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Fallibilism and Ontology in Tuukka Kaidesoja's *Critical Realist Social Ontology*

Abstract: This article addresses Tuukka Kaidesoja's critique of the philosophical presuppositions of Roy Bhaskar's theories of critical realism. The article supports Kaidesoja's naturalistic approach to the philosophy of the social sciences, including the field of social ontology. The article discusses the specific topics of fallibilism, emergence, and causal powers. I conclude that Kaidesoja's book is a valuable contribution to current debates over critical realism.

Keywords: Philosophy of social science; Critical realism; Emergence; Naturalism; Causal powers.

Naturalizing Critical Realist Social Ontology (Kaidesoja 2013) is an important analysis and critique of Roy Bhaskar's philosophical method. The book should be read by anyone interested in moving critical realism forward as a substantive framework for thinking about the social sciences. Critical realism has much to offer the social sciences, but currently the theory presupposes quite a bit of philosophical machinery that reduces its overall force (Bhaskar 1975, 1989). *Naturalizing Critical Realist Social Ontology* represents a valuable next step in this evolving literature. For Kaidesoja, the hope of discovering fundamental truths through transcendental reasoning is unpersuasive, and he argues persuasively for an alternative strategy of "naturalizing" the arguments for critical realism.

1 How to do Social Ontology

Kaidesoja and Bhaskar agree about the importance of ontological theory, and Kaidesoja thinks these topics are important for practitioners of the social sciences

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as well as philosophers. He writes, "[Ontology is important] because specific research practices in social sciences as well as the theories and methods used in these practices always contain ontological assumptions and presuppositions no matter whether the practising social scientists and philosophers of social sciences acknowledge or discuss them" (p. 1). But much turns on the issue of how we arrive at and justify ontological theories.

So how should we go about arriving at a defensible ontology for scientific knowledge? Bhaskar's approach rests upon the philosophical strategy of transcendental reasoning. This strategy recommends that we show that certain ontological premises are the necessary precondition to the intelligibility of some aspect of the enterprise of science. Like Justin Cruickshank (2003a,b), Kaidesoja maintains that this approach is unsupportable because it is grounded in *a priori* transcendental reasoning (Kaidesoja 2013, pp. 5, 82).

Here is one of Bhaskar's key statements of how he views the cognitive status of the theory of transcendental realism:

> It is not necessary that science occurs. But given that it does, it is necessary that the world is a certain way. It is contingent that the world is such that science is possible. And, given that it is possible, it is contingent upon the satisfaction of certain social conditions that science in fact occurs. But given that science does or could occur, the world must be a certain way. Thus, the transcendental realist asserts, that the world is structured and differentiated can be established by philosophical argument; though the particular structures it contains and the ways in which it is differentiated are matters for substantive scientific investigation. (Bhaskar 1975, p. 19)

It is evident from this passage that Bhaskar believes that these ontological premises are philosophical statements that are established with a kind of necessity that differentiates them from ordinary empirical statements. This indicates Bhaskar's adherence to a philosophical method of justification.

Kaidesoja argues against this aprioristic strategy and puts forward an alternative: "naturalized critical realist social ontology." Here is his description of this alternative:

> In very rough terms, naturalists contend that theories in social ontology should be built by studying (1) the ontological assumptions and presuppositions of the epistemically successful practices of empirical social research (including well-confirmed theories produced in them); and (2) the well-established ontological assumptions advanced in other sciences, including natural sciences. *This procedure is needed because naturalists hold that ontological theories cannot be justified by means of philosophical arguments that rely on a priori forms of conceptual analysis and reasoning.* (Kaidesoja 2013, p. 2; italics mine)

This position leads to an important difference in the status of the resulting assertions about ontology. Bhaskar holds that the ontological claims established by

transcendental arguments are different in kind from claims about the physical or social world made by ordinary scientific theories (Kaidesoja 2013, p. 5). For Kaidesoja, by contrast, all scientific and ontological claims are on the same footing; they are part of the empirical scientific enterprise. He writes, "This means that all naturalist ontological theories should be understood as knowledge a posteriori which is always hypothetical, because, as will be later argued, there is no specifically philosophical or transcendental (as distinct from empirical) warrant for any philosophical ontology" (p. 5).

