An ecological approach to hinge propositions[1]

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Abstract: In this paper, I argue that hinge propositions are ways of acting that constitute abilities or skills. My starting point is Moyal-Sharrock's account of hinge propositions. However, Moyal-Sharrock's account leaves gaps to be filled, as it does not offer a unified explanation of the origin of our ungrounded grounds. Her account also lacks resources to respond to the issue of demarcation, since it does not provide a criterion for distinguishing ways of acting that can legitimately fulfill the role of ungrounded grounds from those that cannot. Without an answer to this issue, the relativistic threat is serious. I then propose that by narrowing the ways of acting to those that are constitutive of abilities, we can deal with the relativistic threat. I provide an ecological approach to abilities through which I explain why abilities are reality-soaked and therefore why the ways of acting that constitute them are legitimate ungrounded grounds. Based on that approach, I provide an answer to the issue of demarcation that defuses the relativistic threat.

Keywords: hinge epistemology, ecological psychology, abilities, relativism, Moyal-Sharrock.

"*Giving grounds, however, justifying the evidence, comes to an end;—but the end is not certain propositions' striking us immediately as true, i.e. it is not a kind of **seeing** on our part; it is our **acting**, which lies at the bottom of the language-game"*—Wittgenstein.

1. Introduction

In *On Certainty* (1969), Wittgenstein offers us a radical image of the structure of reasons. At the base of this image are hinge propositions such as "I have two hands," "I have a body," "The Earth has existed for many years," "There are physical objects" etc. They are qualified as "the ground is not true, nor yet false" (1969, §205), "an ungrounded way of acting" (1969, §110), "something that lies beyond being justified or unjustified; as it were, as something animal" (1969, §359), propositions that "must be solid for us" (1969, §112), that

we don't arrive at "as a result of investigation" (1969, §138), that "are exempt from doubt, are as it were like hinges on which those turn" (1969, §341), that are certain although not known (1969, §151), that form "the starting-point of belief for me" (1969, §209) and that are acquired by a process of enculturation, the child "swallows this consequence [the hinge proposition] down, so to speak, together with *what* it learns" (1969, §143). Taken together, these propositions would structure our investigations and determine what is evidence for what. They are certain not because they are known or because they are based on evidence, but rather because they are the condition for something to be known or based on evidence.

On the one hand, the image offered by Wittgenstein seems to indicate a way out of the classic skeptical problem of the regress of justifications, even though there is dispute over whether what he offers is a new version of foundationalism (Moyal-Sharrock, 2004; Stroll, 1994, p. 75-80) or a dissolution of the problem that gives rise to the regress (Schönbaumsfeld, 2016). Are ungrounded certainties a legitimate stop to the regress or a limit to the doubts that can pressure the demand for justification? On the other hand, it is argued that hinge propositions are incapable of facing the skeptical challenge precisely because they are ungrounded, and therefore lack any epistemic quality (Fogelin, 1994; Pritchard, 2012). Furthermore, as these propositions are assimilated by an enculturation process and can vary from culture to culture (Wittgenstein, 1969, §262), the problem of demarcation arises (Coliva, forthcoming), after all, which propositions can play the role of ungrounded grounds? Without an answer to this problem, we would at best trade the skeptical threat for the relativistic threat.

This ambiguity as to what Wittgenstein's picture of the structure of reasons actually offers us is due, in part, to the difficulty of finding an interpretation that makes everything he says about hinge propositions coherent and harmonious. For example, the first three qualifications given at the beginning of this section suggest that hinge propositions are not properly propositions, at least if we assume that propositions must have a truth value. They would be more like commands or ways of acting. But at other times, Wittgenstein claims that they take the form of empirical propositions (1969, §136) and at least seems to

suggest that they are a special kind of proposition (1969, §494), while at the same time acknowledging that the "concept 'proposition' itself is not a sharp one" (1969, §320). It is not surprising, therefore, that there is a vast and rich literature on how to interpret hinge propositions. Duncan Pritchard (2015) distinguishes at least four interpretative currents: the externalist, the non-propositional, the non-doxastic and the epistemic entitlement interpretation.

In this text, I will not address the exegetical issue. I am not concerned with offering an interpretation that makes Wittgenstein's claims about hinge propositions mutually coherent and harmonious. I'm going to propose a way of understanding hinge propositions that does justice to their role of ungrounded ground. My proposal is by no means unprecedented. I will take the non-propositional interpretation articulated by Danièle Moyal-Sharrock (2015) and complement it by approximating the assimilation of a hinge proposition to the assimilation of an ability as understood by ecological psychology (Carvalho, 2019b, 2020a). More specifically, I propose that the ways of acting that Moyal-Sharrock associates with hinge propositions are to be taken as constitutive of abilities. The ecological approach to abilities, I will argue, offers an explanation of why certain ways of acting become so entrenched and basic and therefore why they acquire the role of ungrounded ground. I will also argue that this proposal offers an answer to the problem of demarcation, thus avoiding the charge of relativism. On another occasion, when drafting the proposal, I dubbed it "ability reading" (Carvalho, 2019a). To be more exact, I will call it "ability *proposal*".

In the next Section, I present Moyal-Sharrock's interpretation. In Section 3, I put forward the demarcation problem and argue that Moyal-Sharrock's interpretation does not deal well with the demarcation problem. In Section 4, divided into three subsections, I present my proposal for understanding hinge propositions. In Subsection 4.1, I articulate the ecological approach to abilities; in Subsection 4.2, I explore the suggestion of taking hinge propositions as constitutive of abilities; and, in Subsection 4.3, I show how my proposal addresses the problem of demarcation. Finally, in Section 5, I end with some final remarks.

