Aisthesis

From the Extended Mind to the Digitally Extended Self: A Phenomenological Critique

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Abstract. In this paper, I will critically consider Clark and Chalmers' hypothesis of the «extended mind» in order to sketch a possible phenomenological account of active externalism, by following three steps: (i) I will consider Clark and Chalmers' hypothesis within the broader context of the so-called «physical symbol system hypothesis» theorized by Herbert A. Simon; (ii) I will connect the problem of the «extended mind» to that of the «extended *self*», with particular regard to the context of digitalization; (iii) I will take into account an explanatory dimension that has been fundamentally underrated by externalist theories: the dimension of the human body and its relationship to mind, which I understand from a phenomenological perspective. My ultimate goal is to show how phenomenology could provide the missing theoretical framework to develop a more complex and comprehensive theory of the (digitally) extended self.

Keywords. Extended Mind, Extended Self, Digital Self, Phenomenology, Theory of Mind.

INTRODUCTION

«Where does the mind stop and the rest of the world begin?» – this was the question posed at the beginning of the very well-known 1998 article *The Extended Mind* by Andy Clark and David J. Chalmers (Clark, Chalmers [1998]: 10), which introduced the theory of active externalism in contrast to the classic, passive externalism theorized by Burge and Putnam[1]. While in most of the Putnam/Burge cases the immediate environment is irrelevant and only the historical environment counts in explaining cognition processes, in Clark/Chalmers cases external features play a crucial role in the explanation: for if we retain the internal structure but change the external features, behaviour may change completely. «The external features here are just as causally relevant as typical internal features of the brain» (Clark, Chalmers [1998]: 9) – they write.

The authors focused in particular on beliefs and found out that they can be constituted partly by features of the environment: when

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[1] See Burge (1979, 1986, 1988) and Putnam (1975, 1982).

those features play the right sort of role in driving cognitive processes, the mind extends into the world. In the case of belief, they write, "there is nothing sacred about skull and skin. What makes some information count as a belief is the role it plays, and there is no reason why the relevant role can be played only from inside the body" (Clark, Chalmers [1998]: 14).

In this contribution, I will critically consider Clark and Chalmers' hypothesis of the extended mind by following three steps:

(i) I will consider Clark and Chalmers' hypothesis within the broader context of the so-called "physical symbol system hypothesis" theorized by Herbert A. Simon (especially in his 1993 article *The Human Mind: The Symbolic Level*). I will argue that the hypothesis of twin systems or doubling, which is central to the extended mind theory, can be understood in the same terms as the parallel established by Simon between the human brain and computer processing. In both theories, something crucial seems to be underestimated, which is actually central to the other theory: on the one hand, the functioning of computer processing as a twin to the human cognitive system in Simon's thesis and, on the other hand, the symbolic dimension of the extended mind in the Clark/Chalmers hypothesis.

(ii) Both theories seem to be lacking a fundamental explanatory dimension which, however, Clark and Chalmers briefly draw attention to in their article: "Does the extended mind – they ask – imply an extended self? It seems so. Most of us already accept that the self outstrips the boundaries of consciousness" (Clark, Chalmers [1998]: 18). Indeed, the hypothesis of the extended mind is essentially linked to the mediation played by some kind of external apparatus (like the notebook, as in the famous example made by Clark and Chalmers in their 1998 article); this mediation implies the agency performed by an "extended self" as the actor of symbolic, extended processes of cognition. This becomes particularly clear, as I will show, in the realm of the *digitally* extended self.

(iii) If we acknowledge the role played by the extended self, especially in the digital environment, we then have to take into account another explanatory dimension that has been fundamentally underrated by externalist theories: the dimension of the human body and its relationship to mind. This is not to say that we have to go back to the "mind-body problem", but it seems that both Simon and Clark/Chalmers have too quickly discarded the problem as simply inconsistent. In this paper, I wish to provide a phenomenological understanding of the bodily dimension implied in extended mind (and self) operations, by referring to Husserl's notions of eidetic variation and embodiment as well as to Merlau-Ponty's concept of *flesh*, in order to show that phenomenology could provide the missing theoretical framework to develop a more complex and comprehensive theory of the extended self.

