There is no "I" in Postphenomenology

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Abstract

Human beings are embedded in diverse social, cultural and political groups through which we make sense of our technologically mediated lived experience. This article seeks to reaffirm the postphenomenological subject as a primarily social subject. Critics maintain that the current postphenomenological framework does not adequately address the social, cultural and political context in which human-technology relations take place. In recent years, various additions to postphenomenology have been suggested in order to address this contextual deficit. In this article, I argue that a return to the phenomenological roots of postphenomenology reveals underexamined analytical tools that allow for greater socio-cultural and political sensitivity. I take Don Ihde's supposed macroperceptual and microperceptual divide as a point of departure in claiming that postphenomenology has too hastily turned away from the subject as primarily socially situated. I draw upon the phenomenological tradition, particularly the social phenomenology of Alfred Schutz, to develop a social postphenomenological approach. This approach is informed by the Schutzian notions of action, the stock of knowledge at hand and consociates. In the resulting account, the postphenomenological schema of *I—Technology—World* is reconstrued as *We—Technology—World*.

Keywords Postphenomenology · Don Ihde · Social postphenomenology · Alfred Schutz

Introduction

A central claim in postphenomenology is that the human being is ontologically interrelated with technology. In doing so, postphenomenology overcomes the subject-object dichotomy that permeates through classical philosophy. The subject of postphenomenology is co-constituted through technology and the subject is inconceivable apart from its relations with the world and its artifacts (Ihde, 1990;

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Langsdorf, 2016; Verbeek, 2005). This ontological interrelation is often schematised as:

I—Technology—World

Proponents of postphenomenology emphasise that technologies are not intermediaries in a middle position between the subject and the object; instead, entities are constituted in their mediated relations (Verbeek, 2012). While still resorting to using words like "subject," "object" or "artifact," these terms are understood not as separate entities but as mediations. Conceiving of technologies as mediating allowed for a new theoretical framework through which technologies could be understood. The resulting *Empirical Turn* (Achterhuis, 2001; Brey, 2010; Kroes & Meijers, 2000) allowed philosophers of technology to reconceptualise how material artifacts constitute our experience and perception of the world. Heeding Husserl's (Husserl, 2001) call to return to the things themselves, postphenomenology does not remain negligent of the materiality of artifacts. The *Thingly Turn* (Verbeek, 2005) in the philosophy of technology thus allows for the study of how particular technologies mediate our lived experience.

A persistent line of critique levelled against postphenomenology is that it does not adequately engage with the socio-cultural and political contexts in which mediations exist. In asking what things *still* don't do, David Kaplan (2009: 235) criticises Verbeek for analyzing individual embodied relations instead of asking socio-political questions. He argues that mediation does not only relate to subject and objects but the "historic development of entire environments" which stretch back to human activities, institutions and practices. In a similar vein, Andrew Feenberg remains steadfast in his critique that postphenomenology is not political enough (Feenberg, 2009, 2015, 2020) eventually arguing for constructive criticism to remedy the political deficiencies of postphenomenology.[1] This critique is reiterated by Lemmens and others (Lemmens, 2022; Roa et al., 2015) when claiming that postphenomenology is "decidedly apolitical" and practically ignorant of the politico-economic contexts in which human-technology relations exist.

As the postphenomenological movement has expanded, various different approaches have been proposed that respond to these critiques of the lack of sociality.[2] Verbeek (2005) moves beyond contemporary analyses of the social and cultural role of technology to consider how technologies mediate normativity. Catherine Hasse (2008) illustrated how learned perceptions are co-produced through material artifacts, embodiment and social agency in the context of scientific cultures. In a similar vein, Lenore Langsdorf (2020) illustrates the interrelatedness of the moral subject by employing the notion of *productive skill* of reasoning which includes prior experience, affect and habit (see also De Boer et al., 2021). Various instances in which postphenomenology is politicised (Verbeek, 2017; 2020a) could indeed

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[1] Nolen Gertz (2020) shows that critical constructivism, in turn, could benefit from a more robust theory of technological mediation. He does so by investigating forms of destructive online behaviour such as trolling in the internet through the lens of postphenomenology. Critical constructivism does not adequately account for how technologies like the internet mediate the experience of, in this case, the public sphere.

[2] I include politics, ethics and culture in these critiques of sociality. The interrelation of these concepts will be discussed in section two of this paper.

be pointed out: for instance, Robert Rosenberger's *Callous Objects* (2018) vividly illustrated the social and political role of technology in urban spaces while Gert Goeminne (2011) made us attentive to the politics related to sustainable technologies.[3] A distinct strand of postphenomenological theorising about the social, cultural and political structures in which technological mediation is embedded is that of theorists who seek to integrate insights from *critical constructivism* into postphenomenology.[4] Prominent representatives of this strand of inquiry are Feenberg (2020), Botin et al. (2020) and Esther Keymolen (2020). Attempts to reconcile Actor-Network Theory (by Ihde, Selinger andVerbeek) and Postphenomenology can also be considered part of this strand.[5]

It becomes clear when considering these approaches that postphenomenology is developing in ways that encompass the social embeddedness of the mediated subject. However, for postphenomenological analysis to more accurately describe how experience can be collectively conditioned, a more nuanced view of the subject is required. In this paper, I reconsider the postphenomenological subject (I) as primarily socially situated. In other words, I propose a postphenomenological account that considers mediation in terms of the socially mediated subject, schematised as:

We—Technology—World

This framework differs from the above approaches in a number of ways: firstly, it does not purport to extend or expand postphenomenology but rather attempts to utilise underexamined theoretical tools for analysis found in the phenomenological tradition as such. Furthermore, Don Ihde's *Two Program*[6] approach of Macroperception and Microperception is identified as the location of postphenomenology's difficulty in accounting for the social, cultural and political contexts of mediation. As will be discussed, this idiosyncratic two-tiered approach and Ihde's premature departure from phenomenology reverberate throughout the postphenomenological tradition. It is for this reason that postphenomenology has not fully utilised the phenomenological methods available to it which could allow for the postphenomenological subject to be understood in terms of their collectively embedded contexts.