2. The non-propositional interpretation

As mentioned above, Moyal-Sharrock proposes that hinge propositions are not actually propositions. She comes to this conclusion by assuming a very strict conception of proposition and which supposedly would have followed wittgenstein unchanged from the *Tractatus* to his posthumous work *on certainty* (Moyal-Sharrock, 2020).[2] According to this account, an essential characteristic of propositions is bipolarity, they must be capable of being true and capable of being false.[3] As, it is alleged, hinge propositions are neither true nor false (Wittgenstein, 1990, §205), then they are not propositions per se.

According to Moyal-Sharrock, hinge propositions share a series of other characteristics, they are: non-epistemic, indubitable, non-empirical, grammatical, ineffable, enacted and foundational (2004, p. 72–99; 2015, p. 8). "Hinge" propositions are non-epistemic because they are not the conclusion of an investigation or argument, nor are they based on evidence, they are ungrounded. If they were grounded, a request for justification or doubt could be raised about their grounding. Hence, hinge propositions are indubitable. If they were true or false, then the negation of a hinge proposition would be conceivable and open to the possibility of error and, therefore, of doubt. However, a possibility of error is precisely what we cannot conceive of in relation to hinge propositions. Except in exceptional circumstances, for example, if a bomb explodes nearby, there is no room for error as to having two hands, "if Moore were to pronounce the opposite of those propositions which he declares certain, we should not just not share his opinion: we should regard him as demented" (Wittgenstein, 1969, §155). The certainty that I have two hands is not empirical either, it is not based on experience. Seeing my two hands does not prove or provide evidence that I have two hands, although it could be evidence that I am not hallucinating or that my perception is functioning normally. If I didn't see them, I wouldn't conclude that I don't have two hands, but that I have a perceptual problem. Precisely because it is a ground that does not require justification, the certainty that I have two

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[2] It's controversial whether Wittgenstein maintained the same view of propositions throughout his works. For a discussion of this point, see Coliva (Forthcoming).

[3] Bipolarity is distinguished from bivalence, the latter being the characteristic that a proposition has a single truth value between two possible ones. Tautologies and contradictions satisfy bivalence but not bipolarity.

hands determines that not being able to see my hands under normal conditions of observation is evidence for the occurrence of an issue in the perceptual system.

The three features we have just discussed do not yet make it sufficiently clear what takes the place of propositions since hinge propositions are not exactly propositions per se, but the following three characteristics may help us in this task. "Hinge" propositions are grammatical in the broad sense that they are rules that fix how language should be used, they stipulate "the conditions of intelligibility of a language" (Moyal-Sharrock, 2020, p. 40). In the same way that "A rod has a length" is a preparation for measuring and describing the length of a particular rod, "I have a body," "I have two hands," "There are other people besides myself," "Physical objects exist" etc. are preparations for the intelligible use of language. They are not propositions, as they are neither true nor false, they are rules that delimit what does and what does not make sense, they offer us a framework that "allows us to use words in order to intelligibly represent, describe, express, misrepresent, misdescribe, imagine, pretend, lie about, etc. how things are" (2020, p. 41). As rules that delimit what does and does not make sense, they themselves do not make sense. This has to do with Wittgenstein's narrow conception of proposition, "only falsifiable propositions to have sense, grammatical rules (in that they are unfalsifiable) are nonsense" (2004, p. 90).

Therefore, they are also ineffable. Because they are outside of language, making our language games possible, hinge propositions, as grammatical rules, are not possible movements within these games. Therefore, it makes no sense to state them (2004, p. 94). That's why it's strange when Moore says "Here is a hand" while looking at one of his hands. In this situation, there is no intelligible statement that he could make with the utterance of this sentence. Of course there may be situations where the utterance of this sentence makes sense. In a game in which we are invited to look for and identify drawings of hands that are, so to speak, "camouflaged" in an image, "Here is a hand" informs where in the drawing the person looking can find a hand. In this case, "Here is a hand" does not work as a hinge proposition, this sentence is a doppelgänger of the hinge proposition and fulfills a

non-grammatical function (2004, p. 93). It makes perfect sense to inform and describe, in this situation, where a hand can be found. But this is not the intended, and indeed impossible, use by Moore of informing that something outside of him, a hand, exists. The doppelgänger, but not the corresponding hinge proposition, does indeed express a proposition, and may be falsified, perhaps the speaker was mistaken as to whether there was a hand-drawn in the intended or pointed place.

As for the hinge proposition, it can be articulated as a rule only in heuristic situations, when, for example, we want to teach a child or someone who does not speak our language how to use the word "hand". However, it is important to emphasize that, in these situations, the sentence that articulates the grammatical rule corresponding to a hinge proposition is not being asserted, according to Moyal-Sharrock. It elucidates possible movements within a language game, but it is not itself a movement in that game. As a grammatical rule, hinge remains nonsense and ineffable. The grammatical rule itself is not manifested by the sentence which, in a heuristic context, elucidates or instructs the rule. The rule itself, or rather the certainty it embodies, only manifests itself in action. The sentence that articulates a hinge, as Moyal-Sharrock says, "is but the artificial formulation of a certainty whose defining feature is ineffability" (Moyal-Sharrock, 2004, p. 94).