1. SYMBOLIC MIND – EXTENDED MIND

In his very well known 1993 article *The Human Mind: The Symbolic Level*, Herbert A. Simon considers human mind as a case within his "physical symbol system hypothesis", which he first introduced in his 1976 article (co-written by Allen Newell) *Computer Science as Empirical Inquiry: Symbols and Search*. The hypothesis asserts that «the necessary and sufficient condition for a system to be capable of thinking is that it be able to perform the symbolic processes [of thinking]» (Simon [1993]: 640). By thinking, Simon means activities such as solving problems, reading, playing chess, making an omelette. By symbol, he understands «a pattern, made of any substance whatsoever, that is used to denote, or point to, some other symbol, or some object or relation among objects. The thing it points to is called its *meaning*» (Simon [1993]: 640). A direct consequence of the hypothesis is that a digital computer provides a contemporary example of a physical symbol system, for it seems to be – if appropriately programmed – capable of thinking; conversely, the human brain can be understood – since it is capable of thinking – as a physical symbol system, which implies the existence of a «symbolic soft-

ware level of theory above the hardware of neuronal level» (Simon [1993]: 642).

Simon's hypothesis does not consider human brain and digital computer as *twins* or *doublings*: however, the *brain-as-a-computer* metaphor (more than the *computer-as-a-brain* metaphor) is a powerful one, gaining increasingly popularity in scientific debate. In 2011, Stephen Hawking declared «I regard the brain as a computer which will stop working when its components fail» (Hawking [2011] – online). Still, Simon's (and Newell's) theory is grounded on at least two controversial assumptions: (i) any system capable of intelligent action must necessarily be a physical symbol system; (ii) a physical symbol system equipped with the appropriate software has all that is required for intelligent action.

In a short passage in their 1998 article, Clark and Chalmers refer to Simon's theory (with particular regard to his conception of memory) and state: «Simon's view at least has the virtue of treating internal and external processing with the parity they deserve, but we suspect that on his view the mind will shrink too small for most people's tastes» (Clark, Chalmers [1998]: 12). Indeed, Simon's hypothesis can be interpreted as a version of externalism, since it considers human thinking and computer processing as fundamentally similar; conversely, the famous example made by Clark and Chalmers in their article can be compared to Simon's parallelism of computer and brain: in *The Extended Mind*, they describe a thought experiment based on the experience made by two fictional characters, Otto and Inga. They are both travelling to a museum simultaneously. Otto has Alzheimer desease, and has written all of his directions down in a notebook so as to help his memory. Inga does not have any desease and is able to recall the directions within her memory. Both Inga and Otto can be thought to have held a belief of the location of the museum before consulting their memory (in Inga's case) or notebook (Otto's case); the only difference existing in their two cases is that Inga's memory is being internally processed by the brain, while Otto's memory is being served by the notebook. In other words,

Otto's mind has been *extended* to include the notebook as the source of his memory. We can clearly replace Otto's notebook with a digital computer or device: in this case, the help provided by the computer would be much more efficient since, according to Simon's hypothesis, appropriately programmed digital computers can perform just the same thinking activities as humans brains.

But what did we achieve by establishing the hypothesis of *twins* (Clark/Chalmers) and that of *physical symbol system* (Simon)? Did we really *explain* something about thinking (its meaning for us), or did we just describe its happening and functioning? In other words, we may ask: *who* is actually thinking here?

