

Color and Reality

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Some years ago now I realized that I had a difficult time making choices regarding some personal preferences. I could make decisions about many things, many of them having gravity and consequences, yet I found I couldn't say what color I most liked for a shirt or a car or the walls of a room. I had become increasingly aware of this lack.

The tipping point came in two phases. In a moment of weakness I watched the popular film "Runaway Bride." There is that scene where Julia Roberts says that she ran away from the altar and numerous betrothed because she didn't even know what kind of eggs she liked. She had always fallen for guys and just taken on, chameleon-like, whatever they liked. Thus when she would get to the altar, she'd realize that she was losing herself without ever knowing herself. As silly as was the movie, I resonated with her problem. I replayed the scene in my mind now and then. The final call to action, the "tipping point" came when I flew to some city or other to do a lecture. Don't now recall where it was. I was picked up at the airport and taken to dinner then to my hotel for the night. Bored but not tired, I flipped on the TV to see what was on. Amazingly as the TV came on, it was playing the very scene in "Runaway Bride" where Julia Roberts is explaining to Richard Geer that she needed to determine what kind of eggs she liked. I took this extreme coincidence as a sign from the universe and decided I needed to follow Julia's lead. At that time I was living in a large home in Niwot, Colorado, with a 400 square foot room that I wanted to redecorate as a dance studio, I decided it was time to address this issue and that color was as good a way as any to start.

It didn't seem enough to simply go to Sherwin Williams, look at paint chips, and make a decision, so I began to do research on color. I looked at color charts to try to see the relationship between primary, secondary, tertiary color combinations and how colors go together. I wanted to understand why colors can be placed on a wheel and why so many people have such strong opinions about what colors go, or more strongly, don't go with other colors. Then I bought a bunch of color design books and looked at hundreds of photos of rooms and design ideas and various perspectives on how to use colors and how to put colors together for different affects. I began to see that color schemes are most often identified with values—cool or warm, invigorating or soothing—or with eras—the fifties for example—or with cultures—Moroccan or Chinese or Ghanaian.

Then, one day I was talking to someone about my burgeoning interest in color and my new-found knowledge of the association between culture and color. She replied, "Oh yes, that's why red is so often a royal color. Only royalty could afford red dyes." Well, this statement hit me like a brick and I have to say that it took me a few days to admit, even to myself, the implications. You see, for some odd reason, I had stupidly not thought that chemically based colors have only been available in rather recent times. It had not dawned on me that not everyone in human history could simply run to a Home Depot and pick any color at all paying the same price for any choice. Once I had swallowed my own embarrassment I had newfound passion about learning more about color.

Historically every color has a story and Victoria Finlay's book *Color: A Natural History of the Palette*¹ does a fascinating job of discovering and telling these stories. Color is of the earth or, perhaps more accurately, color is an amazing aspect of our relationship with the earth. Color is of people and their specific historical, geographical, geological, relationship with the earth and one another. Color is of the human body at the basic level of the neurophysiology of perception. Color appears through interrelation. Color has often been a factor in world politics and economics and war. Color is also of the imagination and can be appropriated to apply to surfaces to "color" things. Color has a psychological dimension in that we feel emotional responses to color in our bodies much more powerfully than we have responses to color from "the interpreter" language-generating part of our brains. The use of color as pigment or dye, in some fashion or other, is fundamental to art.

And then color has major philosophical and physiological and neurological and anthropological and psychological dimensions as well. Indeed, it is fascinating that studies of color have become watershed examples in a number of fields of study. Modern studies of color spanning several fields have revealed a great deal, in quite concrete ways, about what we are as human beings.

To me the immediately most important findings in color studies are:

- Those that convince us that color does not exist independent of our perception of it. While this aspect of color is a philosophical position at some point, it is a physiological and neurological finding at another.
- Those that convince us that while color tastes and color terms are culturally and historically determined, certain aspects of color perception are universal among humans because of our common neurophysiology.
- Those that convince us that the physiology of the color receptors in the eye, conjoined with the neurological processing of this information, determines our identification of primary colors despite the continuum of the color spectrum of light. This is why we see color bands in the rainbow rather than a smudge or blur.
- Those that convince us that the categories we construct and by which we live are, like color, constructs that emerge from a complex combination of physiological, neurological, biological, cultural, and personal sensorimotor involvements. Here color is an exemplar of our human distinctiveness.

