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Meaning and the evolution of signification and objectivity

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Abstract: The coevolution of objectivity and subjectivity and the nature of both their division and connection are central to this paper. Section 2 addresses the nature of meaning from the subjective perspective. Initially, I examine the meaningful engagement that exists between the unicellular organism and its environment. In this respect, I focus on the ontological importance of the qualitative biochemical assimilation of the physical rather than on the evolution of form and function. In Section 3, I broaden the discussion to include multicellular organisms and introduce the idea that meaning, at various levels, qualifies different objective and informational constructs of the world. These determine the character of interactive engagement and reveal much about the way in which an agent signifies the external. In Section 4, I review Darwinian evolution from the position of the existential self. I emphasize that meaning is that which qualifies the human concept of objectivity, rather than that objectivity is that which will help humankind qualify or understand meaning. Ultimately, this outlook challenges scientific disciplines that have tended to obscure the relevance of meaning and sought, instead, to explain it from an epistemological footing. In its overall scope, I try to establish the view that the subjective and objective domains are more nuanced, layered, and intertwined ontologically than the default stance that presents a binary juxtaposition between the two.

Keywords: biological meaning; categories of signification; existential being; objectivity; phenomenal consciousness; subjectivity

1 Introduction

In his book, which is dedicated to the objective–subjective divide, Nagel states that the problem can be approached from two directions:

> The problem of bringing together subjective and objective views of the world can be approached from either direction. If one starts from the subjective side, the problem is the traditional one of

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> skepticism, idealism, or solipsism… If on the other hand one starts from the objective side, the problem is how to accommodate, in a world that simply exists and has no perspectival center, any of the following things: (a) oneself; (b) one's point of view; (c) the point of view of other selves, similar and dissimilar; and (d) the objects of various types of judgment that seem to emanate from these perspectives. (Nagel 1986: 27)

This paper is an exploration of the problem from the subjective side (see Pharoah 2018, for an exploration from the objective side that claims to naturalize fundamental characteristics associated with subjectivity).

Section 2 begins with a story about a creature that lives in our oceans: its story seems to challenge ideas of what it is to be phenomenally conscious[1] and question assumptions as to what is required neuroanatomically. I then consider the nature of the meaningful engagement that exists between the unicellular organism and its environment. By doing so, I engage with a key aspect of meaning, which concerns interactive engagement and the motivational inclination that ensues. In this respect, the term sits in the subjective arena, at the boundary between "object" and "agent," inasmuch as an agent has meaningful cause to be motivated to act in a particular way in response to object engagement. By focusing on phenomenal consciousness, the emphasis is on the ontological inquiry concerning the *qualitative assimilation* of the physical, rather than on meanings pertaining to the objectively measurable characteristics of form, function, and structure, which would constitute an epistemological inquiry. Finally, I relate this to the idea of lineage–environment discourse (where "discourse" is construed broadly).

Section 3 highlights, at the unicellular level, the distinction between chemical reaction and biochemical processes. In this vein, I question whether the locus of organism motivation and action can be understood through the principles of causal determinism or reductive analysis (see Pharoah 2020 for an extended treatment). Indeed, I look further, to the multicellular, to consider whether linear scale is pertinent to this inquiry. I conclude that a more fruitful avenue is through the consideration of a hierarchy of distinct ontologies. What this hierarchy speaks of is differentiated categories of meaningful relation to the world, whereby subjects of interactive experience determine their own objective worldview. The key position I advocate, therefore, is that, insofar as the nature of meaning evolves (evidenced by acknowledging the distinction between unicellular and human environmental engagement), so too must objectivity and signification coevolve. If "the agent" of

1 Phenomenal consciousness equates to the notion of "what it is like" to experience consciousness. This is to say that there is something it is like qualitatively. Examples include the quality of red coloration, the scent of a rose, or the sound of a C major chord. The problem of explaining phenomenal consciousness – in particular its ineffable qualitative aspect – is described in Chalmers (1995: 201) as "the really hard problem of consciousness."

experience has an objective worldview that is qualified by the character of its object signification, then one can appreciate that objectivity and signification are worldview constructs concerning what it means to be a subject of experience. I end Section 3 by addressing the human perspective of "being in the world" and of the nature of our perspective on objectivity and its signification (or, what meaning objectivity holds for us).

