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TAKING BODILY SELF-AWARENESS IN ANIMALS SERIOUSLY

1. Introduction

The current debates on embodiment, consciousness, and bodily self-/awareness are partly characterized by insightful convergences of analytically and phenomenologically influenced approaches, therefore allowing for a better, refined understanding of the phenomena themselves.[1] After far too long a period of the unfortunate division of analytic and so-called continental philosophy, the contributions of an ever increasing "intradisciplinary" philosophical debate have possibly been as important as the interdisciplinary exchange within the cognitive sciences and philosophy (Depraz/Gallagher 2002, Gallagher/Zahavi 2008).

In recent years there has also been a growing interest in philosophy of animal minds and animal cognition, "one of the most exciting areas in the cognitive sciences" (Shettleworth 2010: v). Yet, the role of embodiment and bodily awareness, let alone bodily *self*-awareness in nonhuman animals has

1 Since almost all authors are using the terms "self-awareness" and "self-consciousness" interchangeably, I will follow this convention throughout the paper, giving some preference to the former concept.

been rather underappreciated.[2] Far too often only admittedly higher forms of self-awareness have been the focus of cognitive as well as philosophical debates: reflective or introspective self-awareness which requires complex linguistic and conceptual abilities; metacognition and possession of a theory of mind, the ability to attribute mental states to oneself and others (Andrews 2015).

In the 1970s, Donald Griffin, who made his reputation proving that bats use echolocation, coined the term "cognitive ethology".[3] His new research program was based in naturalistic observations of animal behavior with a focus on animal awareness in the context of evolution (Griffin 1976, 2001). Griffin also was one of the first scientists to emphasize that "there is no part of the universe that is closer and more important to an animal than its own body. If animals are capable of perceptual awareness, denying them some level of self-awareness would seem to be an arbitrary and unjustified restriction" (Griffin 2001: 274). Unsurprisingly, his deliberate use of concepts of consciousness and self-awareness has routinely been dismissed as "unscientific" and anthropomorphic. For, it took the mainstream of the behavioral and cognitive sciences a long time before recognizing not only that many animals are in possession of consciousness *per se*, but also that conscious intentional states like beliefs and desires ought to play a pivotal role in interpreting, explaining and predicting animal behavior. It was not until July 2012, when a group of scientists signed *The Cambridge Declaration of Consciousness in Non-human Animals*, according to which "the weight of evidence indicates that humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures, including

2 Unless otherwise indicated, I shall use the term "animal" to refer to all sentient nonhuman animals.

3 Cognitive ethology "can be defined as the comparative, evolutionary, and ecological study of nonhuman animal minds, including thought processes, beliefs, rationality, information processing, intentionality, and consciousness" (Allen/Bekoff 2013: 42). By now it is a well-established discipline, but its findings are rarely beyond controversy (ibid.: 47).

octopuses, also possess these neurological substrates" (cit. in Andrews 2015: 51).[4]

Just briefly considering this background, *pace* Griffin, it comes as no surprise that David DeGrazia, an outspoken proponent of bodily self-awareness in "most or all sentient animals", assesses his own account as being "somewhat radical" (DeGrazia 2009: 201–202).[5] However, what is radical in the context of one tradition surely is not in another. Having a rich history of phenomenology in mind, Shaun Gallagher and Dan Zahavi recall that, "even if phenomenologists disagree on important questions concerning methods and focus, they are in nearly unanimous agreement when it concerns the relation between consciousness and self-consciousness. Literally all of the major figures in phenomenology defend the view that a minimal form of self-consciousness is a constant structural feature of conscious experience" (Gallagher/Zahavi 2008: 45–46). Hence, "an implication of this is obviously that the self-consciousness in question can be ascribed to all creatures that are phenomenally conscious, including various non-human animals" (Gallagher/Zahavi 2015: section 1, paragraph 4).

The aim of this paper is therefore to strengthen the case for the role of bodily self-awareness in animals by bringing DeGrazia's account of self-awareness in animals into dialogue with contemporary phenomenology, thereby highlighting significant overlaps, and identifying several points of agreement.

First, subsequent to a short sketch of the debate over the possibility of nonlinguistic/nonconceptual self-awareness, I discuss DeGrazia's account of bodily self-awareness. DeGrazia argues that higher forms of self-awareness such as social and reflective/introspective self-awareness (e.g. demonstrated in mirror self-recognition tasks) presuppose bodily self-awareness, i.e. proprioception, sensation, and agency. Drawing on various empirical data and conceptual considerations, DeGrazia's *(Bodily) Self-Awareness Arguments*, as I shall term them, are illuminating in their own right. But his conception of self-awareness remains somewhat underdetermined.

4 Fortunately, significantly prior to the *Declaration*, modern animal protection acts were already relying on scientific evidence for sentience in all vertebrates and cephalopods; see e.g. Directive 2010/63/EU, preamble (8), http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0063.
The Austrian Federal Act on the Protection of Animals also acknowledges sentience in decapods (*Tierschutzgesetz* § 3.2).
5 DeGrazia discusses Griffin in DeGrazia (1996: 85–86, 172–173).

Therefore, second, I argue that DeGrazia's case for bodily self-awareness in animals faces a serious challenge, the *Consciousness Challenge*: It has been claimed that the most basic types of self-awareness in question are instances of mere *consciousness* and not self-awareness; prominently advocated in Lynne Rudder Baker's account of the first-person perspective.