Kaidesoja's naturalistic alternative is philosophically compelling. This does not result in a refutation of critical realism; instead, it permits an orderly re-specification of the status and content of critical realism. Instead of arriving at conclusions that have philosophical certainty (philosophical transcendental ontology), we arrive at fundamentally similar conclusions based on reasoning to the best explanation. This was Richard Boyd's strongest argument for realism in the 1970s (what he called "methodological realism"; Boyd 1990), and it provides a philosophically appropriate way of offering rational credibility to the ontological conclusions critical realism advocates without presupposing the validity of a particular philosophical system of argument.

2 Fallibilism?

On Kaidesoja's reading, Bhaskar makes aprioristic and infallibilist claims. Dave Elder-Vass, Mervyn Hartwig and Ruth Groff (in Elder-Vass et al. 2013; Groff 2013) reject this interpretation and argue instead that the philosophical claims Bhaskar makes are meant to be fallible. And, indeed, Bhaskar does confess to the fallibility of his system.

But in fact, general disclaimers about the fallibility of all human knowledge do not help very much with the problem Kaidesoja raises. How fallible and for what reasons? For example, if the findings of critical-realist ontology are only "as fallible as" the claims of mathematics, physics, and logic, they are to be attributed a high degree of certainty. On the other hand, if they are "as fallible as" statements about French Revolution or the Protestant ethic, then they are highly fallible indeed. So the general statement "all assertions are fallible" is too abstract to help very much. We want to know what the conditions of knowledge are for different kinds of assertions, and how confident we can be, given available reasons and evidence, that the given assertion is true. "A triangle encloses 180 degrees," "physical objects are located in three-dimensional space," "wood is made mostly of carbon and water," and "electrons have charge of $-1.6 * 10^{-19}$ coulombs" are

all statements that are in some sense fallible; but the ways in which they might go wrong are quite different from one another. Some are more empirical, some more theoretical, and some are metaphysical or mathematical. Further, the kind of justification or proof that is given for each is different. As a neutral reader of Bhaskar, it does appear that Bhaskar relies on abstract philosophical arguments to reach ontological conclusions, and that he attributes a fairly high degree of confidence to those lines of reasoning. It seems evident that Bhaskar believes that his transcendental arguments present insurmountable barriers to the Humean position; or in other words, it establishes the *necessity* of the anti-Humean position on this particular point. So the idea that Bhaskar applies a warning label at various points ("knowledge is fallible") does not resolve the issue of whether he attributes too much weight to the power of philosophical arguments to resolve ontological issues.

The substance of the transcendental argument depends on establishing the major premise (Elder-Vass et al. 2013). What kind of argument is needed in order to establish an "only-if" statement? Take the Kantian version: [only if the world is spatio-temporally-causally structured] then [empirical experience is possible]. We can offer strong philosophical reasons for believing that empirical experience is possible. But how do we get the "only-if" assertion? How do we know that there is no other form of cognitive structure that could give unity to empirical experience? How do we know that a less-than-complete spatio-temporal-causal ordering would not nonetheless admit of empirical experience? (Suppose that things sometimes result from anomaly and show up discontinuously in unexpected places; how do we know that such a slightly disorderly world could not support empirical experience?) In other words, why should we have confidence in Kant's (or Bhaskar's) assertion of the major premise: [only if X] then Y?

In fact, P. F. Strawson's critique of Kant's argument in *The Bounds of Sense* (Strawson 1966) is precisely that Kant errs in maintaining that spatiotemporal order is necessary for the possibility of empirical experience. Strawson describes a hypothetical world in which experience is ordered acoustically but not spatially and argues that this is a perfectly coherent basis for ordinary empirical experience of sound.

This is where the naturalizing argument is most compelling: Bhaskar's arguments for the "only-if" statements upon which critical realism depends are interesting, skillful, and determined–and far short of deductively or rationally conclusive.

If Bhaskar is thought to embrace fallibilism to the extent that his whole construction of the ontological prerequisites of experimentation may be in error, then indeed he is a fallibilist theorist. Ruth Groff (2013) indicates that in her opinion

this is a possibility, but nothing in RTS makes me think that Bhaskar believes this particular form of corrigibility. An uncommitted reading of Bhaskar's writings finds him making very confident statements about how the world must be, based on the philosophical arguments that he constructs.