Section 4 considers the skeptic, idealist, and solipsist stances. I first review Darwinian evolution from the position of the existential self. Here, the boundary between objectivity and subjectivity is never so clear and stark. Ultimately, the intention is to challenge scientific disciplines that have tended to inadvertently obscure the relevance of meaning and sought to explain it from an epistemological footing. In its overall scope, I try to establish the view that the subjective and objective domains are more nuanced, layered and intertwined ontologically than the default stance that presents a binary juxtaposition between the two.

2 Meaning at the unicellular level

There is a creature that belongs to a hunter species that has lived on Earth for approximately 240 million years. It moves in a purposeful manner, first this way, then that. It has sensors that "taste" the water in which it swims. As it approaches a prospective prey, its single eye (which is approximately 10% of its body mass) first registers the prey's presence in the ambient light and then, through its movements and focusing of the light, develops an increased spatial resolution of its victim (Nilsson 2013). In the great expanse of water, it propels a piston 10 times its body's length. This attaches to the prey, which it engulfs whole. It then continues on its way, navigating closer to the surface – perhaps now satiated by this meal. In the meantime, every now and then, there are flashes of bioluminescent light that saturate its retina and blind it momentarily as the preyed repeatedly seek to disarm this voracious hunter (Colley and Nilsson 2016; Dodge and Crawford 1969; Gómez 2008, 2017). What do we know about the meaningful nature of this creature's experience of the world? There has been much debate concerning the qualitative nature of phenomenal consciousness and of its possible neural correlates. Of this creature, one might equally consider how its internal features process information from its environment and determine its experiences.

Genome studies have identified a number of photoreceptor proteins in archaea, bacteria and eukaryotes (Jekely 2009; Spudich 2006; van der Horst and Hellingwerf 2004). Organisms such as these have varying capabilities when responding to light. For instance, some are able to mitigate their exposure

to ultraviolet rays, regulate circadian rhythms or detect light which assists in navigation (Dodge and Crawford 1969). Indeed, some phytoplankton possess an eyespot which contains multilayered structures with photoreceptive protein and carotenoid-rich granules organized into rows. Among many other unique features, the unicellular warnowiid dinoflagellates possess a highly complex ocelloid, or "eye." Indeed, Greuetodinium has an ocelloid with multiple lenses, much like a compound eye (Gómez 2008) (Figure 1).