Third, I shall argue, this challenge can be met by complementing DeGrazia's account of bodily self-awareness with Zahavi's and Gallagher's phenomenological analysis of pre-reflective self-awareness. Emphasizing the subjective aspect of for-me-ness of any first-personal given experience is precisely what it means to take bodily self-awareness seriously – in human and nonhuman animals.

2. Self-Awareness without Words?

Just like their contemporaries in the natural sciences, very few philosophers would deny animals consciousness in general. Peter Carruthers, the most discussed "neo-/neuro-Cartesian"[6] is an exception to the rule and someone who explicitly defends such a position. He claims that even basic, respectively first-order mental states such as bodily sensations and perceptions require higher-order mental states in order to be (phenomenally) conscious. This is the main point of his higher-order thought theory (Carruthers 2000). Arguably, most animals lack this kind of consciousness. They do not possess the so-called ability of metacognition to form mental states about their mental states. Therefore, according to Carruthers' reasoning, they lack conscious experiences *per se*. He consequently draws the conclusion that this also holds for humans who lack metacognitive abilities, as, for instance, prelinguistic infants and autistic persons (ibid.: 202). However, since his conclusion is equally counterintuitive as well as in opposition to well-established empirical findings (Rochat 2001, Frith 2003, Gallagher 2005), for current purposes it can be reasonably dismissed "as a *reductio ad absurdum* of his own account of

6 That's what John Dupré called Carruthers (Dupré 2005: 320).

consciousness" (Zahavi 2005: 194).[7]

There is another controversial, albeit far less counterintuitive claim that has been very widely held, at least among analytical philosophers of mind and language. Namely, granting the Darwinian-inspired insight that animals' and humans' capacities, prominently including consciousness, differ largely in degree and not in kind, it has been claimed that self-consciousness is "a very different beast", so to speak. Some have established a *tertium-non-datur* position by intrinsically linking self-consciousness with conceptual and/or linguistic abilities. In such an account a creature is either self-conscious by conceptual/linguistic abilities or not self-conscious at all: "It is the spontaneity of the understanding, the power of conceptual thinking, that brings both the world and the self into view. Creatures without conceptual capacities lack self-consciousness [...]" (McDowell 1994: 114).

But McDowell's unequivocally Kantian-flavored claim is likely to provoke DeGrazia's (almost) Schopenhauerian vigor and rigor against strong anthropological differences: "Self-awareness is not all-or-nothing but comes in degrees and in different forms. This conclusion is important because it opposes a long tradition of speaking and theorizing about self-awareness as if it were all-or-nothing. Often this thesis was used in the service of defending a thick ontological line between humans and other animals" (DeGrazia 1996: 182), between self-conscious beings as concept-bearing language users and autonomous agents, in short this means *persons* on the one side, and nonconceptual, nonlinguistic, merely conscious beings on the other.[8]

In addition to McDowell's strong conceptualism, the claim that self-awareness requires conceptual capacities can be expressed as a special case of the more general and at length controversially-discussed claim that (rational)

7 Higher-Order thought (HOT) and higher-order perception (HOP) theories of consciousness in general have to face more or less the same compelling circularity objections like reflection models of self-consciousness. For detailed discussions see DeGrazia (1996: 112–115), Zahavi (2005: 17–20, 192–194).

8 The distinction between mere sentient beings and persons has had tremendous implications for animal ethics. DeGrazia, for example, criticizes Peter Singer "because he takes personhood to be based on rationality and self-consciousness, and he apparently takes self-consciousness to be all-or-nothing (or nearly so)" (DeGrazia 1996: 242).

thought requires concepts that in turn require language. I term this the *Concept-Language Argument against self-awareness in animals*:

(1) In order for x to be self-aware, x must have I-thoughts.

(2) In order for x to have I-thoughts, x must have the concept of a self/an *I*.

(3) In order for x to have the concept of a self/an *I*, x must have the linguistic ability for reflexive self-reference; canonically expressed by means of the first person pronoun "I".

(4) Animals do not have the linguistic ability for reflexive self-reference.

(5) Therefore, animals are not self-aware.[9]

There are at least two well-established ways to rebut the conclusion of this argument. Some philosophers have denied the necessary connection between concepts and language and argue that concepts can be had by animals who lack language – therefore refusing premise (3). There can be nonlinguistic concepts that serve as basic discrimination abilities for "systematically discriminat[ing] some *X*s from some non-*X*s" (Allen 1999: 37). While it could turn out that the very concept of a self may not reasonably be attributed to an individual, this would not rule out the possibility that the animal possesses *some* other concepts.

Another response is to challenge premises (2) and (3). José Luis Bermúdez, one of the most important analytical proponents of self-awareness in nonlinguistic beings, has raised two circularity objections. The first against "any account of self-consciousness that tries to *explain* what is distinctive about self-conscious thoughts in terms of mastery of the first-person pronoun [...] because mastery of the semantics of the first-person pronoun *involves* the capacity to think first-person thoughts" (Bermúdez 1998: 16–17, emphasis added). This is what Bermúdez calls *explanatory circularity*. The second, closely related type is *capacity circularity*: "The point here is that the capacity for reflexive self-reference by means of the first-person pronoun *presupposes* the capacity to think thoughts with first-person contents, and

9 This argument is a specification of what Markus Wild has termed *Simple Language Argument* against nonlinguistic thought in animals (Wild 2008: 22–23). It also draws from Bermúdez's discussion of his "Paradox of Self-Consciousness" (Bermúdez 1998: 1–25).

hence cannot be deployed to explain that capacity. In other words, a degree of self-consciousness is required to master the use of the first-person pronoun" (ibid.: 18, emphasis added). Hence, ontologically speaking, self-awareness *per se* is not an exclusively linguistic capacity. And methodologically, a semantic analysis of the first-person pronoun is neither necessary nor sufficient for a proper understanding of the phenomenon.

