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# "Mapping the boundaries of conscious life in Margaret Cavendish's philosophy"[*]

## INTRODUCTION

Margaret Lucas Cavendish, Duchess of Newcastle (1623-1673) was a prolific writer and a philosopher. Although she did not receive formal education in philosophy and traditional disciplines, she grew and lived in an aristocratic and deeply intellectual environment, which allowed her to find the resources to develop an extremely original philosophical system.[1] Her naturalistic and monist account of the mind — on which this paper focuses — challenged both Aristotelian-scholastic hylomorphism (according to which the soul is the form of the body, principle of its life and movement) and Descartes's mind-body dualism (according to which the soul is distinct from the body, yet capable of governing it). Although her ideas do not seem to have received much consideration in her time, they are now the subject of increasing scholarly interest.[2]

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[1] Aspects usually pointed out by scholars are that she had access to scholarly libraries, that her brother John was a philosophy and natural science scholar, and that her husband, William Cavendish, hosted meetings of the so-called "Cavendish Circle", which included, among others, Hobbes, Descartes, Mersenne, Digby, and Gassendi. For further biographic information, see O'Neill E., 2001a, pp. x-xvii; Cunning D., 2022, §1. For a book-length biography, see Whitaker K., 2002.

[2] On the reception of her work, see O'Neill E., 2001a, pp. xvii-xxi.

Cavendish argues for a wholly material yet wholly thinking universe. She claims that matter is everywhere capable of "self-knowledge" and "perception" (*OEP*, p. 138), so that each body existing in nature "must have its own knowledge and perception, according to its own particular nature" (*OEP*, p. 141).[3] Her theory has been held to anticipate contemporary views in philosophy of mind and regarded as a "close relative of eliminative materialism", on the grounds that it explains mentality by ruling out the existence of separate spiritual substances (Cunning D., 2006, p. 126). However, Cavendish's account of ubiquitous self-knowledge and perception can also be understood as a kind of "panpsychism" (O'Neill E., 2001a, p. xxv; Michaelian 2009, p. 36; Cunning D., 2022, §4), according to which mentality is a feature of all things. It remains unclear, however, whether for Cavendish the universal capacity of matter to know and perceive also implies the presence of consciousness. The term "consciousness" never appears in her writings, and her somehow inconsistent use of the terms "self-knowledge" and "perception" (Boyle D., 2015, p. 439) makes it difficult, at times, to identify what she understands by them.

Concerning Cavendish's demarcation between conscious and non-conscious mental life, and how she characterizes non-human mentality, an incipient debate in scholarly literature is taking shape. Yet, the available contributions are still few and in conflict with each other. So, for example, Lisa Sarasohn writes that "Cavendish […] thought moving matter was sentient, self-conscious, and self-moving" (Sarasohn L., 2010, p. 11), implying that consciousness, for Cavendish, is somehow present across the board.[4] More cautiously, Karen Detlefsen contends that Cavendish "can make no final pronouncement on whether non-human individuals are conscious of the rational and sensitive states which […] every individual has", but that "given that she widens considerably the scope of what counts as rational and sensitive capacities, she might also widen considerably what counts as consciousness" (Detlefsen K., 2009, p. 436, fn. 18). On the other hand, David Cunning claims that, while "Cavendish nowhere takes an explicit and unambiguous stand on whether or not the intelligent and sophisticated behavior of non-human bodies takes place below the threshold of awareness", there are "reasons to suppose that she holds that much of the thinking that guides the behavior of non-human bodies is unconscious" (Cunning D., 2016, pp. 80ff.). To this, Jonathan Shaheen replies

[3] Quotations of Cavendish's texts reflect the original spelling, punctuation, use of capital letters and italics. Exceptions are the quotations from *OEP*, which include the modifications made by the editor (O'Neill E., 2001b, p. xlvi).

[4] For a similar reading, see Rogers J., 2018, p. 194.

that "nothing [Cavendish] says suggests that their mental lives differ by being less conscious than human mental lives" (Shaheen J., 2021, p. 636, fn. 56). Deborah Boyle suggests that conscious perceptions are to be identified, in Cavendish, only with "rational perceptions" (Boyle D., 2015, p. 443; 2018, p. 77), which depend specifically on the motions of the "rational" kind of matter (*OEP*, p. 150), whereas Olivia Branscum suggests that "something resembling our present-day category of consciousness" can be envisaged in Cavendish's conception of "self-knowledge" (Branscum O., 2022, p. 56), a capacity shared by all kinds of matter (*OEP*, p. 156). All in all, Cavendish's account of consciousness, and the connected problem of how consciousness relates to non-human beings in her theory, remain enigmatic.

In the rest of this paper, I will consider some passages in Cavendish's texts concerning the relationship between her commitment to materialism and her account of mentality, to investigate where the boundaries of conscious life lie in her theory, and why. I will argue that, although the term "consciousness" and the specific uses that we make of it today are foreign to Cavendish, she would not deny that all parts of nature are capable, each in its own particular way, of having some kind of conscious awareness of themselves and the surrounding environment.[5] Cavendish does not provide an explanation as to how consciousness arises in either human or non-human beings; however, her use of the terminology related to self-knowledge and perception, combined with the way in which she fleshes out her metaphysical system seem to point towards at least one condition under which the presence of consciousness is intuitively required. I identify this condition with the presence, in every part of nature, of intentional agency, which Cavendish conceives as necessary, alongside the capacity of self-motion, to account for the orderly behavior of any body. Hence, Cavendish's attribution of mentality to the whole of nature also implies the attribution of consciousness, as long as this is needed to make sense of autonomous, goal-oriented behavior.

[5] By this, I do not mean therefore to project a specific present-day notion (on which there is scarce scholarly agreement; see Francken J. et al., 2022) onto Cavendish's theory, let alone ascertain whether she subscribes to a particular account of it. I believe, however, that past authors can refer to aspects of the phenomenon that fall under today's concept of "consciousness", even if they do not share our terminology (I will get back to this point in section 3 of this paper; for a defense of this interpretive position, see Kaukua J. and Lähteenmäki V., 2010). As will emerge, I contend that among the elements denoting consciousness that can be found in Cavendish's characterization of mentality there are, at least, knowledge of one's own thoughts, phenomenological acquaintance with one's perceptions and mental states, awareness of the self and the external world, conscious attention, and conscious intentions.

The paper will proceed as follows. I will start by summarizing the main points of Cavendish's metaphysical system, her materialist account of nature and the relevant attribution of mentality to the whole of the material world. Then, I will analyze the main concepts that Cavendish adopts to express mentality, focusing in particular on the use that she makes of the notions of "self-knowledge" and "perception". Based on these analyses, I will argue that Cavendish's use of "self-knowledge" and "perception" does not rule out the possibility that, in her view, all existing bodies might be characterized by different ways of being conscious of themselves and the world. I will suggest that she could have in fact intended to use these concepts to also refer to a capacity that all bodies have to be conscious of themselves, their own actions, and those of other bodies. As mentioned above, I will base this conclusion on the fact that she conceives of all bodies as autonomous agents, motivated by apparently conscious intentions — driven, that is, by their capacity, to know "what they do, or why, and whether", in her words (*OEP*, p. 139). I will conclude the paper with a note on the originality of Cavendish's account of ubiquitously thinking matter, which extends to present-day debates in philosophy of mind.

