



A naturalist approach to social ontology

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Abstract

I argue that a certain kind of naturalist approach to social ontology is likely to be both philosophically fruitful and relevant to empirical social science. The kind of naturalism I employ might be called contextualism, which emphasizes the constant presence of assumed background knowledge, is suspicious of general inference rules and all or nothing claims about the ontology of the social sciences, and argues that Quine’s quantificational criterion for ontological commitment has to be supplemented with local interpretations and arguments about what specific social science research is committed to. I look at three case studies employing this perspective, one on agent based models and individualism, a second on the reality of social class, and a third on the reality of race. In all three cases work is first needed to clarifying what empirical social science is claiming, what ontology or ontologies it seems to presuppose, and then description of the kinds of evidence that supports its commitments.

Keywords Social ontology · Naturalism · Contextualism · Methodological individualism · Reality of race · Social class

1 Introduction

There has been something of an explosion of work on “social ontology” in recent years. While this is a welcome development, it is not clear how much has been accomplished. Much work in social ontology follows the pattern of analytic metaphysics. Analytic metaphysics is overwhelmingly about conceptual analysis tested against philosophers’ intuitions and claims about “what we would say.” This approach has dubious philosophical foundations; analytic ontology has limited value for philosophers of science trying to clarify and contribute to scientific practice (see Ladyman & Ross, 2009). This paper argues that a more promising approach to social ontology is a naturalist one that bases claims about social ontology on empirical social science.

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There is a small and undeveloped literature on naturalist approaches to social ontology. Hawley (2018) argues that a naturalist ontological strategy—inference to the best explanation—that is applied in the physical sciences will not work in the social sciences. They are too immature and conceptually disorganized to infer ontological commitments as explanations of scientific success in terms of novel predictions which they do not have. Saunders (2019) replies that Hawley’s evaluating all of social science at once is a mistake. Arguments can be made that some areas of social research meet Hawley’s criteria and Haawley provides a detailed case study from social epidemiology as evidence. Kincaid (2021a, 2021b) agrees about the need to look concretely at specific social science results in making ontological judgements. Laurer (2021) raises interesting questions about whether we should take the quantifiers in successful social science realistically or rather be more instrumentalist. Kincaid (2021a, 2021b) also broaches such issues.

This paper attempts to advance these kind of debates about naturalist approaches to social ontology. I will not claim to have settled the various issues. Rather, I provide a sketch of a plausible approach to metaontology for social ontology with illustrations.

I will be making claims about the metaontology of how to do social ontology, about the actual social ontology in some areas that I use to illustrate by my general methodological stance, and about attempts to do general social ontology such as methodological individualism which I regard as generally ill advised. Social ontology matters because we want to know how the social world works; social ontology is about what exists in the social world and the processes, in large part causal, that structure it. We want to know these things for both theoretical and policy reasons; we can hardly pursue those goals without having a strategy for understanding what social science says about the components of the social world. These issues are not just philosophers’ issues: naturalist social ontology asks what social science results are committed to ontologically, and that is an issue social scientists will also be interested in.

The naturalist approach I favor is well known to philosophers of science. One less known variant of naturalism that I advocate is contextualism. Naturalism says that everything can and should be studied by the broad methods of the sciences; contextualism says the scientific results depend strongly background knowledge which varies in content and believability according to scientific context. On this view, metaontology—the study of how ontological claims function and are evaluated—is grounded in the empirical results of the sciences.¹ This paper is both about how to do social ontology—so about how philosophers and social scientists should approach ontological issues—and as well some illustrative applications to social ontological questions about race, individualism, and class.

The paper is organized into just two sections. Section 1 explains the naturalist and contextualist approach to social ontology that I favor. Section 2 then describes applications to social science, starting first with some unfruitful conceptual analysis approaches and then looking at how a naturalist and contextualist approach would address social ontological questions around race, methodological individualism and the existence of social classes. My goal is not to argue for naturalism and contextualism except perhaps by providing illustrative examples—the issues are too big to do here

¹ For recent surveys of issues, see Chalmers and Wasserman (2009) and Blatti and Lapointe (2016).

and besides there is an extensive and long history of arguments for them. The strategy of the paper is rather to describe one plausible approach to social ontology and show how it can be applied in three areas to determine the ontology of the social. This general strategy seems appropriate to a special issue on metaontology of social ontology.

