

The Master/iSlave Dialectic: Post (Hegelian) Phenomenology and the Ethics of Technology

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Abstract. In part one of this paper I turn to Don Ihde to show how a technological object can occupy the role that “the other” plays for Hegel in his phenomenology as the structural features of Hegel’s analyses of self-other relations can be found in Ihde’s analyses of human-technology relations. I then turn to Singer’s *Wired for War* and Gertz’s *Philosophy of War and Exile*. Using these texts I show how the way soldiers treat robots by naming them, protecting them, and by even risking their lives to save them, illustrates Hegel’s central claim: ethical life develops based on the process of discovering that to recognize others (whether human or technological) is to recognize ourselves and that to misrecognize others is to misrecognize ourselves. I conclude by offering suggestions as to how this understanding of ethical life as based on recognition and misrecognition can be applied to design ethics.

Keywords. ethics of technology, postphenomenology, mediation theory, Hegel, recognition, military robotics.

1. Post (Hegelian) Phenomenology

I believe it is possible to bring together Hegel and postphenomenology by adapting Hegel’s analyses of the encounter between self and other by making the seemingly illicit move to put, in place of the other, not a consciousness, but a technological object. I say “seemingly illicit” because the actual moments of the encounter as described by Hegel leave open the possibility that the other need not *be* a consciousness, but only *appear to be* a consciousness. For Hegel, consciousness first sees itself in the other, and then recoils at seeming to have both been reduced to an object by the other and at having reduced the other to an object. At this point, consciousness is “certain of its own self, but not of the other,” according to Hegel, because “appearing thus immediately on the scene, they are for one another like ordinary objects” as “they have not as yet exposed themselves to each other in the form of pure being-for-self, or as self-consciousnesses” [1, p. 113]. In other words, consciousness *projects* onto the other its own needs and desires, judging the other based only on what it knows of itself, which is why it takes the other to be a threat to itself in the same way that it is a threat to the other. But it is not until acting on the threat by entering into the life-and-death struggle with the other that consciousness can be certain that the other is indeed another consciousness.

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For our purposes here the question then is whether technologies could similarly appear to consciousness as having consciousness, or, to be more precise, of appearing to a self as being both the other who could recognize and elevate its consciousness of itself as an independent being and as the other who could threaten its consciousness by reducing it to a mere object for the other. And indeed these are precisely the perspectives one finds in the technological utopianism of transhumanism on the one hand, and in the technological determinism often attributed to Heidegger and Ellul on the other. For transhumanists, it is through technology that we can achieve true mastery, as technology can liberate us from the dependencies and limitations of the body by allowing our consciousnesses to exist freely in the technological realm. For determinists, it is through technology that we can achieve instead true servitude, as technology can grow beyond our control, reducing us to not only mere instruments for the ends of technology, but leading us to take up the ends of technology as our ends. In other words, transhumanists see *The Matrix* as a utopian vision of being able to upload ourselves into digital playgrounds of our making, while determinists see *The Matrix* as a dystopian vision of humans believing themselves to be free while in reality they have been turned into batteries for our machine masters.

Postphenomenology overcomes—in the Hegelian sense—this opposition between viewing technology as leading to human mastery and viewing technology as leading to human slavery. From the postphenomenological perspective, neither of these views can be seen as either true or false, as instead, because of multistability, it is the unity of these possibilities that is the “truth” of human-technology relations. Though Ihde divides technological mediations primarily into “embodiment relations,” “hermeneutic relations,” and “alterity relations,” he reminds us again and again that these mediations all exist along a “continuum of relations” [2, p. 73]. At one end of the continuum we find, in embodiment relations, the dreams of transhumanists: human-technology relations where technologies serve to extend and expand human capabilities beyond the limitations of the body. At the other end of the continuum we find, in alterity relations, the nightmares of determinists: human-technology relations where technologies serve to challenge and even oppose human capabilities.