2. EXTENDED MIND – EXTENDED SELF

Who is thinking? Is the *mind* that is thinking or is *someone* who is thinking? This is not a trivial question, since Clark and Chalmers themselves seem to admit the lack of a fundamental explanatory dimension in their theory, which they briefly draw attention to in their article: "Does the extended mind – they ask – imply an extended self? It seems so. Most of us already accept that the self outstrips the boundaries of consciousness" (Clark, Chalmers [1998]: 18). Indeed, the hypothesis of the extended mind is essentially linked to the mediation played by some kind of external apparatus (like the notebook, as in the famous example made by Clark and Chalmers in their 1998 article); this mediation implies the agency performed by an *extended self* as the actor of symbolic, extended processes of cognition.

Thus, we can broaden the notion of extended mind by linking it to that of extended self. The expression "extended self" was first systematically used by Russell W. Belk in his 1988 article *Possessions and the Extended Self*: as a researcher in economics, Belk was interested in understanding how things – i.e., material possessions – are regarded by consumers as *parts of ourselves* and what consequences derive from this not only in terms of consumption but also in terms of how we under-

stand ourselves as identities, personhoods and subjects. As Belk notes, the idea that «we regard our possessions as part of ourselves» (Belk [1988]: 139) is not new to cultural studies and philosophy: William James already underlined in 1890 that «a man's Self is the sum total of all that he CAN call his, not only his body and psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands, and yacht and bank-account» (Belk [1988]: 139) – that is to say, the extended self includes external objects as well as other persons and places.

> *Objects in our possessions literally can extend self, as when a tool or weapon allows us to do things of which we would otherwise be incapable. Possession can also symbolically extend self, as when a uniform or trophy allows us to convince ourselves (and perhaps others) that we can be a different person than we would be without them.* (Belk [1988: 145])

It seems that the theory of the extended self can help better understand the agency involved by the hypothesis of the extended mind as well as specify the role played by external factors and environment in the theory of active externalism: if we assume that the objects we posses can symbolically extend our-selves, this also implies an extension of our cognitive power and mind. This is of particular significance in the context of digital environment that is typical of the latest development of high-technological societies: we could update Clark/Chalmers theory of active externalism in order to talk about *digital active externalism*, regarding the extended mind as an essentially *digitally* extended mind. This review is suggested by Russell Belk himself: in 2013 he revised his well-known 1988 article by taking into account the transformations caused by digitilization in our present time and its consequences on the way we perform our identity digitally (Belk [2013]). He underlines some problems that are characteristic of the digital extended self and that we can interpret – my suggestion – in a phenomenological perspective.

3. PHENOMENOLOGY OF THE (DIGITALLY) EXTENDED SELF

The most important features of digital extended mind are two: the first feature is called by Belk *dematerialization*. «Things are disappearing right before our eyes» (Belk [2013]: 478). Today, most of our possessions are digital, i.e. composed by electronic streams that are stored locally somewhere in a cloud within the Internet. Our Emails, music, photos, videos, texts are now digital data, i.e. dematerialized digital artefacts. Of course, as stated by Lehdonvirta [2012], phenomenologically digital goods are very real to their owners and users and it is rather material goods that are not real in the Internet realm: we can develop a strong attachment to digital possessions (we may think of the common obsession with the constant back-up of our data on different memory-tools). At the same time, since virtual goods are endlessly replicable, it is "difficult to regard them as perfectly unique, nonfungible, and singular, even if we have custom-crafted them or employed suitable possessions rituals", (Belk [2013]: 481)

Connected to dematerialization, a second change occurs, which has a special phenomenological meaning: we may call it reembodiment. Dematerialization also means a disembodiment of subjects in the digital context – let us just think of the possibilities of telecopresence in digital communication, where the condition is the absence of the corporeal body and face-to-face communication. However, the disembodiment we experience through digital activities is far from being a simple detachment of the self from the body: it is a more complex phenomenon, since it is followed by «a reembodiement as avatars, photos and videos» (Belk [2013]: 481). The relative freedom of configuring our avatar bodies has led some to suggest that our avatars represent our *ideal* selves, our *possible* selves, *aspirational* selves, or *alternative* selves: of course, this doubling of our-selves by means of digital avatars changes our perception of ourselves after spending even small amounts of time wearing an avatar (Belk [2013]: 482) – this phenomenon is called the Proteus effect after the

ancient Greek god who could take on whatever form he wished.