## I. CAVENDISH'S MATERIALISM

Cavendish embraces full, universal materialism: she claims that nature is "an Infinite extension of Body, containing an Infinite number of Parts" (*PL*, p. 8), and that being natural is tantamount to being "material, or corporeal" (*OEP*, p. 137). Therefore, everything that exists in nature must be a body, that is, a material part of an infinite corporeal universe.

> Nature is material, or corporeal, and so are all her Creatures, and whatsoever is not material is no part of Nature, neither doth it belong any ways to Nature: Wherefore, all that is called Immaterial, is a Natural Nothing, and an Immaterial Natural substance, in my opinion, is *non*-sense. (*PL*, pp. 320-321)

Cavendish does not deny the existence of what we are used to regarding as minds and thoughts, including concepts, perceptions, and emotions: however, they are not immaterial entities, but bodies existing amongst other bodies. In her words, "Motions, Forms, Thoughts, Ideas Conceptions, Sympathies, Antipathies, Accidents, Qualities, as also Natural Life, and Souls, are all Material" (*PL*, p. 12).

There are at least two reasons why Cavendish holds that minds and thoughts must be material. The first is that minds, along with their relevant capacities and content, are spatially located:[6] they pertain to bodies, exist in them and move along with them, hence they share with them corporeal attributes such as movement ("motion") and location ("place").[7] If a mind has "no dimension", Cavendish rhetorically asks, "how can it be confined in a material body?" (*PL*, p. 186). The second reason is that, for Cavendish, bodies can only interact with and perceive other bodies, and only material things can be the object of perception.[8] There is no way in which a non-material substance could interact and communicate with our body, allowing us thereby to perceive a non-corporeal entity.[9] The only immaterial things that Cavendish acknowledges are "the Infinite Deity" (*PL*, p. 8) and "things supernatural, […] which go beyond mans reach and capacity" (*PL*, p. 195).[10] Therefore, since we perceive minds and thoughts, they must be material.[11]

[6] See, for instance, *PL*, p. 185-186, and *OEP*, p. 260.

[7] For Cavendish, "Place [is] an attribute which onely belongs to a Body" (*PL*, p. 8), and "Matter and Motion must upon necessity not onely be inseparable, but be one body, to wit, corporeal motion" (*PL*, p. 421). In *PL*, p. 197, and p. 430, Cavendish applies the same reasoning with respect to the divisibility of minds, since minds must inhere in divisible bodies.

[8] For instance, in *GNP*, p. 240, Cavendish writes: "Whatsoever is Corporeal, is Perceivable; that is, may be perceived in some manner or other, by reason it hath a Corporeal Being: but, what Being an Immaterial hath, no Corporeal can perceive".

[9] See, for example, *GNP*, pp. 1-2.

[10] Cavendish writes that "when we name God, we name an Unexpressible, and Incomprehensible Being" (*PL*, p. 315). See also *PL*, p. 320, and *GNP*, pp. 239-240.

[11] In addition to these, Cunning includes a third argument, based on the fact that, for Cavendish, bare mechanical powers and laws of motion cannot fully account for the orderly behavior of bodies (Cunning D., 2006, pp. 120-121; 2022, §3). However, this claim does not seem to provide a sufficient reason to conclude for the materiality of the soul, unless already supported by the rejection of the existence of immaterial entities on other grounds: it does not, for example, in Henry More, who posited an immaterial "Spirit of Nature" to account for the interactions of bodies (*Immortality of the Soul*, p. 193) — and with whom Cavendish openly disagrees (see *PL*, p. 215) — and in Ralph Cudworth, who later theorized the existence of a "Plastick Nature" as an immaterial medium to explain the "Regular and Orderly Motion of Matter" (*The True Intellectual System of the Universe*, p. 150).

> [N]o part of nature (her parts being corporeal) can perceive an immaterial; because it is impossible to have a perception of that which is not perceptible, as not being an object fit or proper for corporeal perception. Indeed, an immaterial is no object, because it is not a body. But some may say, that a corporeal may have a conception, although not a perception of an immaterial. I answer, that a corporeal cannot have a conception of that which in nature is not a body. (*OEP*, p. 89)[12]

Cavendish, however, does not limit herself to arguing for the materiality of minds and mental phenomena. She also claims that all nature is "self-moving" and capable of "self-knowledge", and that mentality — understood as the capacity to have thoughts in terms of knowledge and perceptions of the self and the external objects — extends to the entirety of the material world.

> [M]atter, self-motion, and self-knowledge, are inseparable from each other, and make nature one material, self-moving, and self-knowing body. (*OEP*, p. 137)

To support her theory, Cavendish argues that nature is throughout composed of two "degrees or parts" of matter (*OEP*, p. 206): animate and inanimate. Animate matter is self-moving whereas inanimate matter is not.[13] Animate matter, which moves both itself and the inanimate matter, is in turn divided into "rational matter" and "sensitive matter". These two degrees of animate matter relate to their inanimate counterpart as do a "chief architect, designer or surveyor" and "a labourer or workman", respectively (*OEP*, p. 161): "the rational do design and order, whenas the sensitive labour and work" (*OEP*, p. 159). So, in this "triumvirate", the inanimate part of matter provides the "ground, or grosser substance to work on", the sensitive part is responsible for shaping it "into various figures", while the rational part "order[s] and direct[s] all things methodically" and also accounts for the possibility in nature of "fancies, imaginations, conceptions, memory, etc." (*OEP*, pp. 157-158). In general, animate matter (both sensitive and rational) is capable of "perception" and "exterior knowledge", as "all self-moving parts are perceptive" (*OEP*, p. 173). This threefold account of matter has been dubbed

[12] On Cavendish's use of the notion of "conception", see footnote 23 below.

[13] See also *GNP*, p. 21.

"complete bending", or "complete mixture" (O'Neill E., 2001a, pp. xxiv-xxv), on account to the fact that, in Cavendish's words, these three degrees of matter are

> so intermixed and composed, as no separation can be made of one from the other, but [they] do all constitute one infinite and self-moving body of nature, and are found even in the smallest particles thereof, (if smallest might be said) […]; for it is well to be observed, that although I make a distinction betwixt animate and inanimate, rational and sensitive matter, yet I do not say that they are three distinct and several matters; for as they do make but one body of nature, so they are also but one matter. (*OEP*, pp. 205-206)

Insofar as they fulfil different functions, the three degrees of matter are conceived of as being different constitutive elements of nature. Yet, as we have seen, they are always found together, no matter how small a segment of nature we consider, and together they "make but one infinite self-moving body of nature" (*OEP*, p. 156). What produces individual objects in nature are local divisions and compositions of matter — "particular actions, changes and varieties of natural figures" (*OEP*, p. 138) — which correspond to the different ways in which different portions of matter move themselves.[14] The same divisions and compositions between parts of matter also bring about particular, individual types of minds and relevant "particular knowledges".[15]

[14] See also *PPO* 1663, pp. 5-7; *PL*, p. 144; *OEP*, p. 126. Cavendish denies that there can be bodies that are not composed of all three degrees of matter (inanimate, sensitive, and rational): for example, in *OEP*, p. 168, she writes that "the parts of nature do undergo infinite divisions and compositions, so that parts may be composed and divided infinite ways; yet, these three degrees can never be separated or divided from one another, because of their close union and commixture through infinite nature". For a study that questions how Cavendish can exclude the possibility of spatial regions that are not composed of all three degrees of matter, see Shaheen J., 2019.

