

Rooms of Consciousness

Thomas Kuhn Taken Personally

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17. December 2014

Abstract

It appears that science shares a common problem with talking about meditation: The fallacy of trying to recreate observation from that which is observed can be re-entered on every level of understanding, however progressed our understanding may be. The argument about dichotomies of ideas in psychology has been going on since the rise of the discipline. Dolan discusses opposing views of monism and materialism (2007), Varela phenomenology and reductionism (1996, p. 332), Whitehead idealism and materialism (2004, p.69), Sperry mentalism and physicalism (1980, p. 2.), and, at the start of the 20th century, Brentano psychognosis and genetic psychology (Vygotsky, 2012, p. 86). The progress of this mind-body debate is fundamental to human cognition.

Taking Thomas Kuhn personally, I will illustrate this problem by painting a room of consciousness analyzing different aspects of this argument to show that scientific research and logic alone will not be able to advance us to an integrated view of the mind-body problem. Without a thorough understanding of the contemporary, scientific consensus on consciousness, mind and body we lack a satisfying foundation for scientific studies.

A Room Of Consciousness

Whenever one *tries to describe facts or state how things are*, a mental viewport opens that creates a room with us and our initial ideas as contents. Whatever is said about these facts then happens inside of this room, and it loses validity as soon as you step out through the door. The problem is: *This room has no doors*. It accumulates a quantity of *items* (things) that you can investigate, dismantle, split into new ones and relate to each other, making up *models*. There are viewports in the floor that have the quality of history channels. One can watch these channels to gather any *retrospective explanation* to construct meaning for this room. These constructions also appear as items in the room. One can dig *portals* into the walls to travel. They provide the illusion of escape and riddles to solve. However, the far side of the portal will always lead back to another spot in the same room. As the room is complex, i.e. changing along with one's new inventions, recognizing this fact may take some time. The entrance portal carries the label *cause*, the exit *effect*. One can then dig up taxonomies of possible portal connections and come up with findings like "speedy thing goes in; speedy thing comes out", stabilizing consensus with one's peers.

Our Progress or My Progress

In the middle of the room, imagine a rope hanging down from the ceiling. An attached note reads, "If you pull this rope, this room will collapse." Whether somebody will pull that rope depends on the stability of the current scientific consensus, as the outcome of this action will be ambiguous. In situations of uncertainty, people will refer to their respective peer group to construct meaning and stabilize one alternative of action. So the peer group serves multiple purposes. One, it can accelerate the learning process. Under the guidance of highly intelligent peers, some members function within their zone of proximal development that speeds up the members' development. Two, peer groups can limit progress by holding back

the transition of members in decisions with ambiguity. (Vygotsky, 2011, pp. 203-4; Weick, 1995, p.16)

However, collapsing the room is the only way to get a full picture of its dynamics from an outside perspective, so it can become an object of scientific investigation. Once it has collapsed, the *complex room*, together with its contents, becomes a collection of *wholes* in a new room that immediately opens when you pull that string, as long as any further questions are left. No matter how often you pull that rope, you will always find yourself back in another room: a floor with windows on your memories, the portals of your senses, and a conscious understanding of how things are that will collapse if you pull the rope. With each of these deconstructions, a new whole of yourself emerges.

Some phenomena across rooms appear *self-similar*. They open the field for ontologies of phenomena that seem to hold true between rooms but can never be bracketed: *metascience*. (Vygotsky, 2012, p. 87)

Doing Science

While no longer asking any questions may lead to a yogic peace of mind, doing science implies acting within the constraints of our mental room, which also contains our current, scientific context. Other people or living beings in general, appear as *contents*, distinguished by autopoietic (active, complex, self-producing) behavior. Thus, our understanding of others depends on the dynamics and structure of the mind that spans our cultural context, as *our current configuration of mind is this mental room* and we can only perceive others as its conscious contents. Everybody necessarily constructs an own mental room. Cultural exchange shapes common properties by consensus and osmosis. This cultural exchange can be described as third order structural coupling between organisms. (Maturana, & Varela, 2009, p. 196)

To participate in scientific communities, our room must be shaped in a way to orchestrate the drift of structurally coupled organisms in order to create mutual understanding and could in constructivist terms be described as a widely accepted, shared hallucination. Learning thus appears as a sequence of assimilation and accommodation, or perturbation and structural change. Brains also correspond to things in our mental room and thus can be the object of scientific research. Doing science turns some of the complex phenomena of our mind into only complicated ones. Thorough understanding of these phenomena enables us to use them in simple ways. We can combine them with the help of logic, but conclusions are only valid within their respective mental context. Scientific descriptions of relationships between things within the mental room thus depend on the current consensus on the mind. This consensus is equally being renewed in stages. As people with similar content in their rooms meet, a virtual, joint room is constructed upon the scientific consensus. Within this room, deductive “normal science” in the Kuhnian sense can be made. But every once in a while, this joint room will also have to be collapsed, calling for extraordinary science that causes a shift in paradigms. This shift in paradigms can be thought of a new, collapsed joint room that contains the holistic consensus of before as an object, giving way to a new perspective on the whole. (Piaget, 2010, p.53; Maturana, & Varela, 2009, p. 108)