So Kaidesoja and others are correct that Bhaskar relies too heavily and confidently on philosophical methods to arrive at ontological conclusions. The philosophical arguments offered for the "only-if" statements (the heart and substance of the transcendental argument for critical realism) fall far short of any kind of certainty. They are suggestive, but they are not rationally compelling. And Bhaskar does not appear to recognize this fact.

3 Emergence

A key idea in Bhaskar's theory of critical realism is the notion that social properties are emergent. Kaidesoja devotes a chapter to the topic of *emergence* as it is treated within critical realism. Kaidesoja makes a rigorous effort to sort out what Bhaskar means by emergence, which turns out to be ambiguous and inconsistent, and offers his own position on the concept.

Kaidesoja asks whether a claim of emergence for a given property is a claim about epistemology or about ontology. Is the phenomenon emergent because, given our current state of knowledge it is impossible to derive the property from the properties of the lower level constituents; or do we mean that the property is *really* (ontologically) irreducible to the features of the lower level? Kaidesoja demonstrates that Bhaskar and the critical realists have the stronger ontological thesis in mind when they assert that social entities are emergent or have emergent properties. The emergent feature is ontologically irreducible to the composing elements. But this claim is highly obscure.

Kaidesoja argues that Bhaskar mixes three different kinds of emergence without clearly distinguishing them: compositional, transcendentally realist, and global-level (pp. 179–186).

- *Compositional emergence*: A particular complex whole sometimes has properties that are not properties of any of its parts and not merely "aggregative" effects of the ensemble of parts (pp. 179–180).
- *Transcendentally realist emergence*: Abstract social structures, as distinct from social particulars, have properties that cannot be derived from the activities of individuals. "Transcendentally real emergent powers of social structures differ from the causal powers of concrete social systems composed of interacting persons" (p. 182).

– *Global-level emergence*: Levels of reality (e.g., society, mind, matter) have emergent properties not derivable from the properties of lower levels of reality. "Each emergent level has its own synchronically emergent properties which are autonomous with respect to those of other levels" (p. 186).

The three concepts are successively more demanding, and Kaidesoja finds that they are inconsistent with each other. Within the compositional version, but not within the other two versions, Bhaskar allows that the emergent factor is amenable to "micro-reductive explanation". This is essentially the position taken by Herbert Simon and Mario Bunge (Little 2011), and it appears to be consistent with Dave Elder-Vass' position in *The Causal Power of Social Structures* (Elder-Vass 2010) as well. It is a defensible position. The other two versions, by contrast, are explicitly *not* compatible with micro-reductive explanation, and do not appear defensible.

In fact, Kaidesoja finds that there are intractable problems with the "transcendentally realist" and "global-level" versions of the theory of emergence, and he argues that they are unsupportable. Kaidesoja therefore focuses his attention on the compositional version as the sole version of emergence that can be coherently asserted within critical realism. He writes, "Since Bhaskar and his followers deny the possibility of analysing emergent powers of social structures in compositional terms, their notion of transcendentally realist emergent powers of social structures is incompatible with the compositional account of emergent powers" (p. 184).

This discussion has an important consequence within Kaidesoja's naturalizing strategy: a naturalized critical realism will need to surrender the two more extensive versions of emergence and make do with the compositional form. And that would bring a naturalized critical realism into closer alignment with mainstream thinking about the relation between higher-level and lower-level systems than its advocates usually assume.

So the position Kaidesoja has constructed in *Naturalizing Critical Realist Social Ontology* does not limit itself to criticizing the scheme of philosophical reasoning that Bhaskar and other critical realism theorists have pursued, but also extends to some of the substantive conclusions they have sought to derive.

4 Naturalizing Causal Powers

Finally let us consider the implications of Kaidesoja's framework for current debates within the causal powers literature (e.g., Groff 2008, 2013). The topic of causal powers, especially the issue of the causal role that supra-individual

social entities play, is important for current debates within the philosophy of social science. Like Dave Elder-Vass (2010), I hold that it is legitimate to attribute a causal power to a composed social entity like an organization, and that there is no compulsion to "reduce" that power to the individual powers of the persons who compose the entity. What is it about an organization that gives rise to its concrete causal powers?