[15] Karolina Hübner persuasively argues that, in Cavendish, material divisions and composition require mental divisibility and composition (Hübner K., forthcoming). The main reason being that, as it will soon be clear, for Cavendish any orderly interaction between parts of matter is also determined by the capacity of those parts to think, so that mental capacities must be present throughout any divisions and compositions of a body.

> As infinite matter is divided into infinite parts; so infinite knowledge is divided into infinite particular knowledges; and infinite self-motion, into infinite particular self-actions. (*OEP*, p. 137)

Cavendish has one main reason for claiming that all material entities must think and be capable of sense and reason. She regards it as self-evident that nature displays orderly behavior in each of its corporeal manifestation and bodily transformation. However, concerning the explanation of the natural behavior of bodies, she develops an original account which requires an apposite conception of matter as capable of some degree of perception, understanding and reasoning — an account which has sometimes been labeled as a kind of "vitalist materialism".[16]

Cavendish rejects mechanistic explanations based on transfer of motion from one body to another: if motion was the mode of a body, then it could not simply "quit one body and pass into another" (*PL*, p. 98); if it was a substance, then transfer of motion would be identical to transfer of matter, that is, incorporation of one body by another one.[17] Cavendish also rejects atomism as a viable explanation for the generation and transformation of bodies in nature.[18] On the one hand, if atoms were to be conceived of as "senseless and irrational" and "moving by chance", then, she contends, "there would be no certain kinds and species of creatures, nor no uniformity or order" in nature (*OEP*, p. 169). On the other hand, even if atoms were conceived of as "self-moving, living and knowing", they would constitute wholly separate bodies, such that no coordinated and systematic interaction between them could be granted.

[16] See, for example, Boyle D., 2018, pp. 63ff. I am here focusing on Cavendish's account as she developed it in her most mature philosophical works (i.e., from 1663 onwards). For an overview of her theory in works dated between 1653 and 1655, see Boyle D., 2018, pp. 64-72. In a seminal study, Susan James inscribes Cavendish's philosophy within early modern vitalism (James S., 1999). For critical considerations on whether the label "vitalism" is appropriate for Cavendish's philosophy, see Detlefsen K., 2007, p. 164, fn. 17, and Wolfe C., 2022.

[17] Cavendish calls "translation" the phenomenon by which a portion of animate matter, comprised of its own movement, is transferred to another body (*PL*, p. 420).

[18] Cavendish argued for a kind of vitalist atomism in her *Poems, and Fancies* (1653), a position that she will soon abandon (most notably in her *Condemning Treatise of Atomes*, in *PPO* 1655). For two different views on the relevance of Cavendish's early atomism as regards the development of her philosophical ideas, see Sarasohn L., 2010, pp. 34-53, and Boyle D., 2018, pp. 40-61. For readings that emphasize the continuity between Cavendish's early atomism and her later monist metaphysics, see Clucas S., 1994, pp. 259-264, and Stevenson J., 1996, p. 536-537.

"[I]f there should be a composition of atoms", Cavendish writes, "it would not be a body made of parts, but of so many whole and entire single bodies, meeting together as a swarm of bees" (*OEP*, p. 129). In virtue of their self-sufficiency, atoms would have "an absolute power and knowledge […] and the concourse of them would rather cause a confusion, than a conformity in nature" (*OEP*, p. 129). In short, whether atoms are conceived of as either animate or inanimate, the result, for Cavendish, would be a chaos incompatible with the natural order and organization of parts of matter that anyone can observe.[19]

Once these alternatives have been ruled out, Cavendish opts for an explanation based on a kind of occasional causation, whereby any effect in a body is not caused by the action of external bodies, or by divine intervention, but by the capacity of each body to move itself in the appropriate way, in accordance with the self-imparted movements of the surrounding bodies.[20]

> Wherefore every creature being composed of this commixture of animate and inanimate matter, has also selfe-motion, that is life and knowledg, sense and reason, so that no part hath need to give or receive motion to or from another part; although it may be an occasion of such a manner of motion to another part, and cause it to move thus or thus [...]. Wherefore one body may occasion another body to move so or so, but not give it any motion, but everybody (though occasioned by another, to move in such a way) moves by its own natural motion. (*PL*, pp. 99-100)

This capacity of all objects to move themselves on occasion of external circumstances, as we have seen, is due to the animate matter, which provides matter as a whole (and each of its parts)

[19] I focused here only on Cavendish's so-called "normative" argument against atomism (Detlefsen K., 2006, p. 201). As noted by Detlefsen, Cavendish also puts forward an argument based on the "unending divisibility of matter" (Detlefsen K. 2006, p. 201; see also Boyle D., 2018, pp. 58-60). For a reconsideration of the latter, see Shaheen J., 2019.

[20] Following Steven Nadler's characterization of "occasional causation" (Nadler S., 1994, pp. 36-44), Detlefsen points out that Cavendish's theory, although based on "occasional causal interaction", is different from traditional "occasionalism", as the latter holds God to be the efficient cause of any effect in nature (Detlefsen K., 2007, p. 166). For an analysis of Cavendish's account of occasional causation, see O'Neill E., 2001a, pp. xxix-xxxv.

with self-motion. Yet, for bodies to be able to move themselves in harmony with the surrounding environment, they must also have the capacity to perceive the external environment, its own shape and movements, and design thereby the appropriate actions to undertake — "for, how should parts agree, either in the generation, composition or dissolution of composed figures", Cavendish asks, "if they had no knowledge or perception of each other?" (*OEP*, p. 167). Hence, the role of sensitive and rational matter is not limited to accounting for the fact that matter is capable of self-movement, but goes as far as to explain why and how all bodies move themselves orderly, in a seamless, non-chaotic way.

> If Nature were not Self-knowing, Self-living, and also Perceptive, she would run into Confusion: for, there could be neither Order, nor Method, in Ignorant motion; neither would there be distinct kinds or sorts of Creatures, nor such exact and methodical Varieties as there are: for, it is impossible to make orderly and methodical Distinctions, or distinct Orders, by Chances: Wherefore, Nature being so exact (as she is) must needs be Self-knowing and Perceptive. (*GNP*, p. 7)

Building on this picture of Cavendish's account of thinking matter, in the next section I will move on to investigate whether she might have also conceded consciousness, along with self-knowledge and perception, to all material beings existing in nature.