Finally, hinge propositions are "grammar rules [...], which manifest themselves as ways of acting" (Moyal-Sharrock, 2015, p. 21), are enacted. The grammatical rule that embodies a certainty is manifested or *shown* in action, in the procedures and in the way of investigating, in what is and is not placed as open to doubt, in what is readily taken as evidence for or against what and so on. The certainty that the earth has existed for many years shows itself, for example, in the practice and willingness to take certain fossils as evidence that certain animals lived in a certain period in the past; the certainty that I have a body is manifested in the practical understanding that I do not go through walls, I never try or even consider trying (Moyal-Sharrock, 2004, p. 67). Similarly, we all try to back away or protect ourselves when an object is approaching too quickly. This is a disposition that we even share with several vertebrates and invertebrates (Schiff, 1965). It is in this sense, it is

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suggested, that we must understand Wittgenstein's claim that ungrounded grounds are something animal and instinctive (Wittgenstein, 1969, §359, §475). They manifest and show themselves in certain ways of acting, some of which are instinctive, inherited by natural selection. Others, perhaps most in the human case, are acquired through a process of enculturation. The certainty that humans have never been on Saturn is one of them. In any case, the ultimate grounding for our beliefs is a way of acting, an ingrained or instinctive habit of responding to certain circumstances in certain ways. As these ways of acting are neither true nor false, they can fulfill the role of ungrounded ground. The regress of justifications does not advance over ungrounded grounds not only because, as Hume would say, nature prevails over skeptical doubts, but, going further, because these enacted certainties establish the limits of meaning and our procedures for investigating and giving reasons, so we can't even understand what someone might be implying by saying one doubts one has a body. This person may even behave like a doubter, but he/she does not express genuine doubt (1969, §255). Someone like that looks like a half-wit (1969, §257) or doesn't understand what "body" means, he/she doesn't even *know how* to play the game of doubt.[4]

3. A challenge for the non-propositional interpretation

The challenge I have in mind is not exegetical but thematic. As I indicated at the beginning of this article, I am not interested in capturing Wittgenstein's position. I'm inspired by *On Certainty* and Moyal-Sharrock's interpretation in order to reach a stance that I think is more cogent. The difficulty I have in mind is the aforementioned problem of demarcation. Annalisa Coliva comments that although "I have two hands," "The earth has existed for many years" and other hinge propositions have the animal and visceral character that non-propositional interpretation emphasizes, it does not seem to be the case that all examples

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[4] Although answering the skeptic is not the aim of this paper, it is worthwhile to notice that the common criticism that hinge propositions cannot fulfill the role of ultimate ground because they are devoid of epistemic properties (Fogelin, 1994)—they are not even true or false—can be answered by stressing that hinge propositions defuse the regress not as ultimate grounds but as doubt blockers. In the appropriate contexts, they turn senseless the skeptic doubts that put the regress of justification in movement. If a claim cannot be reasonable challenged, then a demand for justification will not arise. Thus, hinge propositions are not supposed to be what stop a regress already in course but what preclude a regress to begin.

of hinge propositions commented on by Wittgenstein have this characteristic, such as "Water boils at 100°c" and "Napoleon won the battle of austerlitz" (Coliva, forthcoming). These cases seem to consist of certainties that are too specific and rooted only in certain communities. A serious relativist threat then arises, as different communities can entrench different certainties. Wittgenstein himself invites us to imagine the situation of a man "who had grown up in quite special circumstances and been taught that the Earth came into being 50 years ago" (Wittgenstein, 1969, §262) and who, therefore, firmly maintains that commitment. To avoid the relativistic threat, it is necessary to find a criterion that allows demarcating hinge propositions capable of fulfilling the role of ungrounded ground from propositions that appear to be hinge but which are too disconnected from the environment to fulfill this role. Even viscerality seems to be insufficient as a demarcation criterion, since "people may be viscerally committed to all sorts of false beliefs, biases and prejudices, which we would not thereby want to turn into hinges" (Coliva, forthcoming). In short, in order not to fall into relativism, it seems that we cannot be too liberal about which *ways of acting* can be ungrounded grounds.

Moyal-Sharrock's position is not completely helpless to deal with this difficulty. While the talk of ways of acting might lead us to think that ungrounded grounds result from a kind of tacit behavioral agreement, which could vary as we alternate culture or historical period within a culture, Moyal-Sharrock rejects that this is the case. She maintains that grammatical rules are *reality-soaked* (2021b, p. S418), that they are somehow constrained by facts of experience and very general facts of nature (2020, p. 48), which would confer an anchor or stability to ungrounded grounds. For example, the discovery of the fact that men, and not just women, have something to do with the reproductive process is at the origin of the grammatical rule "Every human being has two biological parents" (2020, p. 47). Similarly, the concept of "daughterliness", in the sense of a "loving attention to the integrity of the daughter-parent relationship" (2021b, p. S418), rests on the practice and experience of mutual attention and respect between individuals immediately related by blood or adoption. In this way, facts about the lived experience would also condition the grammatical rules and the limits of meaning. The relationship between grammatical rules

and the facts of nature or experience is not one of justification, nor could it be, but causal. As Wittgenstein himself acknowledges, "previous experience may very well be the cause of my present certitude" (Wittgenstein, 1969, §429), but it is not a reason or ground for it.

These considerations still seem to me to be insufficient to deal with the problem of demarcation. The very distinction between facts of experience and general facts of nature raises doubts about whether we are faced with a single or an ambiguous criterion to demarcate ungrounded grounds. It seems to me that the second alternative is the case. Discourse about facts of experience seems to be just a different way of talking about "regular ways of acting" (Moyal-Sharrock, 2020, p. 48), which brings us back to the relativistic threat. Different communities can embody the most different regular ways of acting and, therefore, commit themselves to different and irreconcilable ungrounded grounds. Moyal-Sharrock could then restrict her approach to the general facts of nature.[5] This move is inappropriate for two reasons. First, it would greatly narrow the range of ungrounded grounds, although it could be argued that this is the price to pay for avoiding relativism. Second, as the relationship between facts and certainties or grammatical rules is causal, they are insufficient to explain in an intelligible way why certain facts lead us to certain ungrounded grounds, so that without an explanation of how ungrounded grounds become reality-soaked, the possibility remains open that any regular way of acting may turn out to be caused by general facts of nature.