It is in alterity relations that we would expect to find the perfect candidates for technologies that could serve the role that the other plays for Hegel. As Ihde writes, “Technological otherness is a *quasi-otherness*, stronger than mere objectness but weaker than the otherness found within the animal kingdom or the human one...there is the sense of *interacting with* something other than me, the technological *competitor*” [2, p. 100]. Yet, in his analysis of embodiment relations, Ihde makes clear that the technologies that serve as a “quasi-me” [2, p. 107] can at the same time take on some of the properties of the “quasi-other” [2, p. 98]. Ihde writes:

In extending bodily capacities, the technology also transforms them. In that sense, all technologies in use are non-neutral. They change the basic situation, however subtly, however minimally; but this is the other side of the desire. The desire is simultaneously a desire for a change in situation—to inhabit the earth, or even to go beyond the earth—while sometimes inconsistently and secretly wishing that this movement could be without the mediation of the technology. [...] In the wish there remains the contradiction: the user both wants and does not want the technology. The user wants what the technology gives but does not want the limits, the transformation that a technologically

extended body implies. There is a fundamental ambivalence toward the very human creation of our own earthly tools. [2, pp. 75-76]

Even in the simple embodiment relation of wearing a pair of glasses, there is this “doubled desire” for my eyes to have the power of vision that my glasses make possible, e.g., the desire found in the imagination of cyborg implants replacing my eyes, and for my eyes to have that power of vision without any technology whatsoever, e.g., the desire found in the use of laser surgery to replace my need for glasses. Hence, as Ihde further elaborates, “Such a desire both secretly *rejects* what technologies are and overlooks the transformational effects which are necessarily tied to human-technology relations. This illusory desire belongs equally to pro- and anti-technology interpretations of technology” [2, p. 95].

There is to be found in my relations to technologies as “quasi-me” a feeling of the “quasi-otherness” of technologies resulting in a “fundamental ambivalence” that can result in either a utopianism that “overlooks” the role of technologies in our lives or in a determinism that “rejects” the role of technologies in our lives. In other words, technologies that work *for* me, that work *as* me, present themselves, for that very reason, as both a *promise* and a *threat*. It is for this reason that we likewise find similar issues arising in hermeneutic relations, where technologies provide us with new means for interpreting the world. As Ihde writes, “To read an instrument is an analogue to reading a text. But if the text does not correctly refer, its reference object or its world cannot be present” [2, p. 87]. Using the example of the Three Mile Island disaster, Ihde points out that while hermeneutic technologies can serve to provide us access to what would otherwise be too dangerous for us to perceive on our own, they nevertheless create an “enigma position” where “*opacity* can occur” [2, p. 87]. While hermeneutic technologies offer the promise of otherwise impossible knowledge—“Through hermeneutic relations we can, as it were, *read* ourselves into any possible situation without being there” [2, p. 92]—they at the same time offer the threat of betraying our trust, leaving us with the persistent doubt that, to borrow from Gertrude Stein, “there is no there there.”

To now return to alterity relations, it is here that Ihde makes most clear that technologies can present themselves to us as not only as a potential threat, but as a direct challenge. As Ihde writes, “...there is the sense of *interacting with* something other than me, the technological *competitor*. In competition there is a kind of dialogue or exchange. It is the quasi-animation, the quasi-otherness of the technology that fascinates and challenges” [2, p. 101]. By uniting “quasi-animation” with “quasi-otherness” Ihde makes clear that it is the actions of an object that lead us to see them as either under or beyond our control. In his discussion of the example of the spinning top, Ihde further suggests that the animatedness of an object can lead us to see it as “quasi-autonomous,” as if it has a “life of its own” [2, p. 100]. It is for this reason that in alterity relations, unlike in embodiment and hermeneutic relations, technologies do not operate by fading from view to serve as means to some further end, but rather operate by becoming the focus of our attention. Technologies in alterity relations are therefore capable of being both what “fascinates and challenges” as they not only can appear to be independent of us, but, by appearing to be so independent of our will, can, as we have seen, lead us to fear that we will become dependent on them.