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[3] For more on this topic, see the special journal issue "Rethinking Technology in the Anthropocene" (Lemmens & Van Den Eede, 2022).

[4] Some scholars, such as Yoni van den Eede (2021), opt to juxtapose postphenomenology and critical constructivism which could also be considered as a way to expand phenomenology. Recent scholarship has also seen attempts to reintroduce Social Construction of Technology (SCOT) theories into postphenomenology (Arzroomchilar, 2022). However, criticisms against SCOT approaches by (most notably) Andrew Feenberg maintain that SCOT does not adequately allow for political action (See also Brey, 1997). It is for this reason that Feenberg, De Boer, and others develop a more critical constructivist approach.

[5] Latour (2005) rejects attempts to reconcile ANT and postphenomenology, such as those proposed by Selinger and Ihde, by claiming that the "excessive stress given by phenomenologists to the human sources of agency" does not allow for such a reconciliation.

[6] In *Technology and the Lifeworld*, Ihde describes the microperceptual under "Program One: The Phenomenology of Technics" and the macroperceptual under "Program Two: Cultural Hermeneutics". For clarity, I will simply refer to microperception and macroperception.

In this paper, I suggest that the Social Phenomenologist Alfred Schutz[7] provides a theoretical framework through which the subject could be understood as an intersubjective *we*.

In what follows, I present a social postphenomenological account of technology. I do so by firstly considering how Ihde envisions the subject (*I*) of postphenomenology. Concurring with his critics, I contend that Ihde's two-program approach does not adequately account for the way in which Macroperception and Microperception are interrelated. I argue that the reason for this is Ihde's original but idiosyncratic reading of Husserl. Ihde points out that the phenomenological tradition has become forgetful of the instruments or technologies that mediate perception, such as Galileo's telescope (Ihde, 1990, 2011, 2016). While Ihde argues convincingly that we have become forgetful of the *things* that mediate our experience and perception of the world, it appears that we have also become forgetful of other subjects that inform this mediation. In the following section, I consider how Alfred Schutz interprets Husserl's phenomenological subject. While Ihde draws our attention to how artifacts mediate our experience of the world, Schutz focuses on how we experience the world intersubjectively. I then consider three central arguments in Schutz's social phenomenology that could help us re-envision the subject as primarily social. Firstly, Schutz's *theory of action* illustrates human (time) consciousness is inextricably tied up with others. Secondly, the related notion of the *stock of knowledge at hand* shows that our experience and perception are socially determined. Thirdly, Schutz's notion of *consociates* further illustrates how we encounter the world together. After considering how Schutzian phenomenology can inform our understanding of the postphenomenological subject, I briefly return to Ihde's notion of forgetfulness of the material artifacts that shape the fabric of our lifeworlds. Here I claim that Ihde's critique of forgetfulness is also relevant in terms of Schutzian phenomenology. While I do not provide a detailed account of how Ihde's postphenomenology could inform Schutzian phenomenology, I do attempt to show that advancing the dialogue between the Schutzian and Ihdean traditions presents many fruitful avenues for further exploration. This analysis aims to provide a more refined approach to Ihde's postphenomenology within the limits of his existing theory rather than to break with postphenomenology altogether. Finally, I consider how we can reconceive of human-technology relationships from a social postphenomenological approach. I suggest that the postphenomenological schema of *I—Technology—World* can be framed more accurately as *We—Technology—World*.

Don Ihde's "I"

Somewhat paradoxical to the aims of this paper, it would be mistaken to accuse Don Ihde of not being sufficiently sensitive to the socio-cultural dimensions of technology. Examples of how different cultures conceive of technology permeate

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[7] There are variations in spelling for Schutz's surname. He used Schütz while living in Germany and Austria, when he moved to New York he used *Schuetz* and later *Schutz*. I use Schutz because it is the most prevalent usage.

throughout his oeuvre. Neither can he be accused of not being political enough as he agrees that technologies are historically-culturally embedded, non-neutral and that some modern technologies may be acidic to traditional cultures (Ihde, 1994). Rather, what a social postphenomenology of technology aims for is a conceptual tool to evaluate how particular technologies mediate the experience of individuals who are part of specific cultural or social groups.

To illustrate this, consider Ihde's now commonplace example within postphenomenology[8] in *Technology and the Lifeworld* (1990). He describes how a group of New Guineans' use of artifacts differs from that of Australian prospectors. The prospectors were baffled by the Papua New Guineans' initial ambiguous response to rifles, while steel knives and axes were enthusiastically accepted. More confusingly, sardine cans considered trash by the prospectors were immediately snatched up and made into elaborate headwear. For the New Guineans, the sardine cans could be used as an artifact that denotes hierarchy and social positioning. Ihde illustrates how objects can be culturally embedded into an existent practice or discarded when the object cannot be seamlessly integrated into an extant praxis. Ihde clearly illustrates how artifacts become embedded in different contexts and how those artifacts come to play different roles in various contexts.

Why did the New Guineans, as a group, perceive the artifact as they did? Each member of the group experienced and perceived the artifact individually. However, they had some common understanding of what the object was, how to understand it and how to appropriate it into their own praxis. Schutz, as will be discussed in the next section, provides an interpretive framework through which we can analyse this common understanding and the intersubjective experience of artifacts. To understand how Ihde's postphenomenology can be informed by Schutz's social phenomenology, we need to turn to their reading of Husserl and the aspects of the Lifeworld[9] both these thinkers isolate and emphasise.

Ihde's (1990) Husserl has become forgetful[10] of the taken-for-granted objects of the lifeworld. Husserl claims that Galileo discovered the indirect mathematization of the universe, but Ihde reminds us of the material artifact or thing itself[11] that allowed Galileo to perceive in ways that would not have been available to him without the telescope. Don Ihde's *I* sees and experiences the world through the telescope and, in turn, becomes a technologically mediated subject. Husserl does not adequately explain how instruments like the telescope can become experientially transparent and we come to experience the world in a mediation relation with technologies. Ihde

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[8] Ihde does not define his approach as *postphenomenology* in *Technology and the Lifeworld*. He only later coins the term in *Postphenomenology: Essays in the Postmodern Context* (1993). As the basic tenets of postphenomenology are laid out in *Technology and the Lifeworld*, the idea of a postphenomenology predates the use of the term.

