



<http://social-epistemology.com>  
ISSN: 2471-9560

The Passive Subject: A Phenomenological Contribution to STS

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Aagaard, Jesper. 2021 “The Passive Subject: A Phenomenological Contribution to STS.”  
*Social Epistemology Review and Reply Collective* 10 (5): 14-19. <https://wp.me/p1Bfg0-5Pb>.

About ten years ago, I had an idea for a PhD project: I wanted to study digital distraction. I had become fascinated by the peculiar experience of suddenly ‘finding’ oneself in the midst of distraction and wanted to study this phenomenon as it unfolds in the classroom (for a recent discussion, see Aagaard 2021a). During my review of the literature, I stumbled upon Robert Rosenberger’s (2012) landmark paper on “Embodied Technology and the Dangers of Using a Phone While Driving”. Blissfully unaware of academic time constraints, I forwarded my ideas to Rosenberger among a number of other scholars. Most of these other scholars sent back only brief replies, some did not respond at all. In an act of incredible generosity, however, Rosenberger wrote a long and thoughtful response that went into great detail with my ideas.

After being accepted into the PhD program, I later went to visit Rosenberger at Georgia Tech in Atlanta, and he ultimately became part of my assessment committee. Suffice to say, then, that I am a big fan of Robert Rosenberger and am greatly inspired by his work (e.g., Aagaard 2017, Jensen and Aagaard 2018). Indeed, if I had to fault him for anything, it would be for being *too modest* (the kind of flaw you wouldn’t mind bringing up at a job interview). In this brief reply, I therefore want to show that Robert has made a unique and substantial contribution to Science and Technology Studies (STS) by emphasizing the importance of tech habits. For reasons that will become clear, I will refer to this insight as having outlined the figure of a passive subject.

### **The Problem of Agency**

One of the big issues for STS scholars is how to conceive of technologies in ways that let us understand both what things do *for* and what they do *to* us. Rosenberger (2014a) calls this the problem of technological agency: “Does the agency of a technology somehow reduce to the choices and actions of its user? Or does a technology instead somehow shape a user’s choices and actions?” (370). Any viable approach to answering this question must navigate between the Scylla of instrumentalism, the idea that technologies do nothing, and the Charybdis of determinism, the idea that technologies do everything. In an attempt to strike this delicate balance, many scholars (myself included) have found it helpful to use the concept of mediation to argue that technologies always do *something*.

What that ‘something’ is, however, depends on the artifact in question and cannot be answered *a priori*. In other words, the concept of mediation only tells us *that* technologies are difference-makers, but *what* that difference consists of is an empirical question that calls for further analysis. For those of us willing to accord human beings a central place in these analyses, there is another conundrum lurking in the shadows of technological agency, namely how we are to conceptualize the human contribution to these unfolding processes. This is the problem of human agency: How much of a given technology use depends on human habits, choices, and capabilities? Much like in the first case, this is an empirical question that needs to be addressed on a case-by-case basis, but we ultimately find the same tension embedded within the question: If we put too much stress on human willpower, we succumb to voluntarism, whereas overestimating the importance of technological affordances will lead us to determinism. The path of virtue is very narrow, indeed, but it is on this perilous

journey that I have found Rosenberger's brand of postphenomenology to offer helpful guidance.

### **Bodies, Technologies, and Habits**

Postphenomenology analyzes technology use with reference to embodied human practice. Theoretically, it adheres to the two concepts of mediation and multistability, which emphasize the 'doing' and 'being' of technology, respectively: Mediation points to technological agency, while multistability signifies that even the simplest technology has no singular essence, but supports a number of different uses (Rosenberger 2017a). In fact, modern media technologies like smartphones are even designed to incorporate multistability and contain numerous additional functions like calendars, calculators, and cameras. Each of these functions requires a slightly different bodily comportment, however: The way we handle a smartphone when writing texts, for instance, differs from how we handle it when taking pictures. To capture this aspect, Rosenberger (2009) has coined the term relational strategy, which refers to the particular configuration of habits that enable a person to take up a technology in terms of a specific stability (e.g., the smartphone-as-camera). In other words, a relational strategy is what 'unlocks' a given stability.