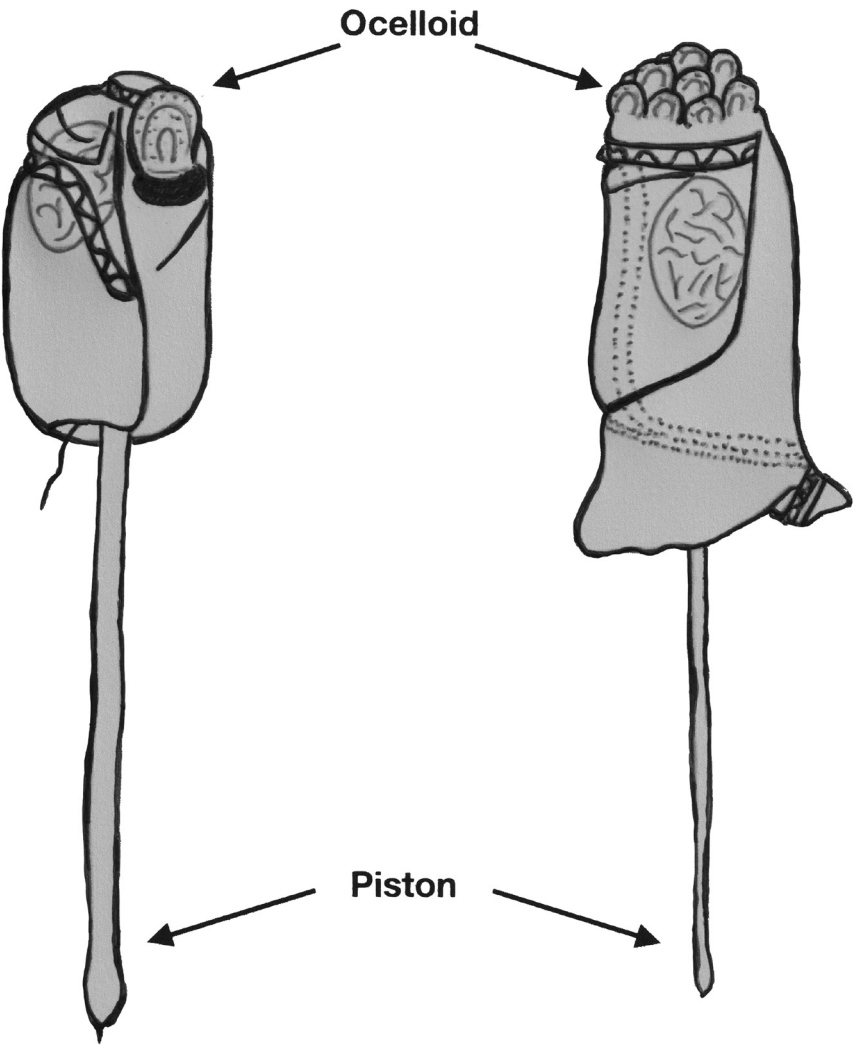

Figure 1: Erythropsidinium and greuetodinium (image from Hoppenrath et al. 2009).

Ocelloids are composed entirely of subcellular components and are much like the multicellular camera eyes that evolved independently in several different lineages of metazoans (e.g., cubozoans, scallops, cephalopods; and vertebrates; from Hoppenrath et al. 2009). They are comprised of two main components: a hyalosome and a melanosome (Greuet 1987; Hayakawa et al. 2015). The hyalosome consists of a layered translucent structure with a lens-like inclusion set at the base by striated fibers that orient and constrict the ocelloid rings. The melanosome is a highly ordered and pigmented retina-like body situated in a cup of dark pigment. Notably, the morphology suggests that the ocelloid is capable of changing its gaze, which is a feature otherwise only found in high-resolution animal eyes (Nilsson 2013). A combination of reflective and absorptive features allows maximal contrast modulation, which increases the spatial acuity of its vision (Cronin et al. 2014). And yet the ocelloid measures only 1 μm in diameter. The cognitive scientist might note that there is no neuroanatomy: the creature is but one cell. It seems self-evident that philosophers and scientists should not restrict their inquiries into phenomenal experience and phenomenal consciousness to its neural correlates.

2.1 A special kind of meaning

Physiological adaptations, such as the ocelloid, can be considered meaningful insofar as they relate to species survival. In this general sense, Darwin put reason to the immense variety of form, function, and structure to life on Earth. But what our knowledge of dinoflagellates indicates is that outside of form, function, and structure (for example, see Sharov and Tønnessen 2021: 104 and 98, Figure 4.1 regarding *functional* semiotic interaction) there is another less obvious sense in which physiological adaptation is meaningful.

Physiological adaptations include the evolution of increasingly sophisticated biochemical processes that qualify environmental particulars in a very special way. The evidence that the qualification of environmental particulars is very special is in the observation that the organism's *attitude to action* differs significantly from the reactive processes that characterize physical and chemical activity. Indeed, this "attitude" is suggestive of a distinctive *ontological* category.

When talking of this distinctive ontological category, I refer to the ascription to physical properties, through biochemical activity, of *qualitative relevance*. Pharoah (2018: 433–436) introduces the concept by saying that the physiologies of replicating organisms tend to evolve over time in such a way that they come to ascribe qualitative and relevant characterizations to environmental particulars. It is this ascription that qualifies an organism's inclinations and motivations. To be specific, "qualitative ascription" refers to biochemical processes that differentiate physical

properties in light of their actual or potential merit or value to the organism, and "relevance" refers to the relation between physical properties and the particular needs of the individual organism (where "needs" might include, nutritional, restorative, functional, replicative, and intra- and inter-species demands). Notably, qualitative and relevant ascriptions are specific to the physiological construct of the individual creature. In this regard, we can consider that such ascriptions qualify an individual creature's unique *umwelt* (von Uexküll 1982 [1940]), and can surmise that property-quality (or qualia) does not exist as an independent property in the environment (consider Nöth 2021: 8–11, who gives a detailed account of Peirce's stance on phenomenal consciousness and, notably, of Peirce's introduction of the term "qualia" to denote "qualitative feel").

Pharoah (2018: 430–433) also explains how qualitative and relevant meaning evolves by introducing the notion of *lineage discourse*. On his account, discourse, broadly construed (consider Boholm 2016), can be said to take place where, in response to any interactive engagement, meaning is established through some independent process of validation. In the case of the evolution of qualitative relevance, the interactive engagement is between the replicating lineage and the environment. Any physiological change is, henceforth, rendered meaningful in respect of its impact on lineage survival courtesy of environmental pressures. The establishment of this category of meaning, which, notably, speaks of physical properties possessing qualities, indicates the existence of a distinctive ontological category because what-it-is-to-be-in-the-world is categorically different for agencies that qualify the world in qualitative terms, in contrast to agencies that do not.