Knowledge of these studies of color, in my experience, actually make living as a human being in the world pop with vitality like a Kandinsky painting.

The idea that color does not exist independent of our perception of it, is astounding, particularly when we extend this to all human experience of the world or, via Lakoff, to the categories by which we discern the shape of reality. It addresses an issue I have long struggled with. I've thought of it primarily in terms of what is sometimes called the anthropic principle. I have been unable to let it go. Strangely I've always connected the idea with dinosaurs. You see, I cannot bring myself to believe that dinosaurs

¹ Victoria Finlay, *Color: A Natural History of the Palette* (New York: Random House, 2002).

existed in some distant past. In fact, I have trouble accepting that anything can exist totally free of any awareness, conscious or subconscious, at all that it exists. This would be a world empty of any awareness, any sentience. And it makes a much sense for there to be infinite such worlds to exist. Indeed, there is no sense to it at all. I certainly recognize that this is a homocentric view, though the term “anthropic principle” sounds nicer, but I can’t let it go. I hear folks when they say, “you know existence may just not be about us.” Still, there is no about, no existence, no distinction, no categories, no color apart from some awareness, apart from some confoundable being of some sort asking questions. It is arrogant to hold that the world exists only so that we may perceive it. But then I think that is precisely what these studies of color are telling us. We create color in the world as we interact with it and so too categories and gestures and language. Thus, apart from us, there is no color, in any sense we can imagine color to be. If a dinosaur can have no color, apart from us, can there be dinosaurs? Varela, Thompson, and Rosh, in *The Embodied Mind*,² refer to this interdependence as “enaction.” They put it quite well when they write

Color categorization in its entirety depends upon a tangled hierarchy of perceptual and cognitive processes, some species specific and others culture specific. They also serve to illustrate the point that color categories are not to be found in some pre-given world that is independent of our perceptual and cognitive capacities. The categories red, green, yellow, blue, purple, orange—as well as light/warm, dark/cool, yellow-with-green, etc.—are experiential, consensual, and embodied; they depend upon our biological and cultural history of structural coupling.³

It is really amazing that these color studies are able to demonstrate so convincingly this tangle of processes.

I am about to tell you something you will not ever forget because the image is so distinctive as is the revelation it makes. Kittens were raised in the dark and exposed to light only under controlled conditions. When in the light, the kittens were divided into two groups. Kittens in one group were free to move around as they pleased; however, the kittens in the other group were confined to a little cart attached to the freely mobile self-moving kittens. Thus they moved about the world together in pairs, yet one actively engaged the environment through movement, while the other passively, that is, without self-movement or actively physically interacting with the environment. Only the actively moving kittens developed sight. The passive kittens were functionally blind.⁴ The image of those kittens being pulled about by their siblings leaves us with another remarkable insight.⁵ Perception, indeed our world, depends on our willful and experiential action; we must explore our world through bodily self-movement in order to even see it. Non-directed movement, even the experience of differing perspectives through non-directed movement, is not enough to wire up our brains for meaningful sight. We must explore the world with our moving experiential touch-based bodies to see the world. This example shows us that even sight is actually based in the sense of touch, the sense that is itself

² Francisco Varela, Evan Thompson, and Eleanor Rosh, *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge: The MIT Press, 1993).

³ *Ibid.*, p. 171.

⁴ *Ibid.*, pp. 174-75.

⁵ *Ibid.*, p. 175.

grounded in movement/gesture. Proprioceptively active groping self-movement is fundamental/essential to the development of perception, to the process of discovering and creating self and environment.