Whenever a relational strategy becomes familiar and routinized, it becomes habitual, and we perform it independently of conscious awareness. This process is called sedimentation, a metaphor that refers to the slow accumulation of detritus that solidifies into sedimentary rock (Rosenberger 2014b). Using sedimentation as a variable, we can discuss how deeply ingrained a given relational strategy has become: How automatically or 'stubbornly' does it occur? This conceptualization allows us to hold onto the premise that all technologies have an open-ended nature *in theory* while acknowledging that sedimentation might ultimately stabilize and 'close down' such openness *in practice*.

In emphasizing the importance of relational strategies, Rosenberger shows himself to be a true heir of Maurice Merleau-Ponty, whose phenomenology of perception famously demonstrated that most human behavior is unmediated by thought and occurs on a prereflective bodily level (the following is based on Aagaard 2020a). Merleau-Ponty (2002) described such behavior in terms of habit, which can be described as an immediate and prereflective inclination to act in certain ways due to familiarity with that type of situation. Through practice, our bodies become so familiar with performing certain actions that this performance eventually happens outside of conscious awareness.

In the phenomenological tradition that followed Merleau-Ponty, the concept of habit has largely been replaced by the notion of skill due to the influence of acclaimed phenomenologist Hubert Dreyfus, who deliberately switched terms to avoid connotations of rigid behavior. Inspired by the Dreyfus model of skill acquisition, phenomenologists since have gone on to discuss the egoless agency of skills involved in sports, music, and dancing. In contrast to this optimistic focus, Rosenberger's postphenomenology demonstrates the importance of discussing tech habits in the original, normatively inclusive sense. Thus, while it is undoubtedly true that technology use requires Dreyfusian skills and know-how (e.g., Rosenberger 2013), it also seems true that our intuitive and skillful use of digital devices sometimes makes us do things that we do not intend to do (Aagaard 2020b). In other words,

we need analytical room to discuss bad habits. To make this idea more tangible, let us now look at Rosenberger's analysis of distracted driving.

### **The Drivers of Distraction**

For several years, Rosenberger has been using postphenomenology to explore the phenomenon of distracted driving. As explained in the target article, a host of empirical studies have shown that talking on the phone causes a significant drop in driving performance that applies equally across handheld and hands-free phone use (Rosenberger, 2020). Since the cause of this drop therefore cannot be understood as entirely physical (i.e., as the result of taking one's hand off the wheel), the problem is often taken to be mental instead. Indeed, popular explanations are couched in terms of information-processing, cognitive resources, multitasking, and attention overload. In contrast to this focus on the quantity of cognitive resources, Rosenberger's (2010) postphenomenological account emphasizes the quality of experience. This means analyzing the technological organization of user experience (Rosenberger 2017b).

More specifically, Rosenberger provides a two-step account of driver distraction that invokes both mediation and habits: First, he argues that talking on the phone often leads to our field of awareness becoming dominated by the content of that phone conversation, which in turn leads to a diminished situational awareness. This kind of mediation is obviously incompatible with safe driving. He then argues that phone-using drivers must actively resist the habitual pull toward such conversational immersion. As Rosenberger (2020) himself puts it: "The pull of smartphone communication into distraction is one that comes with the force of a 'bad habit'" (10). Despite the driver's best intentions, then, phone use has a habitual tendency to prompt an involuntary gestalt-shift in which the phone conversation becomes the figure, while all else becomes the ground. The problem is not that the driver's attention is divided between two tasks, but that it cannot be (for further critique of the cognitive concept of multitasking, see Aagaard 2019).<sup>1</sup>

Rosenberger modestly proposes that the main contribution of this habit-based account is to demonstrate that the cognitive account is precisely that, a theoretical account rather than a neutral description of the world. I would personally go one step further and argue that Rosenberger's habit-based account shows some of the inherent limitations of the cognitive account (the following is based on Aagaard 2015). At the deepest level, cognitive psychology distinguishes between two attentional systems: A top-down, goal-directed, or 'endogenous' system and a bottom-up, stimulus-driven, or 'exogenous' system.