[9] Ihde credits his notion of the Lifeworld to Husserl's usage in *Crisis in European Science and Transcendental Phenomenology* (1936).

[10] Ihde's claim that Husserl is forgetful of the telescope is introduced in *Technology and the Lifeworld* (1990) and further developed in *Husserl's Missing Technologies* (2016).

[11] Hans Achterhuis (2001:6) would later describe the philosophical movement that stemmed from this as the *Empirical Turn*, although Ihde himself prefers the *Concrete Turn* (2022: 851) to avoid confusion with British empiricism.

thus fills this explanational lacuna with his theory of relations of mediation. Yet, in this well-known example of Ihde, the question of the social is already underplayed or neglected. Shapin (1996) recounts how Galileo's use of the telescope was itself determined socially. For Galileo, the reliability of the telescope and the "structures of authority within which we could learn what to see" were different than the culture that we belong to today. Thus, Galileo's technologically mediated experience of the heavens was constituted not only by the technology of the telescope itself, but also by the culture to which he belonged that shaped how this technology was used, understood and experienced.[12]

However, in remembering Galileo's telescope Ihde elucidates how material artifacts can alter the way we perceive the world and does not elucidate how these perceptions and experiences are also socially constituted. The kind of perception Ihde describes here is immediate and bodily focussed and includes senses such as sight, hearing and feeling. He continues by writing (1990: 29) that "there is also what might be called a cultural, or hermeneutic, perception, which I shall call *macroperception*" (my italics). Ihde calls for a double-sided analysis of human-technology relations, in which both the microperceptual and macroperceptual remain part of the way in which we analyse technologies. Although Ihde claims that this dual-perception is intertwined, he addresses them separately in *Technology and the Lifeworld* in two distinct programs. However, the inseparability of the social structures in which our experience of a particular technology is embedded (what Ihde would describe as macroperception) and the experience of that technology (microperception) is emphasised by scholars such as Shapin (1996).

Ihde's first program is called *Phenomenology of Technics* in which he thoroughly develops his four human-technology relations, namely embodiment, hermeneutic, alterity and background relations. This program builds upon his description of the Lifeworld as informed by Husserl, Heidegger and Merleau-Ponty. Building upon Heidegger's account[13] of human-world relations, Ihde retains a *relativistic*[14] *ontology* (1990: 23) of human existence. In his well-known example of a hammer, Heidegger asks how a tool presents itself to a human being and arrives at the conclusion that a tool has a certain "readiness-to-hand" (*Zuhandenheit*). The tool itself is not the direct object of experience; rather what the tool is used for becomes part

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[12] Shapin (1996: 73) further describes how belonging to different (knowledge) cultures shapes how technological artifacts are used. For the telescope to be considered an instrument that can reliably portray things that authentically exist in the world, the necessary social structures or resources had to be laboriously created and disseminated. While Shapin's analysis focuses mainly on the scientific cultures that determine the ways in which technological artifacts are socially constituted, the focus of a social postphenomenological approach is somewhat broader as its aims to develop a framework in which technologies can be understood inter-culturally or across cultures.

[13] While indebted to his relativistic ontology, Ihde remains critical of Heidegger's "völkisch romanticism" (Ihde 2010: 13) with its preferential treatment of earlier technologies that reveal truth (*aletheia*), as opposed to the modern industrial technologies that 'challenge forth' (Ihde 2010: 18). Ihde returns to this critique throughout his career in texts such as *Heidegger's Technologies* (2010) and most recently *From Heideggerian Industrial Gigantism to Nanoscale Technologies* (2022).

[14] To avoid confusion with relativism, Ihde explicitly states that he uses the word *relativistic* to denote *an account of relations* (1990:23).

of the human experience of the world.[15] The final phenomenologist that Ihde takes into account is Merleau-Ponty. He firstly points towards Merleau-Ponty's examples of the "woman with the feather in her hat" or the "blind man with a cane" to emphasise our bodily experience. Ihde then considers Merleau-Ponty's claim that the lived body is informed by culture but, disappointingly, does not develop this claim further in *Technology and the Lifeworld*. Despite Merleau-Ponty's intersubjective and interactive social body becoming more pronounced in Ihde's later works, such as *Bodies in Technology* (2001), criticisms about the way in which Ihde conceives of this social body have not dissipated.

Robert Scharff, perhaps the most vocal critic of Ihde's two-level relation (2020: 76), argues for a more nuanced reading of the terms "embodiment" and "perception". Scharff questions the ordering of the macroperceptual as something that takes place *after* the microperceptual. He notes that it is only after microperceptual mediations that Ihde makes a perceptual shift towards the macroperceptual levels of the socio-cultural, historical and hermeneutic. Considering Ihde's initial accounts in *Technology and the Lifeworld* as well as later developments, Scharff points towards ambiguity in Ihde's accounts of embodiment when he notes that it is not clear whether the social and cultural should be understood as an additional layer "capable of being descriptively added to or ignored by analyses of the perceptual" or whether the "perceptual, social and cultural are merely dimensions of being-in-the-world" (Scharff, 2020: 135). Scharff stresses how Ihde's interpretation of Husserl starts with the embodied individual and not "methodologically prepared minds" in which the socio-historical dimension becomes a contextual field in which mediation takes place.[16] Scharff (2006) phrases his critique more sharply when asking in what philosophical mood one can write about embodiment, hermeneutic and alterity relations "and never once mention issues of gender, race, political and economic power, or spiritual understanding". The critiques uttered by Scharff here are seen as emblematic of a set of critiques that question the way in which Ihde's subject is situated socially, culturally and politically.[17]

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[15] Verbeek (2001) provides an account of why this analysis of Ihde's is of special significance. He notes that each tool or piece of equipment is related to a context and relates to a meaningful whole. Secondly, that a tool has "instrumental intentionality" and thus something *in order to*. Thirdly, the tool is used in practical activity as a means of experiencing.