## II. Self-knowledge, perception, and the ubiquity of consciousness

As mentioned above, despite arguing for the presence of "perception" and "self-knowledge" throughout nature, Cavendish does not make use of the term "consciousness" in her writings.[21] The lack of a specific terminology, however, does not necessarily entail the absence of notions that imply at least some aspects of the phenomenon that, by and large, we acknowledge nowadays as conscious experience.[22] In an investigation of whether Cavendish sets any boundaries to the presence of consciousness in the world, therefore, we have to be flexible enough to consider how and why she uses a range of concepts that might imply or

[21] The English word "consciousness" was first introduced as a philosophical term in 1678, by Ralph Cudworth (in *The True Intellectual System of the Universe*).

[22] On this, see Lähteenmäki V., 2022, pp. 366-367.

require some kind of relation of acquaintance with, or awareness of, one's mental states. The most obvious candidates for such an investigation are the aforementioned concepts of "self-knowledge" and "perception".

Cavendish defines "self-knowledge" as a "a fixt, and inherent, or innate knowledge" and conceives it as "the ground of all perceptions" (*OEP*, p. 166). "Perception" is defined as "exterior knowledge, by reason it extends to exterior objects" (*OEP*, p. 138), and is divided into "sensitive" and "rational", depending on whether it is related to the movements of sensitive matter or rational matter (*OEP*, pp. 149-150).[23] The relationship that exists between self-knowledge and perception mirrors the one between matter and (self-)motion: for Cavendish, both self-knowledge and matter could, in theory, exist without perception and motion, respectively (*OEP*, p. 167). However, as matter without motion would amount to being a uniform, infinite corporeal entity without figures and particular objects within, so self-knowledge without perception would roughly correspond to a widespread capacity of thinking, devoid of any particular mental content or activity.[24] It is therefore thanks to the self-moving

[23] For two insightful studies of Cavendish's account of knowledge and perception, see Michaelian K., 2009 and Boyle D., 2015. Cavendish distinguishes "exterior perceptions", that is, perceptions of existing external objects, from "interior voluntary actions", which "are made without the presentation of exterior objects, voluntarily, or by rote" (*OEP*, p. 170). As examples of the latter, she mentions "imaginations, fancies, conceptions, passions, and the like" (related to voluntary motions of rational matter), and "many generations, dissolutions, alterations, transformations, etc." (which concern instead sensitive motions; *OEP*, p. 170). In their analyses, Michaelian and Boyle keep these cases separate from perceptions "properly so called, which are occasioned by foreign parts" (Cavendish, *OEP*, p. 19). Michaelian, who names them "conceptions" after Cavendish (see, for instance, *OEP*, p. 192) includes among them also those depending on the voluntary motions of sensitive matter (Michaelian K., 2009, p. 48). Boyle calls them "reasoning" and only considers those depending on the motions of rational matter (Boyle D., 2015, pp. 443-445). In the rest of this paper, I will use the concept of "perception" broadly, as Cavendish also sometimes does (see, for instance, *OEP*, p. 97, p. 150, and p. 187), to refer to all mental phenomena associated with the activity of what she calls the "figurative motions" of animate matter (*OEP*, pp. 169-170) which, by literally "figuring" their objects, seem to be characterized by the capacity to point at some intentional objects. In my reading, therefore, "perceptions" include sense perception of external bodies as well as cognition of non-existent objects, such as conceptions, imagination, and memory.

[24] I do not consider here Cavendish's problematic statement concerning the possibility that there might be "an interior self-knowledge of the existency of […] God" that extends to animate and inanimate

animate parts of matter, sensitive and rational, that nature can host distinctions of motions within, which give shape to particular figures and allow for relevant particular perceptions.

> [F]or self-motion, as it is the cause of all the various changes of figures and parts of nature, so it is also of the variety of perceptions: for, put the case matter were of one infinite figure, it would have but self-knowledge, or at least no variety of perceptions, because it would have no variety of corporeal figurative motions. (*OEP*, p. 167)

On these grounds, Cavendish attributes the capacity of self-knowledge to all three degrees of matter — including inanimate matter — for, in her words, "even the Inanimate Parts, are Self-knowing, and Self-living"; however, she adds that only "Self-moving Parts have an active Life, and a perceptive Knowledg" (*GNP*, p. 7). One might wonder why Cavendish introduces the concept of self-knowledge as a ubiquitous property of matter, since it seems to be, *prima facie*, ineffective to explain the features of the active mental life of any being, which depend instead on the capacity of self-movement and the presence of actual perceptions.[25] We can envisage at least two reasons.[26]

The first reason concerns Cavendish's rejection of emergentist explanations of the causes of thought. For Cavendish, the possibility of having a variety of perceptions is

matter alike (*OEP*, p. 16), due to the difficulties related with Cavendish's account of the intelligibility of God (see Cunning D., 2022, §6). Branscum characterizes bare self-knowledge as a form of "self-sensibility", involving consciousness through "a stable access to an unvariegated feeling of self" (Branscum O., 2022, p. 58). Although, as will become clearer, I interpret Cavendish as contending that all possible knowledge (along with one's capacity to be conscious of it) is grounded in self-knowledge, and while I agree with Branscum that self-knowledge is what allows the presence of one's mental activity to be "disclosed" to oneself, I would not go as far as to say (as Branscum seems to do) that self-knowledge alone, as found in inanimate matter, is sufficient in itself to provide an individual body with any conscious content of thought (see Branscum O., 2022, p. 23).

[25] See also *OEP*, pp. 156-157.

[26] Kourken Michaelian observes that "It is difficult to make sense of [Cavendish's] claim that even inanimate matter has life and knowledge" (Michaelian K., 2009, p. 35, fn. 11) and that "the nature of the priority of self-knowledge over perception remains obscure" (Michaelian K., 2009, p. 37; see also Boyle D., 2015, p. 448, fn. 9). With the following considerations I also aim to put forward some tentative solutions to these difficulties.

"occasioned", in her words, by the presence of different kinds of movements throughout matter (*OEP*, p. 155), since different perceptions pick out and correspond to different "corporeal figurative motions" (*OEP*, p. 142). However, she does not seem to argue for direct efficient causation of mental phenomena from simple movements of matter,[27] and she also excludes that the ability to think is a property that emerges from matter due to particular organizations or interactions of bodies.[28] For Cavendish, the "fundamental cause" of all kinds of knowledge and perceptions is in fact the capacity of self-knowledge that belongs to all matter.[29]

> [T]hough self-motion be the occasional cause of particular perceptions, by reason it is the cause of all particular actions of nature, and of the variety of figures; yet self-knowledge is the ground, or fundamental cause of perception: for, were there not self-knowledge, there could not be perception; by reason perceptions are nothing else but particular exterior knowledges, or knowledges of exterior parts and actions, occasioned by the various compositions and divisions of parts. (*OEP*, p. 155)[30]

To the extent to which, for Cavendish, all mental acts are essentially material, their presence throughout nature is explainable if, by matter and its corporeal motions, one understands something that is inherently already "self-knowing" and "perceptive", in addition to being "self-moving" (*OEP*, p. 149). Indeed, "perceptions" are defined as the "self-actions" of self-

[27] Admittedly, though, Cavendish's wordings often seem to suggest some sort of efficient causation of perceptions by self-motion. In addition to the quotation above from *OEP*, p. 167, see, for instance, *GNP*, p. 8, and *OEP*, p. 138.