According to Ihde this fascinating/challenging dynamic can lead to a love/hate dynamic, as is found for example in our relationships with computers. Computers, whether in the form of desktops and laptops or smartphones and smart TVs, are now so

ubiquitous in our daily lives it is likely not a stretch to say that we spend more time with computers than we do with any human being, particularly as more and more our time with other humans is mediated by computers. Yet when the computer no longer fulfills our desires but instead appears to prevent us from doing what we want—whether in the form of a malfunction or of a pop-up message telling us that what we are attempting is not possible—we do not blame and threaten the programmers and engineers who created the computer, but the computer itself. Hence, as Ihde points out, though in video games or in hacking we are competing with software designers, we instead see ourselves in competition with technology. Ihde sees our “tendency to fantasize its quasi-otherness into an authentic otherness” as not only “pervasive,” but as a “wish-fulfillment desire” similar to what we found in embodiment relations, as “it both reduces or, here, extrapolates the technology into that which is not a technology (in the first case, the magical transformation is *into me*, in this case, *into the other*), and at the same time, it desires what is not identical with me or the other” since “the fantasy is for the transformational effects” [2, p. 106].

What we have found here then is that technologies anywhere along the continuum of human-technology relations can offer us both the promise of fulfilling our dreams of complete freedom and the threat of realizing our nightmares of complete subjection. Our hopes and our fears are inherently contradictory as they are based on ignoring the very mediations that are necessary for technologies to have the possibilities for transformation that create these hopes and fears in the first place. While for Ihde this means that we are unwilling to recognize what technologies are by elevating their quasi-autonomy to the level of genuine autonomy, for Hegel this would mean that we are unwilling to recognize what humans are by elevating our own quasi-autonomy to the level of genuine autonomy. Our relations to technologies reveal not only our fantasies about what technologies are, but our fantasies about what we are, revealing further our contradictory hopes and fears about what it means to be human. Consequently, the descriptive analyses of postphenomenology are, from a Hegelian perspective, also already normative, as they show that to recognize technologies is to recognize ourselves and to misrecognize technologies is to misrecognize ourselves. Having not yet reached the level of mutual recognition, we thus find ourselves at the stage of the master/slave dialectic. As Ihde puts it, whenever technologies do force us to recognize them, our response is, “I must beat the machine or it will beat me” [2, p. 101].

2. Technology and Ethical Life

One may well object at this point that though it appears we have found overlaps between the mediational theories of Hegel and of postphenomenology, these parallels are only formal, not material, for while we can compete with technologies, we cannot enter into life-and-death struggles with technologies [3]. If the master/slave dialectic reveals that we can only recognize and be recognized by those who are able to die, by those who are able to force us to take their claims seriously by staking their lives on those claims, then technologies can neither recognize us nor be recognized by us in an ethically meaningful way. In other words, technologies can play a mediational role in ethical life, but they can never play a participatory role in ethical life. Or, if they do participate, as Heidegger and Ellul argue, technologies can challenge us; however, given that we are the only ones in the struggle who are mortal, it is we who must lose

the struggle, requiring that we be reduced to the role of slaves while technologies be elevated to masters.

To answer this objection, we can turn to Axel Honneth. Honneth argues that while it appears that Hegel is providing an existential grounding for ethical life, and that this is how many, including Alexandre Kojève, have read Hegel, this is not the only, or even the most satisfactory, reading of Hegel, even if this is indeed how Hegel himself intended his argument to be taken. Honneth writes:

...the reference to the existential dimension of death seems to be completely unnecessary. For it is the mere fact of the morally decisive resistance to its interaction partner that actually makes the attacking subject aware that the other had come to the situation harboring normative expectations in just the way that it had itself vis-à-vis the other. That alone, and not the way in which the other asserts its individual rights, is what allows subjects to perceive each other as morally vulnerable persons and, thereby, to mutually affirm each other in their fundamental claims to integrity. In this sense, it is the social experience of realizing one's interaction partner is vulnerable to moral injury—and not the existential realization that the other is mortal—that can bring to consciousness that layer of prior relations of recognition, the normative core of which acquires, in legal relations, an intersubjectively binding form. [4, pp. 48-49]