Like my fixation on dinosaurs, I can't help but be concerned that as academics we explore the world almost exclusively with eyes peering out of long immobilized bodies. I cannot help but be concerned about our whole educational system that discourages touch and movement. Our understanding of learning is captured by the phrases we so often use to beseech our kids to learn, such as, "Sit down, shut up, and keep your hands to yourselves." Of course, I understand that sight is enabled early in life, however, believing that neuroplasty is possible throughout life, I can't help but think that the sensorimotor patterning of bodily inaction, of restricting movement to the stuttering index finger and the movement of mouths and eyes, has a major effect on what we value, on the values born in those subconscious schemas that Mark Johnson revealed as being foundational to all of our "higher" conscious rational cognitive processes. Surely the impact on us is enormous and yet, as it is based in long engrained and embodied patternings and schemas, we are not, we cannot, even be aware of the deep effect these have on us.

Varela, Thompson, and Rosch's work on category, as also Lakoff's, is quite remarkable I think. Clearly we do have a fairly embedded sense that categories work as they are envisioned in classical category theory, that is, that categories reflect the world as it is separate from us and that members of a common category all share the same distinctive trait. Yet, it doesn't take all that much to disenchant us with this theory when we consider our own practices related to category.

Let's take stock a bit. Sheets-Johnstone offered "bodily concepts" as foundational to human discovery of self and world. Johnson, relying on work done with Lakoff, developed this idea in the terms of "image schemas." Image schemas seem to be processes and relational, akin to verbs. Lakoff, more focused on categories, developed the notion of "basic level categories" relying on a history of the concept that stems from the middle of the twentieth century. This construct complements the "image schemas" by being more like nouns. What is constantly present in Lakoff's discussion of "basic level categories" is that they arise from and are based in movement patternings, that is, the development of sensorimotor programs, or we might appropriately refer to them as gestures. This reveals the movement, relational, active, bodily, neurophysiological grounding of categories ... and that is a major revelation. It is consistent with Leroi-Gourhan's study of ancient tools focused on gestural patterns of their use. For example the basic level category "chair" is bodily grounded in the gestural pattern of sitting. Notice that the higher level category "furniture" does not have a single gestural program associated with it, but a variety and would thus, necessarily it would be argued, arise at a later stage. Also lower level categories such as "kitchen chair" or "bean bag chair" are connected with the general gestural program "sitting" yet have refinements or sub-programs that allow the subset distinction. Thus, there is strong evidence that basic level categories which are foundational to the way we understand ourselves and our environment are based at once necessarily on both the distinctiveness of the human body (its distinctive neurophysiology) and also on movement/gestural/touch interactional experiential processes.

Continuing our stock taking, because basic level categories are grounded in human experience, the implications for category theory are deeply significant. The establishment of basic level categories serves to undermine classical category theory which is grounded on the notion that reality exists independent of human perception and conception shaped in itself in the terms we grasp as categories and distinctions. Grasping basic level categories demands the development of category theory.

A major aspect of the development of category theory is the awareness that basic level categories are shaped on gradients of characteristics that correlate with experience. While all human bodies have closely similar neurophysiology, clearly not all human experience is the same. There are obviously cultural, historical, and individual variations. These add a healthy messiness to category theory that is always considered unwanted in classical theory. It is proposed that understandings and distinctions of categories are based operationally on best cases or “prototypes” rather than on logically defined distinctive features. A prototype is a loose idea of what a representative of a category should generally look or be like and then other members of the category can be admitted or excluded based on some proposed likeness or difference to the prototype. Obviously this similarity/difference could be constructed in terms of limitless attributes of the prototype. The prototype arises based on the most common or natural gestural patterns, affordances (Gibson), enactions (Varela) one would have with a category delimiter and there are fairly clear grounds for how these prototypes are selected and function. Best examples usually function without awareness or consciousness to distinguish categorical boundaries. And, obviously, best examples (prototypes) are not the same from culture to culture; they are not universal. This helps us appreciate the complexities of communication and the rich varieties of world views. It might be argued that if classical category theory held, there would be no need for comparative culture studies.