In a nutshell, I don't think that facts about our common behavior or general facts about nature can address the demarcation problem for the simple reason that facts do not have normative import. The distinction between legitimate and illegitimate ways of acting for the role of ungrounded ground can not be drawn from facts alone. At the same time, I emphasize that I do not demand a relation of justification between general facts of nature

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[5] Or she could appeal to universal patterns of behavior that are cross-cultural, a move that Moyal-Sharrock seems to make in her more recent book. Addressing the charge of relativism, Moyal-Sharrock claims that "it is our universally shared form of life that informs Wittgenstein's realism by constituting the system of reference which logically underpins any meaningful account of ourselves and our world" (2021a, p. 177). Given that different cultures live in different econiches, I do not think that it is helpful to appeal to universal patters of behavior. Besides, facts about behavior, whether local or universal, will not address, as I argue, the demarcation problem. They do not have normative import.

and regular ways of acting or grammatical rules, but that we manage to articulate a general explanation of how these things are related. Only then will we be in a position to offer an answer to the problem of demarcation. The proposal based on abilities—which is a notion with normative import—offers this explanation and at the same time does not narrow in an undesirable way the range of ungrounded grounds. Thus, we avoid relativism without losing the richness and even the plurality of ungrounded grounds.

4. The proposal based on abilities

I think it is crucial to find a non-arbitrary delimitation of the ways of acting that fulfill and can legitimately fulfill the role of ungrounded grounds. My proposal is that the ways of acting that constitute an ability or know-how[6] are suitable for the role of ungrounded ground,[7] especially if we understand abilities in light of ecological psychology.

4.1 The ecological understanding of abilities

It is common to see ability as something that involves or concerns only the organism. In this sense, the acquisition of an ability is seen as involving a series of transformations internal to the organism that then become preponderant in explanations of its exercises, both successful and unsuccessful. However, ecological psychology invites us to think in a different way. According to ecological psychology, the minimum unit of analysis and investigation is the organism-environment system (Richardson et al., 2008, p. 164). This is due to the fact that organism and environment are complementary (Gibson, 2015, p. 4), both the organism does not survive without the environment around it, and the environment is something that surrounds an organism and is profoundly affected and

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[6] Although intellectualists such as Williamson and Stanley (2001) question the claim that know-how is a type of ability, I will not discuss this issue at this point. I discuss it elsewhere (Carvalho, 2020a).

[7] Not to be unfair, Moyal-Sharrock makes the connection between ways of acting and know-how in her 2004 book and in later texts, although she explores this connection less and less in more recent works. She says, for example, that "objective certainty is a know-how in which there is no room for improvement" (Moyal-Sharrock, 2004, p. 65), that "objective certainty occurs or manifests itself exclusively as a know-how, which, for philosophical analysis, we depict by articulating into individuated certainties" (2004, p. 68) and that "the know-how is the ground" (2004, p. 172). However, in addition to not always being emphatic about this connection, she does not offer an explanation of the connection itself and of what know-how is, so the problem of demarcation remains present.

altered by it. According to Gibson, before there were organisms, the earth's surface was a physical reality, but not an environment in the strict sense. The acquisition of abilities is then seen as a process in which the organism adapts or tunes in to the environment (Carvalho, 2019b), either by reorganizing itself or by changing its environment. More than that, the alterations internal to the organism should "be understood as bodily-change-relative-to-an-environment or, even better, as a change in the extended structure of the animal–environment system" (Baggs; Raja; Anderson, 2020, p. 2). As also emphasized by Thomas Fuchs, abilities "can only be described in terms of a relationship of the organism to its environment" (2018, p. 101). Thus, if we look at the activity proper to an ability, it encompasses both the organism and the environment.

For example, in order to stand up, the child, in addition to having to acquire enough body strength to overcome gravity, has to learn to keep his/her center of gravity within the limits of his/her base of support, which already presupposes an environment, a surface. In the first stage of learning, the child leans on objects to stand. The object of support imposes certain limitations on the child's possibilities for action, helping and facilitating the achievement of balance. In this new position, he/she is able to explore visual, tactile, vestibular, and proprioceptive information that was not available before. In a subsequent stage, the child is able to maintain balance without leaning directly on an object, but continues to count on visual information from stable objects in his/her surroundings, as well as proprioceptive and vestibular information, to maintain balance.[8] In this way, "postural control extends from the body of the learner to incorporate the solid structures she encounters in her environment" (Baggs; Raja; Anderson, 2020, p. 3). From an ecological perspective, abilities involve the environment constitutively.[9]

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[8] In a famous experiment (Lee; Aronson, 1974), participants are instructed to stand in a room where the walls are moving. In one condition, the wall the participants are looking at is moved towards the participants. Children are often unable to stand upright, and many adults have to work very hard to stand upright, which highlights the importance of stability in the surroundings for the ability to stand.