Contrary to strong as well as weaker conceptualistic claims, Bermúdez has developed an elaborate account of nonconceptual content/thought, since "animal behavior and the behavior of prelinguistic infants paradigmatically raise the problems for which, so I believe, theoretical appeal to states with nonconceptual contents is the only solution (or at least the best so far available)" (ibid.: 47). Drawing primarily from developmental psychology, Bermúdez considers infants as *pre*-linguistic self-aware beings who, "in a very important sense", "are born into the first-person perspective. It is not something that they have to acquire ab initio" (ibid.: 128). However, following his line of argumentation, the same could be said of any sentient being, of any experiential subject, and hence widens "the scope of what might be termed the [self-aware] first-person perspective far beyond the domain of humans, and even the higher mammals" (ibid.: 162).

With regard to affinities with phenomenological accounts, Bermúdez himself has recognized the significant phenomenological distinction between body as *objective body*, "a physical object in the world", and body as *lived body*, "the fact that the body is (at least from a first-person perspective) quite unlike any other physical object" (ibid.: 150). Zahavi, in turn, has stressed several important points of agreement with Bermúdez's theses: (1) a criticism of the idea that self-awareness is merely a question of linguistic self-reference; (2) a useful distinction between linguistic full-fledged self-awareness and primitive forms of self-awareness that do not presuppose any linguistic or conceptual mastery; (3) an argument to the effect that (a) exteroception as well as (b) proprioception involves a weak form of prelinguistic self-awareness, and (c) social interaction can give rise to more developed forms of prelinguistic self-

awareness (Zahavi 2002: 12).[10]

3. DeGrazia's Bodily Self-Awareness Argument

Zahavi is definitely not the only author who agrees with Bermúdez's main theses. DeGrazia similarly claims that "many animals are self-aware" (DeGrazia 2009: 201) and "that most or all sentient animals" (ibid.: 202) have bodily self-awareness. His illuminating account of (bodily) self-awareness in animals deserves closer attention.[11]

> "The most primitive type of self-awareness is *bodily self-awareness*, an awareness of one's own body as importantly different from the rest of the environment – as directly connected with certain feelings and subject to one's direct control. Because of bodily self-awareness, one does not eat oneself. And one pursues certain goals. Bodily self-awareness includes *proprioception*: an awareness of body parts, their position, their movement, and overall body position. It also involves various

10 However, there is serious disagreement as to whether a theory of nonlinguistic, nonconceptual experience has to be a representationalist theory of content. Representationalism is either explicitly embraced (Bermúdez 1998, Tye 2000, Kriegel 2009, Wild 2008) or implicitly assumed (DeGrazia 2009) by most philosophers of mind in the analytic tradition, while phenomenological and enactive accounts of embodiment are opposed to it.
Moreover, Gallagher and Zahavi have objected to Bermúdez's claim that proprioception, correctly understood as a genuine form of immediate bodily self-awareness, is a form of *perception* that yields information "of the body as a spatially extended and bounded physical *object*" (Bermúdez 1998: 150; Zahavi 2002: 22; Gallagher 2003, Gallagher 2005). For a "non-self-representationalist" critique of Bermúdez's conception of proprioceptive awareness as genuine self-awareness see Musholt (2015). As for the following discussion, I suppose, this presumptive points of disagreement can be put aside.
11 DeGrazia refers to Bermúdez's discussion of proprioception as bodily self-awareness (DeGrazia 2009: 201). His somewhat hilarious but apt "autophagy restriction" – "because of bodily self-awareness, one does not eat oneself" – is a direct implication of the insight that "somatic proprioception provides a way, perhaps the most primitive [conscious!] way, of registering the distinction between self and nonself" (Bermúdez 1998: 149). Accordingly, Daniel Dennett's notorious example of the sea squirt, which eats its own brain, is about a non-conscious invertebrate animal (Dennett 1991: 177).

> *sensations* that are informative about what is happening to the body: pain, itches, tickles, hunger, as well as sensations of warmth, cold, and tactile pressure. These forms of awareness are essential to any creature that can feel features of its body and environment and act appropriately in response. In sum, bodily self-awareness includes both an awareness of one's own bodily condition and an awareness of one's *agency*, of moving around and acting in the world. (ibid.: 201–202)"

DeGrazia distinguishes between introspective, social, and bodily self-awareness. Whereas he does not claim that these are the only types of self-awareness (DeGrazia 1996: 182),[12] he makes the *prima facie* plausible case that introspective and social self-awareness presuppose bodily self-awareness. I term this DeGrazia's *basic bodily self-awareness thesis* and it can be construed as the conclusion of his *Bodily Self-Awareness Argument*:

(1) There are importantly different sorts of self-awareness, namely introspective, social and bodily self-awareness.

(2) Higher types presuppose more basic types of self-awareness.

(3) Introspective and social self-awareness are higher types than bodily self-awareness (being the most basic type).