[16] Dennis Weiss (2008: 113) similarly questions who the human being is in Ihde's human-technology pairings and, in following Marjorie Grene's philosophical anthropology, that "perception is always cultural and symbolic".

[17] I differentiate here between two distinct types of critiques: phenomenological and transcendental. The latter set of critiques, as outlined by Lemmens (2021), Zwier (2022), Smith (2015) and others argue that

How can we reconceive Ihde's postphenomenological[18] subject as embedded in their social contexts? As mentioned, attempts at expanding postphenomenology to account for these contexts include analysing its normative dimensions (Verbeek, 2005), reconciling it to theories like critical constructivism (Feenberg, 2022; Botin, 2020), or placing it within a hermeneutic horizon of interpretation (Kudina, 2021), to name but a few. Ihde's reading of Husserl remains the faultline that persists into current extensions of postphenomenology. However, claiming that Ihde's reading of Husserl is by any means inadequate would be uncharitable. Instead, the way in which Ihde interprets[19] Husserl is directed towards his questions about the subject's orientation towards technology, and not Husserl's "other egos" or intersubjectivity. Husserl's subjectivism has been thoroughly noted in post-Husserlian scholarship and many attempts have been made to overcome this subjectivism. As Martin Ritter (2021a) notes, Ihde has unfortunately "not shown much interest in the evolution of contemporary phenomenology (after Merleau-Ponty), and postphenomenology has gradually diverged from phenomenology".[20] Ihde himself deems phenomenology to be his personal *albatross* (Scharff, 2006) that he owes a critical debt to but cannot get rid of. Scholars like Vallor (2016) sharply reject Ihde's implied charge that "phenomenology is a moribund tradition that has largely exhausted its power". In the following section, we return to Ihde's "Albatross of phenomenology" by considering a reading of Husserl in which the social embeddedness of the subject becomes primary. This is not another turn in the postphenomenological tradition. Instead, we return to phenomenology to consider how Husserl's subject could be understood as a primarily social *I*, or in other words, *We*.

Alfred Schutz's "We"

Ihde convincingly claims that phenomenology has become forgetful of the role material artifacts play in our perception and experience of the world. Similarly, post-phenomenology has become neglectful of the social and intersubjective dimensions

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Footnote 17 (continued)

postphenomenology does not sufficiently engage with transcendental questions they deem central in the Philosophy of Technology. I consider these questions fruitful in discussions about how postphenomenology is positioned within the larger Philosophy of Technology discourse. However, the social postphenomenological approach developed in this paper remains thoroughly within the Empirical Turn and the postphenomenological tradition, as it is aimed towards understanding concrete technologies from a socially mediated perspective.

[18] It is easy to forget that the postphenomenological discourse has been taking place for more than three decades. My reading of the discourse is indebted to Michel Foucault's understanding of knowledge as "archaeological," particularly as he describes it in *The Order of Things: An Archaeology of the Human Sciences* (1970). This heuristic allows for postphenomenology to be read in terms of layers, disruptions and contingent strata. My reading of Ihde is thus influenced by the question of epistemic contingency: What if Ihde turned to social phenomenology instead of pragmatism in this search for contextual grounding?

[19] In *Husserl's Missing Technologies* (2016), Ihde gives a detailed account of his engagement with Husserl and how it has shaped his though since the mid-1960's.

[20] Ihde's turn away from phenomenology is also a turn towards pragmatism (see Thompson 2020).

of this experience. While the postphenomenological tradition thoroughly engages with the phenomenology of Husserl, Heidegger and Merleau-Ponty, it understates social phenomenology. The 1920s and 1930s saw a proliferation of research studying the phenomenology of social relations (see Moran, 2017). Thinkers such as Gerda Walther, Jan Patočka, Edith Stein and Alfred Schutz, remain largely forgotten in the postphenomenological tradition.[21] Schutzian scholarship is vast and provides many points of engagement that could inform postphenomenology. In this article, I limit my scope to *The Phenomenology of the Social World*[22] (1932) as it is the most influential work by Schutz and contains his key theoretical contributions. Additionally, it forms the foundation of his engagement with Husserl and is illustrative of how Ihde's interpretation diverges from social phenomenology. As such, this section commences with a discussion of Schutz's Husserlian foundations. I then discuss the Schutzian notions of *Action*, the *Shared Stock of Knowledge* and *Consociates and Contemporaries* as key to understanding the postphenomenological *I* as socially embedded.

In terms of his engagement with Husserl, Schutz's endebtedness is clearly illustrated in his own autobiographical account, *Husserl and His Influence on Me* (1977). Schutz notes (1977: 126) that although he clearly grasped the importance of Husserl's *transcendental phenomenological*, he felt that the main importance of phenomenology for the exploration of social reality was to be found in the notion that knowledge achieved through the reduced transcendental sphere remains valid in the *natural attitude*.[23] It is at this point that Schutz and Ihde diverge: Schutz emphasises the social as a fundamental element of the natural attitude, while Ihde considers material artifacts as overlooked in the natural attitude. Schutz's critique and subsequent building upon Husserl is centred on Husserl's *Fifth Meditation.*[24] Husserl argues that transcendental reduction described as *epoché* or *bracketing* restricts the subject to the "stream of my own pure conscious processes" (1960: 89). Husserl (1981) thus attempts to define a method that is not limited by contingencies of human situatedness in culture or history, or what he calls *anthropological-historical facticities* in his correspondence with Wilhelm Dilthey (Dilthey & Husserl, 1981). Husserl anticipated that his "alleged solipsism" would be heavily critiqued and that this critique might impede the reception of his work. He attempts to insulate himself from these critiques in his *Fifth Meditation,* in which he develops his ideas

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[21] While engagements with Schutz remain sparse, some philosophers of technology have committed to aspects of Schutz's work. Most notably, Bas de Boer (2022) employs Schutz to illustrate how scientific instruments speak and how a Schutzian theory of relevances can shape our understanding of self-tracking technologies.

[22] Originally published as *Der sinnhafte Aufbau der sozialen Welt*, which can be literally translated as *The Meaningful Structure of the Social World.*

[23] The *natural attitude* is understood as our everyday, self-evident, taken-for-granted lives where we suspend our philosophical beliefs about reality.