[28] See, for instance, *PL*, pp. 169-170; *OEP*, pp. 147-148. See also Cunning D., 2016, p. 72.

[29] In *OEP*, p. 176, Cavendish writes that perception "has its being from self-knowledge, as an effect from its cause", and that "self-knowledge is the fundamental cause of perception; but self-motion the occasional cause". See also *OEP*, p. 40.

[30] One might wonder whether this argument only applies to perceptions of external objects, and not to perceptions that follow from the voluntary motions of sensitive and rational matter (Cavendish's "conceptions"). That Cavendish regards self-knowledge as the cause of all perceptions *qua* mental phenomena, including those that are not occasioned by external objects, results from what she writes, for instance, in *OEP*, p. 171: "although there are both voluntary actions of figuring, and occasioned actions of perceiving exterior objects, both in sense and reason, […]; yet both of them are innate and inherent actions of their own parts, as proceeding from the ground and fountain of self-knowledge".

knowing matter (*OEP*, p. 178), for the action of perceiving consists in (and is not caused by) self-motions of self-knowing matter.[31] Hence, by regarding self-knowledge as "the ground, or fundamental cause of all perception", and by ascribing it to all degrees of matter in the same measure, Cavendish seems to point out that mentality is an original and irreducible capacity of matter as a whole, essential to it, and that matter is intrinsically capable of thought to the same extent to which it is capable of motion (should we include, that is, both the capacity of inanimate matter to be passively moved and that of animate matter to actively move itself and the inanimate matter), yet independently of whether any movement obtains.[32]

The second reason concerns the role that Cavendish seems to attribute to self-knowledge in defining the specific knowledge that all individuals have of their own thoughts and perceptions. By its self-knowledge, a particular body "knows itself, and its own actions" (*OEP*, p. 138). As different bodies in nature are characterized by different internal movements, so their perceptions must also differ. This entails that any individual's self-knowledge must also be unique.

> [T]hough self-knowledge, the ground of all perceptions, is a fixt, and inherent, or innate knowledge; yet, the perceptions vary according to their objects, and according to the changes and compositions of their own parts: […] nay, not only perceptions, but also particular self-knowledges alter, according to the alteration of their own parts or figures, not from being self-knowledge; for, self-knowledge can be but self-knowledge, but from being such or such a particular self knowledge. (*OEP*, p. 166)

This use of the notion of "self-knowledge", combined with the attribution of self-knowledge to inanimate and animate matter alike, might therefore suggest that Cavendish is willing to ascribe to the entirety of matter, hence also to all bodies in nature, the capacity to have some sort of acquaintance with themselves and their own thoughts — a universal and irreducible capacity, that is, that pertains to matter as a whole, independent of its power to move itself, and prior to and independent of the kind of particular perceptions and movements of which a body is capable. Still, because of Cavendish's theory of the complete mixture of the three degrees of

[31] See also Michaelian K., 2009, p. 40.

[32] On Cavendish's conception of the capacity to think as an irreducible property of matter, see Duncan S., 2012, and 2022, pp. 75-81.

matter, as there is no "part and particle of nature, were it an atom" that is not composed of both animate (including sensitive and rational) and inanimate matter, so there is no body in reality that is not, at once, "self-moving, […] self-knowing, and perceptive" (*OEP*, p. 167).[33] On this basis, she concludes that all bodies, each in its own particular way, must have a different self-knowledge and different perceptions, and that the quality of a body's own perceptions changes alongside the kind of self-knowledge specific to the nature of that individual body.[34]

> [S]ince there is no part or particle of nature, but is self-knowing, or has its particular self-knowledge, it is certain, that as the interior nature of the figure alters by the changes of motion, the interior self-knowledge of that figure, alters too: for, if a vegetable should turn into a mineral, it cannot retain the self-knowledge of a vegetable, but it must of necessity change into the self-knowledge of a mineral; for, nothing can have a knowledge of itself, otherwise than what it is: And because self-knowledge is the ground of perception, as self-knowledge alters, so doth perception: I mean, that kind of perception that belonged to such a figure, alters to another kind of perception proper to another figure. (*OEP*, p. 166)

As a consequence, in Cavendish's theory, all bodies have a self-knowledge of their own, specific to their individual nature, as well as their own sense and perceptions, of which they thus have relevant knowledge.[35] This capacity to have self-knowledge and perception,

[33] See also *OEP*, p. 16, and p. 113.

[34] That an individual's self-knowledge and perceptions involve a specific qualitative character can be suggested by references that Cavendish makes to the phenomenological barriers that exist between human and non-human mentality, and which prevent us from understanding non-human mentality (such as in *OEP*, p. 218, and pp. 221-223; *PPO* 1663, p. 16; *PL*, p. 518; *GNP*, pp. 81-82, and pp. 163-165). See also Detlefsen K., 2007, pp. 177-178; 2009, p. 426.

[35] This hints to another possible reason why Cavendish regards self-knowledge as prior to and foundation of the capacity to perceive anything: namely, that there is no perception that is not, somehow, a form of self-knowledge. This is in keeping with her characterization of bodies as autonomous agents: as there is no motion, in a body, that is not the result of self-motion, so there is no form of knowledge besides self-knowledge. Indeed, although perceptions are defined "external knowledge" insofar as they have external bodies as their objects (*OEP*, p. 138), they are nevertheless constituted by the internal

which all bodies have, seems therefore to make room for the possibility of an infinite variety of types of phenomenological acquaintance with one's thoughts, specific to each different type of body. Cavendish is adamant, in this respect, that by her use of the notions of "sense" and "knowledge" she intends to include all kinds of sense and knowledge that can be envisaged in nature, and that in nature there are as many kinds of capacities to sense and know things as there are kinds of material beings — including non-animal beings.[36]

> I do not mean that this sense and knowledge I speak of, is only an animal sense and knowledge, as some have misinterpreted; for animal sense and knowledge is but particular, and belongs only to that sort of creatures which are animals; but I mean such sense and knowledge as is proper to the nature of each figure: so that animal creatures have animal sense and knowledge; vegetables, a vegetative sense and knowledge; minerals, a mineral sense and knowledge; and so of the rest of all kinds and sorts of creatures. (*OEP*, p. 207)

figurative (self-)motions of a body (*OEP*, pp. 169-170; Michaelian K., 2009, p. 40). Hence, in Cavendish's theory, it seems that perception and knowledge of external objects correspond to knowledge of one's own internal figurative motions, that is, a form of self-knowledge. This reading could also make sense of Cavendish's claim that a body's self-knowledge and perception are not "two different principles of knowledge", but "two different acts of one and the same interior and inherent self-knowledge" (*OEP*, p. 138). Contra Michaelian's interpretation, I am inclined to assume, therefore, that Cavendish's account of self-knowledge is not limited to a combination of "knowledge-how" and knowledge of one's own behavior (Michaelian K., 2009, pp. 46-48), but it encompasses all forms of knowledge of which a body is capable, including knowledge of the external world.