[9] Although I have been considering the acquisition of abilities by an individual organism in its environment, the ecological approach is not blind to social factors that might mediate and shape abilities of social organisms. On the contrary, for ecological psychology, the social is a background condition not only for the evolutionary history of a social species but also for the development of their members (Heft, 2007, p. 93) so that a new member with cooperative dispositions enters in an environment which is already socially structured. Even an ability so basic as the ability to stand may be socially modulated. For simplicity, I will not

These considerations from ecological psychology about ability are sufficient to introduce two general characteristics of abilities that express their normative import. The first is that abilities are reliably successful, that is, as Alan Millar puts it, "to count as having the ability to Φ one must be reliably successful at Φing in that in the absence of impediments one would nearly always Φ if one were to act with the intention of Φing." (Millar, 2016, p. 67). This trait goes well with an ecological understanding of abilities. The ability to Φ results, as we have seen, from a process of adaptation and attunement between the organism and its environment. Successively, ways of acting or possibilities of actions that prove to be more fruitful for the realization of Φ are selected, or the environment is modified in order to make certain possibilities of actions more effective to carry out Φing. The result of this process is the coupling between the organism and its environment with regard to Φ, so that whenever the agent acts with the intention of performing Φ, if there are no impediments, he will be successful in performing Φ. Note that the possibilities of actions are only invested with the function of performing Φ at the end of the learning process that makes them successful performers of Φ—it is the resulting synergy between organism and environment that makes them performers of Φ.[10] Thus, the ability to Φ is constituted by a determined set of action possibilities which, in the appropriate environment and *because of* it, are precisely those that perform Φ.

The second characteristic of abilities is that they only manifest when the attempt to exercise them is successful. It is tempting to think that, once acquired, abilities can be exercised and manifested in environments quite different from their original ones. But this assumes precisely what the ecological perspective denies: that abilities concern only transformations internal to the organism and that the environment does not participate in

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address the social factors in the constitution of abilities here. For further discussion of this point, see Heft (2007) and Carvalho (2020b). I would like to thank Marcos Silva for having called my attention to this issue.

[10] This does not imply that abilities are infallible, at least not in the sense that we would be successful every time we *try to* exercise them, a whole host of impediments can lead to attempts to exercise abilities to fail. Furthermore, some abilities are abilities to do something with a certain success rate (Millar, 2016, p. 70). I might be able, for example, to hit 50% of basketball tosses being in the 10-foot range, while a certain professional has the ability to hit 95% under the same conditions. These are abilities that manifest themselves over time, every 100 moves I get 50 right, the professional gets 95. The failed particular moves are not in themselves manifestations of this type of ability, but are part of a series of moves that together manifest an ability that has a certain success rate.

their constitution and manifestation. On the contrary, abilities require a cooperation between environment and organism. No one manifests the ability to stand while, lying on a bed, dreams to stand. The very act of standing requires a body, a surface and gravity to overcome. Exercising an ability is, to echo Dewey, as truly an act of the environment as of the person, it is something "done by the environment by means of organic structures or acquired dispositions" (Dewey, 1922, p. 14). Abilities "are ways of using and incorporating the environment in which the latter has its say as surely as the former" (1922, p. 15). The manifestation of the ability to Φ occurs precisely when organism and environment cooperate and together perform Φ, it is an event of the organism-environment system. Thus, the exercises of an ability are, to use Ryle's expression, well captured by "success verbs" (2009, p. 130), that is, verbs that indicate the attainment of a state of affairs.

4.2 Hinge propositions as ways of acting that constitute abilities

The criterion for legitimate ways of actions can be state as follows: a way of acting play the role of an ungrounded ground if it is part of a set of ways of acting that constitute an ability. Any ability? In principle, yes, because any ability extends the range of actions that can be reliably performed by the agent, incorporating aspects or parts of her environment. Abilities anchor us in the world, providing a ground on which to support our investigations and knowledge claims. The very ability to stand up already embodies or acts the hinge proposition that I have a body—this proposition is enacted by the ability to control my body in order to stand. The hinge proposition that there are people other than me is embedded in the diverse repertoire of abilities that allow me to follow the skillful and intelligent behaviors that others manifest around me. As I watch someone riding a bicycle, I am able to tell whether their way of riding a bicycle expresses dexterity or inexperience. I distinguish the rude or polite way in which someone addresses me. I note and follow with admiration the shrewd agility of professional dancers. In all these cases, the exercise of my behavior-following abilities, by tracking mental qualities such as dexterity, sensitivity, intelligence, and agility, manifests or *enacts* the hinge proposition that there are people

other than me. These abilities embody the most salient dimensions of mindeness and our intersubjective world.[11]

We acquire abilities to follow and accompany behaviors, that is, discriminate them for agility, dexterity, intelligence, sensitivity, etc., long before we are able to make skillful claims about how well someone performs a particular action. A child who already knows how to ride a bicycle is relatively able to observe whether another person is riding a bicycle well or poorly, which she may express by admiring the dexterity of a rider but not the inexperience of another, without necessarily being able to say why. The ability to make claims, including knowledge claims, about whether and how someone is acting sensitively, intelligently, or nimbly is one that comes later and builds on the abilities to follow behaviors. The latter provide the background of intelligibility from which specific questions about one's personhood, mindeness, particular mental qualities, etc., can be asked, may be raised and investigated. The general doubt about whether there are other people or whether there is any other mind besides our own is one that doesn't make sense, it doesn't form—the attempt to raise it clashes with this set of abilities to follow and accompany behaviors that even mediate our tacit understanding of what it is to be a person and to have a mind.[12] Through these abilities the human bodies that surround us and with which we interact are already revealed to us and given as skillful, smart, sensitive, conscientious,

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[11] Maclaren, commenting on Merleau-Ponty's example of the spectator of a football match, states that he not only watches "the game, but follows it in a bodily way, anticipating and completing the moves of the athletes through the jerks, dodges and half-kick motions of his own body" (2002, p. 190). It is through this accompaniment that we enter and inhabit the intersubjective world, "it is by virtue of being swept up in the other's bodily attitude, in her bodily intending of the world, that we are ushered into a shared world" (2002, p. 191).