[24] Schutz further engages with Husserl on this topic in *The Problem of Transcendental Intersubjectivity* (1966). I limit my discussion to *The Phenonomenology of the Social World* as he raises his main concerns in this earlier text.

surrounding intersubjectivity and *other egos*[25] (or alter egos). It is also this *Fifth Meditation* which Schutz engages with when juxtaposing his own understanding of the social other. Husserl describes other egos as belonging to a "peculiar kind of epoché" (1960: 93). In this peculiar epoché, other egos appear to the transcendental ego in a manner different to other ordinary objects.

Other egos, for Husserl, appear to us as analogously constituted: the animate body of the other is analogously identified with the phenomenal body of the self.[26] For example, when walking in a park I encounter various objects like trees, rocks or ponds in a manner that is different to my encounters with other human persons.[27] Other human beings are not experienced as inanimate objects, but instead, I project onto other egos the transcendental ego I myself experience. Not only is there an analogous constitution that shapes my experience of other egos, there is also an associative constitution in which the other is present to me as a fellow human being with similar lived experiences (*Erlebnisse*) to myself. It is through this pairing (*Paarung*) of the analogous and associative constitution that I experience the other as similar or dissimilar to me.

In the critical reception of Husserl's social other, as it relates to the transcendental ego, particularly by figures such as Sartre and Heidegger, it becomes apparent that Husserl's attempts to insulate himself against the anticipated critiques of solipsism might have been in vain. However, his phenomenological account could be seen as the point of departure for numerous phenomenological accounts of sociology by thinkers such as Heidegger, Merleau-Ponty, Reinach, Schleher, Stein, Walther, and others. Schutz also belongs to this group of thinkers that takes Husserl's

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[25] Husserl's concept of the transcendental ego and its relation to other egos underwent various iterations primarily in *Logical Investigations* (1900), *Ideas I: General Introduction to Pure Phenomenology* (1913), *Cartesian Meditations* (1924) and *Crisis* (1936). Husserl and Schutz formed a philosophical friendship in 1932 that shaped their consequent philosophical works. The *Fifth Cartesian Meditation* is the main focus of this article as it serves as the most definitive juxtaposition between Husserl and Schutz before their theories were mutually influenced by the other.

[26] Don Ihde thoroughly adresses the notion of the Body in Husserl through his engagement with Merleau-Ponty. In *Expaning Hermeneutics: Visualism in Science* (1998), Ihde describes *Body One* as the located sensory body akin to the microperceptual and *Body Two* as a social body. Still, commentators remain unconvinced by this elaboration on micorperception and macroperception. As discussed, Scharff critiques this dual perception of the two bodies when stating that it is not clear whether these perceptions are merely dimensions in of being in the world and whether they can be descriptively added or ignored. Marga Viljoen (2010) similarly hints at why Ihde's late addition of Body One and Body Two may be misleading when she writes that "we must remember that perception is not a passive event; body one and body two are both active in perception". Andrew Feenberg further illustrates how the body is a "social subject" by illustrating how extended bodies in virtual worlds call into question not only the classic concerns of the perceiving and acting subject in the natural world, but also in the way that the social subject is mediated (2003). This is to illustrate that Ihde did not neglect the role of the social or the cultural when it comes to experience and perception, but rather that how the two aspects relate call for further inquiry.

[27] While the focus of this article is on the human other, it does not exclude the possibility of the non-human like animals as being experienced as other egos. Influenced by Jakob van Uexküll, Husserl acknowledges (1973) that animals have "conscious lives" and, unlike Heidegger who assumes animals to be *weltarm* (world-poor), Husserl endowes animals with *Umwelten* or the surrounding world. Husserl further differentiates between human and animal subjectivities by referring to different *modes* of personal life (See Venuta, 2023). Thus, while Husserl includes animals as a form of other egos, this article limits the discussion to humans as other egos.

phenomenology as a point of departure by particularly focusing on the question of other egos, or the social dimensions of phenomenological experience. He does so by elevating the social dimensions of the natural attitude.

In order to do so, he first turns towards the interpretive sociology of Max Weber.[28] Schutz accepts Weber's positioning of the social sciences as seeking understanding (*Verstehen*) of social phenomena and the interpretive examinations of how individuals attribute meaning to their actions.[29] However, Schutz's theories diverge from Weber in his critique of what he deems to be *tacit presuppositions* (1960:7) in Weber's basic concepts. In particular, it is the tacit presupposition of human action as individual action that Schutz reevaluates.[30] He claims that although Weber distinguishes between the subjectively intended meaning of an action and the objectively knowable meaning of that action, he does not account for the way in which these meanings are constituted. It is this Schutzian *theory of action* that is the first key consideration when developing a social postphenomenology of technology.

Theory of Action

Schutz is critical of Weber's notion of action as an external behaviour to which meaning is attached—as this seems to indicate that action is indicative of individual meaning that drives action. In his unique approach to a theory of action, Schutz argues that "the problem of meaning is a time problem" (1967: 12). In his highly unique contribution to the problem of meaning, Schutz turns to Henri Bergson's notion of *inner time* as an addition to Husserl's time-consciousness. Bergson distinguishes two kinds of time: the objective time of watches or calendars and an inner subjective experience of time (*durée*). This inner-time consists of internal time-consciousness, and the phenomena of retention, reproduction and anticipation. Action is thus seen as an experience that is orientated to the past, present and future.[31] For Schutz, this feature of human consciousness inextricably ties up our inner-time with our memory, directedness to the present and anticipation of the future.

Once an action has taken place, the actor has "grown older" (1967: 46), something they are not aware of when they are still immersed in the stream of consciousness

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[28] While Schutz's engagement with Weber is not central in the current development of social postphenomenology, it is important to take note of Schutz's use of Weber as it points towards *action*. It is this account of action that could advance postphenomenological attempts to politicise postphenomenology through investigating social action.

[29] Schutz was affiliated with the Austrian Economic School for more than a decade and therefore the methodological debates in *Phenomenology* are also shaped by the aims of the school. Schutz's engagement with the thought of members like Ludwig von Mises, Hans Kelsen, Felix Kaufmann and others are well documented (see Prendergast, 1986). The scope of this article does not allow for a thorough explication of Schutz's theoretic influences, and focuses on Schutz's main interlocutors, namely Weber and Husserl, as a basis for understanding his social phenomenology.