According to Honneth, what is foundational to ethical relations is not the *nature* of the struggle between the self and the other, but rather the *fact* of the struggle. That the other does not merely accede to the normative claims of the self, but instead challenges those claims and puts forth claims of its own, is what reveals both the self and the other to be capable of making claims on each other and of being vulnerable to each other's claims.

What is at question here then is not whether technologies are *mortal* beings, but rather whether technologies are *moral* beings, beings who are capable of being both morally authoritative and morally vulnerable. As the moral authoritativeness of technologies has already been argued for persuasively in the work of Ellul [5], Latour [6], and of Tromp, Hekkert, and Verbeek [7], I shall focus here instead on the question of the existence of the moral vulnerability of technologies. To answer this question, we can turn to P. W. Singer's *Wired for War*, where we find stories of soldiers not only working with robots, naming robots, and of giving robots "'battlefield promotions' and 'Purple Hearts'" [8, p. 338], but of even risking their lives to save robots. Singer writes:

Ironically, these sorts of close human bonds with machines sometimes work against the very rationale for why robots were put on the battlefield in the first place. Unmanned systems are supposed to lower the risks for humans. But as soldiers bond with their machines, they begin to worry about them. Just as a human team would "leave no man behind," for instance, the same sometimes goes for their robot buddies. When one robot was knocked out of action in Iraq, an EOD [explosives ordinance detonation] soldier ran fifty meters, all the while being shot at by an enemy machine gun, to "rescue it." [8, p. 339]

Singer continues:

This effect even plays out on robot design. Mark Tilden, a robotics physicist at the Los Alamos National Laboratory, once built an ingenious robot for clearing minefields, modeled after a stick insect. It would walk through a minefield, intentionally stepping on any land mines that it found with one of its feet. Then it would right itself and crawl on, blowing up land mines until it was literally down to the last leg. When the system was put through military tests, it worked just as designed, but the army colonel in charge “blew a fuse,” recounts Tilden. Describing the tests as “inhuman,” the officer ordered them stopped. “The Colonel could not stand the pathos of watching the burned, scarred, and crippled machine drag itself forward on its last leg.” [8, pp. 339-340]

From a postphenomenological perspective, EOD robots are meant to operate for soldiers as a “quasi-me” by transparently extending and replacing the bodily abilities of soldiers. Yet rather than embodiment relations, what Singer describes here are alterity relations, as the robots have become the object of the soldiers’ concern, a “quasi-other” that soldiers clearly treat—contrary to expectations and design—as what could be described as a “quasi-comrade.” From a Hegelian perspective, soldiers see robots not as mere objects, but as like themselves, treating the robots as they would want to be treated. That soldiers are unwilling to see robots be harmed, and are even willing to risk their lives to save robots, indicates that soldiers have already entered into ethical relations with robots. Soldiers recognize robots as deserving of recognition, not because robots are mortal, but because robots are vulnerable.

What can be learned from these examples is not only that technologies can be recognized as morally vulnerable, but that such recognition is necessary if we are to properly recognize the humans who work with them. It should not surprise us that soldiers are able to see robots as like themselves, as soldiers are, like the robots they work with, put in harm’s way in order to protect others. In other words, soldiers serve for civilians the same role that robots are intended to serve for soldiers. Soldiers are, while in combat, in what could be described as embodiment relations with civilians, operating as a “quasi-me” by fading from view while extending and replacing civilian capabilities. Yet, as soldiers come to realize, and as I have argued elsewhere [9], when they return home from war damaged, they are treated, no longer as a “quasi-me,” but as something that obtrudes like a broken tool, as a “quasi-other” to be sent to a specialist (psychiatrist) for repairs (PTSD treatment). That we are surprised that soldiers recognize and treat robots as vulnerable highlights to what extent we misrecognize and mistreat soldiers.

