photograph, digital or otherwise, or a painting (299). The information coded on the holographic plate does not render a representation of objects and their relations in a way to trick the mind into reconstructing perspective. Instead, once lit by a laser, the holographic plate produces an exact three-dimensional representation of the object itself. The image can be viewed from all angles. The church tower in the distance will be at the correctly scaled distance to the images in the foreground.

Susskind began thinking about how information of an object might be stored at the edges of an object (299). Just like the holographic plate contains the information of the image, but scattered in a blizzard until lit by a laser, so too might the edge of any structure contain the disassembled, de-configured information of that structure. The largest structure imaginable, Susskind argues, and the outermost edge of everything is the edge of the universe itself (301-305). In this way the edge of the universe might be said to contain the informational structure of everything that has ever occurred within it. And thus even an atom might be “large” enough to exist at the very edge of the universe.
The Panopticon and Complementarity

To return to the Panopticon, Foucault contextualizes the development of the structure as a conceptual frame for power in the following way:

Hence the major effect of the Panopticon: to induce in the inmate a state of consciousness and permanent visibility that assures the automatic functioning of power. So to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action; that the perfection of power should tend to render its actual exercise unnecessary; that the architectural apparatus should be a machine for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they are themselves the bearers. (201)

The idea of seeing as an act that evinces power in the observer and articulates the observed as subject to that power is a long-running theme in Foucault’s work. *Discipline and Punish*, which contains Foucault’s lengthiest discussion of the Panopticon, attempts to describe the mechanism by which medieval power is transmogrified into industrial power. The two power systems are characterized by wholly different attitudes towards visibility. During medieval times, power was best when it was exercised (inflicted?) upon the Other, often in the dark. With industrial society, power is best when not exercised, but its effect (even in *absentia*) is illuminated so as to be completely observable.

With this level of detail, the possibility for comparison between the two structures, the black hole and the Panopticon, begins to reemerge. But a word or image is scarcely enough to be carried over to ensure adequate comparison. What is required is a kaleidoscopic point that will blend together elements, allowing for a contiguity from one structure to the next: a point, a vector, of relation exterior to both structures. What Gilles Deleuze (163) refers to as “A world where thought itself is in a fundamental relation to the Outside, a world where terms exist like veritable atoms, and relations like veritable external bridges… a Harlequin world of colored patterns and non-totalizable fragments…”
A comparative structure between black holes and Panopticons is more clearly established for example, once it is realized that complementarity is already at work in the Panopticon. The reasons for the observed accepting the structure and its specific effecting of power might not be the same as the observers’ reasons for effecting that power. Complementarity forces us to question the mechanism by which the observed came to be imbricated in this system of the Panopticon. Moreover, complementarity forces the question as to the accuracy of Foucault’s assay of the Panopticon. Are the forces he sees at play in the structure, really the forces at play?

Similarly, the holographic principle appears as a point of relation between the black hole and the Panopticon. Just as the Panopticon observes those in the cells, so too is the informational structure underpinning the Pantopticon inherent in those cells themselves. Should the Panopticon be demolished, it could easily be resurrected from information contained within each cell’s line-of-sight.

The relationship between the Panopticon and the cells, between observer and observed, is perhaps more difficult than Foucault first suggests. The notions of complementarity and the holographic principle, borrowed from a wholly different discourse articulate hidden tensions within the easy (albeit unpleasant) relational structure Foucault asserts for the Panopticon. The kaleidoscopic point between the black hole and the Panopticon (here, simply the conceptual task of relating the two disparate discourses) provides a richer, more meaningful format than metaphor. Ultimately, in the act of carrying meaning from one system to another, metaphor presupposes a system of zero novelty. Find the right words, metaphor seems to say, and you would be able to tap that aspect of the destination-system that articulates exactly the same aspect of the origin-system. Or to put it more simply, each independent system (be they disciplines, discourses) articulates exactly the same body of knowledge as the next, words are simply there to coordinate the correct exchange of meaning.