[12] On another occasion I argued that our sensorimotor abilities give us direct access and an understanding of the nature of objects around us in the sense that the perceived object "is not simply given to us, it is presented as being in a certain way, i.e., as being an object that requires or permits a series of affordances. This understanding is not yet propositional, but it is rich enough to say that the object and its properties are [...] situated in the space of actions" (Carvalho, 2016, p. 516). Perceiving an object is placing it in what I then called the *space of actions*. I then argued that this perceptual-practical understanding of objects provides the necessary paradigmatic cases for introducing observational concepts, thus showing how propositional thinking relies upon the world of action possibilities that we inhabit through our sensorimotor abilities.

intelligent, etc. In fact, under normal conditions, it is not possible to see them or face them as mere bodies.[13]

Certainly, there may be situations where we are no longer able or have difficulty in recognizing a particular person in a human body. Faced with a person with an advanced stage of Alzheimer's, it can be difficult to follow their behavior, which is less and less able to have and manifest mental qualities. We can have doubts if the person is still "there". Doubts that can be resolved by someone better positioned than us. In the film "Still Alice" (2015), we follow the evolution of Alzheimer's in the character Alice, a renowned linguistics professor. In the more advanced stage, when she has almost completely lost her memory, her linguistic abilities, and her motor routines are weakened, people farther away might wonder whether there is still something of Alice in that body. Although there is no such scene, I can imagine her daughter, who accompanies her through this final stage, replying "I know my mother is still there" or something of that sort. The fact is, both still manage to engage emotionally with subtlety and depth. In a possible reading, the film suggests that it is only at this moment that they were able to resolve, on a deeper emotional level, old issues and disagreements between them. Commenting on our tacit knowledge of the other, especially in the case of dementia, de Jaegher delicately points out:

> when you are close to a person with dementia, emotional connection is one of the things that remains the longest. Sitting on a park bench together watching the birds and the weather go by can be moments of great significance. You know this in your eye contact, through touch, by embracing. In fact, when all else is gone, often practically the only way you know how things are with the person is through your emotional connection. (de Jaegher, 2019)

Thus, from the vantage point and the emotional affinity gained by the more intimate dealings and interactions, Alice's daughter may be in a position to know something that other people cannot, that her mother is still there. The knowledge claim "I know my mom is still there" is one she could legitimately make based on a set of emotional abilities that put

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[13] For lack of space, I cannot argue for this claim here. In order to avoid the common charge that perceiving the behavior is not the same as perceiving a mental aspect, one can appeal to Ryle's adverbialism regarding mental states. Mental states or attributes are ways of behaving. A less stringent account according to which patterns and ways of behaving constitute at least in part mental states or attributes will also suffice to claim that we directly perceive mental states or attributes by tracking ways of behaving. For a rich and detailed discussion of this issue, see Laura Danón and Daniel Kalpokas (2017).

her in touch with what's left of Alice. And it would make sense, Alice's daughter would be providing valuable information. In any case, from the acknowledgment of the possibility of doubt in this particular case does not follow the legitimacy and intelligibility of the general doubt about the existence of other minds.

The examples could be multiplied, but they would illustrate the same general consideration that hinge propositions are ways of acting that constitute abilities that form the background upon which the practices of investigating and making knowledge claims rest, not only conferring meaning to these practices but also imposing intelligibility restrictions on them. Abilities gives us a world in relation to which we can raise questions and start an investigation.[14] Ecologically understood, these abilities involve both the organism and the environment, they are, to use Moyal-Sharrock's phrase again, reality-soaked. But we now have an explanation of why they are reality-soaked. Abilities are not just related to the organism. The outcome of the adaptation process and/or alteration of the environment that gives rise to them is the coupling between organism and environment. It is the synergy of both that is manifested in the exercise of an ability.

The proposal based on abilities also offers an explanation of why the ways of acting that constitute abilities can fulfill the role of ungrounded grounds. Given the two aforementioned characteristics of abilities, that they are reliably successful and that they only manifest when attempts to exercise them are successful, abilities establish the most immediate contact with the environment about which investigative and practices of claiming knowledge can be settled. Abilities lack a ground. Instead, as they are reality-soaked or constitutively involve the environment, they provide an ungrounded ground. While exercising our abilities, such as the ability to stand or follow behaviors, we are immersed respectively in the physical and social environment.

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[14] In this sense, there is a harmony between my proposal and Ryle's claim that knowing-how is logically prior to propositional knowledge (1946, p. 4-5), the scientist, he says, "is primarily a knower-how and only secondarily a knower-that" (1946, p. 16). On another occasion, I took advantage of the priority of knowing-how to defend a unified approach to knowledge and understanding that dispenses with the requirement of reflexivity for the possession of knowledge/understanding of something. This requirement is relevant only in specific situations and tasks, as in the practice of claiming knowledge where the agent's credibility is at stake. As Austin points out, when one says "'I know', I give others my word: I give others my authority for saying 'S is P'" (1970, p. 99). In these cases, the agent has to know how to justify himself. See Carvalho (2018a).