[30] On this point it is important to note that Schutz although Schutz does not abandon methodological individualism of the study of human behaviour by focusing on the experience of individuals, he defends an intersubjective social ontology instead of an individualistic ontology. For more on this topic, see Gros (2017)

[31] Schutz also distinguishes between actions that are ongoing (*Handeln*) and finished acts (*Handlungen*).

directed towards action. Schutz elaborates on this phenomenon of growing older by noting that with every new lived experience, we grow older and our accumulated experience grows larger. Our experience is primarily social because we do not have access only to our own accumulated life experience, but we also have insight into the accumulated experience of others. For instance, we have access to language, habits, rituals, etc. that meaningfully link our lived experience with others. This shared accumulated experience is defined by Schutz as the "Shared Stock of Knowledge at hand" (as discussed in the following section). Schutz's description of *growing old together* illustrates how our actions are situated in shared social experiences. He continues to describe a further experience of growing older together. This occurs when our inner-time consciousness is synced with *other egos* (to use the Husserlian vernacular). Schutz most thoroughly describes this in *Making Music Together* (1951). The experience of growing old together is illustrated by making music together because our experience of inner-time is synchronised, we are living through the vivid present together and we experience the embodied other face to face.

The Stock of Knowledge at Hand

The accumulation of experiences described in Schutz's theory of action culminates in what has become his most influential concept, namely, the *stock of knowledge at hand.* Again following Husserl, Schutz notes (1960: 81) that in the natural attitude, we have a stock of knowledge of "physical things and fellow creatures, of social collectives and of artifacts, including cultural objects". This stock of knowledge also includes "syntheses of inner experiences", such as previous judgements. In other words, our previous experiences with objects are ready at hand for us to use when we have similar encounters in the future. Schutz adds to this "experience of all sorts of practical and ethical rules" (1967: 81). The stock of knowledge makes the life-world familiar and knowable because we have access to knowledge about the typical features of this world. Schutz later develops a systematic analysis of the stock of knowledge with Thomas Luckmann in *The Structures of the Life-world* (1974). The stock of knowledge does not only consist of knowledge about objects or other human beings but includes many other kinds of knowledge, such as skills or habits. Even our knowledge about corporeality, its usual functioning and temporal arrangement, is included in this account. Furthermore, language can also be seen as part of the stock of knowledge. Not only do we share the meaning of words, but we also have knowledge of linguistic rules and how common expressions can be interpreted.

For the purposes of this paper, the way in which the stock of knowledge is understood in culture is of vital importance.[32] For Schutz and Luckmann, the stock of knowledge is variable from one society to the next as well as within a particular society (1974: 109). They illustrate this by using the example of walking to show that there is a highly differentiated instrasocial distribution of the stock of knowledge when claiming that a Roman did not walk like a Hun, an Eskimo does not walk

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[32] Lester Embree, a renowned Shutz scholar, takes the question of culture up in great detail in The Schutzian Theory of the Cultural Sciences (Embree 2015). He discussed different species of the cultural sciences such as politics, economics, and linguistics, among others.

like an American and a soldier not like a civilian. Thus, even in such basic elements of the functioning of the body do we encounter variance. At the same time, they remind us that there is no society so "primitive" as to possess a completely homogeneous culture (1974: 199). Furthermore, no society has an absolutely fixed stock of knowledge or is capable of building a completely new stock of knowledge. Regarding the objective of arriving at a social postphenomenology of technology, this is relevant because it does not propose that there are cultures that are homogenous or isolated enough as to possess a pure unadulterated stock of knowledge.

To briefly return to Ihde's example mentioned in the introduction, the stock of knowledge at hand gives us insight into the way in which the New Guineans appropriated technologies. There was no reference for rifles in the stock of knowledge and therefore rifles could not be meaningfully understood. While sardine cans also had no direct correlate, it did relate to extant artifacts like headwear. Why do we interpret some objects or experiences as meaningful and others not? Schutz introduces the problem of *relevance*[33] which is akin to Husserl's understanding of an *attentional ray*. For Husserl, we voluntarily turn towards certain experiences in the stream of consciousness to reflect upon them. For Schutz, Husserl's description might lead to the misconception that this act of reflection is performed at random within an "unlimited range of freedom or discretion" (Schutz, 1970: 95). Schutz thus questions how certain experiences become particularly meaningful simply by drawing our attention. He develops a theory of different types of relevances that are again, in Schutzian fashion, not a purely individual subjective experience but embedded in a social matrix.

Whereas Schutz usually turns towards modern thinkers he now considers the ancient Greek sceptic Carneades when interpreting Husserl's idea of attention. For Carneades, there is "no pure representation existing in our mind" (1970: 103). He explains that when thinking of Socrates, for example, he does not only think of the name Socrates but also of some individual characteristics, conduct and other circumstances that cannot be separated from Socrates' existence. The interpretive process is influenced by whether our attention is drawn to a particular object or experience as well as a degree of likelihood ($\pi\iota\theta\alpha\nu\acute{o}\nu$) that determines how an object or experience will be interpreted.[34] Through this analysis, he arrives at three types of *relevances* that play a determining role within the interpretive process: *topical*, *interpretational*, and *motivational* relevances. He uses Carneades' example of an unknown object in a dark corner of a room that could be a pile of rope, a serpent or something else. When encountering such an object, we inadvertently consider other encounters that thematically match the experience. So, for instance, if we encounter an object in a shed and have encountered ropes in this context before, we are more *likely* to interpret it as a rope. A second relevance that Schutz identifies is that

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[33] The problem of *relevance* is introduced in *The Phenomenology of the Lifeworld* but the way in which relevance functions was present in most of his books. A more comprehensive account of his theory of relevances was only published posthumously as *Reflections on the Problem of Relevance* (1970), edited by Richard M. Zaner. I draw here mainly from the later text.