Get ready for application to our area of study. Let’s be ambitious and begin with the term that labels the category that gives all of us a common identity, religion. It is rather standard fare for students of religion, at one time or another, to think a bit about this term. In my graduate school days, it was common to attempt definitions of religion. This invariably led to collections of definitions that have been offered among religion scholars. It also led to trying to understand what we mean by definition and making distinctions between lexical definitions and phenomenological definitions. This discussion would arise because it used to be fairly widely held that religion is the ineffable and how on earth can you define the ineffable? Such discussions about definition and even definitional strategies always become tedious to the max and eventually just plain boring. Most such discussions simply provide a bit of lip service to the matter and go on. Still, this isn’t completely satisfying or even acceptably academic. Jonathan Smith has made a strong case that we invent religion. Only some scholars are even open to this idea.

The discussions of category provide some insight to the matter of defining religion. Rosch and Lakoff make much of the prototype theory of category.⁶ Rather than members of a category sharing one or more distinctive traits, these traits being definitional criteria, the prototype theory holds that categories are based on best examples joined by others that can be related to them in various ways and degrees.

⁶ George Lakoff, *Women, Fire, and Dangerous Things* (Chicago: University of Chicago Press, 1987)

Implications of the prototype theory also hold that categories, like colors, are not distinctions in the world independent of us. Rather categories are the product of human interactions with the world and clearly, like color, they are the product of a tangle of perceptual and cognitive processes all ultimately grounded in body, in sight, in self-movement, in gesture, in brain, in touch. Biology, neurology, culture, history, and individual experience all play a part. Certainly then the term “religion” refers to a category constructed in the same fashion.

The academic study of religion emerged largely from Christian studies. All one need do to be overwhelmed by the impact of this heritage is to read Walter Capps’s book, *Religious Studies: The Making of a Discipline*.⁷ In this thick book the first non-white, non-Christian, non-male scholar doesn’t show up until near the end of the book. The sensorimotor patternings or gestures that have created the schemas that we unconsciously draw on when we think of religion in any way are those experienced by thousands of dead white Christian men. Quite the groove! And it doesn’t take a Lilly funded study to identify Christianity as the operative prototype we continue to use, though now rather unconsciously, as our best case for our deeply embodied understanding of religion. As students of religion, virtually every question we ask, every sub-category we engage, every phenomenon we identify is rooted in an understanding of Christianity held, not by the broad spectrum of practicing Christians throughout Christian history, but by that elite group of white male intellectuals that spent their entire lives sitting immobile thinking and writing about Christianity. Thus it is not even practiced Christianity that serves as our prototype, but intellectual Christianity.

I am not sure we can grasp the depth and pervasiveness of the impact on us of these deeply engrained sensorimotor schemas. I suggest that they establish the reality of the academic study of religion, a level of subconscious and tacit agreement borne in the body. To say that our understanding of religion as an academic category is based on the gestural patterns of intellectual Christianity seems almost inappropriate since we would generally think of intellectual Christianity as “disembodied.” Yet, the very point being made here is that even intellectual Christianity is determined in gestural/movement terms. The prototypical gestural clusters that shape the world as encountered in intellectual Christianity are sitting, writing, verbal discourse, limited whole-body motility with movement/gesture concentrated on the hand and the head (face), postural preferences for the kyphotic.

When we encounter religion as a category we must then relate to our functioning prototype—intellectual Christianity—but we do so more viscerally connected with our prototypical gestures/postures/movement schemas because these actually function to ground, give gravity to, the labels we give to the distinctive characteristics of religion. Operatively then religion as a category is foremost determined by what is included in our gestural/postural patterns; religion is a study of writings—primary, secondary, tertiary—no matter Religion is a study that produces writings and to a lesser degree talkings. After this then, we are freer to limit writing and talking based on other content items in the prototype, such as commonly the vague “belief in god,” the presence of a “figure comparable to Jesus Christ,” something that looks like the “Christian church.”

⁷ Walter Capps, *Religious Studies: The Making of a Discipline* (Augsburg Fortress Press, 2000).