In order to understand the mind, neuroscience is concerned with brains. Nerves and collections thereof are most visible to scientific investigation, because they appear as things, show regular patterns, and recognizing patterns is at the roots of intelligence and scientific research. Phenomenal science, in this picture, is always bound to be dualistic, as it is confined to contexts of which there is consciousness. Barret’s recipes on basic mental primitives, although inconsequent from a constructivist’s point of view, pay their dues to the current scientific context in order to maintain their scientific credibility. There is no possible, conscious outside-view other than leaving the current context, and to stay scientific, one

needs to create the next. So the problem can be rephrased as consciousness – mind – body problem, or culture - society - people problem respectively. Consciousness, along with other phenomena within, from a scientific point of view, can be thought to emerge from a quantitative increase in the holistic functioning of the brain. Similarly, culture emerges from an increase in holistic functioning of society. Thus consciousness and culture both integrate, and the absence of holistic integration of societies precludes the development of culture. (Kandel, Schwartz, & Jessel, 2000, p. xxxv; Barret, 2009, p.331; Greenfield, S. & Koch, C. 2007)

To Understand the Mind Advances Metascience

One cannot be doing science by permanently pulling the rope, and not develop culture by permanent redefinition of societies or organizations. However, at intervals the room has to collapse so a new, integrated, holistic view can emerge, or the learning process will grind to a halt and be trapped in a for and against of opposites that are never transcended. Every collapse folds a manifold into a unified one, reducing opposing theories and positions to mere perspectives on the new whole. If the picture is a suitable metaphor, we will only ever manage to describe experience of the mind in relationship with that of the brain, not connect them with cause and effect. Likewise, groups of people never cause a collapse of culture, but culture has to be seen in relationship with, emerging upon society.

Mind and brain may be coupled, but investigative methods are limited to their respective context. Simply pulling the rope will devastate all functional relationships that we tried to establish between mind and brain, or mind and body respectively. Lisa Feldman Barrett removed the words in experiments of cross-cultural studies. Creating a different cultural context for the research, she managed to produce results that were in direct opposition to Ekman's functional conclusions. (Barrett, 2013; Vygotsky, 2012, 88-90)

In the process of mental evolution, our understanding of the brain will improve, as will our understanding of the metascience. The structure of the room will have to change in order to be able to take up new contents. Whenever a new phenomenon becomes conscious, a layer of thought peels off the room's wall and drops down to the floor, becoming an item. The emotional tension that it caused drops off. The boundary between our contexts of understanding is fractal, transgression thus is non-linear, and you experience only one context on a moment-to-moment basis. Or, as Vygotsky phrased it, for unification to happen there must have been a preliminary split. (2012, p.90)

Thinking About Thinking

The process of thinking can be visualized as reorganizing the complex structure of our room. The changing structure of the room can be experienced as emotions. There is either tension or no tension. Doing science, i.e. investigating our world of things and its relationships, creates items in our room. This accumulation of objects causes tension in the walls. Forgetting, which could relief pressure, is a slow process, as items need to decay. With increasing pressure from an abundance of things, willingness to pull the rope increases accordingly. Peeling off thoughts at some point can no longer release the tension, as the room becomes crowded. So at any particular point in time, peer consensus will no longer be able to hold back individual advance beyond the contemporary context. Some people will pull the rope. Decisions are always compromises. Any choice will never be able to fulfill all objectives of a plan, but be the best option for that particular person within their respective context. If tension becomes too high, they will seek relief. The new room has little tension, as under unification the old room collapsed into few things. (Simon, 1997, p. 5)

Psychologists investigate the conscious field of the mental room itself, for example, by asking: How does mental tension build up? How are emotions and thoughts formed and experienced, and how can they be released? When are thoughts bracketed and thus new

variations created? (Varela, 1996, p. 336-38) When are people willing to pull the rope, i.e. when is the current context being transcended, as in decision making, learning, and personal development? How is progress experienced? How does cultural dynamics evolve between organisms, how is experience communicated, which patterns for cultural dynamics arise thereof, and what is their meaning in social interaction and mental well-being?

Vygotsky anticipates this consciousness-mind-brain trichotomy in 1928 by stating that “psychology found its “biological foundation in conditioned reflexes and its philosophical formulation in materialistic dialectics, it is in *psychotechnics* [...] that it found its practice, that is, the mastery of human behavior in practice.” So the matter of psychology is neither pure science nor mere metascience, but concerned with the question of how the two relate to each within the basin of consciousness at every stage understanding. (2012, p. 100)

Resisting Progress To Progress

In order to scientifically investigate and elaborate on a model of the mind, one must resist pulling the rope at least for periods of time, so contemporary items can be formed, and scientific consensus can stabilize thereon. At the same time, from the point of view of metascience, scientific theories will have to be challenged so that psychology as a discipline can transcend its boundaries. Scientific schools, in moments of idealism, sometimes seem to act as if pulling that rope was not possible, with behaviorism as one prominent example. On another account, Lisa Feldman Barrett pulled the rope on Ekman’s theory of facial expressions as an emotion machine. Protagonists of constructivism or mentalism are in a constant struggle with other schools of thinking. At times, they need to resist the urge to act as if nothing in consciousness could be taken for serious. Pulling the rope every other instant confines them to discussions of metascience. However, their constant challenges promote breaking free to new levels of understanding.

Conclusion

An all-encompassing theory of science or metascience can never be made. If metascience uses language to describe its findings, it operates in the realm of science, and there it can only produce fragments to work on. On the other hand, science cannot bracket the phenomena that metascience seeks to describe. Science cannot leave the context of discrete items and their relationships, from which one can only speculate on metascience in terms of complex, non-predictable phenomena. Scientific findings in our mental room lose their imagined, global validity as soon as enough people pull the rope. A new stage of science emerges, harboring new paradigms. Doing so depends on people's willingness and abilities, which take place at the crossroads between personal and cultural drift: Thomas Kuhn taken personally.

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