[34] Schutz goes into much greater detail here. Following Carneades' differentiation between *perispastos* and *aperispastos*, or things that attract our attention or not, he engages with Husserl's idea of the ray of attention. For the immediate purpose I focus on his three relevances, and how this relates to the social.

of *interpretational* relevance. He continues by using the example of the rope/snake object when he notes that if he encountered the object in a room belonging to a sailor, he would still be likely to interpret it as a rope even if he had not seen a rope of that colour or material before. Drawing from the stock of knowledge, it is more likely that the object in the sailor's house would be interpreted as a rope since my knowledge of sailors means that the object is more likely a rope than a snake. The third type of relevance, and perhaps the most interesting in terms of human-technology relations, is that of *motivational* relevance or *in-order-to* motives. For example, if we are still not sure whether the object is a snake or a rope, we might act towards the object in a way that would give us more interpretative certainty. Schutz writes that we may decide to hit the object with a stick to see whether it responds in the way that a snake or rope would respond. Our interpretive decision, namely to clarify if it is a rope or a snake, motivates us to take an action.

Let us return, again, to Ihde's example: Ihde describes how the New Guineans interpreted the novel objects in their own context. Ihde's notion of multistability clarifies how technological artifacts can come to have different interpretations.[35] Following Heidegger, Ihde (1990: 144) accepts that technologies have no "essence" and presents the example of a Necker Cube to illustrate that the object can be perceived in different ways. At times one perceives the object to be a three-dimensional cube with the top and two side surfaces facing us, at other times the cube appears to be facing in the opposite direction. This ambiguity of objects illustrates Ihde's notion of multistability. Variations in how the object appears are described as at once sensory (microperceptual) and at the same time embedded in "culture" (macroperceptual). The theory of relevances presented by Schutz can thus aid our understanding of how these interpretations are constituted socially.

Consociates and Contemporaries

A third concept, interrelated with Schutz's theory of action and stock of knowledge, that could guide our view of the postphenomenological subject as social is the notion of *consociates and contemporaries*. Schutz and Luckman here also utilise the term *mediation* (1973) to denote how the lifeworld is constituted by others. For Schutz, the Lifeworld can be divided into different social realms. The first of these is described as the world of my *contemporaries* (*Mitwelt*).[36] This realm of the social world consists of those with whom we share a community of space and a community of time. Another realm of the social world is that of *predecessors* (*Vorwelt*) and *successors* (*Folgewelt*), or those with whom we do not share the same time and to whose lived bodies we do not have access to. The notion that we share our Lifeworlds with predecessors means that our social worlds are also historically situated.

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[35] In Technology and the Lifeworld, Ihde notes an initial example of multistability when he describes different cultural interpretations by using examples of cooking techniques and technologies. While these examples are highly relevant to the discussion at hand, I limit my discussion to the example of the New Guineans for the sake of clarity.

[36] In Philosophy of Technology, Mitwelt is often associated with Heidegger. However, the concept was used by Husserl and may have inspired Heidegger's usage of it. For more on this, and differences in uses of the term in the phenomenological tradition, see Moran (2017).

We cannot experience them directly or exert any influence on them, but we can experience the world of our predecessors through signs like texts, records and monuments (Schutz, 1967: 209). These signs are, of course, anonymous and detached from my stream of consciousness. Knowledge and experience of contemporaries, predecessors and successors are indirect.

However, Schutz also identifies a type of social experience with others that is direct. He describes the realm of *consociates* as those whom we encounter face-to-face and whom we experience in time. This is the type of relation that Schutz notes in his examples of making music and growing older together. We experience consociates in place and time through face-to-face encounters that give us access to the embodied other. Furthermore, Schutz (1982: 32) writes that our I-experience is "tied to consociates through language and emotions". Building on Bergson's notions of inner-time or *durée*, he notes that when we experience the world with consociates, our inner-time becomes interwoven with one another. Thus, we experience the world with consociates simultaneously when we are intentionally directed to one another, experiencing time simultaneously. Of course, we cannot observe the subjective experience of the other exactly as they do, as it would presuppose that we have lived through all the conscious states and intentional acts that the other has lived through. He maintains that the stream of consciousness of every individual is "essentially inaccessible to every other individual" (Schutz, 1967: 99). However, this does not disqualify the intersubjective experience. Schutz's notion of consociates proposes that we can experience others in time and place in what he describes as the *We-relationship* (Schutz, 1976: 30).

Schutz's Missing Technologies

Before considering the implications that Schutzian phenomenology has for post-phenomenology, let us briefly consider how postphenomenology could inform social phenomenology. To paraphrase Ihde, where are Schutz's missing technologies? Schutz's description of the social dimensions of experience and perception is often directed towards an object or artifact. Schutz uses examples[37] such as watching a "bird in flight" (1967: 165) or a "rolling football" (1960a: 317) to illustrate this point. During the flight of the bird or rolling of the ball, we have "grown older together" and experienced the event simultaneously. These are occurrences in *our outer public* time that coincide with our *inner private time(s)* (ibid). The two fluxes of time become, momentarily, synchronised through our directedness to the object, and with one another. While we cannot make any "pretense to any knowledge of the content" (1967: 165) of each others' experience, we do know that *we* have seen a bird in flight or a ball rolling. We experience the event simultaneously, but we can also interrupt our encounter to cross-reference the experience of the other by glimpsing the other's embodied or emotional reaction towards the experience. For Schutz, growing older together is the temporal mode of the "we-relationship".

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[37] Schutz uses the example of a bird in flight in *Phenomenology*, but supplements this example with the rolling ball in his *Collected Works*. I draw upon both accounts here.

Bregman ([1973](): 197) notes that in the Schutzian view, this mode of growing older together is the "appropriate starting place for phenomenological reflection, instead of the Husserlian transcendental ego.

Furthermore, Schutz notes that we have empirical information about historical predecessors (1960: 109). We are surrounded by objects that attest to the notion that we have been preceded by others. Not only is this apparent in material objects, but also in linguistic and other sign systems that Schutz continues to describe as "artifacts in the broadest sense" (1967: 109). These objects are, for Schutz, material and non-material objects that we arrange in our own contexts of experience. The stock of knowledge that we draw upon is itself mediated by *artifacts in the broadest sense*. Our knowledge of our predecessors comes to us through signs such as language, but also from material artifacts such as books, videos or audio. Technological mediation of the social also raises questions about whether we can have experiences with consociates when we use technologies like online video conferencing tools, virtual world technologies (such as the Metaverse) or online gaming technologies.