The world described by Rich Baraniuk, one in which the beauty of a mathematics describing signal processing is at the heart of a complex web that links cellphone applications to music synthesizers to the economy, simply evaporates (TED Talks). “The thing that I realized is that there’s no way that I as an engineer, could write this book that would get all of this across. We needed a community to it and we needed new tools to be able to interconnect these ideas,” Baraniuk states (TED Talks). At once he describes a world where the relational is primary and novelty is infinite. By simply carrying meaning from one system to the next such novelty is obviated. With
metaphor, a point in one particular system necessarily connotes directly to another point in a second system. And therefore, no system can articulate knowledge that other systems cannot. With the rise of metaphor, knowledge could be said to be tautologous.

But relational reading always announces a kind of novelty, the possibility of newness at every turn. Despite its push for the new, this kind of relational reading, which constructs kaleidoscopic points as a comparative framework, is itself not new at all. Rather, it is a kind of reading that has been occluded from popular use, particularly in the light of the metaphor’s predominance. In a system such as sequential art, where various information sequences (text, image) are articulate on the same page, such relational reading has become the hallmark of the medium.

**Kaleidoscopic Point and Comics**

Sequential art focusing on longstanding, corporate-owned characters (Batman, Spider-Man, Daredevil) often gather up different kinds of storytelling in their overarching mythos as a result of various creators’ unique visions of the character. For the character Daredevil it is simultaneously true that he is mired in guilt and self-recrimination, and possessed of a devil-may-care attitude which shapes him as the ultimate risk-taker. Ed Brubaker and Michael Lark’s *Hell to Pay 1: To the Devil, His Due* illustrates this complexity of character. Early on in the book, Brubaker writes for Daredevil: “I did this… I left them for far too long. Danny Rand did what he could filling in, but with me in jail, then missing… I left too much doubt hanging in the air… about whose streets these really were” (Brubaker 5). The angst-ridden, guilt-driven, self-recriminating culpability of Daredevil is visceral with Brubaker’s words.

![Fig. 1. Hell to Pay 1: To the Devil, His Due (Brubaker and Lark)]
Elsewhere in the book, artist Michael Lark taps the other major aspect of the character. From his gritty, darkened visuals readers sense the exhilaration and pure joy Daredevil experiences at launching himself into danger. (Text is redacted to focus on image sequence in Figure 1.)

Of course, this is something of a ruse. Both genres, Daredevil as the adrenaline-seeking risk-taker and Daredevil as angst-ridden and self-recriminating occur simultaneously.

But producing these distinct genres of the Daredevil story on the same page, Brubaker and Lark do much more than double the creative effect of the storytelling. What the readers encounter is a series of fractionated moments, each hinged upon active participation by the reader before they can be completed. Immersed in the psychological aspects of Brubaker’s story, readers are intimately aware that the full rendering of Daredevil is as yet incomplete. The same is true for Lark’s story sequence. Rather than produce nostalgia for the way things were, sequential art is future-oriented, fixated on that moment when all story-sequences have been related into a coherent, de-fractionated whole.
We can look at the image in Figure 3 as a defractionation that only the reader can effect.

And of course, a moment of singular novelty erupts.

This is the high drama of the page. Will Daredevil actually be able to bridge this chasm? Here is a superhero in the throes of uncertainty. Someone who can launch himself into danger ostensibly time and again, uncertain of the outcome, but sure that he will be able to negotiate whatever difficulties arise.

What is actually on offer however, is the visualization of complementarity, and therewith the visualization of the kaleidoscopic point. Comics are narratives of growing expertise, as the reader continues to make choice about the arrangement of the image-sequence and the text-sequence, a competence builds. Mastering comics means mastering the skills to arrange the elements for oneself. But comics also provide an objective lesson in the kaleidoscopic point—the reconstitution of the whole based on the rearrangement of interior elements.

NOTES

1. The idea of “kaleidoscopic point” developed from exchanges with Julian Chambliss, who initiated my thinking about social and cultural practices in terms of such points of flux.
4. Stanford University’s Metaphysics Research lab argues that four possible traditions might explain the origins of metaphor, each predicated on some transitional hierarchy. “Metaphor” accessed 8/24/2011 <http://plato.stanford.edu/entries/metaphor>
5. Gunn argues that Joyce was perhaps first to extend the semiotic relationship between “reader” and “metaphor” over urban spaces. Gunn, Daniel P., “Beware of Imitations.” *Twentieth Century Literature* 42.2 (1996): 481-493.


WORKS CITED


