
Designing Research Autopoietically

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ABSTRACT: In this paper, I describe autopoiesis and then use it to theorize the way I engage graduate students in designing research. Then Philip Montgomery, a graduate student, describes his process of autopoietic research designing.

KEYWORDS: autopoiesis, research designing, teaching research designing

Autopoiesis

Auto—self, *poiesis*—making. *Auto*—self, *mobile*—moving. These two terms, *autopoiesis* and *automobile*, are structurally similar but semantically different. Comparing them illuminates the meaning of autopoiesis.

An automobile requires a driver, who starts it and determines its direction of movement. A car cannot do what it was designed to do without a driver. The process of autopoiesis, however, is more akin to what happens with active bumper cars. Once the bumper car system is turned on, each car is self-propelled and its direction depends on how it interacts with other cars and with the surrounding bumper wall. That interaction is determined primarily by the structure of the car. Its thick rubber bumpers and solid sides make it rebound rather than collapse when it collides with another car or with the wall. The “driver” of a bumper car is actually a passenger who, like a backseat driver of an automobile, affects but does not determine the movement of the car. The bumper car is thus self-directed as well as self-propelled.

Insofar as they are self-propelled and self-directed, bumper cars in motion are like an autopoietic system. There are two additional features of autopoiesis, however, which the bumper car analogy does not encompass. First, an autopoietic system does not require an operator to turn it on. Rather, an autopoietic system comes to life out of life itself. Second, the structure of an

autopoietic system changes as it interacts with elements of its environment. Thus, the bumper car would be truly autopoietic only if a collision changed the structure of a car such that it responded differently to the next collision, and so on in a continuous process of remaking itself in responding to elements in its environment. Autopoietic systems are thus self-making as well as self-propelling and self-directing.

All living systems are autopoietic (Maturana & Varela, 1992). Therefore, it follows that human beings are autopoietic. However, human beings differ from most other living beings in their capacities for self-consciousness and language proficiency. The significance of these capacities is that they enable human beings to become aware of and to make meaning of their patterns of responding to elements in the environment. The capacity for self-conscious reflection enables human beings to reconsider and to change their autopoietic response patterns in ways that might not otherwise occur. In these ways human beings intentionally (re)make themselves. For example, in the account of his autopoietic research designing process given below, Philip describes how changing his response to emotional discomfort from avoidance to confrontation relieved his suffering and allowed for growth and transformation.

Autopoiesis and Research Designing

How is autopoiesis relevant to designing research? I have found that using the concept of autopoiesis enables me to describe and explain theoretically a way of designing research that I engage in with graduate students.

I begin my work with students by directing their attention to already-existing deep-seated interests and inviting them to reflect on those interests through writing informally. At the same time, I advise them to read widely, although I rarely advise what to read. I never prescribe how they are to respond to what they read, although their responses are inevitably incorporated into their writing. As they share their writing and receive my responses to which they respond with more writing, we set up an ongoing cycle of writing and responding. Through my prompting, students become self-consciously aware of their already-existing patterns of responding to elements in their environment. They articulate the meanings of those response patterns and come to see how their patterns and meanings construct their interests. This awareness eventually generalizes to an understanding of how response patterns and the meanings made of them construct not only individual interests but also shared social realities. Simultaneously, personal interests are rearticulated as socially relevant research topics, and insights about personal response patterns and meaning mak-

ing are translated into ways of studying those topics in a larger social context. When students have articulated a topic and a way of studying it, they have in hand a research design.

The theory of autopoiesis enables me to explain the utility of interest as a starting place in designing research. First, focusing on deep-seated interest gives access to patterns of response and meanings that construct that interest. The process of writing and receiving responses brings these patterns and meanings into awareness. These patterns and meanings constitute the beginning of a conceptualization that makes the interest amenable to study. As can be seen in the account below, Philip's interest in suffering was constructed by his pattern of avoiding that which was difficult to face. This pattern was eventually fully articulated as a robust conceptualization of the dynamic of suffering Philip employed in his thesis.

Second, interest, as well as the patterns of response to the environment that construct it, is already there before research designing begins. So there is no need to "choose" or "find" a focus for research. As soon as attention is directed toward interest, the research designing process is under way. Moreover, patterns that compose one's life are inherently compelling, so the process has continuing momentum.

Third, response patterns and meanings not only determine the conceptualization of a research topic but they also signal worldviews, or research paradigms. That is, they indicate assumptions about the nature of knowledge, the nature of reality, and how we come to know. Being asked outright to write about their epistemological assumptions, most students are at a loss. However, all students can write about interest, and, with prompts from an observant backseat driver, they can come to recognize the territory that interest inhabits. Philip's account exemplifies the effects of his response patterns and meanings on his designing process.