We—Technology—World

How can Schutz's social phenomenology deepen our understanding of the postphenomenological *I*? As illustrated, Schutz conceives of the phenomenological subject as socially mediated. On the one hand, all (technological) artifacts are interpreted through a social stock of knowledge which means that our phenomenological experience of an object is socially constituted. On the other hand, some technologies can also be experienced in time and place *together* in ways that shape our experience. This directly addresses the two-tier critique against postphenomenology as it illustrates that microperception and macroperception are inseparable. In other words, the macroperceptual does not take place *after* the microperceptual as Scharff seems to suggest, but the two are inextricably linked in phenomenological experience. Neither are the social or cultural merely dimensions of our being-in-the-world as we are phenomenologically embedded in the social through the stock of knowledge. This fundamentally social situatedness of the postphenomenological subject can be further analysed through Schutz's interrelated concepts of the *theory of action*, the *stock of knowledge* and *contemporaries and consociates.*

Firstly, Schutz's *theory of action* roots phenomenological experience in innertime or *durée.* Meaning is determined by our inner-time as it relates to historical time. In other words, our subjective experience of a phenomenon is conditioned by our orientation to its past, present and future. Our experience of technological artifacts is rooted in the past and our newly accumulated experience will become part of our future encounters with the artifact. To illustrate, consider human beings encountering a novel technological artifact such as a humanoid robot. When engaging with the robot we draw upon our accumulated experience of what a robot is and how to act towards it. In this particular case, we also cross-reference our experience with those around us by glimpsing the other's embodied or emotional reaction towards the experience. Let's say we see that another person reacts with aversion to

the robot, that experience now becomes part of our accumulated experience that will shape future encounters.

Secondly, our understanding of particular technologies, the way in which those technologies are used, and the meanings associated with those technologies are embedded in the *stock of knowledge*. As I have noted in regard to Ihde's example of the New Guineans, our experience and actions towards an artifact are embedded in our social and culturally embedded stock of knowledge. It is not surprising that Schutz also considers moral beliefs and ethical stances as embedded in the stock of knowledge.[38] Concerning technology, the stock of knowledge can be understood to encompass accumulated knowledge about artifacts, how an artifact is habitually used and how it is normatively situated. This raises the question of how new and emerging technologies are experienced and perceived. In particular, when is a technology considered to be *disruptive* (Hopster, 2021; Swierstra & Rip, 2007)? Schutz's understanding of the system of relevances[39] could serve as an interpretive lens here: the emergence of certain technologies with no referent in the stock of knowledge could, for instance, be interpreted as more disruptive than those who have thematic or interpretive relevance.

The third insight from Schutz that is relevant to understanding postphenomenology's subject as social is the notion of *consociates and contemporaries.* Schutz's view that there are different realms of sociality in our experience of the world could also indicate that there are varying degrees of sociality by which we understand mediation. For instance, *embodiment relations* such as glasses or a walking cane, cannot be experienced in time together by consociates. While our phenomenological experience of the object as such remains social in its rootedness in the stock of knowledge, the experience itself does not lend itself to a synchronised inner-time experience such as that of consociates. Alternatively, *augmentation* relations (Verbeek, 2008) mediate our social relations to a greater degree than that of embodiment relations. For instance, virtual world technologies can allow us to experience the world together in time.[40] Degrees of social mediation thus remain an open question for consideration in postphenomenological research.

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[38] There is much to be said about Schutz's normative theory or, as Michael Barber describes it *The ethics behind the absence of ethics in Alfred Schutz's thought* (1991). For the purposes of this article, it suffices to say that moral codes and ethical theories are understood as inherent in the stock of knowledge as well as the natural attitude. Schutz's *Equality and the Meaning Structure of the Social World* (1964) provides the most detailed overview on his thinking about moral codes, in-group and out-group interpretations of moral codes, etc. The normative dimensions of the social stock of knowledge is a concern that falls beyond the scope of this paper, but would be a critical concern in social postphenomenology.

[39] Bas de Boer (2022) uses Schutz's system of relevances to illustrate how technologies can mediate what we consider to be relevant.

[40] Virtual environments allow us to synchronise inner time, which Schutz sees as a characteristic of consociate relationships. We also have access to the other "face-to-face" or through embodiment, albeit through virtual embodiment. Nicola Liberati (2015; 2018) and Denisa Butnaru (2016) consider how a Schutzian approach can inform our understanding of virtual worlds and intersubjectivity.

Conclusion

In this article, I suggest that insights from social phenomenology have not been fully realised in the postphenomenological tradition. Postphenomenology typically studies how technology co-constitutes the human subject as *I—Technology—World.* A persistent critique levelled against postphenomenological approaches is that they do not account for the embeddedness of the subject in its social, cultural and political contexts. I argue that this critique stems from Don Ihde's two-tiered approach to phenomenology in *Technology and the Lifeworld* and in particular his idiosyncratic reading of Husserl. Ihde's postphenomenological project is aimed at remembering the role that technologies play in the Lifeworld. While he convincingly shows how technologies mediate our lived experiences, he underemphasises the way in which human beings are also socially mediated. Instead of Husserl's *transcendental ego* or Ihde's *I*, Schutz's "We-relationship" presents a point of departure for postphenomenological analysis that accounts for the socially embedded nature of the phenomenological experience. Reconceptualising the *I—Technology—World* schema as *We—Technology—World* allows for a more nuanced approach to technological artifacts as it calls for an analysis that considers how technologies are experienced and perceived together. Though not the main focus of this article, framing postphenomenology in terms of *We—Technology—World* serves as a point of departure for the postphenomenological study of technology within particular socio-cultural groups. In aligning postphenomenology more closely with social phenomenology, it also allows for investigation into the methods of social phenomenology (such as ethnomethodology or conversational analysis) for the purposes of postphenomenological study.

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