There is nothing wrong or inappropriate about this way of defining religion, yet it is important to appreciate the implications of this definitional process in light of an experiential/movement/gestural basis of delimiting category/definition. The study of religion then is gesturally a way of confirming our reality in ways that we may not be fully aware of. And knowing this allows us to see that religion might well be understood quite differently, yet this would necessitate the construction/engagement of other experiential gestural patterns. This awareness may also raise for us an alarming possibility that religion scholars may have some experiential defining experiences akin to those kittens riding in the carts.

In my first lecture in this series I talked about the peculiar ways in which the academic study of religion seems to be limited. It has pretty much ignored such obviously religious phenomena as prayer acts, ritual, dancing, drama, music, art. We can now perhaps begin to appreciate why such odd exclusions occur. They simply are not features that have been connected with prototypical/gestural patterns of intellectual Christianity that our forefathers constructed and passes along to us.

Varela, Thompson, and Rosch's extensive discussion of Buddhism as a traditional philosophical source to assist us in our understanding of enaction and its implications raise an interesting idea. Let us suppose that the academic study of religion had been based on an understanding of religion where the prototype for a religion was Buddhism. It would be interesting to take some time to start with this idea and play it out. My guess is that we wouldn't even end up with anything recognizable from our current practice. Clearly how could an understanding with an operative prototype inseparable from enaction ever led to even gestural/postural practices of contemporary Western academics. Even the furniture of learning (should it exist) would be completely different.

It seems that the implications of these insights are strong support for Smith's idea that we invent religion, but it also is strong support for the absence of our awareness that we do so. We simply don't know that we see red, blue, and yellow because of a complex entangled set of subconscious or wholly unconscious neurophysiological processes. Surely the case is the same with religion. That such effects occur at a subconscious and gestural/postural level to actually determine what we see and how we value what we see means that we are usually not aware of it. Yet we can know that these processes are at work and even specifically how they impact us.

Yet I believe, always faithful to plasticity, that knowing something of the background of conditioning and determining processes, we may purposefully go about our work anew. Coming to know that the operative prototype for our study of religion is intellectual Christianity, we can do personal archaeology to learn how this shapes our world. Discovering the deeply determining nature of sensorimotor patternings (gesture/posture) and their interconnection with cognition, we may finally recognize the potentially determining impact of intellectual gestures/postures, the icons of our educational system, and chose to exercise and explore other gestural patterns, alternative postures. We can begin to exercise our body/minds to create new sensorimotor patterns that may embody new schemas which will change who we are and the world we experience.

These are but a few ideas I have on the implications of color on our understanding of who we are as human beings and as students of religion. I will return to this topic for fuller discussion in a later lecture.

Oh, and I did eventually paint that dance studio—red with yellow ceilings, gold yellow trim with a light berry purple accent in it. And I went on to design many of the features of my current house which my neighbors call “the colorful house.” In this regard there is perhaps one more relevant experience.

To assure that I created and discovered my own taste in color I knew that in my first experience I simply couldn’t consult with anyone. I knew that were I to ask even my dog what he thought about the color scheme I was planning to use on the walls of this room, I’d read his every bark and drool as a critical statement and I’d quickly change my mind. Week after week I considered various combinations and gradually began to narrow my choice. Finally, I bought the paint and when nobody was home, I spread out the drop cloth and started one large wall. Remember this wall was red. I painted a pretty large area and walked across the room to give it a look. My stomach churned, my head spun, and I nearly threw up. When you first see a large area of red on a wall that has been quite bland, it is a huge emotional shock. I sat down, I had to, and began to consider rushing back to the paint store to get a nice beige to over-paint the red. At that moment a young woman who was renting a room from me walked in. Yikes! Caught in the act.

Her immediate response was, “I love it!” “It is so you!” This was the immediate response of virtually everyone who ever saw it. We had many dance parties in that room while I lived there, some even with live salsa bands. The room came to be known as “Sam’s Club.”

The lesson here may be that we might undergo the same emotionally wrenching process in trying to repaint our field of study, but I have faith that we would enjoy what comes of it.