[36] Cavendish repeatedly stresses this point. For instance, in *GNP*, p. 18, she contends that "every particular Creature, through the variations of their Self-moving Parts, have varieties of Lives, Knowledges, Perceptions, Conceptions, and the like", including "Animals, Vegetables, Minerals, Ele|ments, or what else there is in Nature", although "there is not any different kind of Creature, that can have the like Life, Knowledg, and Perception". See also *PPO* 1655, p. 42; *PPO* 1663, pp. 15-16, and pp. 113-115; *PL*, pp. 113-114; *OEP*, pp. 173-174; *GNP*, pp. 163-165. If, as I argue, this view amounts to a kind of panpsychism, then labeling Cavendish a "panpsychist" does not entail, as Alison Peterman contends, generalizing specific human and animal cognition (Peterman A., forthcoming). For a defense of interpreting Cavendish as a panpsychist thinker, see Hübner K., forthcoming.

Cavendish's attribution of self-knowledge and perception to the whole of matter, along with her avoidance of emergentist explanations for the presence of mentality in nature, can be seen at work in the way in which she accounts for the human capacity to think. It is not because of a peculiar way in which parts of matter are organized and interact with one another (say, into a nervous system, made up of networks of firing neurons) that they can produce thought, understood as a new property or power that is not already contained in its causes. Conversely, it is the innate and widespread capacity of matter to think that enables the human brain to be an organ capable of thinking, while the specific organization of its parts, their motions and interactions, determine the particular thoughts of which it is capable. For the same reasons, however, Cavendish contends that all parts of a human body must be likewise capable of thinking, each in its own way; the same argument, she adds, applies to all bodies existing in nature.

> [I]n my opinion, Fancy and Reason are not made in the Brain, as there is a Brain, but as there is sensitive and rational matter, which makes not onely the Brain, but all Thoughts, Conceptions, Imaginations, Fancy, Understanding, Memory, Remembrance, and whatsoever motions are in the Head, or Brain: neither doth this sensitive and rational matter remain or act in one place of the Brain, but in every part thereof; and not onely in every part of the Brain, but in every part of the Body; nay, not onely in every part of a Mans Body, but in every part of Nature. (*PL*, p. 185)

Based on these considerations, it is possible to assume that, for Cavendish, the concepts of self-knowledge and perception are sufficient to explain the presence, in human beings, of the building blocks of human mentality. These include the capacity to be acquainted with and aware of one's own perceptions. Thus, the universal applicability of Cavendish's argument for the capacity of human bodies to have perception (that is, sense and reason) and self-knowledge (which includes knowledge of one's own perceptions) also entails the possibility that all bodies existing in nature are conscious, each one in its own particular way, of themselves and their own mental states.[37]

[37] To reiterate, this does not mean generalizing features specific to human thinking to non-human entities. The argument proceeds the other way around, that is, that human thought can only be what it

Still, this does not mean that all aspects of an individual's mentality that are comprised within the scope of Cavendish's notions of "self-knowledge" and "perception" must consist, in her account, in forms of conscious thoughts. In this respect, there are passages in her texts that seem to greatly limit the extent to which mental events arise to consciousness. So, for instance, in *PPO* 1663, Cavendish provides a series of examples aimed at demonstrating that "Rational motions in the Mind do not at all times take notice of the Sensitive motions in the Body" (*PPO* 1663, p. 292). These examples concern situations in which sense perception happens in the absence of conscious attention, and suggest therefore a link between the motions of rational matter and what we would regard as the phenomenon of conscious attention. She mentions cases in which someone "is in a Serious Contemplation, or Violent Passion", or immersed in a "Serious Discourse" so that their "Mind is so Attentive, as not to take Notice of any other Part of the Body but of the Tongue and Words spoken" (*PPO* 1663, p. 293). In the same place, by referring to our capacity to walk, she also acknowledges that many skilled actions are performed automatically, without the need of conscious attention and direction, "for the Mind regards not every Step, nor the measures of each Stride or Slip, […] and yet the Feet carry the Body directly to the designed Place or Person" (*PPO* 1663, p. 293); yet, she immediately adds that "if the Sensitive Animate matter, which is the Mover of the Body, should not Regard, or should not Knowingly order every Step and Motion of the Feet, the Body would not Move out of its Place, or not Go, where it was Designed" (*PPO* 1663, pp. 294-294), which again suggests that the actions continuously performed or carried out by sensitive animate matter, though they are commanded by rational matter and actuate what follows from conscious intention and design, do not themselves entail consciousness.[38]

That conscious perceptions are related to the activity of rational matter, rather than that of sensitive matter, is confirmed by another example, which Cavendish sets forth in *OEP* to demonstrate that rational and sensitive motions can "work differently, and not to the same perception":

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is (i.e., capable of everything that can be considered expressions of self-knowledge, sense, and reason) because, independently of its irreducible specificities, its building blocks are shared with all nature. See also *OEP*, p. 221.

[38] See also the *Epistle* at the end of the *First Part* of *Book I* of Cavendish, *WO* (page unnumbered). As regards the claim that the sensitive parts act according to the design and intention of the rational parts, without it being necessary for the latter to take notice of every action of the former, see also *GNP*, p. 61.

> Suppose a man be in a deep contemplative study, and somebody touch or pinch him, it happens oft that he takes no notice at all of it, nor doth feel it; whenas yet his touched or pinched parts are sensible, or have a sensitive perception thereof; also a man doth often see or hear something, without minding or taking notice thereof, especially when his thoughts are busily employed about some other things; which proves, that his mind, or rational motions, work quite to another perception than his sensitive do. (*OEP*, p. 150)

As observed by Deborah Boyle, this passage clearly seems to restrict the range of conscious perceptions to those formed in concomitance to the activity of rational matter.[39] Yet, because of Cavendish's theory of the complete mixture of the three degrees of matter, the presence of rational matter "in every part and particle of the body" (*OEP*, p. 151) seems to entail that an individual should nevertheless consciously attend to all rational motions that pass in its body, including those of each organ of which it is made of. Cavendish explicitly refers to this potential issue and provides a solution to it.

Although she insists that rational matter must be present in all bodies and their parts, she also contends that the rational motions of several adjacent bodies can join together and provide a greater whole with unified "design" and "order". By doing so, they make a "composed figure", in Cavendish's terms (*OEP*, p. 151), which also amounts to a unified self-conscious entity — a "center of phenomenological awareness", as Detlefsen describes it (Detlefsen K., 2007, p. 185; 2009, p. 426). Such a complex entity need not be conscious of what happens in all its parts, since the rational matter present throughout the composed figure is not necessarily at work to carry out the specific activities of the various constituent bodies, which is instead delegated to sensitive matter. Rational motions, rather, design and perform those sorts of actions that refer to the whole individual, in its entirety, thereby providing it with

[39] Boyle, however, argues that consciousness requires both rational matter and sensitive matter to act on the same perception, with the motions of the former "patterning out" the motions of the latter (Boyle D., 2015, p. 443; 2018, p. 77). This reading excludes apparently conscious perceptions that correspond to "figures made only by the rational motions […], without the help of the sensitive" (Cavendish, *OEP*, p. 150), which include, among the others, "fancies, thoughts, imaginations, conceptions" (*OEP*, p. 150) and "remembrance" (*OEP*, p. 187), and which Boyle, as we have seen, dubs "reasoning".

corporeal as well as psychological unity and the capacity for conscious attention.[40] So, concerning the example of a "musing and contemplating man", Cavendish argues that the rational matter present in the parts composing his body, including those currently touched or pinched, "may all unitedly work to [his] conceptions or thoughts" (*OEP*, p. 151).