Returning to the warnowiid, when considering its "field of view," it appears to be differentiated. This differentiation lends itself to *qualitative* description; the little organism has cause to moderate its field of view and to adjust its movement according to certain visual impressions, which carry differing levels, or aspects, of signification (Alexander 2014). One can say that it possesses a degree of semiotic freedom (Hoffmeyer 2010, 2014). We might also consider that it has a qualitative and relevant *umwelt*: its organelles have a complex dynamic intracellular function that engages a temporal processual arrangement of activities that qualifies environmental properties in qualitative and relevant terms. The organelles of warnowiids are instrumental in instituting a meaningful and ontologically distinctive engagement between the organism and its environment. In some way, its actions are moderated, in the construct of its biochemistry, by its needs as an autonomous creature. There is no clearer indication that *the qualitative assimilation of environmental particulars can take place at the cellular level* and, therefore, that this kind of assimilation is not neurological in foundation (Gavelis et al. 2015; Pharoah 2018). Furthermore, it seems reasonable to conclude that phenomenally conscious characterization, in sophisticated organisms that possess neural networks, is also unlikely to be exclusively neurological and/or computational.

3 Meaning rendered objectively and informationally

What is it that differentiates chemical reaction from the biological processes taking place within warnowiids? By asking this question, I am addressing the relation between action and cause or what determines it. In chemistry, we tend to understand chemical action as "reaction." It is in this sense that chemical A, mixed with chemical B, is said to "act on" chemical B and to "cause" a reaction. With the unicellular organism, we might adopt a similar linear approach and declare that the same principles apply. To this end, we may propose that chemical processes and sequences of reactive mechanisms within the cell of the organism are merely "more complex instantiations" of causal principles. In essence, this would amount to a deterministic and reductive view, where all action can be reduced to lower-level chemical causal processes.

But Pharoah (2020) makes the case that the same principle does not apply, and, while doing so, tackles the problem of causal overdeterminism (note Higuera 2016; Kim 2006; Macdonald and Macdonald 2010; O'Connor and Wong 2020). He argues that while chemicals are said only "to react," the actions of unicellular creatures are motivated by the creature's novel construct of the world. This construct relates to the ascription, to environmental particulars, of qualitative and relevant meanings. The replicant-construct institutes a novel ontological relationship between the interactive agent and the physical world that has been informed by a generational discourse. In effect, the physiological construct subverts the chemical domain, or, one might say, subverts the material ontology of the chemical domain (Alexander 2014). In the case of warnowiids, yes, the internal chemical processes are still happening as they always will, but in themselves they are not the *cause* of warnowiid action. The actions of warnowiids are not merely reactive, but are responsive to the global qualitative and relevant experiences of the individual's *umwelt*.

To broaden this inquiry, it is appropriate to consider the multicellular organism, of which the cell is just one part. In such cases, the individual cell is no longer the locus of motivation and action; the cell is but an instrument, a mechanism, a component in a broader picture (noting Hoffmeyer's 2015b discussion concerning the threshold from unicellularity to multicellularity). In this regard, the assimilation of the environment institutes dynamic cellular interconnection which might be achieved at varying speeds and over varying distances. Here, unicellular motivations are vying for expression, each occupying their own unique place within the organismic environment. Indeed, one can conceive of the cell as negotiating for its own stable status, and to this effect sending impulses, which have certain degrees of influence, into the intercellular environment. In this respect, the cell's activities

become ingredients in a soup of influences vying for expression within the organism as a whole.

But this line of argument, which seeks to extend the ideas of the unicellular to the multicellular, demands a note of caution. It is evident that there is danger in oversimplification when trying to understand the multicellular organism in relation only to its component cells. The oversimplification is in considering the varied complexities of scale in purely linear terms. The stance is problematic for being inclined, once again, to give undue weight or validation to causal determinism and reductive analysis.