2 Naturalism about social ontology

There are numerous versions of naturalism.² I am not going to try to give a formal definition of “naturalism” or “contextualism.” Indeed, one of naturalism’s main claims is that many valuable scientific concepts cannot be captured by necessary and sufficient conditions and are instead tied down according to context. Alternative notions such as family resemblance and cluster concepts are more appropriate. We can, however, identify some typical theses that fall under the umbrella of naturalism and contextualism.

Three main, general naturalist claims frame my discussion³:

- (1) There are no special a priori philosophical methods that produce knowledge about the natural world and thus social ontology cannot be done entirely by conceptual analysis tested against intuitions.
- (2) Knowledge about the natural world comes from scientific methods, broadly conceived
- (3) Social phenomena are part of the natural world and thus claims about social ontology have to be based on our best social science judged by broad scientific standards.

These claims are considerably stronger than some so-called naturalist doctrines advocated about analytic metaphysics where there is talk about metaphysics “taking account of” science or providing the best explanation for scientific results (Paul, 2012).⁴

To claims (1)–(3) I want to add some contextualist ideas.⁵ The basic claims I call contextualist are about the role of background context in scientific inference, scientific explanation, and the interpretation and application of scientific theories and claims in practice.

Contextualism is a broad interrelated set of ideas. These can usefully be classified into epistemological, semantic, explanatory, and ontic claims:

- (4) Epistemological: Our inferences from data to theory depend on background knowledge and are rarely a purely formal matter (this does not mean there are no

² See Clark’s introduction to the Blackwell Companion to Naturalism (2016, p. 1): “What exactly is naturalism? Naturalism, we will learn admits of no single, simple definition and comes in a wide variety of shapes and sizes.”.

³ For a useful and classic early article on naturalism, see Kitcher (1992a, b).

⁴ For a more developed version of this kind of naturalism, see Kincaid (2013).

⁵ This tradition perhaps starts with Hegel’s quip (1991) that Kant wanted to learn to swim before he got in the water and travels through pragmatism and various developments in logical positivism. A nice exposition of this kind of contextualism about logic is Shapiro (2014). Michael Williams (1977, 1991) is a sophisticated defense of contextualism in the context of epistemology and skepticism. There is also an interesting literature on contextualism and explanation, where the idea is that explanation depends on contextual presuppositions about the question at issue (see van Fraassen, 1980; Kincaid, 2005). Wilson (2006) is a wonderful study of models and conceptual development in applied physics that has contextualist themes.

universal rules, just that they are not sufficient). For example, Norton's *The Material Theory of Induction* (2022) is a systematic treatise showing that all known logics of inductive inference ultimately rest on substantive empirical assumptions. Contextualist approaches to scientific realism argue that there is not one all-purpose answer to the question of whether our scientific theories, even the "mature" ones, tell us the way the world is; it depends on local detail (Kincaid, 2000, 2005; Ruetsche, 2015). There are various other related theses. The upshot for the present discussion is that determining the empirically justified ontological implications of social science results is likely to be a case by case process. Are there races or classes? I do not think that is a good question. Rather, one has to take a specific notion of class and look at how it is embedded in an investigative framework in specific empirical investigations. Because the basic commitments of any social theorizing have to be interpreted and understood via the background commitments that are involved, empirical arguments for social ontologies are likely to be context specific. This point is fleshed out below when we discuss the complications of Quine's "to be is be bound variable" slogan.

(5) Semantic claims: The most prominent in philosophy involves claims about the semantics of knowledge attributions, where the claim is that "know" is relative to contextual standards of evidence (DeRose, 2009). Semantic claims are about meaning not epistemology, though of course there are natural connections between the two.

(6) Explanatory claims: The laws–theories–natural kinds picture of science is too simple. Much science is more about piecemeal causal explanation and piecemeal application of concepts (Wilson, 2006; Cartwright, 1999, 2022; Waters, 2016) rather than axiomatized general theories. What causal factors are important are likely to depend on the pragmatic aims of inquiry: if I want a notion of race for the US census, that notion is likely to differ from a concept I want to use to investigate the causes of chronic poverty.