(4) Therefore, introspective and social self-awareness presuppose bodily self-awareness.

Social self-awareness identifies a subject's awareness "as part of a social unit with differing expectations attaching to different positions" (DeGrazia 2009: 202). It enables the effective interactions of group members through their awareness of their position in relation to the behaviors of conspecifics, e.g. recognizing changing social rankings. "Social self-awareness presupposes bodily self-awareness insofar as deliberate social navigation is possible only in creatures aware of their own agency" (ibid.).

12 However, this tripartite classification has proven to be useful among philosophers working on animal minds and animal ethics despite varying theoretical backgrounds. E.g., Christine Korsgaard is in perfect agreement with this classification by advancing her "Kantian account" of considering all sentient beings as self-aware ends in themselves "*for whom* things can be naturally good or bad" (Korsgaard 2011: 108).

Introspective self-awareness is an "awareness of (some of) one's own mental states such as feelings, desires, and beliefs" (ibid.). In order for a subject to have introspective awareness it is not sufficient to simply *have* (conscious) mental states. The subject actually has to be aware *of* its mental states. It is precisely this reflective, higher-order capacity that has been both the single most important phenomenon related to self-awareness in the focus of prevalent philosophical debates, and therefore the only form of consciousness to which the term "self-consciousness" has been exclusively assigned. And still, many contemporary philosophers of mind are quick in establishing mutually excluding definitions like "phenomenal consciousness is to be distinguished from self-consciousness, which refers to our ability to reflect upon our conscious experiences and thoughts" (Andrews 2015: 52).[13] This conceptual or terminological choice is obviously one reason for underestimating the case for more basic forms of self-awareness in animals.

In order to underpin the *basic bodily self-awareness thesis*, DeGrazia considers several representative examples from animal cognition studies: tool use and tool making in chimpanzees (McGrew 1992, Stanford 2001), problem-solving and tool use in dolphins (White 2007) and New Caledonia crows (Anderson/Kacelnik 2004), episodic memory in scrub jays (Kort/Dickinson/Clayton 2005), complex social understanding in vervet monkeys (Cheney/Seyfarth 2002), uncertainty monitoring and metacognition in rhesus monkeys (Smith/Washburn 2005), et cetera. DeGrazia's prevailing strategy is to interpret those examples of various cognitive complexities in light of his main thesis. Whether attribution of the higher-conscious capacities in question is likely or not, it would at least seem to implicate the warranted ascription of more basic types of self-awareness, hence (indirectly) demonstrating or indicating bodily self-awareness in individuals of certain species.

13 The fact that introspection is *per definitionem* a form of self-awareness is also reflected in DeGrazia's use of the term, speaking of "introspective awareness" instead of "self-awareness".

4. Self-Recognition presupposes Bodily Self-Awareness

Although just briefly outlined by DeGrazia, no such discussion can miss out on one of the most famous experiments generally regarded to be a clear indicator of self-awareness: the mirror test. "Although it is silly to maintain, as some commentators have, that mirror self-recognition is the only valid indication of self-awareness in animals, it is surely one relevant consideration in the case for bodily self-awareness" (DeGrazia 2009: 211). Human infants prior to the age of 15 to 18 months and most animals respond to their images in mirrors as if they were seeing another child or conspecific – thereby, arguably, already exhibiting some degree of social self-awareness. Older infants as well as some individuals of particular species, like all great apes (Gallup/Anderson/Shillito 2002), dolphins (Reiss/Marino 2001), elephants (Plotnik/de Waal/Reiss 2006), and magpies (Prior/Schwarz/Güntürkün 2008), are able to recognize themselves *as* themselves, or more precisely, their specular images *as* images of their own bodies.

In the 1970s Gordon Gallup "started a cottage industry of mirror experiments with primates and young humans" (Baker 2012: 22). Chimpanzees who had become acquainted with mirrors began using them to respond to themselves "by engaging in mirror-mediated facial and bodily movements and self-directed responses such as grooming parts of the body only visible in the mirror" (Gallup/Anderson/Shillito 2002: 325). In order to assess the possibility of *self-aware* self-recognition, the chimpanzees were anesthetized and painted with nonodorous red marks in their faces. Upon recovery they would have no knowledge of their new facial features without mirrors. But using the mirrors again, looking at their reflection, the chimpanzees guided their fingers to the new marks on their faces. Since the confrontation with the mirror motivates this kind of self-directed behavior, Gallup et al. infer that the chimpanzees now recognized what they saw in the mirror *as* their own reflections.

Now, on the one hand, it is rather clear that mastering the mirror test cannot be a *requisite* for identifying self-awareness in general; a non-display of self-awareness as an ability of self-recognition does not necessarily show that a given subject does not have this ability at all. Dogs would rather identify themselves by olfaction than vision; other species may not pay particular

attention to reflecting surfaces for various reasons. On the other hand, giving Gallup et al. the benefit of the doubt that mirror self-recognition is a *sufficient* indicator of self-awareness, they correctly notice a presupposed sense of self: "The ability to correctly infer the identity of the image in the mirror requires a preexisting sense of self on the part of the organism making that inference. Without a sense of self, how would you know who you were seeing when confronted with your reflection in a mirror" (ibid.: 329)? But, recognizing this, how could it be claimed in the same breath that "in its most rudimentary form, self-awareness is the ability to become the object of your own attention" (ibid.)?