In very sophisticated multicellular organisms there is, potentially, a more advanced and novel relation to the world that extends beyond the organism dynamic. This relation might involve, for instance, *a real-time* evaluation, or weighting, and then prioritization of the creature's internal qualitative and relevant milieu, in virtue of a constantly changing environmental feedback. That it is constantly changing is to say that such interactions have temporal signification, while to say that the milieu is rendered differentially is to say that it instantiates spatial signification. This is to say, importantly, that the organism construct is that which determines the spatial and temporal objectification of its qualitatively ascribed worldview (as expressed in Cassirer 1985: 155–162 and Pharoah 2018: 438–439) in contradistinction to the notion that these are objective absolutes waiting to be somehow selected, interpreted, and codified (for extended treatment see Pharoah 2020). In such instances, the multicellular creature's physiology becomes the tool by which the individual is able to sustain a spatiotemporally *rendered* worldview. What this means is that the internal biochemical milieu is separated, *ontologically*, from the external real-time spatiotemporal meanings that qualify actions at the multicellular level as a whole. The two separate ontological categories about what "existing-in-the-world" is about – the former, regarding its quality and relevance, the latter, regarding its real-time experiential, spatial and temporal rendition – run parallel with one another, just as they each run parallel to the material ontology of mere physical reaction. And all three ontological levels – those being the chemical, physiological and phenomenal – instigate actions that run in parallel and thereby remain unimpeded by one another. There is a hierarchy of differentiated actions in virtue of discrete ontological constructs about the meaning attributed to the nature of the interactive engagement with the world (see Hoffmeyer 2015a on semiotic scaffolding).

Exploring further the nature of these three parallel constructs, we can consider independently the degrees and nature of the complexities that might evolve according to the sophistication of the mechanisms and interactions involved. From this, we can appreciate that the informational character of each is differentiated, one from the other. First, on the chemical level, one can consider that any given atom or compound has a meaningful relation to other chemicals, which is

evidenced by *how* it reacts with them and *how* compounds evolve under certain environmental conditions. Second, on the physiological level, one can hypothesize about the nature of the distinctive kinds of qualities and relevancies that might exist in unicellular and simple multicellular organisms. For example, we might think of qualities simply as negative or positive, attractive or unattractive, or we might think of them as pertaining to more subtle description (for details, see Pharoah 2018: 433–434). In this limited way, the world is objectified in a manner that is not merely material in nature but constitutes subtly varied kinds of qualitative and relevant characterizations: they are *perceived*, objectively, as possessing qualitative character. Third, in yet more sophisticated organisms, one can hypothesize about a world that is objectified in ways that are entirely different and individuated. We might think, for example, of the phenomenal experiences of the bat (Nagel 1974), the tick (von Uexküll 1982 [1940]), the snake, or the bee, for which the world comes to be objectified as qualitatively differentiated objects existing in a spatial and a temporal continuum, and which conform to certain "rules" of physical regularity. In this regard, we conceive of these creatures as possessing a unique ineffable subjective view of an objective world (noting the extensive discussion in Nagel 1986).

If a human were to attempt to articulate the nature of those meaningful constructs, she would necessarily and unavoidably categorize, define, digitize, itemize or quantify. In other words, she inevitably considers the determination of *formal relations* between the subject and its world. In this manner, the world is made objective *conceptually* – the world becomes, in itself, an *abstract* informational and objective construct of the mind. Such impressions about the world of meaning become *informational interpretations* concerning reality. The concept of information, I am suggesting, is the means by which a subjective world is expressed objectively by humans, where to be objective in this sense is to view the world as consisting of *categories* and *quantities of kind*. Equally, physics is the science of the world objectified. Insofar as the world can be categorized in this way, the world is seen as informational rather than as meaningful (a view that all too easily permeates into the biological and cognitive sciences).

To conclude this section, one could say that the distinct ontological categories lead to *ontologically differentiated classes of signification*. In this sense, it seems apparent that the Darwinian outlook is insensitive to these categorical subtleties and mute to the dynamics of signification and meaning.

3.1 The human: being in the world

More can be said, of course, of the human condition and its unique "relation to the world." During the Pliocene epoch, hominidkind possessed a worldview that

responded to the spatiotemporal regularities of its existence much like any other animal. This stance constituted the character of its informational construct about a world that was understood as consisting of three-dimensional objects existing in space and in time. But a new ontologically discrete kind of meaning emerged during this early period of hominid history. This meaning was evidenced by the abstraction of principles concerning the spatiotemporal world of experience (Pharoah 2018: 439–442). One of the profound consequences of this thinking in the abstract was the acquired realization of the existential self: when individual hominids first began to conceive that the spatiotemporal world existed in principle as a rule-bound factual and spatiotemporal certainty, they inevitably developed the conception of their own existential identity. This came about due to an introspective realization for each individual (notably, a non-linguistic one), which can be articulated in the following statement: "If I am conceiving of an objective existence, then I too must exist as the subject of this conception."