(7) Ontic claims: the social world is characterized by complex causality, where the effects and causes of particular elements is dependent on the background causal context. The means that finding universal or general ontological commitments is unlikely: the role that race plays and the commitments based on it in social science often depend on the complex causal relations involved. For example, race in Brail and the United States have different causal histories and contexts.

The applications that come in Sect. 2 largely focus on parts of (6), though in the best case serious social ontology would consider all the contextualist themes.

These naturalist and contextualist ideas have multiple implications about how to do social ontology. A first implication is that much social ontology, as now practiced, is likely to be a dead end. It is a mistake to think that we must first get clear on basic social ontological concepts before we can do social science as Searle (2012, p. 9) explicitly advocates: "social ontology is prior to methodology and theory." Conceptual clarification and empirical social science go hand in hand. Common sense social concepts have no special place just as common sense physics has no special place in physics, and indeed physics has thrown out common sense physical concepts time and again. Common sense social concepts might be the targets of social science *explanations*, but they have no automatic prior epistemic status. Thus, conceptual analysis by intuition of what we would say about ordinary social notions will not tell us how the social world is. The major writers in this conceptual analysis tradition—Gilbert

(1989), Epstein (2015), and Tuomela (2013) for example—barely mention real social science research. On the naturalist view, this is not a fruitful route for social ontology.

Although naturalism as conceived here is suspicious of conceptual analysis as an independent source of knowledge, conceptual clarification is something scientists do all the time. Nothing precludes philosophers from helping with the enterprise. Sober's (1988) work on units of selection or Mackie's (1980) work on causation have had a real impact in evolutionary biology and in political science and epidemiology, respectively. However, the further away conceptual analysis is from empirical applications, the less likely it is to be useful. We can add here the contextualist point that what a theory says is often not a simple matter and may depend on application-specific details. So, naturalism and contextualism do not entail that there is no place for philosophy—it just must be empirically informed and when done well, it can make a real contribution to specific social science research and to generalizing about how that work is done.

More positively, how does naturalism of the sort I advocate then help us with questions about social ontology? The standard and simplest naturalist answer says that ontology follows from what our best science quantifies over (Quine, 1948)—"to be is to be a bound variable." I will employ that criterion extensively in the next section as I move from metaontology to concrete ontological claims about the social sciences. I take the gist of the slogan to be simply that ontology has to ask what is good science committed to.

However, subsequent research after Quine has shown that questions of ontological commitment can be considerably more complex, with complexities often having a contextual element—what a theory says and how it is interpreted is likely to depend on the research and explanatory context. Quine's view that the ontology can be read off the formalism of theories goes against the grain of a contextualist approach. Though to be fair to Quine, in his later work his views about the inscrutability of reference and indeterminacy of translation suggest ontological commitment is not just read off the quantifiers. I take Quine's basic point to be that we decide what exists by determining what our best theory is committed to. That idea is the *starting point* for naturalist ontology as I see it, but it is only a starting point—there are multiple complications in applying this principle.

A first complication arises because there needs to be evidence that the commitment is essential and essential in the right sense (mere tractability assumptions presumably do not count, but even that is a nontrivial issue). Then reasons are needed to show us how to interpret what is essentially quantified over. There is considerable argument (see, e.g. Hirsch, 2009) that the meaning of quantifiers and their existential commitments can vary according to context. Giving a detailed general account of how this works is a big project (not surprising if it is contextual), but Wilson (2006) provides a compelling account I am not going to detail here.