To sum up, by the analyses carried out so far, we have ascertained that to ascribe the capacity of conscious thinking to all bodies existing in nature is not inconsistent with Cavendish's materialism. By the use that she makes of it, the notion of "self-knowledge" can refer to a widespread capacity of all bodies to be acquainted with their thoughts — a capacity which involves consciousness. Further, Cavendish identifies perceptions that are the actual object of conscious attention with the activity of rational matter. Finally, she argues that rational matter has the power to provide order, design, and unity of consciousness to figures composed of various bodies. In the next section, I will consider whether, immanent to Cavendish's philosophy, there are reasons to posit the ubiquity of consciousness in these terms.

## III. Reasons for consciousness

As we have seen, Cavendish does not explain the origin of consciousness in causal terms: that all bodies are conscious simply follows from the constitutive presence of "self-knowledge" and "perception" (in particular, "rational perceptions") in all matter. However, we can ask ourselves whether consciousness, rather than being conceived as a phenomenon that requires explanation (as is nowadays common), acts instead in Cavendish's theory as an *explanans*, and whether it is in virtue of the explanatory work that consciousness does in her account of nature that it is found everywhere.[41] I will suggest two possible ways in which the ubiquity of consciousness might have an explanatory function in Cavendish's materialist monism.

[40] See also *GNP*, pp. 19-20. In *GNP*, p. 21, Cavendish argues that "thoughts" (which she identifies with "Rational Parts" in *GNP*, p. 238), are "united, by Conjunction in one Creature, into one whole Mind". In *OEP*, p. 221, Cavendish identifies "the soul of man […] and all other creatures" with "reason […] a particle of the purest, most subtle and active part of matter, which I call animate".

[41] For the general point that, contrarily to present-day discussions where consciousness figures as an *explanandum*, aspects of consciousness are most often found fulfilling explanatory roles in the early modern period, see Lähteenmäki V., 2022, p. 367.

One reason why the presence of consciousness might be required throughout nature, in Cavendish's framework, is that she seems to conceive of all actions performed by animate matter as determined by free will. Although, for Cavendish, self-imparted movements of bodies are, in most cases, occasioned by the movements of external bodies, she contends that the "natural self-motions are free and voluntary" (*OEP*, p. 127) and that "every Self-moving Part, or Corporeal Motion, have free-will to move after what manner they please" (*GNP*, p. 6). As the presence of consciousness seems to be intuitively required to make sense of the freedom of the will, this seems a sufficient reason to postulate the ubiquity of consciousness in Cavendish's material universe.[42] As emerges from ongoing discussions in current scholarship, however, disentangling Cavendish's ideas on the freedom of bodies can be a complicated task. It is unclear, in particular, whether her account implies libertarian freedom of choice, or whether her claims on the bodies' freedom are limited to a compatibilist, Hobbesian understanding of freedom as absence of constraints.[43] An additional problem, related to this reading, is that Cavendish attributes freedom also to sensitive motions. In virtue of this, she allows sensitive matter to sometimes move on its own accord, independently of the motions of rational matter (*OEP*, pp. 150-151, and pp. 170-171). As we have seen, however, the actions of sensitive matter do not seem to always entail consciousness — especially when they are disjointed from those of rational matter.

[42] For a defense of this thesis informed by neuroscientific studies, see Mudrik L. et al., 2022. For a philosophical defense, which focuses on the role of consciousness as regards moral responsibility for actions determined by free will, see Levy N., 2014, pp. 14-37. Although the present-day debate of whether consciousness is necessary for free will includes different positions (for an overview, see Caruso G., 2018), the idea that consciousness is commonsensically regarded as a necessary condition for the exercise of free will is implied by the fact that deniers of folk conceptions of free will often argue that there is no sufficient evidence that most human actions are consciously caused (in fact, there is evidence to the contrary) and that, therefore, many actions only *seem* to us to be free (see, for example, Caruso G., 2012). So, well-known neuroscientific experiments, which have been traditionally held to pose a serious threat to the existence of free will in humans (most notably those on the "readiness-potential" by Libet B. et al., 1983), are aimed at demonstrating that many decisions are unconsciously determined, and that consciousness only kicks in (if it does) after a decision is made, having no perceivable impact on the decision-making process.

[43] For the former interpretation, see Detlefsen K., 2006, pp. 212-217; 2007, pp. 183-184; Boyle D., 2017; 2018, pp. 30-37, and pp. 74-76. For the latter, see Cunning D., 2016, pp. 212-216; 2020, pp. 154-158.

Leaving aside, therefore, any consideration of whether the behavior of bodies, for Cavendish, is determined by conscious free will, there is another aspect of her theory that can imply the presence of consciousness throughout nature, and that could make sense of her use of the notions of "self-knowledge" and "(rational) perceptions" as we analyzed above. It seems that, in Cavendish's materialist and occasionalist framework, the behavior of bodies must be conceived of as autonomous and goal-oriented. This understanding of an individual's agency seems, again, to intuitively require the presence of conscious intentions as motives for a body's behavior.[44] That Cavendish conceives of bodies as purposeful agents, whose actions are motivated by conscious intentions and knowledge of themselves and the world, can be evinced from the following passage:

> [T]he regular, harmonious, and well-ordered actions of nature […] clearly demonstrates, that there must needs be reason as well as sense, in every part and particle of nature […]. And thus motion argues sense, and the well-ordered motion argues reason in nature, and in every part and particle thereof, without which nature could not subsist, but would be as a dull, indigested and unformed heap and chaos. Besides, it argues that there is also knowledge in nature, and all her parts; for wheresoever is sense and reason, there is also sensitive and rational knowledge, it being most improbable that such an exactly ordered and harmonious consort of all the infinitely various actions of nature should be without any knowledge, moving and acting, producing, transforming, composing, dissolving, etc. and not knowing how, whither, or why to move. (*OEP*, p. 207)

[44] On this see, for example, Schlosser M., 2019, §4, who also touches upon the ramifications of the present-day debate concerning the relationship between consciousness and intentional agency. Cunning D., 1999, argues that there are cases of agency that happen without conscious intentions. Tim Bayne, instead, defends the view that agency implies the presence of consciousness (Bayne T., 2013). I take it that distinct cases can be made for agency and free will as markers of consciousness, insofar as the presence of intentional agency does not necessarily entail the presence of free will (see Schlosser M., 2019, §2.5). While intentional agency traditionally requires that actions, properly understood, are based on conscious design, it does not necessitate a position on whether an agent's intentions are caused by a free faculty of will or whether they follow deterministically from other causes (see Mayr E., 2022).