This mental realization amounted to a subjective self-identification that characterized the conception and belief in the individual's own existential being within an objective spatiotemporal world. This existential state represented the boundary conditions to the meaning of human existence. All human scientific, artistic, and theological aspiration and motivation stems from this meaningful aspect of "being in the world" (Heidegger 1962 [1927]). The information that humans attribute to the world with which they interact is part of their interpretation of that objective reality. Unsurprisingly, this construct – which is subtly differentiated in each individual – is defended vigorously according to tribal and cultural allegiance because it incorporates the essence of each individual human's sense regarding their existential identity.

4 Looking at meaning afresh to find a new objectivity

4.1 Darwinism and its relation to the existential self

One way of considering any given person's existence is that it is a product of evolution.[2] Each individual is the consequence of an incredibly long line of reproducing individuals that extends back in time to the apes, to single-cell organisms, and yet further, to the very germ of life on Earth. How many generations of life-forms might

2 "We ought to regard the present state of the Universe as the effect of its antecedent state and as the cause of the state that is to follow" (Laplace 1951 [1820]: 4).

that be? A trillion? From the very beginning, each life-form led to the next, due to some survival imperative. This led, by extension, via a very long chain of replicating events, to the moment of conception of the individual person living today. Somehow every one of those life-forms, in the chain, avoided a fateful accident of chance that might have killed it before it procreated (see Coffman 2014 on the meaning of chance in biology). A trillion unbroken links. What are the chances of that – that every single life-form happened to live sufficiently long to reproduce? We can conclude that both you and I are the product of an extremely unlikely series of events.

If we consider this in relation to our own particular self, we might wonder whether we would still exist if the chain of replicating events had been broken. This is an intriguing question (consider Bradbury 1952).[3] Perhaps, a hundred thousand years ago, one of my ancestors happened to turn left instead of right and, perchance, avoided a deadly rockfall. Perhaps, 500 million years ago, a single-celled ancestor belonging to the chain of events that would lead to me happened to survive the scorching heat of the Sun because the Sun happened to become obscured by a cloud before the organism's watery world dried up. It is difficult to comprehend the relevance of either one of these scenarios in relation to one's own particular existence. If, for example, I am indeed a product of this unbroken replicating chain, is my existence determined specifically by the existence of the individuals that constituted the chain? The more distant the event, the less relevant the life story of each organism would seem to be. Certainly, in the more recent past, had my father not asked my mother for a dance back in 1954, I surely would not be here today. Can one place equal emphasis and significance on the life of a unicellular ancestor (maybe one not unlike Erythropsidinium or Greuetodinium) that procreated 500 million years ago?

Of the unicellular organism in this chain of replicating events, had it died in the heat of the Sun 500 million years ago, it seems reasonable to expect that this would not have had an impact on the evolution of the species of which that cell was a member. The evolution of life on Earth would probably not have been altered, nor would life on Earth have changed course – even though the specific chain that led to me existing would have been broken. But in relation to the influence of the individual unicellular life-form on evolutionary history, we might recall Lorenz's (1963) "butterfly effect." This is the hypothesis that the turbulence caused by the

3 In Ray Bradbury's vision, reality was a fabric so delicate that the crushing of a butterfly could ripple up through 65 million years to change the results of an election. The butterfly was the victim of a misstep by a big game hunter who travelled back in time in pursuit of a *Tyrannosaurus rex*. The dinosaur had been fated to die, but the insect's untimely demise had haunting consequences that confronted the hunter upon his return to his departure date of 2055. Not only did he learn that a more dictatorial candidate had won a recent election, but nothing was quite the same, including written English.

flap of a butterfly's wing might be far-reaching and, ultimately, have an incalculable and significant influence on the weather. But Lorenz did not account for the viscosity of air in his calculations (Wolfram 2002).[4] It is this viscosity that nullifies any exponential causal effects of the butterfly's wings. Similarly, we can apply an equivalence to our evolutionary chain. Small perturbations in life events do not lead to an augmentation of effects that ripple up the evolutionary chain as Lorenz's account might imply. In reality, the death of an individual organism does not lead to an evolutionary void whose effect ripples up the evolutionary chain but, instead, vacates a space that is then taken by others. This "space that is then taken by others" constitutes the friction that prevents the augmentation of influence by individual organisms to evolutionary change: organisms fill the vacated space, thereby *tempering* the effects of the demise of the original life-form.