Particularly interesting for my purposes are *local* versions of fictionalism and instrumentalism. Fictionalism is the idea that various areas of discourse are not about finding facts but instead serve some other purpose. Instrumentalism, as philosophers will well know, is fictionalism about the nonobservational part of science—theory talk is just a useful instrument for organizing observational results. Making these doctrines "local" means that there is no assertion about all theoretical terms in science, as traditional instrumentalism or fictionalism does. Rather, the idea is that in some contexts what

a theory quantifies over should not be taken as making ontological commitments or, at least, not making obvious commitments. Here are some examples. Dennett (1991) compares beliefs as real patterns in behavior to centers of gravity in physics. We seem to use them essentially, but does that use commit us to putting them in our ontology?⁶ Not obvious. In psychology and the social sciences, models sometimes invoke what are called “formative” indicators (Hensler, 2021). Formative indicators are latent or unobserved categories that are *sums* of measurable variables; they are contrasted to reflective indicators which are measurable variables that are taken to be caused by an unobserved latent cause. If we have a causal model—say a full-fledged causal structural equation model—that refers to formative indicators, should we take them as real? Is there something called depression that exists over and above low mood, sleep disturbance, etc.? It is easy to imagine someone motivating the claim that these formative variables are empirically valuable but taking an instrumentalist or fictionalist stand about them. Then there are variables that are neither sums of indicators or causes of them but which seem essential in some sense. Macroeconomics currently works with “representative agents.” These are aggregate entities of a kind that are known not to be merely sums of individual behavior but which are essential to modelling. Again, while macroeconomic models may essentially refer to them, we can imagine that economists take a noncommittal attitude toward their reality.

A final complication in interpreting ontological commitment is that traditionally the view has been that science quantifies over natural kinds: theories are made up of laws that relate natural kinds. I expressed doubt about this picture earlier. Quine (1969) and Goodman (1983) have a pragmatist take on natural kinds that takes categorization as specific to research purposes and what practical scientific purposes it may advance. The contextualist approach pushes against natural kinds of an essentialist nature. The social and behavioral realm especially seems inapt for a strong notion of natural kinds. There is nonetheless space for a much more local, piecemeal and limited sense of social kinds, as is evidenced in my discussion of race below and as I have argued elsewhere (Kincaid, 2018) as have others (Khaladi, 2013).

So, to sum up, the approach to social ontology I advocate sees it as driven by what our best social science tells us. That means that answers to some, but not necessarily all, questions, about social ontology are likely to be local—to be specific to concrete results about particular social phenomena and at particular times and places. Moreover, how we interpret the ontological commitment of specific social scientific work is complex, for we sometimes cannot simply read off the ontological commitments of social science results; the commitments of those results may require interpretation.

3 Applications

In this section I apply the approach sketched in Sect. 1 to three specific issues in the social sciences that raise interesting issues in social ontology. I start with debates over methodological individualism. In keeping with the naturalist morals of the previous

⁶ What Dennett is actually committed to has been a matter of controversy, with some passages supporting an instrumentalist interpretation of the point.

section, I think that the individualism debates are best approached in terms of specific pieces of social science research and requires some careful examination of what that research is committed to and what version of individualism might be at issue. I then turn to debates over the reality of social classes and race.

Debates over methodological individualism have continued unabated since at least the 1950s (Udehn, 2001, 2002). Keeping clear on the ontological, epistemological, explanatory, reductive, normative methodological, etc. versions of the doctrine has been hard (Kincaid, 1997, 2015, 2021a, 2021b; Udehn, 2002). The arguments around these issues have tended to argue for or against perfectly general claims about how the social sciences should proceed and what they can do. I am skeptical on contextualist grounds about such all-purpose pronouncements. Here I focus on a hopefully more tractable question about the extent to which specific pieces of social research support individualism in the sense that they are committed to providing explanations only in terms of individuals. The idea is that nothing more is needed in one's social ontology than individuals. Thus, for naturalist social ontology, the question is whether good social science research is committed to social entities or only individuals.

The specific social research I will focus on involves agent-based models (ABMs), which are widely claimed to instantiate and support the individualist position. We will need to do some work both interpreting what ABM models assert and in delineating what kind of individualist claims are involved, illustrating my contextualist morals, especially as embodied in (6) above.

ABMs were first posed in part as an alternative to approaches such as early neoclassical economics which sought analytical results about equilibria involving noninteracting homogeneous agents. Schelling's (1971) work on segregation is a foundation paradigm explaining social outcomes from interactions among individuals following simple rules. Epstein and Axtell's *Growing Artificial Societies* is a more recent successor (1996). Now there is significant work in political science (Laver & Sergetti, 2012), economics (Gallegati et al., 2017; Hamill & Gilbert, 2016), and archeology and anthropology (Kohler & Gumerman, 2000) making use of ABMs.