This also explains the strangeness of the utterance of hinge propositions—they do not bring any information that was not already involved in the exercise of these most fundamental abilities. For those who inhabit the social world through the ability to follow and accompany behaviors, the assertion that there are other people or other minds is counterproductive. Furthermore, as I have already pointed out, the minimal understanding of what it is to be a person or to have a mind is mediated by these abilities, so that general formulations such as "There are other people" or "There are no other minds" already assume what is intended respectively to state or deny. However, I do not commit, as Moyal-Sharrock does, to the claim that hinge propositions are ineffable and that they are senseless because they are not bipolar. I agree that, in normal contexts, uttering them is out of the question, we frustrate both the purpose of informing by affirming a hinge proposition and of refuting by denying a hinge proposition. But that does not mean that we cannot articulate the regularities and rules that are observed by abilities. For example, one would expect that the ability to discriminate *how to nimbly ride a bicycle* responds to a certain way or a delimited set of ways to ride a bicycle. There is no reason why these regularities cannot be described—abilities are not some kind of ineffable reality. In any case, the explicit articulation of these regularities or rules is both unnecessary and insufficient for the possession of the ability. In this respect, I agree with Moyal-Sharrock that hinge propositions are enacted, we show that we observe a certain regularity in practice, when exercising the corresponding ability. To borrow a formulation from Ryle, if there is any sense in which we "know" these rules or regularities it is "in the executive way of being able to apply them" (Ryle, 2009, p. 30) or to observe them. There is, therefore, a practical dimension of abilities that is not reduced to the theoretical apprehension of any

proposition.[15] On the contrary, as Wittgenstein observes, "it is our (skillful) *acting*, which lies at the bottom of the language-game" (Wittgenstein, 1969, §204, my addition).[16]

4.3 Defusing the demarcation problem

The proposal based on abilities offers a promising way to defuse the demarcation problem. The proposal only selects ways of acting that are part of abilities that, by virtue of the way they are constituted, according to the ecological approach outlined herein, involve the environment or are imbued with reality. Thus, one must avoid selecting a way of acting that is disconnected from the environment as one that could fulfill the role of ungrounded ground. Coliva's justifiable fear, let us remember, is that people can be viscerally committed to all kinds of false beliefs—Wittgenstein himself illustrated this possibility with the case of the subject who is committed to the hinge proposition that the Earth exists for 50 years just because of the way he was brought up. This commitment cannot be part of the historical and archeological abilities that put us in touch with our most distant past, nor does it need to be such a distant past. Consider, for example, the past of a generation ago, transmitted orally from father to son. Thus, this commitment cannot legitimately fulfill the role of an ungrounded ground, even if it is a visceral commitment of the subject in question.

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[15] In the parallel discussion on know-how, intellectualists such as Stanley and Williamson argue that the practical dimension of know-how can be captured by the notion of *a practical mode of presentation*, a way of apprehending a propositional content that would be inseparable from the assimilation of a series of behavioral dispositions. As they put it, thinking of a way to act, for example, a way in which someone would be able to ride a bicycle, "under a practical mode of presentation undoubtedly entails the possession of certain complex dispositions" (Stanley; Willlamson, 2001, p. 429). Without going into the question of whether this notion of practical mode of presentation might not be smuggling the notion of ability that intellectualists refuse to be essential to explaining the nature of know-how, the central point is that they acknowledge that know-how cannot to be equated with the merely *theoretical* apprehension of a proposition. Adjusted to my discussion, abilities couldn't either.

[16] In a similar manner, Michael Polanyi claims that there is a sense in which the pre-suppositions of science, which turn experimentation and the interpretation of experiments possible, cannot be asserted. We dwell in those pre-suppositions in order to investigate the world in the same way we dwell in our own body to perceive the world around. We perceive the world with the lived body without paying attention to it. Polanyi would add that this dimension that is not reducible to the theoretical grasp of a proposition is not only practical but also personal: "This making sense of experience," made possible by the embodiment of the pre-suppositions of science, "is a skillful act which impresses the personal participation of the scientist on the resultant knowledge" (1958/2005, p. 62).

Furthermore, to remain faithful and consistent with the hinge proposition that the Earth came into existence only 50 years ago, this person would have to automatically dismiss as false or delusional any reports of people over 60 about their lives and experiences when they were less than 10 years old, or more than 70 when they were less than 20 years old, and so on. The commitment to our usual mnemonic, historical, and archaeological abilities and all that it implies is so entrenched that it's even difficult to fully imagine the possibility of this subject and his entire community maintaining the commitment that the Earth has only existed for 50 years.

Even if it is possible for a community to consistently maintain the commitment that the Earth has only existed for 50 years, that commitment is not a legitimate grounding as it comes into tension with mnemonic, historical, and archaeological abilities. Such a commitment would imply the rejection of the scope of those abilities. An alternative would be to view this community as having narrower or more limited mnemonic, historical, and archeological abilities than ours, just as a basketball apprentice has narrower or more limited hoop abilities than a professional player. This community could only reach into the recent past, while we are able to dig into the more distant past. If we understand the situation in this way, then there is no tension between the historical abilities of this community and ours, there is just a difference in scope or reach. In this case, the hinge proposition that seeks to articulate their ability needs to be reformulated, something like "The Earth has been around for at least 50 years". This indeed could fulfill the role of ungrounded ground, and would not raise any tension between them and us.