Mirror self-recognition is a paradigmatical case of (self-as-)object-awareness which requires (self-)identification. Identification allows for the possibility of misidentification, not only in animals and infants but also in mature but somewhat scatterbrained philosophers and scientists, as Ernst Mach's notorious experience has effectively demonstrated. Mach once got on a bus in Vienna and, upon seeing a peculiar image in the bus mirror, thought, "What a shabby pedagogue that is, that has just entered" – not recognizing himself *as* himself (Mach 2012: 4). Thus, one can be aware that *somebody* is in a certain bodily state and fail to think that that somebody is oneself. In order to either succeed or fail in identifying oneself as oneself, one must have prior awareness of certain features or properties by which one can identify oneself as oneself. Therefore, on pain of infinite regress, this prior awareness cannot be another form of (self-as-)object-awareness in demand of another self-identification. Contrary to the object-awareness in reflection, this kind of, literally, *pre*-reflective self-awareness must be *immune to error through misidentification*.[14] The subject cannot be aware of somebody to be in certain bodily states and erroneously think that it is not itself. There is no gap between the experiencing subject and the de facto experienced subject which *just happens* to be itself.

Thus, mirror self-recognition demonstrates that the required "preexisting sense of self in its most rudimentary form" is pre-reflective bodily self-

14 For a discussion of nonconceptual bodily self-awareness being immune to error through misidentification as opposed to *judgments only* based upon such awareness see Bermúdez (1998), Bermúdez (2011), Legrand (2006), Musholt (2015).

awareness, and, as far as the subject's awareness of bodily movements is concerned, this basic awareness is not based on vision but on "the sixth sense", the non-observational proprioceptive/kinaesthetic awareness of the bodily subject in action (Gallagher/Zahavi 2008: 143).

5. Some Conceptual Considerations

In considering the implications of the mirror test scenario, the case for bodily self-awareness in certain animals has been confirmed to a strong degree. The conclusion that basic bodily self-awareness must be immune to error through misidentification is also a very important point of agreement between phenomenologists and analytical philosophers. As was mentioned in the introduction, contrary to mainstream analytical philosophy of mind, DeGrazia's basic bodily self-awareness thesis is likely to get some *prima facie* support from contemporary phenomenologists and their accounts of pre-reflective self-awareness:

> "[P]henomenologists would typically argue that it is legitimate to speak of a primitive form of self-experience or self-awareness whenever we are phenomenally conscious. This weak self-awareness does not exist apart from the ordinary conscious perception, feeling, or thought, as an additional mental act; it is not brought about by some kind of reflection or introspection, but it is rather an intrinsic feature of the experience. If this view is correct, it has obvious consequences for the ascription of self-awareness to infants. (Zahavi 2005: 197)"

Consequently, this primitive form of pre-reflective self-awareness is not limited to human prelinguistic beings. As Zahavi proceeds in a remarkable footnote:

> "If this is true, it has some rather obvious consequences for the attribution of both self and self-consciousness to animals. It is also obvious, of course, that there are higher and more complex forms of self-consciousness that most, if not all, nonhuman animals lack. As for

> the question of where to draw the line, i.e., whether it also makes sense to ascribe a sense of self to lower organisms such as birds, amphibians, fish, beetles, worms, etc., this is a question that I will leave for others to decide. All I will say is that *if* a certain organism is in possession of phenomenal consciousness, *then* it must also be in possession of both a primitive form of self-consciousness and a core self. (Zahavi 2005: 235–236).[15]"

The empirical and methodological questions of ascribing self-awareness to particular species have to be answered by cognitive ethology, comparative cognition, behavioral neuroscience, et cetera. Admittedly, climbing down the phylogenetic scale, trying to solve "the problem of simple minds" (Tye 2000: 171–185) of where to draw the line among invertebrates seems to be an extraordinarily tricky challenge. However, the conceptual question of which concepts of self-awareness should be under discussion regarding animals is predominantly a philosophical task. At first glance, the phenomenological proposal might indeed seem to offer an "acceptable but also quite trivial" (Zahavi 2005: 127) solution at the conceptual level. "Every conscious state […] has a certain subjective character, a certain phenomenal quality of 'what it is like' to live through or undergo this state. This is what makes the mental state in question *conscious*" (ibid.: 119). If all forms of conscious states entail a minimal form of self-awareness, and if bodily states like sensations (the typical examples of phenomenal states) and proprioceptively gained information on body parts, their position, and their movement are consciously experienced, then it follows that bodily awareness also entails a form of self-awareness.

Now, is this straightforward conclusion, hence the minimal definition of minimal self-awareness, "entirely too broad" and does it "include(s) too much," as Zahavi has forestalled a possible objection (Zahavi 2005: 16)? As we will see, this is rather the starting point for the phenomenological analysis of self-awareness and subjectivity.

However, returning to DeGrazia's line of thought, it could be argued that he precisely shares these kinds of worries, and this may be why he has not considered

15 With an emphatic nod to Jeremy Bentham, I may say that some of the most remarkable starting points for new discussions can be found in footnotes.

phenomenological approaches to self-awareness. If "the issue of justifying the ascription of self-consciousness is already addressed on the conceptual level" (Strasser 2012: 49), then DeGrazia's claim that "most or all sentient animals" are – at least bodily – self-aware (DeGrazia 2009: 202), ends up, far from being radical, as a rather terminological question.

