Reviewer's report on the Dissertation of Mgr. Jakub Mihálik, entitled *Consciousness in Nature*. A Russellian Approach.

The dissertation of Mgr. Jakub Mihálik, to be defended at the Institute of Philosophy and Religious Studies of the Faculty of Arts of the Charles University, presents a sophisticated, well-argued and scholarly advanced attempt to defend a naturalistic, yet unorthodox view of consciousness and its place in nature. Let me start right in the beginning that the reviewed Dissertation clearly satisfies all the requirements that a work of this kind has to fulfil. It clearly demonstrates the author's ability for an independent scholarly work, it comments pointedly at relevant literature in the field, clearly and in an unbiased manner exposes the views of other scholars in the field and brings in novel insights into a highly contested field.

The work start off by overview of physicalist approaches to consciousness, indicating their limitations. Mihálik distinguishes a priori from a posteriori physicalism, expressing some sympathies for the latter, yet ultimately rejecting them both. Upon their dismissal, a substantial part of the work is devoted a specific strategy of phenomenal concepts, which argues for an existence of a dual conceptual pathway to the same (physical referent). Upon a careful scrutiny, Mihálik show general weaknesses of the phenomenal concept strategy and moves onto emergentist accounts., showing their unsatisfactory assumptions as well. Upon intellectual destruction of all his opponents, he moves onto his positive view, a version of Russellian monism with a novel twist.

I have to admit my physicalist inclinations at this stage and, for the record, indicate that I find some of the arguments in the first three sections relatively unpersuasive. Still, I do now want to derail the project and instead glance over and look at the latter stages of the Dissertation where meat is placed on the bones of the positive proposal. I will just say that most of the criticism expressed in the text relies heavily on an adoption of modal realism and two-dimensional semantics, both of which are very dubious theories, regardless of what one thinks about other metaphysical issues.

So here are three main areas that provoked some questions in me and I hope the defender is able to answer them with sufficient eloquence.

1. Phenomenal concept strategy.

We are repeatedly told that phenomenal concepts bring in *knowledge* about their referents. We are even told, with Nida-Rumelin and Goff (p. 64), that it is a substantial knowledge of a translucent type that tell us something about the nature of the referent. (BTW, at least once the author speaks of the essence of the referent being brought in by the phenomenal concept and this is clearly a mistake). First, a relatively innocent question. What kind of knowledge is it? After all, it is not a propositional knowledge, yet it is supposed to be veridical. Is it a knowledge how something is such and such? Is it a procedural knowledge (like riding a bike)?

A related worry – how does one know whether knowledge by phenomenal concepts is translucent or transparent? The author, following Goff, speaks only about the former, yet what is in the phenomenal states, construed as the author intends, that is *not* captured by phenomenal concepts? After all, if phenomenal states are constitutive of consciousness,

what other mechanism apart from introspection (which presumably requires the usage of phenomenal concepts at all times) is there for uncovering their nature? Finally, on this topic, here is a speculation that I want to put forward. Consider this presumed case of necessary co-reference that have little to do with mind-body problem (well, maybe not, but at least it is not one of the usually discussed cases). Take the phenomenon of *breathing* – that concept is available to me via two different avenues. There is the first-person approach, which I am, however, not willing to call phenomenal. After all, it is not like anything to breathe normally (at least it is not distinguishable from my "normal functioning"). We only experience breathing phenomenally when it gets out of ordinary – when we temporarily stop breathing, we are short of breath or asked to breathe deeply by a physician. Yet we know (in the folk, first-person sense) it is with us all the time. And then there is a medical term of breathing, explained by the lungs function and blood oxidation. Are not these necessarily coextensive, yet the first one seem translucent (or transparent? as I said, I fail to appreciate the difference) and the other transparent in the physicalist/medical sense?

2. Emergence

It seems to be that the discussion of emergence in Chapter 5 presents the weakest part of the dissertation. It is mostly because of very one-sided discussion of the problem that gets a very serious treatment in the general philosophy of science. Almost no serious exposition of positions of its defenders are presented, only a biased criticism of its opponents. That is why the author discusses an option that supervenience is "synchronic causal relation" (p. 99), which, to my knowledge, nobody takes seriously. Superveniece is a self-standing necessitation relation, with some readings allowing anomalous relation between its lower and upper levels (famously, in Davidson). This then throws an entirely different light on how to capture emergence as a relation.

While I can wholeheartedly agree with Strawson that a parallel with liquidity is highly misleading (after all, chemical bonds and atomic forces do help to explain liquidity), I cannot take seriously his claim that the study of neurons keeps consciousness eternally mysterious. This is clearly a straw man. After all, binding, intermodal relations, top-down influences and content in general is well explainable in neuronal terms. And all these feature are also features of consciousness. So we are at least making some progress! To deny this is a case of a blind dogmatism in the general study of the mind. Similarly, how to understand his statement that "there is no sense in which my body's physical state in itself makes it the case that I am in mental state M" – is not my physical orientation correlated with (or even a cause of) what I consciously see? (p. 101).