This discussion allows me to observe two interesting consequences of the proposal based on abilities: (1) some hinge propositions may be more fundamental than others and (2) some hinge propositions may be local and therefore we can have diversity of hinges without relativism. As for (1), let us observe that the abilities maintain relationships of dependence among themselves. To learn to walk, a bipedal animal must first learn to stand. This last ability is therefore more fundamental than the first. Thus, the commitment "I have a body that stands upright" is more fundamental than "I have a body that moves," which,

incidentally, may not be fundamental for someone with locked-in syndrome and who, therefore, has lost the ability to move around. As one is still able to control one's eyebrows, the even more fundamental "I have a body" commitment remains. Similarly, mnemonic abilities are more basic than historical and archeological abilities. The latter take us even further into the past than the former, but they cannot do so without basic mnemonic abilities. Is there, however, a single hinge proposition more fundamental than any other? I don't think I need to take sides on this issue. It may be that we have a relatively broad set of core abilities that don't depend on each other. They will then be equally fundamental, as well as the hinge propositions that articulate them. And if there is a single one on which all the others depend, without it depending on them, this will not eliminate the fact that the others, insofar as they incorporate the environment, will further expand the organism's contact with its surroundings. To fulfill the ungrounded ground role, it is enough to be a way of acting that constitutes an ability, it does not need to be the most basic ability, if there is only one.

These considerations also lead us directly to the (2) second consequence. Very specific abilities, shared only, for example, by experts in a subject, do exhibit the same characteristics as other abilities and can therefore, at least for individuals who share these abilities, serve as a basis for further practices investigation and knowledge claim. Think, for example, of the set of instrumental abilities that experimental physicists share that underpin the investigation of more specific physical theories and hypotheses. Reliable handling of a range of instruments allows them to reach out and be in touch with a range of phenomena that for most of us are beyond our unaided perception. For example, given the abilities not only to observe, by handling a series of instruments, but also to control electrons for the construction of electron guns, I would venture to say, extrapolating a little from the hacking motto "if you can spray them, then they are real" (Hacking, 2012, p. 82),[17]

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[17] With this motto, Hacking introduces what has come to be called *entity realism*, the thesis that many theoretical entities do exist, even if theories about those entities turn out to be false. The grounding for vindicating the existence of electrons is the ability to intervene on them, see Hacking (2012). My suggestion here, based on the ecological understanding of abilities, is to go a step further and say that if you can spray them, it's no longer a question of whether or not they exist, whether or not whatever you can spray is real. What you spray has already been incorporated by your spraying ability. According to my approach, it doesn't matter that physicists continue to debate whether electrons are particles, fields or even a strange kind of

that for most of today's physicists "There are electrons" is a hinge proposition, electrons are already incorporated in the abilities of today's physicists. It is no longer something to be discovered. Decades of interaction between the community of physicists and the electrons, mediated by a series of instruments, allowed to gradually select successful interventions for the control of electrons, so that in the end, the community of physicists acquired the ability to manipulate them in very specific ways. In my case, I need the testimony of physicists about what they are capable of doing with electrons to come to believe that they exist; "There are electrons" is not, for me, a hinge proposition. It is in this sense that we say that some hinge propositions are local, they can play the role of ungrounded ground only for the narrowest group of people who have the specific abilities that embody them. As different groups can specialize and adapt to different portions of the environment, thus acquiring different sets of abilities, we can have a diversity of hinge propositions, but not relativism. All abilities and their respective hinge propositions are reality-soaked. Thus, the examples that Coliva contested as cases of genuine hinge propositions, such as "Water boils at 100°C" and "Napoleon won the battle of Austerlitz", can be reinterpreted within my approach as local hinge propositions, that is, as constituting the abilities of specialists.

5. Final considerations

In this article, I relied on Moyal-Sharrock's interpretation that hinge propositions are ways of acting, as a way to offer a unique proposal on how to understand these propositions. I have argued that Moyal-Sharrock's interpretation leaves a few gaps, as her interpretation does not explain the origin of our ungrounded grounds, and because it does not provide an adequate answer to the problem of demarcation, it is also not sufficiently resilient to the relativistic threat. I then suggested that hinge propositions are ways of acting that are

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constitutive of abilities. Furthermore, I articulated an ecological approach to abilities, which enabled me to explain in a unified way why abilities are reality-soaked. Based on this approach, I have provided an answer to the problem of demarcation that removes the relativistic threat.

I said that skepticism was not the aim of this paper, but I would like to finish by making a few comments on this issue. I'm sure my skeptical friends who have accompanied me here will tell you that their skeptical doubts remain intact. They weren't shaken by anything I said. They might even add that the anti-skeptical consequences I draw depend on the ecological "hypothesis" of abilities that I haven't tried to sustain. In the best-case scenario, I've made only a conditional claim: if abilities are reality-soaked, as the ecological reading suggests, then we have several ungrounded grounds that are exempt from doubt. But where is the proof or evidence for the antecedent of this conditional? I have two comments to make on this interpellation. The first is that, as I said at the beginning of the text, I am much more concerned with explanation than justification. I have sought to provide a coherent explanation for the many ungrounded grounds that we legitimately accept.[18] As Zagzebski emphasizes so well, understanding and certainty are two distinct epistemic values, and, in different periods, epistemology has been more concerned with one than the other (2009, p. 5–6). One could say that I'm concerned with both, but mostly with *understanding* the tacit certainty we share in everyday life. My second comment is that I don't need to prove the antecedent of the above conditional, not because, like Moore, I'd like to say that I know without proof that it's true, but because the doubt that all of our abilities could be disconnected from reality is one that doesn't make sense—we can't raise it.

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[18] Another way of putting the adopted strategy is to say that I offered, in Goodman's terms, a constructive definition—what Carnap called an *explication*—of "ungrounded ground." Such a definition cannot completely depart from what is entrenched as ungrounded ground, but at the same time, insofar as it results from the reflective equilibrium between general principles regarding ungrounded grounds—the ecological approach—and the normally accepted cases of ungrounded ground, the definition thus obtained allows us to distinguish legitimate ungrounded grounds from non-legitimate ones. For a more detailed analysis of Goodman's strategy, see Carvalho (2018b).

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