There is, however, more to it: First, in the face of DeGrazia's unequivocally strong claim about self-awareness in animals it might be all the more surprising that he himself does not provide any explicit definition or conceptual analysis of self-awareness. On the one hand, DeGrazia, of course, rejects the concept of self-awareness as "involving the *concept* of a self" (DeGrazia 1996: 101, emphasis added).[16] On the other hand, he simply seems to presuppose the minimal formal notion of self-awareness as the immediate (identification-free) awareness of oneself *as* oneself; in contrast to an awareness of what *just happens* to be oneself, as experienced in a mirror scenario. Second, importantly, his phrasing of "most or all sentient animals" is not to be interpreted as an unfortunate choice of words, but suggesting the empirical possibility that some actually existing sentient animals might lack self-awareness. We should take DeGrazia seriously when he claims that it is "the cumulative force of *various empirical data and* conceptual considerations" (ibid.: 201, emphasis added) that makes it more reasonable to accept than to deny the self-awareness thesis. "[C]onsciousness does not *logically entail* self-awareness. It may be, however, that what we know about evolutionary pressures (as well as animal behavior and physiology) suggests that actually existing conscious animals are probably self-aware" (DeGrazia 1996: 175).

6. DeGrazia's Self-Awareness Argument

DeGrazia (1996) draws this conclusion – which also serves as the implicit backdrop of his reasoning in DeGrazia (2009) – by linking consciousness and self-awareness via agency:

16 As for the complications introduced by considering the relations between self-awareness and self, DeGrazia frankly states, "there is just one self, the individual, who may be self-aware in various ways" (DeGrazia 2009: 201).

> "I have argued that we have good reason to suppose that all conscious animals can experience pleasant and unpleasant feelings, that such feelings implicate desires, and that desires work with beliefs in intentional actions. (Again, what function does sentience have if one cannot act in ways that get one away from painful stimuli and toward pleasant ones?) If we combine my "conscious animals are agents" thesis with Regan's "agency implies self-consciousness" thesis [Regan 1983: 75], we get the perhaps surprising thesis that all conscious animals are self-conscious. (DeGrazia 1996: 175)"

According to DeGrazia, it is not one single capacity such as sentience (or intentionality, memory and anticipation) by itself that implies self-awareness. This insight is also expressed in his account of bodily self-awareness, which is not to be equated with sentience but "includes both an awareness of one's own bodily condition and an awareness of one's *agency*, of moving around and acting in the world" (DeGrazia 2009: 202).[17] Since it is (empirically) unlikely (but possible) that any of these capacities in question exist in isolation from one another, this tight interconnectedness ought to be reflected at a conceptual level as well. Let me reconstruct DeGrazia's basic line of argumentation by tying together several steps of what I term DeGrazia's *Self-Awareness Argument*. It unfolds as follows:

(1) If x is conscious, then x must be sentient (DeGrazia 1996: 99).

(2) If x is sentient, then x must be able to experience pleasant and unpleasant feelings (ibid.).

(3) If x can experience such feelings, then x must have desires [motivational/conative intentional states] (ibid.: 127).

(4) If x has desires, then x must also have beliefs [informative intentional states] (ibid.: 141).

(5) If x has interconnected feelings, desires, and beliefs (ibid.: 166), then x has "action tendencies", the disposition to "go for" something (ibid.: 129).

17 Recognizing "the multimodality of bodily experience" (Musholt 2015: 53) it must be noted that even the "awareness of one's own bodily condition" aspect of bodily awareness includes more than proprioception and sensation, e.g. touch and vision.

(6) If x has action tendencies, then x is an agent being able to perform intentional actions (ibid.: 172).

(7) If x is an agent, then x has temporal awareness of itself as persisting over time (2009: 205–207).

(8) If x has temporal awareness, then x is self-aware (ibid.).

(9) Therefore, if x is conscious, then x is self-aware (1996: 175).[18]

While premises (1) and (2) are uncontroversial, there has been much debate over premises (3) to (9), with challenges to premise (5) being raised especially, casting doubt on DeGrazia's thesis that there is such a tight interconnection between feelings, intentional states, and agency (e.g. see Steiner 2008: 42–55). This is not the place to discuss the (inter)relations of the argument in full detail, but for our present purposes it is worth considering how DeGrazia makes the case for premises (7) and (8), focussing on the agency aspect of bodily self-awareness by emphasizing temporal self-awareness. "My best example features my family's Labrador retriever, who, apparently frustrated at being confined to the study, reared on her back legs and attempted to turn the doorknob" (DeGrazia 2009: 206). DeGrazia's dog intentionally running to the door with a desire to leave the room as fast as possible, probably in order to go for a walk with her human companions, requires that she has a bodily awareness of her movements as well as some awareness of herself as being around long enough to go outside.

> "The very desire to do something, even if the action is obstructed, is similarly future-oriented and self-implicating. For the desire and intention amount to a rudimentary plan, which necessarily includes a representation of completing the intended action. If this is correct, then a commonsense appreciation of the ordinary behaviors of many animals

18 I do not claim that this is exhaustive or the only way to spell out DeGrazia's multilevel argumentation. For instance, if memory (a sense of the past) and anticipation (a sense of the future) constitute temporal awareness, and noting DeGrazia's focus on the interconnectedness of the different capacities, one might add the capacity of a sense of time between premises (4) and (5): "Drawing from all of these considerations, it seems reasonable to conclude that animals who are sentient, experience fear, have desires and beliefs, and learn, also remember and anticipate and therefore have some conscious sense of time [...] These animals are not, after all, stuck in the present" (DeGrazia 1996: 171).