Let me also mention in passing that the discussion of Nagel's critique of emergence is chaotic: either he believes emergence is contrary to causation (p. 98) or he does not (p.99) There are also great points in this sections. Mihálik's treatment of transparency of emergentist explanation is very important and show that Strawson and others want to have it the easy way.

Finally, for this section, I tend to see much less of a problem with upward causation and the existence of a new ontological domain as I do not see a clear reason to subscribe to a substantive reading of causation. Causation is not an unproblematic term. In his *The Noiton of Cause* Russell himself (of all people!) was of an opinion that it plays no role in science and should be scrapped. Barry Loewer and other philosophers of physics are continuing in that

tradition. If causation is a pseudo-problem, then the entire discussion is importantly misguided.

3. Panpsychism

would be the truth-makers within a theory?

Here the Dissertation achieves its climax and it is a difficult, yet competent reading. I have too many questions to even start, but let me put forward a few. First, let's get clear on the basic stuff. Are guiddities properties? (p. 129). I thought they are ultimate realizers. If they are properties, then properties of what? Even more ultimate realizers? All right, here is my punchline question then: how can microphenomenal properties have contents? In other words, they have experiences for themselves, but do these experiences have a content? Two possibilities: (1) they do not have content, they just have "pure consciousness" or (2) they have determinate content somehow essentially. In the first case, it is absolutely unclear how they eventually get one, given that they are "windowless" (a Jamesian phrase on p. 152, borrowed from Leibniz). In the second, we need to know a way more about what is their content. Mihálik sketchily speaks about components of sensory motor states, but they are not the only components of consciousness. There are emotions, propositional attitudes, metacognitive states, urges etc. What is it in the micro-properties that it can contribute to a thought "Trump is going to be a fantastic president"? Or is that conscious thought a part of a building block of this universe? I hope not... I am also a bit unsettled by a fairly unrestrained use of traditional notions in a very unusual setting. On my reading, there are no broadly physical truths, not to speak of broadly physical

Needless to say, even in this section there are brilliant points – when Mihálik dismisses the idea of an emergent Russelian panpsychist that macrophenomenal properties are also quiddities, he demonstrates a great mastery of the subject matter.

laws, simply because this is a domain that is supposed to be a priori unknowable and what

One more comment on the issue – I take it that Edenic properties need some further mechanism to become objects of awareness. After all, we are not aware of all of them at all times, despite them possessing their Edenic properties essentially. (p. 148). In this respect, I am much more symphatethic to the view of Coleman than a super complicated proto-co-consciousness account. And here is why. On proto-co-consciousness account, if I lose substantial part of my constitutive particles, it should effect my consciousness. So upon losing my legs, I should lose roughly one third of my consciousness (not consciousness of my legs, but consciousness in general!). A joke? Surely, as Mihálik might reply that he speaks about brains and their organization. Yet even that is a problem – there are well documented cases of removal of one hemisphere due to epilepsy. Still, these patients are functioning normally, especially when they were operated at the young age. Yet HALF of their important microproperties are gone. Do they have quasi-consciousness as well?

And the final worry: "The roles corresponding to micro-physical relations require relational quiddities for their realization. This relational quiddity is co-consciousness." (p. 162). Well, this is really heavy stuff, which I largely fail to understand, but here is my question. What is if for a causal relation to be realized by such a quiddity relation? It cannot be any regular notion of realizability that is at our disposal. After all, this one is necessarily realized (or are there causal relations without appropriate quiddity relations?), which is not the kind of realization that normally occurs. Unless more is said, this all appears very ad hoc indeed.

Let me close this section with a more general worry. Mihálik rightly criticize Strawson and Nagel for wanting an easy, transparent view between realizers and what is realized. He cleverly terms it an issue of "causal rationalism". My worry is that the requirement of instantiated relevant phenomenal qualities together with awareness of these very qualities shows this very problem in a different format. Why to expect that causes, whether narrowly or broadly physical, should clearly imply macrophenomenallity? After all, understanding of any difficult physical or mathematical problem is everything but transparent. Philosophers invoke "ideal cognizers" in these situations, but the worry us that it is us, standard human beings, that have to make the final judgment of whether a conclusion follows from premises. Transparency should not be among criteria that we take for granted.

Despite my remarks, I do want to stress that the Dissertation of Jakub Mihálik, entitled *Consciousness in Nature. A Russellian Approach* is a mature and fully competent work of a graduate student. As such, I **strongly recommend it for defense** and suggest that it is given a grade of **pass.**

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