In the endogenous system, the mind acts as a kind of cognitive manager that directs, controls, and governs the allocation of cognitive resources in accordance with its current goals. In the exogenous system, on the other hand, the body instantly reacts to abrupt-onset environmental stimuli like loud noises or sudden movements. The cognitive account thereby

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<sup>1</sup> Conversing with passengers does not cause a similar degree of impairment, because passengers inhabit the same experiential niche as the driver, which means that they pay attention to the ongoing driving conditions and modulate conversations accordingly (Rosenberger 2019).

instantiates a metaphysical split between mind and world, which stipulates that human attention is either directed from within (i.e., endogenously) or triggered from without (i.e., exogenously). When extrapolated to the distraction, this results in a binary choice: Distraction is either the consequence of a self-initiated choice or the effect of an involuntary reflex. Rosenberger's habit-based account challenges this bifurcation since bad habits are *neither* choices *nor* reflexes, they are *both* self-initiated *and* involuntary. His account thereby drives a wedge into the cognitive framework that splits its dualist logics wide open.

### The Passive Subject

My own field of psychology is marred by a style of reasoning called psychologism, which takes all our thoughts, actions, and experiences to ultimately spring from an inner mental realm (Sugarman 2017). Based on this mentalist understanding, psychology has a tendency to fetishize conscious or 'inner' control and view deviations from this behavioral norm as accidental or even pathological (Aagaard 2020a). Placing all agential impetus inside the human mind obviously goes hand in hand with technological instrumentalism, the idea that technologies do nothing. In this sense, most psychology subscribes to a wholly modernist framework of active subjects and passive objects. Famously, STS approaches like actor-network theory (ANT) have challenged this framework by emphasizing technological agency or 'active objects'. By emphasizing habits and sedimentation, however, Robert has pinpointed a key element of passivity at the heart of human existence that may serve as an equally helpful antidote to psychologism: Not all our technology use is governed by conscious control.

To accentuate its complementary relation to ANT's active objects, I propose to call this insight the *passive subject*. At first glance, this concept constitutes an obvious exaggeration, but just as the active objects of ANT should not be taken in a causally efficacious sense, the passive subject should not be understood in a determinist, mechanical sense (precisely what Dreyfus warned us about). We are not talking about absolute helplessness, but about the lived experience of not being in constant conscious control of one's technology use. I do not recall seeing this figure anywhere else in the STS literature, not even among fellow postphenomenologists like Don Ihde and Peter-Paul Verbeek, so I take it to be an original contribution to the STS literature. When giving talks on my own research on digital distraction, I have found that this figure resonates with people's experiences of technology use, which is an important criterion of phenomenological validity (Aagaard 2018b).

The concept of a passive subject does not dissolve the tensions outlined in the beginning of this article, but it does introduce an important chronological dimension to our analyses. While other STS scholars like Bruno Latour have masterfully analyzed how technologies actively mediate our comportment here-and-now (e.g., a speed bump says "slow down when you approach me"), Rosenberger shows us that we need phenomenological concepts like habit and sedimentation to understand how human-technology relations develop over time—especially when it comes to expressly multistable objects like smartphones. To be perfectly clear, the passive subject is not something to be feared and there is nothing problematic about tech habits as such (again, intimating as much would be succumbing to psychologism). Instead of combating habitual technology use, we need to focus on how to develop good tech habits (Aagaard 2021b). But why is it that deeply sedimented tech habits can sometimes be problematic? Because of their intimate relation to perceptual immersion,

the aforementioned mediation-habit link so elegantly explicated by Rosenberger: Modern media technologies have an uncanny ability to absorb our attention.

For our purposes, it is important to note that such immersion leads to copresent others being rendered invisible. While this may be perfectly fine when I am sitting in my office or waiting in line at the store, it spells bad news for my friends and fellow road users. In social situations, we are dealing with a case of misrecognition, a social form of invisibility that is both frustrating and hurtful (Aagaard 2018a). In traffic situations, we are talking about a perceptual sense of invisibility that may result in injury or even death. As phenomenology has demonstrated, there is only one fundamental truth about human existence; namely, that we are vulnerable and interdependent beings, which calls for us to take care of each other (Brinkmann 2006). So, in conclusion, please don't use your smartphone while driving.

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