This is not to say that there cannot be exceptional events, be they in scale or in significance, that might alter the course of evolutionary history (consider, for instance, the effect of the meteor strike that wiped out the dinosaurs 66 million years ago). Nevertheless, the trajectory of the evolution of a species rarely rests on the fate of individual organisms. Survival pressures are, by and large, of statistical significance whereby a large number of environmental factors and genetic variants "steer" the course of species evolution. The fate of individuals and their impact on the evolution of life on Earth is diminished, not augmented, by life events and by time. Accidents of fate become less statistically significant and more of direct relevance the closer one gets to the present day.

Is evolutionary history relevant to the specifics of the meaningful subjective existence of a particular individual person living today? Alternatively, how can we make evolutionary sense of an individual's existence as one that has subjective meaning to them? I would venture to answer by suggesting that what seems to be the case is that a human's existence is more about what it means to be their existential self than what fates of evolution transpired to cause it to be. The ontological gap, then, is between the evolution of physiology and the evolution of the existential self. Our existential self, and what it means, is not about the determining factors of our past but more about the emergent meanings of the present moment. It is this "living experience" aspect of "being" to which I now turn.

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4 Wolfram models turbulence using cellular automata to show that the energy from a butterfly's wing will dissipate, rather than build. He concludes that the Lorenz equations are highly simplified and do not contain terms that represent viscous effects which would tend to damp out small perturbations. Orrell (2007) also points out that if you imagine modelling a volume of air and then perturbing it with the flap of a butterfly's wing, you would not expect to get an exponentially larger wave coming out of the other end.

4.2 A different category of question: WAIM–RTSE as conceivability

What if there was an answer to why it is that environmental particulars have come to be characterized qualitatively by living organisms, why some creatures have individuated and privileged access to mental content and why phenomenal consciousness has evolved? What if there was an explanation for why some individuals develop contemplative and introspective analysis and a recognized and articulate self-identity or being? In other words, what if there was an objective physical bridge to the subjective phenomenon of conscious experience? Accordingly, established physical processes would indicate that all humans must have a personal and individuated subjectivity. But even supposing that such an explanation were to be validated, it would in no way include an explanation why *my* mind, *my* being, is mine and exists with this particular body at this particular time in space. Yes, it might be an answer to subjectivity as a state of being *generally*, but it would not provide an answer that was *specific* to the individual self.

To inquire into the specificity of self I might ask, "why am I me?" (WAIM?) – where 'I' refers to my identification and acknowledgement of my existential self, and 'me' refers to this existing body, here and now. I might add the extension "rather than someone else?" (WAIM–RTSE?). In the context of this broader inquiry, this question is not about the *content* of any particular individual's identity. Nor is it a first-person inquiry about self-knowledge or self-identification, or a question typically raised by those inquiring into the mind–body problem concerning ontological, causal, intentionality, consciousness, or embodiment issues. It is not even about being. Rather, it is about the specificity of the placement of one's particular self, in the great expanse of spatiotemporal existence. One day, physics may well confirm the view that there have been and there will be a trillion unique human souls, explaining further that each will have a particular subjective view of an objective world. But in doing so, it will not address the WAIM–RTSE question: why did one's *particular* subjective worldview find its home in existence where it did, and why did you exist at all in this particular moment?

I am able to sit here and ask the WAIM–RTSE question. Most humans can. The skeptic will declare that of course we have to be who we are rather than someone else: clearly, "if we were someone else, we would still be who we are… so, the question would remain the same!" The skeptic would conclude that we would be asking the identical question of ourselves and formulating identical inferences: the skeptic would state that "the answer is identical in all instances of its utterance."

But this skeptical stance is *imagining an equivalence* in the scenario where we are someone else asking what we assume to be the identical question. In other words,

there is an assumption of equivalence in virtue of the *universality* of the question in order to fix the parameters of a *conceivability*, namely, that "in another identical world where I am someone other than who I am, the question is the same." Under this conceptualization, the question is equivalent whoever we happen to be in history, or whoever we might imagine to be. It is a view that conforms to an abstracted objective attitude to the world where there are "sets of persons," where to be a member of the "set of persons" is to include all those that can utter the WAIM–RTSE question. This premise and stance thereby provokes the conclusion that there is *nothing* to indicate *the non-identical nature of the question being posed* by you as you, *contra* you as someone else. It is a conclusion that eliminates the meaning of the particular self. But this is a false stance: the WAIM–RTSE question, in all cases of its utterance, may well be identical in its universality, but it is not identical in reality. That it is not identical in reality should be obvious to any human individual contemplating the question. Needless to say, it remains surprisingly difficult to acknowledge and articulate what it means to ask the question.[5]

Let us suppose that I am wrong to draw this conclusion. Let us instead give credence to conceivability and suppose that the WAIM–RTSE question is indeed identical in all instances of its utterance. How, then, are we to say that some person is not *actually* identical to another person? We might start from the premise that any difference is merely a combination of physiology and experience: all that differentiates me from someone else is the quirks of my physiology and experience. But there is no escaping the realization that, in reality, I still am the particular physiological-experiential agent that I am. It remains an existential mystery why it is that I happen to be this one in particular. Nevertheless, it is possible to deny this WAIM–RTSE question by aligning with one of three unappealing positions.