The concluding lines of this argument shed light on the main reason why Cavendish, by the claim that "well-ordered motion argues reason" and "knowledge in nature, and all her parts", might have also understood "conscious" knowledge. The order of figures and transformations that nature manifests and which, in Cavendish's view, is empirically evident, is a *telos* that both guides and depends on the self-imparted actions of each singular body. For there is no divinely pre-established harmony or continuous divine intervention, in Cavendish's universe, to account for the coordination that exists between parts of nature that, because of her theory of occasional causation, are essentially conceived of as autonomous actors. As Jay Stevenson puts it, "order for Cavendish is […] contingent on the interplay of autonomous, independent forces" (Stevenson J., 1996, p. 532). Indeed, the possibility of achieving order in nature seems to depend entirely on the capacities of all parts of matter, in which these forces are embodied, to know what to do and how, when to do it, and for which purpose — in Cavendish's words, all bodies must know "how, whiter, or why to move".[45]

It follows that, to be capable of consistently interacting with one another in an orderly and harmonious manner, all bodies need agency: this, alongside the capacity of self-motion and the necessary knowledge-how (which might be conceived of as unconscious knowledge), also demands the presence of case-specific intentions and instrumental reasoning, accompanied by at least a minimal kind of self-awareness and awareness of the external bodies with which an individual's movements must be coordinated. So, since order exists, all bodies are indeed to be conceived of as self-aware agents, whose self-imparted motions are goal-oriented and, as such, must be informed by conscious intentions, reasoning, knowledge of oneself and of the surrounding environment. In Cavendish's theory, these psychological functions are fulfilled by self-knowledge, sensitive perception, and rational perception. The universal capacity of self-knowledge allows all bodies to think and be acquainted with any of their thoughts. Sensitive matter grants all bodies the capacity of sense perception. Finally, rational matter identifies perceptions to which one consciously attends, while providing all bodies with unity of intent and action, capacity of rational design, and unity of consciousness.

[45] These qualifications stand in the way of readings that tend to emphasize only the mereological connotations of Cavendish's notions of "self-knowledge" and "perception" (for example, Georgescu L., 2020). Although they map onto mereological relations — in that self-knowledge refers to a body as a unity whereas perception happens between distinct bodies, or parts — they are primarily used with reference to psychological facts.

## CONCLUSION

Cavendish's way to a materialist panpsychism stands out, both in the context of alternative 17th-century panpsychist accounts and in the present-day panorama of debates concerning the nature of consciousness and its relationship with the physical world.[46] For what Cavendish's panpsychism can suggest to us present-day readers, is a different outlook not only on the nature of thought and conscious life, but also on the nature of matter and bodies.

Despite her depiction of minds and thoughts as material entities, Cavendish is apparently not concerned with trying to explain the origin or nature of mental phenomena in reductive terms, as if what traditionally falls within the domain of the mental had to be fully accounted for by types of motions of matter or their effects, without further characterization. As we have seen, Cavendish's panpsychism fulfils the opposite function: namely, to explain within a materialist, non-mechanist framework how movement in matter can happen in the way with which we are familiar. For her, "knowledge and perception […] are general and fundamental actions of nature", no less than movement itself,

> it being not probable that the infinite parts of nature should move so variously, nay, so orderly and methodically as they do, without knowing what they do, or why, and whether they move. (*OEP*, p. 139)

The capacity of all bodies to have consciousness through "self-knowledge" and "perception", therefore, is not reducible to an effect of bare movements (or any combination of them) or explainable through them, since it is the attribution to the whole of matter of self-knowledge and perception that explains why any movement happens in a certain manner. If, for Cavendish, "the infinite parts of nature" existed "without knowing what they do, or why, and whether" — that is, as we have seen, without being conscious — they would never give shape to the universe that we know, but to a "dull, indigested and unformed heap and chaos".

[46] Susan James emphasizes the innovations of Cavendish's philosophy within the context of 17th-century natural philosophy (James S., 1999). Stewart Duncan compares Cavendish's panpsychist materialism with the positions of Hobbes and More (Duncan S., 2012). Hübner considers Cavendish's and Spinoza's panpsychist theories, and their respective ability to provide answers to the so-called "combination problem" raised in present-day discussions of panpsychism (Hübner K., forthcoming).

To be sure, Cavendish establishes definite one-to-one correlations between different kinds of movements and different types of knowledge.[47] And, by ascribing self-knowledge to the whole of matter, on the one hand, and associating all kinds of figurative movements to different kinds of perceptions, on the other hand, she breaks all barriers that might limit the presence of thought to certain particular bodies or physical processes, thereby strengthening her panpsychist account. However, to reiterate, the capacity of matter to have self-knowledge and perception — a capacity which includes consciousness — is not something that depends on movement, but it actually complements the capacity of matter to move itself, in order for bodies to properly act in the way that is required for natural events to unfold in an orderly manner. Far from being the consequence of a reductionist effort to explain, in terms of efficient causes, how thought and other mental facts can originate from matter via specific physical phenomena, this kind of panpsychism fulfils a teleological function which meets the explanatory requirements of Cavendish's non-mechanist, materialist account of nature: it provides otherwise "blind" corporeal movement with intention, order, and the necessary knowledge.

Thus, to the same extent to which Cavendish's panpsychism seems to part ways with reductionist endeavors, it also makes it possible to inform a different, richer account of matter, in which mental properties and capacities are inherent and universally present.[48] Although Cavendish's philosophy is anchored in monist and materialist premises — for she contends that thoughts cannot but be corporeal — the teleological explanatory role played by the ubiquitous power to think, in general, and by the widespread possibility of consciousness, in particular, provide us with a non-conventional understanding of matter, where movement and thought must exist alongside each other, irreducible to one another, and embedded in the same nature or substance for the actual world to exist as we know it.

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[47] See, for example, *PPO* 1655, p. 21.

[48] For a recent example as to how panpsychism can not only coexist with materialism, but also help conceive of the material world as being capable of accommodating typically mental features without losing its "materiality", one can turn to Galen Strawson's "realist physicalism" (Strawson G., 2006).

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ABSTRACT

In this paper I investigate where the boundaries of conscious mental life lie in Cavendish's theory, and why. Cavendish argues for a wholly material yet wholly thinking universe. She claims that all matter is capable of "self-knowledge" and "perception" (*OEP*, p. 138), so that every part of nature "must have its own knowledge and perception, according to its own particular nature" (*OEP*, p. 141). It is unclear, however, whether the universal capacity of

matter to know and perceive also implies the presence of consciousness. I show that Cavendish's use of the notions of "self-knowledge" and "perception" implies the attribution of consciousness to all bodies. I identify one condition under which the ubiquitous presence of consciousness is intuitively required in Cavendish's system: namely the presence of intentional agency in every part of nature, which Cavendish conceives as necessary, alongside the capacity of self-motion, to account for the orderly behavior of any body.

INFORMATION

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