The theory of autopoiesis also enables me to explain the effect of the role I play in students' research designing process. Refraining from prescribing what students should read and write, encouraging them to focus on their already-existing response patterns, inviting them to articulate their meanings, and encouraging them to reconsider and remake their patterns acknowledges the self-propelling, self-directing, self-making qualities that already characterize the autopoietic nature of students' lives. In the role I play I am like a backseat driver who directs students' attention but does not presume to control their movement. While I do not determine the course of students' research designing process, I do influence how easily and how deeply students examine their own processes by virtue of the atmosphere I create. I create a *temenos* or judgment-free space

where students can dare to disclose and reflect on the intricacies of their autopoietic process. How far they dare to go in examining response patterns, meanings, and how these could be different determines the robustness of their eventual research design. The importance of this *temenos* space for the process of research design is evident in Philip's account of his design process.

The following account by Philip Montgomery shows what one process of designing research autopoietically looked like. Notice how Philip's responses to elements in his environment directed his design process, how he struggled with how much of his process to disclose, how his interest became a socially relevant research topic, how his insights into his own meaning-making process transformed into a research methodology, and how he transformed himself in the course of designing his research.

An Account of One Autopoietic Research Design Process

When I began graduate school I was asked to declare what my interest was. After some initial fidgeting I concluded that I wanted to know, "Why do we think thoughts that create our own suffering?"

For a year I worked at acquiring a graduate degree while trying to pursue this personal interest. I suspected that these should be synonymous, but the model of the objective academic thesis contrasted with the subjective nature of my interest. I thought that if I found the right methodology my interest would naturally crystallize into a research topic. I found phenomenology. I wasn't sure what the phenomenon was I was trying to study, but I liked the method. I worked hard to make my interest fit into a phenomenological framework but it turned out to be ludicrously difficult to use phenomenology to describe a phenomenon that I could not yet articulate. It was as if I really liked a pair of pants that were two sizes too small and given that they were the only pair in town, I convinced myself that the problem was that I knew what my research topic was and I just needed a way to state it that would suit my methodology and satisfy my committee. I was very focused on the goal of finishing.

Whenever I felt pressure, from myself or my supervisor, to reflect on some aspect of my writing that was unclear or contradictory, I would metaphorically roll my eyes and try to find some expedient way to satisfy the critics that were constraining my academic pursuit. Whenever I looked around I noticed that most of the other grad students were feeling a similar frustration. At this point I could have changed my question to "*How* do we create our own suffering?" videotaped my life, exchanged the tape for my degree, and headed out the door.

At the time I could not see the irony of my situation, I could only feel the frustration.

One of my persistent frustrations was finding that my methodology was not working. I tried other methodologies, stumbling between schools of thought, yet the harder I looked the more apparent it was becoming that my interest did not quite fit within any of the established methods. I started to write about this disappointment and although this did not help me locate a method it did diffuse some of my frustration. While writing about my struggles I rubbed up against a discrepancy that was hard to dismiss. It was becoming apparent that it was not “our” suffering I was interested in. It was not even “my” suffering, but rather *relief* from my suffering. Yet for some reason I was reluctant to admit this discrepancy.

I think I was reluctant because my suffering was personal and I did not want to put this out for public scrutiny, especially when the public I was writing for was the same one that wanted me to produce a document that was in so many ways impersonal. I didn’t want to open my intimate world to one that appeared obtuse and hyperbolic, thereby risking criticism and ridicule and consequently increasing my suffering, so I tried formulating a research question that I could hold at arm’s length in the hope that I might finish my degree and move on before my suffering became known.

At some level I knew something was wrong, but at the time I couldn’t articulate what this was. My suffering increased but my fear of public humiliation was more powerful than my need to confront. I began to write about this experience and I risked a few small pieces for my supervisor to read. Initially this made me very uncomfortable. Slowly, and I mean very slowly, I peeled back layers of protection. I still presented my stories under relatively safe conditions, but I had begun to shift from protecting myself from public criticism to rendering up parts of me that I had been trying to keep hidden. I began to notice that while external events were the occasion for my tension, *I* was the site of some dynamic that was crucial to my suffering. My suffering was not caused entirely by external events. It seemed also to require my participation.

When I revisited my writing I noticed that whenever I got close to my suffering my emotions would come into play and the tension would increase and as the tension increased I would offer up anything to deflect, delay, or shut down. I would waiver and then retreat by constructing understanding in such a way that I appeared to be objective. This cycle of approach and retreat eventually became tiresome. So I decided to try to remain open to whatever emerged—the tension be damned. I denied my power hungry ego by remaining open to whatever the cause of my suffering might be. I noticed that opening to whatever emerged al-

lowed the contents of the unconscious to permeate my conscious world and thus carried forward understanding. This insight suggested a possible means of relief from suffering.

My research topic was still not clearly articulated and I still searched for a recognized method and experienced some of the earlier frustration at not finding one. However, at the same time I knew I had developed a way of proceeding I could trust. Writing autobiographically I noticed that when I had written something that evoked an emotional response I was close to what I needed to see. When I let go of the need for a method I realized that opening to whatever might emerge from the unconscious as I explored the tensions in my life autobiographically was my research method. Concurrently my research topic also emerged. It was the disruption of the static state of knowing that limits the dynamic of human growth and transformation. When I presented my thesis, the title was "The emergence of a human being: Disrupting the boundary between consciousness and the unconscious."

References

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