From the Hegelian perspective, it is integral to their ethical relations with robots that soldiers not only want to protect robots and are willing to risk their lives for robots, but also that soldiers name robots and give them promotions. As Singer writes, “An affinity for a robot often begins when the person working with it notices some sort of ‘quirk,’ something about the way it moves, a person or animal it looks like, whatever” [8, p. 338]. Singer continues:

Soldiers are not just doing this as a joke, but because they are truly bonding with these machines. Paul Varian, a chief warrant officer who served three tours in Iraq, recounts that his unit’s robot was nicknamed “Frankenstein,” as it had been made up of parts from other blown-up robots. But after going into battle with the team, Frankenstein was promoted to private first class and even

given an EOD badge, “a coveted honor” among the small fraternity of men willing to defuse bombs. “It was a big deal. He was part of our team, one of us. He did feel like family.” [8, p. 338]

For Hegel, the recognition that another is, like myself, morally authoritative and morally vulnerable, is to recognize the other solely on the level of what is universally shared—not unlike Kant’s conception of dignity as based solely only on our being rational. Such a generic form of recognition can only produce a generic form of respect as mediated by the creation of generic rights, or as Hegel puts it, “what counts as absolute, essential being is self-consciousness as the sheer *empty unit* of the person” [1, p. 291]. Yet, because we want to be recognized, not on the level of the universal, not as rational beings, nor as human beings, but as individuals, we will enter into conflict with society again and again in an effort to force society to enlarge the sphere of recognition and gain thereby increasingly individualized rights. It should not surprise us here either then that soldiers, who are given recognition by society only generically—in the form of a uniform, a rank, and a serial number, or in being thanked for their service without ever being asked about the specifics of their service—should want to recognize robots in increasingly individualized ways.

It would appear then that the more alienated we feel ourselves to be, the more we identify with technologies. From a Hegelian perspective, this is not simply the result of the marginalized being able to form communities online and thus having technologies mediate their relations with others, nor is this simply the result of anthropomorphization. Rather, those who have been misrecognized, as we saw in the master/slave dialectic, are forced to discover a greater consciousness of self, of what it is about themselves that has been misrecognized, which in turn allows them to discover a greater consciousness of others, of what it is about others that has similarly been misrecognized. As Honneth puts it, “In order to be able to offer a stranger the recognition associated with concern (based on solidarity) for his or her way of life, I need to have already had the shock of an experience that taught me that we share, in an existential sense, our exposure to certain dangers. But the issue of what these risks are that have already linked us together is, in turn, a matter of our shared ideas about what constitutes a successful life within our community” [4, p. 91]. To recognize a technology as misrecognized by others is not to have discovered some unknown usefulness, nor to see the technology as human, but to recognize that the technology occupies a role in society and for society that is *functionally equivalent* to the role that one occupies in and for society oneself.

3. Recognition, Responsibility, and Robotics

I set out in this paper to show that Hegel’s phenomenology can help us to better understand the role that technologies play in ethical life. By bringing together Verbeek’s mediational analyses, Ihde’s postphenomenological analyses, and Hegel’s dialectical analyses, we can now see that technologies are moral beings, not only because they mediate our practical undertakings, nor only because they can appear to us as objects of promise and of threat, but because technologies can also occupy roles in society that make them worthy of recognition. In the ways that technologies are recognized, those who occupy functionally equivalent social roles can discover how they themselves have been recognized. As technologies come to play greater and more

varied roles in society, the recognitions and misrecognitions of technologies will lead more and more people to discover how society views them.