The basic strategy of all these approaches is clear. Agents are postulated who follow rules. Various kinds of interactions among individuals following those rules are programmed. Starting from an initial state description, a round of interaction is simulated on a computer (though Schelling's result can be done with pieces of paper). The new state description is recorded—aggregate variable values can be saved—and then the process is repeated until some kind of steady state is reached. A full knowledge of the model at the initial state does not mean we can know a function that determines the next total state of the model. In this sense—the lack of deducibility or predictability—ABMs produce "emergent" results, what Bedau (1997) calls "weak emergence."

An ABM is not the running of the program but the agents and factors that are used by the program. Put schematically, an ABM thus seems to involve⁷:

ABM (1) A set I of agents $\times 1 \dots n$.

ABM (2) A set P of properties of the members of I describing their nonrelational attributes and behavior.

ABM (3) A set E of physical, biological, social, etc. environmental factors for I .

⁷ This formulation follows Kincaid and Zahle (2022).

- ABM (4) A set R_i of relations among members of I and a set R_s of relations among the members of E .
- ABM (5) A set of variables A recording the aggregate values of any variables in (1)–(4)

Not every ABM necessarily has all these components. For example, less complex models may not include R_s .

The literature widely claims that such ABMs both assume methodological individualism and support it to the extent ABMs are successful in some sense. So:

“ABMs often tend strongly towards methodological individualism” (O’Sullivan & Haklay, 2000, p. 143).

“Artificial societies [...] are also firmly methodologically individualist” (Sawyer, 2004, p. 263).

“a good many proponents of agent-based modeling explanation [...] are avowed methodological individualist” (Wan, 2011, p. 188).

These are then strong claims about the social ontology underlying ABMs if we take the view that if social entities are not needed to explain then we are not ontologically committed to them. ABMs are clearly also a modelling strategy and some practitioners have no pretense of making ontological claims. However, as the above quotes show, some also want to produce models that tell us about the social world and are thought to show us there is no need to posit nonindividual social entities. Clearly claims about social ontology are being made or at least implied here.

To assess these claims, we next need to get clear about what individualism asserts. I have already noted that individualism can cover a wide variety of claims and that I will focus on claims that focus on explanations, primarily causal, that appeal to only individuals. I also am not considering normative methodological claims about what *should* be done, instead focusing on the more basic descriptive claim about what *are* the ontologies of extant ABMs.

The claim that some specific social explanation works only in terms of individuals can come in various strengths running for the more individualistic to the more social. Adapting our earlier formulation to the specific individualist case, consider the following elements that might be in an individualist explanation:

So, let.

- I stand for a set of individual humans.
- P stand for a set of nonrelational properties of the members of I .
- PHY stand for a set of factors in the physical environment, construed broadly enough to include the biological environment.
- R stand for a relation of a member of I to some other member of I .
- SE stand for a set of social entities, social properties, and social processes.

We can now rank versions of individualism according to the extent that they rely purely on individual facts in the following set of claims:

- Social explanations only refer to I and P
- Social explanations only refer to I , P , and PHY
- Social explanations only refer only to I , P , PHY , AND R

(d) Social explanations only refer to I, P, PHY, R and SE

While (a) is an extreme form of atomism, it serves a useful purpose in making it clear that we are asking how far we can get in purely individualist terms, something clearly asked by ABM modelers. By (c) we have possibly a weaker form of individualism depending on how R is specified. Relational predicates invoking social roles such as x is the employer, supervisor, prison guard, etc. of y seem to bring in social relations. So, we need to know what kind of relations are invoked, and even then an argument would have to be made that these social role predicates involve ontological commitments to the social. By (d) we have an explicit social environment, though again arguments have to be made about how that is characterized.

With ABMs and individualism now more clearly specified, the quotes earlier on claiming that ABMs are essentially individualist can get a more concrete and answerable formulation. Does the structure of ABMs commit them to one of the versions of individualism? I think not. Nothing about ABM models precludes them from invoking social relations among individuals and from including social entities. Moreover, the basic unit in the formalization of ABMs—the *Is*—has to be specified. There are numerous extant ABM models where the individuals are social entities—banks, households, firms, political parties, and so on and no individual human beings. Furthermore, including social entities as part of the environment for individuals is common, and individual relations are often described as social roles or types (employee, black, etc.).