The self deriving from corporeal disembodiment and digital reembodiement is characterized by four features (as noted by Shanyang Zhao [2005]): (i) it is inwardly oriented, i.e. it focuses on one's inner world and experiences, even though this inner world is meant to be shared with others through «self-disclosure» practices that are made easier by the anonymity of the Internet; (ii) it is inherently narrative, i.e. a «symbolic project» (Thompson [1995]: 210) that an individual actively constructs in working out a coherent «narrative of self-identity». Indeed, in the world of corporeal copresence we tend to take our self for granted in face-to-face interaction: in the online world, we are often obliged to provide some type of self-description (just think about biographies or brief descriptions required on social networks or the necessary use of a nick-name etc.); (iii) it is retractable, since a given version of one's self can be erased relatively easily; (iv) consequently, it is multiplied. Self is fundamentally «decentered, dispersed, and multiplied in continuous instability» (Poster [1990]: 6).

If we acknowledge the role played by the extended self and try to update it in the context of digital environment, we then have to take into account another explanatory dimension that has been fundamentally underrated by externalist theories: the dimension of the human body and its relationship to mind. This is not to say that we have to go back to the *mind-body problem*, but it seems that both Simon and Clark/Chalmers have too quickly discarded the problem as simply inconsistent. From my brief account of the two main features of digital extended self/mind, however, it is clear that this dimension (and its transformations in the context of digitalization) plays a crucial role in understanding the interaction between self/mind and external environment. We may interpret this dimension phenomenologically: phenomenology, as first developed by Edmund Husserl, is that approach which focuses on the operations performed by *living bodies* (*Leiber*) in the most concrete and precise way. It is, indeed, an

«embodied approach to the construction of meaning» (as described by Kozel [2007]: 2): far from being just a theory resorting to reflection and analysis, or a mere operational method, phenomenology constantly integrates the intellect with sensory experience and starts its philosophical work from the analysis of perception.

In the limits of this contribution, I can only briefly describe – as open topics for future research – the key concepts of a phenomenological interpretation of the digital extended self. As a first key-concept, I suggest we resort to Husserl's concept of eidetic variation: in *Ideas I* (1913, english translation 1982), Husserl describes eidetic variation as that method by which the phenomenologist can grasp the invariant structures of phenomenal reality. Variation is based on the fictional character of the imagination, «the vital element of phenomenology as of all eidetic sciences» (Husserl [1982]: 160). The potentially unlimited power of variation is *de facto* bound to the world, which is already given: as Bernard Waldenfels has noted, «eidetic variation must set out from the real world; as a starting point, this is unsurpassable and hence more than a mere example […]. As Husserl himself ultimately realized, variation is not a game suspended in mid-air, but *gebundene Variation*» (Waldenfels [1971]: 277-278 – my translation). In this sense, we may conceive eidetic variation as a *simulation* that creates a *virtual* world which is not opposed to reality – for the latter actually stands as its foundation – but which has an ideal content: the virtuality of eidetic variation would therefore be opposed to the actuality of the world (as Deleuze suggested[2]) and not to

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[2] Deleuze's thesis in *Difference and Repetition* (originally published in 1968), according to which the virtual and the real are not opposed but rather complementary, has proven all the more true today, as not only the concept of "*virtual reality*" has become well-established but also – with a further distinction – that of "*augmented reality*", i.e. the concept of a (digital) integration of the real that allows interaction with it. See Deleuze ([1994]: 208-209): «We opposed the virtual and the real: although it could not have been more precise before now, this terminology must be corrected. The virtual is opposed not to the real

its reality. According to this perspective, we may understand digital experiences as a virtual transposition of the contents of real experience, and hence as the creation of an eidetically varied ideal world. If understood in terms of eidetic variation, augmented reality and the digitally extended self are still understandable as reembodied experiences (in Belk's words) within the digital context, i.e. as a transposition on a higher, eidetic level of our first embodied, intuitive experiences. This would be a way to maintain our focus on our lived experience, even within the digital mediation.