The first invokes solipsism and, from its metaphysical position, concludes that "I" am actually the only one existing. This stance indicates why I had to be the physiological-experiential agent that I am; I could have been no other. This view says in effect that the WAIM–RTSE question has only one author in reality.

The second is an eliminativist stance: I do not exist as an exception. This view denies one's self any exceptional status above another, which makes WAIM–RTSE a question that is not genuine in any example of its utterance. Under this view, WAIM–RTSE cannot exist as a valid metaphysical question.

The third is a stance that says I am, in some way, an exception to ask the question, but so is everyone else insofar as everyone is the same exception. On this view, all individuals are the same exception in reality but do not realize this to be the case in

5 It is even less obvious that the question is equally pertinent when contemplating the purely physical (i.e., where subjectivity is absent) and where the concept of number has subjugated or relegated meaning to irrelevance (Josephson 2019).

virtue of their particular physiology and experience. In other words, all individuals are one and the same metaphysically, if not experientially.

Whichever position is taken, it is implausible to suggest that we can ignore the meaning of our own particular subjective reality. And while an explanation of why the characteristics associated with subjectivity may well be described, illustrated and explained in a theoretically robust manner and in a way that corresponds with the evolutionary evidence, the mind–body problem, as a metaphysical inquiry, remains elusive. We are a product of the material world, and, as subjects of that world, we construct our sense of what our objective world is. From this understanding the key benefit in exploring the WAIM–RTSE question is that it then forces the individual to acknowledge the primacy of the unique subject of experience, which is "self." And it forces us to attribute meaning to *every* aspect of our objective perceptions of the world. But, in view of its emphasis on the existential self, the WAIM–RTSE question remains forever to be unanswered. There is no *physical class, category,* or *set* that can connect one's particular self-identity with another. The WAIM–RTSE inquiry appears to indicate that the answer we seek extends beyond objectivity and, furthermore, beyond subjectivity itself: it appears that there is only one WAIM–RTSE question, and that is your own.

5 Conclusion

From the perspective of the individual human, the physical Universe is encapsulated by the concept of objectivity; it is a definition that is qualified through the observation and the measurement of interactive engagement. One can consider an equivalence to that of the unicellular organism but whose objective worldview is little more than a qualitative milieu, or the more sophisticated organism where the objective world might be further delineated spatiotemporally. Additionally, any given human is, in themself, part of their own abstracted objective construct. From this perspective, a human can consider their mind and body simply in terms of its physical influence. Equally, one can consider the physical influences of simpler forms of life and even of matter. But these considerations miss out something important which is most clearly illustrated when contemplating the unique human self. In this respect, the authenticity of the WAIM–RTSE question is in its recognition of that which lies *outside* these objective and subjective classifications.

Furthermore, at the various levels of relation between the agents of experience and their world – be those agents atoms, compounds, biological organisms or conscious individuals – there is an objective construct of the world that is embedded within a layered hierarchy. Nevertheless, while each agent might be

categorized accordingly, each remains a unique and novel emergent construct that has *never previously existed*: in its own realm of interactive engagement, it remains unique and differentiated. This hierarchical layering suggests that the binary objective–subjective view is an oversimplification. What is of note is that there are novel ontological levels of signification where the meaning that comes from interactive engagement delineates the boundaries of potential objective exploration.

It remains the case that the construct of our meaningful relationship with existence indicates that there is a real world. And we can see a certain value in conceptualizing that world as an abstracted objectivity. Nevertheless, it is important not to attribute meaning to a process of informational construction: the sterility of objective analysis and explanation is often mistaken for being *meaning-laden*. At every opportunity, therefore, we should seek to reaffirm our commitment to address meaning as directly and sensitively as we are able because every physical action is the consequence of meaning, not vice versa. And we need to reject causal determination and consider evolutionary theory cautiously, because it is a sterile objective worldview in which meaning is only of incidental importance.

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