> suggests a kind of self-awareness – namely, bodily self-awareness, here with an emphasis on the agency aspect. (ibid.: 205)"

As DeGrazia maintains, desires to do certain things and intentional actions that involve doing them implicate at least some "rudimentary awareness of oneself as persisting through time". Bodily self-aware animals are not just "stuck in the moment" or "live moment-to-moment" (DeGrazia 1996: 168). If this is true of DeGrazia's dog, then *a fortiori* it ought to be true of the aforementioned examples from animal cognition studies, involving more complex planning, problem-solving, tool use and tool making in great apes, dolphins, New Caledonia crows, scrub jays, et cetera.

> "Again, intentional action is possible only if the animal agent has some sense of herself as persisting long enough to complete the action or plan. This sense of self involves, most basically, a sense of one's own body as importantly distinct from the rest of the world and as subject to one's direct control. (DeGrazia 2009: 206)"

This is a considerable point of agreement regarding the phenomenological conceptions of agency and time-consciousness.[19] DeGrazia's conceptual reasoning seems to be consistent with Shaun Gallagher's distinction between a *sense of ownership* and a *sense of agency*: the pre-reflective experience of *mineness*, that the embodied subject is "the one who is moving or undergoing an experience", and the pre-reflective experience that the subject is "the one who is causing or generating a movement or action or thought process" (Gallagher 2012: 132). These minimal aspects of self involve "very short experiential time-periods" (ibid.) of the subject's self-identity through time.

Furthermore, the concepts of *body image* and *body schema* could be of noteworthy importance for more detailed research in animal agency and bodily self-awareness. While the *body image* includes a subject's *perceptual* experiences and *emotional* attitudes toward its body, the *body schema*, cutting

19 At the same time, DeGrazia's account of desires and intentions as *representations* is an important point of disagreement with the phenomenology of agency (Gallagher/Zahavi 2008: 158–162), which must be discussed in a more extensive account of animal agency.

across pre-reflective conscious and unconscious information, consists of "(1) the close-to-automatic system of processes that constantly regulates posture and movement to serve intentional action; and (2) our pre-reflective and non-objectifying body-awareness" (Gallagher/Zahavi 2008: 146). Although this is not the place to explore these relations further, these few introductory remarks may serve to identify significant starting points for future research into animal cognition, agency, and embodiment from a phenomenological point of view.

7. The Consciousness Challenge

While I agree with DeGrazia's conceptual reasoning in principle, the case for his *Self-Awareness Argument* cannot be regarded as sufficiently established. All former illuminating conceptual considerations put aside, there still seems to lurk a somewhat "conspicuous absence of any reflection on the nature of experience" (Zahavi 2002: 18) and self-awareness in DeGrazia's account. This introduces the possibility of a serious objection, the *Consciousness Challenge*. It has been claimed that the most basic types of self-awareness in question are instances of mere *consciousness* and not self-awareness.

This claim implies that, firstly, conceptualists could agree that DeGrazia's basic bodily self-awareness thesis is true at a conceptual/linguistic level, once self-awareness is brought about by conceptual/linguistic abilities. Secondly, DeGrazia's main thesis could also be accepted at the nonconceptual level of consciousness as having a weaker analogon: higher types of awareness presuppose more basic types of awareness, namely bodily awareness *qua* awareness. Further, contrary to some dualistic worries, positing proprioception and sensations at the very beginning of conscious life would not be disputed. However, there might be no case of nonlinguistic introspective awareness that would qualify as self-awareness. Nevertheless, for example, different nonlinguistic forms of social awareness would be considered as requiring more basic forms of bodily awareness. Furthermore, according to this line of interpretation, the mirror test would neither be necessary *nor* sufficient for indicating self-aware self-recognition in nonlinguistic beings. The recognitional ability would merely demonstrate that test subjects have some rudimentary bodily awareness of their movements – "a step toward self-consciousness" (Baker 2012: 23).

The *Consciousness Challenge* is prominently reflected in Lynne Rudder Baker's distinction between two stages (or ontogenetic phases) of the first-person perspective: "I understand mere consciousness in terms of a rudimentary first-person perspective, and self-consciousness in terms of a robust first-person perspective" (ibid.: 19–20). The latter is "the capacity to conceive of oneself in the first-person, *as* oneself – as an agent and a subject of experience. [...] a robust first-person perspective is a conceptual capacity, which, I shall argue, depends on language" (ibid.: 21). Hence, Baker's account is underpinned by a commitment to the aforementioned *Concept-Language Argument against self-awareness in animals*: self-awareness requires concepts, which in turn require language.

In contrast, "merely conscious" beings have a rudimentary first-person perspective which is "independent of linguistic or conceptual abilities".[20] By definition, "to have a perspective is to perceive the world from a particular spatiotemporal location", and moreover: "It is first-personal, but it does not explicitly refer to a subject (first-personally or otherwise); it is simply the default location of the subject – the location from which the subject perceives the environment, the origin of a perceptual field" (ibid.: 21–22).