Following Thomas Fuchs' theory [2013], we can develop a phenomenological notion of the "extended empathy" as the second key-concept of a phenomenological interpretation of the digital extended self: we can differentiate between a primary, implicit, or bodily empathy and an expanded, explicit, or imaginative empathy. The latter already involves a certain degree of virtuality. Empathy can also be extended towards fictive persons or non-personal agents, a phenomenon which Fuchs calls "fictional empathy" and seems to involve the role played by imagination and variation (in the sense I refer to above) as well as an *externalist* completion of empathy. Fuchs also focuses his anlysis on the problem of "disembodied communication" (which Belk's called *dematerialization* and Lehdonvirta emphasizes as «telecopresent communication»): «in the meantime, however, virtual encounters are becoming increasingly a characteristic of every-day life *in toto*. Instead of interacting with embodied persons, we interact more and more with pictures and symbols» (Fuchs [2013]: 167). This leads, again, to a deep change in the structure of imagination, i.e. in the function of our (eidetic) power to modify and vary our rela-

tion to the world (to refer to Husserl's terminology): the style of imagination deployed must be understood «in the context of a technology that dis-embodies and textualizes encounters, linguistic exchange being the means to produce psychological intimate knowledge» (Illuz [2012]: 228). As a result, «virtual media produce extended networks of weak connections that can be maintained and accessed without requiring significant investment of time and effort […]. The quality of emphatic relationships in varying degrees of intimacy is increasingly making way for the amassing quantity of contacts from homogeneous virtual space» (Fuchs [2013]: 169).

As a final phenomenological key-concept, Merlau-Ponty's notion of *Flesh* is also a useful one in the context of our discussion. According to him, the human body is both immanent and transcendent: «Immanence refers to the material, corporeal flesh and bone aspect of the human body. It is through the immanent body that we experience sensation and are physically present in the world. "Transcendence" refers to those aspects of us that are not material: our intellectual, imaginative and cognitive processes» (Ladkin [2012] – online). The constant osmosis between immanence and transcendence means that "it is impossible for humans to assume the *God perspective* in which they objectively observe the world in such a way that they are not affected by the world observing them back. Human beings cannot perceive without simultaneously being perceived" (Ladkin [2012] – online). This statement can be understood in terms of phenomenological externalism: the chiasmus or reversibility of the process of perception – what Merlau-Ponty (1968, english translation 2013) calls *Flesh*, the connective structure that conveys the possibility of every aesthetic experience (and which is invisible in itself) – also occurs within digitally extended self/mind activities: the organic level of bodies constantly transcends itself towards the external, yet embedded level of environment or digital media.

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but to the actual. The virtual is fully real in so far as it is virtual. Exactly what Proust said of states of resonance must be said of the virtual: "Real without being actual, ideal without being abstract"; and symbolic without being fictional […]. The reality of the virtual consists of the differential elements along with singular points which correspond to them. The reality of the virtual is structure […] far from being undetermined, the virtual is completely determined».

CONCLUSION

Whether it is possible or not to develop – on the basis that I sketched in this contribution – a phenomenological account of active externalism, with regard to the digital extended self and mind, remains an open question for future philosophical research. To sum up my argument, such a phenomenological account would be based on the following foundamental assumptions:

1) Deleuze's distinction between possible and virtual, and hence the criticism of the conception of the virtual as that which is merely *opposed* to what is real;

2) the application of the notion of eidetic variation and of the virtuality of the process of perception according to their phenomenological (and especially Husserlian) meaning;

3) the extension of the phenomenological notion of *empathy* to the field of digital self and digitally mediated interactions;

3) the application of the notion of *Flesh* developed by Merleau-Ponty, which transcends the notion of body (with its limits and material quality) in a connective and virtual sense.

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