In other words, if we take technologies to be deserving of respect because they appear to be as vital to the realization of social goals as we take ourselves to be, then to see technologies disrespected is to see ourselves as disrespected. Though we may appear to be respected because we are accorded rights and responsibilities, we do not know if these rights and responsibilities have any real value in the eyes of society until they have been tested, that is, until we are in a situation that requires that our rights be realized or our responsibilities be appreciated. But because our rights are generic—e.g., the Lockean rights of life, liberty, and the pursuit of property—they are often not put in jeopardy, and so we do not know if they are respected other than by the negative proof of their having not yet been disrespected. Similarly, because our responsibilities are appreciated generically—e.g., through a paycheck—we do not know if there is anything about us, about the particular individuals who are fulfilling those responsibilities, that is being appreciated, other than by the negative proof of our having not yet been fired. To see technologies that we recognize as functionally equivalent to ourselves be destroyed and be replaced is thus to be offered a positive proof of the value, or, to be more specific, the valuelessness, of our rights and responsibilities.

This is why the design of technologies has ethical importance, not only because technologies mediate our actions, but also because we can recognize ourselves in technologies, and thus the design of technologies can be revelatory of how society recognizes us. In the age of mass production, technologies are designed to be useful and yet replaceable. Companies want consumers to both desperately want their products and to be capable of immediately discarding old products in favor of new products. Technologies are therefore marketed as if they are uniquely capable of fulfilling our desires, but they are designed to not be unique, but generic, so that they can be immediately disposed of in favor of another just like it as soon as it breaks or in favor of the newest model as soon as the replacement is ready. In seeing technologies that work with us, for us, and as functionally equivalent to us as having the social value of useful until replaceable, we see ourselves as having the same social value, which perhaps explains why so many are filled with anxieties about the perceived dangers to their social role that technologies represent as potential replacements.

That we want to be recognized as having social value, not generically, but individually, is, as we have seen, what can lead us to recognize technologies individually rather than generically. Whereas users can recognize technologies individually by appreciating their quirks, giving them names, and by protecting them from harm, designers can recognize technologies individually by appreciating how users identify with and respect technologies and by designing technologies accordingly. By creating technologies that are not mass produced and generic, that are not intended to be merely useful and replaceable, designers can show users that they have recognized not only the social value of the technologies, but of the users as well.

Conversely, when designers show users that they have misrecognized the social value of technologies, this can lead users to see themselves as having been misrecognized by designers as well. For example, when Boston Dynamics posted videos of tests of their new humanoid robot Atlas, these tests were described by one journalist as “bullying” [10], and another writes, “If you did feel uncomfortable watching the robot get pushed around, congratulations on having a well-developed sense of empathy” [11]. Though both journalists joked that the designers were wrong to

bully Atlas because it would lead to a “robot uprising,” from a Hegelian perspective we can now see that, on the one hand, it is wrong for designers to bully Atlas because they are not giving Atlas the respect it deserves. On the other hand, we can now also see that the uprising we should worry about is not of robots, but of those who serve functionally equivalent roles to robots, for to recognize robots as mistreated by society is to have begun the process of recognizing oneself as mistreated by society, the proof of which can be seen in pop culture projecting onto robots the desire to rise up against society in the first place.

To recognize technologies is to recognize ourselves, and to recognize ourselves is to recognize technologies. For Verbeek, because technologies mediate our practices, technologies play a role in ethical life whether we want to admit it or not, for which reason we must take up the responsibility of trying to predict and shape mediations in an ethical way. As Verbeek concludes, “Material artifacts, and especially the technological devices that increasingly inhabit the world in which we live, deserve a place at the heart of ethics. Just like human beings, albeit in a different way, they belong to the moral community” [12, p. 165]. However, from a Hegelian perspective, we can only give technologies the place in ethical life that they deserve if we recognize that technologies “belong to the moral community,” but not “in a different way” from human beings. We are not moral beings because we are human. We are human because we are moral beings. To extend this Hegelian insight to technologies by recognizing them as moral beings is not to anthropomorphize technologies, but to take seriously what it means to be in hybridized relationships with technologies, to relate to technologies as an “‘I’ that is ‘We’ and ‘We’ that is ‘I’.”

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