There are two important points to consider here. First, we need to ask what the terms of the causal relation are thought to be. Is it the *abstract structure* of the organization (shared with other organizations of the same type) that exerts causal power; or is it the *concrete particular*, this particular instantiated organization, that is the causal agent? I want to maintain that it is the particular social entity, not the abstract structure, that bears the causal role and exerts the causal power.

Second, the traditional account from critical realism and Bhaskar would hold that the powers of a social structure derive from its "essential" properties. Kaidesoja takes up the issue of essentialism and natural kinds within causal-powers theory and argues that we need to naturalize this topic as well. Whether natural kinds exist in a particular domain is a question for the sciences to answer, not the philosophers. Kaidesoja notes that modern biology does not support the notion that biological things (including species) fall into natural kinds defined by distinctive essential natures.

> Biological variation between and within species (or populations) is thus a normal state of affairs in nature and there is no a priori limit for such variation…. This means that it is no longer plausible to conceive biological species as natural kinds in Harré and Madden's (Harré and Madden 1975) sense. (pp. 111–112)

So natural-kind essentialism does not fit the entities and processes of the biological realm. But Kaidesoja does not believe that this invalidates the idea that biological entities have causal powers; and this entails that there is a separation between essentialism and the attribution of causal powers.

I have argued elsewhere that these features of heterogeneity and change in some of the core characteristics of entities are fundamental to the social world as well (Little 2009). So Kaidesoja's central insight here is important for the philosophy of social science as well as for biology: causal powers should not be defined in terms of the essential properties of an entity; causal-power theory should not be constructed in such a way as to presuppose essentialism. We need to drop the assumptions of essentialism and kinds in the social realm as well. Rather, we are better off holding that the powers of the social entity derive from its contingent but actual features of organization and functioning. In the case of an organization like a

university or a corporation, this comes down to the particular set of rules and practices that constitute the organization at a point in time. As long as these rules and practices persist, the organization will continue to have the powers that we attribute to it. When those rules and practices undergo change and innovation, it is an open question what changes will result for the causal powers of the organization.

5 Conclusion

Scientific realism is almost a truism. Scientific theories and hypotheses provide concepts that go beyond the evidence of direct observation. They postulate the existence of entities and forces that cannot be directly observed but whose effects can be examined through the hypotheses we have made about their constitution. When we have a theory that succeeds in explaining a domain of observation and experimentation, we have reason to believe that its hypothetical entities and forces actually exist. The real existence of these hypothetical entities and forces is the best explanation for the success of the theory or hypothesis. This version of scientific realism represents a garden-variety ontology; it simply holds that the entities postulated by successful scientific theories are likely to exist in approximately the way the theory postulates.

There are coherent alternatives to scientific realism. Phenomenalism and instrumentalism are coherent interpretations of the success of scientific theories that do not postulate the real existence of unobserved entities and forces. Milton Friedman's instrumentalist treatment of economic theory is an influential example. However, instrumentalists have a hard time accounting for the success of scientific theories in the absence of a realist interpretation of the theoretical premises. Why should cloud chambers show the specific arcs and tracks that are predicted by theory if the underlying model of the mechanisms is not correct?

So how does all of this play out for the social sciences? The social sciences are substantially different from physics when it comes to hypothetical entities and theoretical hypotheses. The entities and forces to which we refer in the social world are *not* highly theoretical; rather, we can probe our assumptions about these social entities and forces reasonably directly. We do not need to turn to the theoretical holism that physics largely forces us into. Instead, we can devise strategies for examining them piecemeal.

These ideas add up to a form of realism; but it is not *critical* realism in the technical or substantive senses. It is a realism of a different stripe – a pragmatic realism, a Galilean realism, a scientific realism.

"Critical realism" is a term of art; it refers to a very specific bundle of philosophical and ontological ideas that have been developed by Roy Bhaskar and his followers. It makes substantive philosophical assumptions about how the social world works, and it depends resolutely on a philosophical method of discovery and justification. This means that the reasons we have for embracing realism more generally do not necessarily extend to support for critical realism. One can be realist about the social world without accepting the assumptions and doctrines of critical realism.

There is much to admire in the literature of critical realism, both in the writings of Bhaskar and those who continue the research in this tradition. But, as Kaidesoja's fine book shows, critical realism remains one approach out of a spectrum of possible realist positions. We can accept realism without buying the whole apparatus of philosophical theory that comes along with critical realism in Bhaskar's formulation.

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