First, Baker is definitely right in maintaining that a subject's egocentric point of view must be taken into account as a first-person perspective, be it rudimentary or robust. Second, it is also uncontroversial to contrast the assumed implicit self-reference of the rudimentary perspective with explicit self-reference at the conceptual/linguistic level. But how much "implicitness" is enough for any perspective or experience to be properly called a *first*-person perspective? It might be puzzling that Baker characterizes the rudimentary first-person perspective as simply being "the default location of the subject". Weakening the first-personal aspect of the rudimentary perspective even more, Baker goes on to claim that "persons have first-person perspectives *essentially*;

20 Interestingly, Baker does not even attribute the rudimentary first-person perspective to all sentient beings with intentional states, and, somewhat arbitrarily, adds the ability of imitation as a third criterion for consciousness: "I think that a first-person perspective (and hence consciousness) is more than mere sentience and intentionality, and all the animals to whom I would intuitively attribute a first-person perspective are to some degree imitative" (ibid.).

nonhuman animals have first-persons – and nothing but rudimentary ones at that – only *contingently*" (ibid.: 22, emphasis added).[21]

Now, this is a perfect example of what Griffin has called "an arbitrary and unjustified restriction" (Griffin 2001: 274). If Baker's intention is to reinforce the alleged anthropological difference between animals as (at the most) conscious beings and humans as persons, then she might rather succeed by dropping the "first-person" characterization of the rudimentary perspective altogether. Since, given Baker's ambiguous descriptions, it is no longer clear what the force is of claiming that we are dealing with a form of the first-person perspective. This point may become clearer by contrasting her account with a phenomenological analysis of the first-person perspective.

8. A Phenomenological Alternative

Baker conspicuously ignores the experiential aspect that having any first-personal perspective at all means that the perceiving – and acting – subject itself is, not merely contingently, accidentally, *de facto*, or "simply by default", but *essentially*, "the origin of a perceptual field". It cannot be the case that egocentric spatial perception is simply about an individual who *just happens* to be the subject at a particular location without the subject's recognizing that the individual in question actually is itself. Nor is it to be understood as an impersonal "particular spatiotemporal location" that is simply occupied by a subject. It is rather the egocentric perspective, the subjective point of view of the perceiving embodied subject itself.

In egocentric space others as well as various objects are necessarily given in relation to the subject, being to its left, its right, its back, or its front. All of these relations, which enable perceptions and actions, are experienced by the subject as being *for* the subject. Since no question arises as to whom it is that the egocentric information is given, this very subjective aspect marks the egocentric experience essentially or necessarily as being *for* the subject.

21 According to Baker, what is essential to being a person is to be *of a kind* that typically develops a robust first-person perspective (ibid.: 23). This anthropocentric view is reiterated in Baker 2013.

"Every perspectival appearance implies that the embodied perceiver is herself the experiential zero-point, the indexical 'here' in relation to which every appearing object is oriented" (Gallagher/Zahavi 2008: 142).

The very starting point for particular phenomenological analyses of egocentric space (with reference to Husserl) also introduces the more general, fundamental phenomenological account of a "basic pre-reflective experiential subjectivity" (Zahavi 2012: 148). However, bearing in mind that "what-it-is-like-ness is properly speaking what-it-is-like-*for-me*-ness" (Zahavi/Kriegel: 2016: 36), the "essential constitutive aspect of experience", which is most relevant to the present concern, is not the "what it is like" quality aspect, but the distinct *for-the-subject* aspect, the subjective aspect of *for-me-ness*.

> "Whatever their character, whatever their object, all experiences are subjective in the sense that they feel like something *for somebody*. They are subjective in the sense that there is a distinctive way they present themselves to the subject or self whose episodes they are. It could consequently be claimed that anybody who denies the for-me-ness or mineness of experience simply fails to recognize an essential constitutive aspect of experience. Such a denial would be tantamount to a denial of the first-person perspective. (Zahavi 2012: 149–150)"

This implicit "primitive form of self-referentiality or for-me-ness" (Gallagher/Zahavi 2008: 50) characterizes the fact that experiences are non-anonymously something *for* the subject in question. This has some rather obvious but significant implications for dismissing the *Consciousness Challenge*. Since Baker's distinction between consciousness and self-consciousness requires the distinction between two stages of the first-person perspective (in her terms), and to the extent that her description of the rudimentary stage is not sufficient for a proper characterization of the first-person perspective, the "mere consciousness" account of nonlinguistic beings is also called into question.

The upshot of this discussion is that for-me-ness as implicit but conscious self-reference to the subject of any first-person perspective is "explicitly" important enough to be properly called pre-reflective *self*-awareness. Far from

being merely a terminological consideration, to argue that consciousness as such entails a primitive form of self-awareness might indeed prove "to make the strongest case possible for the existence of prelinguistic and nonconceptual forms of self-awareness" (Zahavi 2002: 18).

Therefore, in addition to DeGrazia's *(Bodily) Self-Awareness Arguments*, the phenomenological analysis can consistently support and substantiate his – and indeed anybody else's – case for considering the most basic forms of "mere" bodily awareness as entailing pre-reflective self-awareness.

I hope that this may serve to demonstrate that there is a good chance that the resources to be found both in analytical approaches to animal cognition as well as in phenomenological conceptions of embodiment and self-awareness can substantially contribute to the philosophy of animal minds. In terms of prospects for future research, I opt for optimism. Taking bodily self-awareness in animals seriously is a significant starting point in order to broaden the horizons of embodiment for future investigations into corporeality in animals.

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