Of course, the empirical success of any ABM is a further question which involves a deep set of questions about verifying idealized models. Still, the point holds that we can make progress on fairly nebulous general social ontological claims like individualism by looking at specific theories and possible interpretations of their ontology.

This example reinforces my contextualist naturalist metaontology. Looking at specific ABM variants, we can do our social ontology by asking what those models are committed to. However, we cannot just read those ontological commitments off formal presentations of relevant theory, though those presentations are a useful first start. Theories are often loosely formulated and can be read in different ways according to the context of use. General statements about the ontological commitments of social science are likely to be unilluminating; the real ontological debates get much more traction when we get local—when we look at explicit social science claims in specific research. So, in looking at ABMs now we have a more tractable social ontology question. Rather than debating individualism as a general principle which is either true or false of the social sciences, we have a specific theory and delineated versions of individualism in one form. This is what contextualism—especially as embodied in (6)—would expect.

A second illustration of naturalist social ontology comes from debates about the existence of social classes.⁸ The naturalist approach here is to ask whether there is well-supported social science that is committed to social class and, if so, social class in what sense or senses? This approach contrasts with social ontology in the analytic metaphysics tradition which seeks to use conceptual analysis, intuitions and ordinary

⁸ This work draws on Kincaid (2016).

language analysis to decide what traits a social group must have using elaborate concepts such as we-intentionality and so on. I summarise some relevant empirical work and explain how it fits my contextualist naturalism.

There is an extensive body of social science research on social classes which begins at least with classical social thinkers such as Marx and Weber and continues until the present. Research on class uses the standard range of quantitative and qualitative methods typical of the social science. Some of the better current research on class comes from Mann (2012), Domhoff (2014), Scott (1991), Goldthorpe (2007), Wright (1997), Roux and Miles (2013), and Breeden and Grusky (2005). This work follows the strategy common across the observational sciences: provide criteria for picking out entities—for classifying—and show that measures based on those criteria are reliable and consistent and that the classifications can serve as the basis for prediction and explanation.⁹ All of this work produces results whose basic entities are social classes, so on the naturalist perspective, these are reasons to include classes in our social ontology. Once again, class will have to be interpreted and the ontological commitments will be specific to time, place, and so on.

From our contextualist perspective, especially focusing on thesis (6), the next interesting question is *what sense of class* is this research committed to? Pursuing this question reinforces the Sect. 1 claim that determining the ontology supported by social research is a piecemeal, local affair. These needs for context show up in multiple ways¹⁰:

- A major difference in commitment to social classes is whether the commitment is to social classes as types of individuals or to social classes as concrete social entities. Weber's view was that there is a useful social science concept of social class that works by classifying individuals basically by their place in the market. Marx thought of social classes as specific social entities. In the current literature Domhoff represents the latter view, Goldthorpe the former view. So far as I can see these two different ways of being classes are not incompatible—both may provide effective explanation and prediction. Thus, they illustrate the contextualist point about naturalist social ontology that identifying the basic entities which social research is committed to is only a starting point. Further local details are needed.
- The commitment to social classes as social entities can be a commitment to some general claim that all societies of a specific type are composed of the same basic social classes. Sometimes you find this view in Marx. However, the kind of research reported here, e.g. by Domhoff, only argues for the existence of social class (one actually, a ruling elite) at a particular time in a particular country. So, these research results are committed to an ontology of social class only for a specific time and place, not generally, another example of localized ontology, a contextualist theme again.
- The empirical results that involve a commitment to classes as types of individuals require further interpretation. There are multiple ways to group individuals into

⁹ I am not invoking operationalism in the strong sense of claims that concepts only have meaning through specified application operations. It is possible to use criteria, prediction and causal explanation to investigate categories without being a hardcore operationalist.

¹⁰ I am again following Kincaid (2016) here.

social classes as types. Goldthorpe bases his groupings on the characteristics of employers, of self employment, and of employees. The end result is a 13 class scheme. Using that scheme he is able to explain various phenomena. However, Wright (1997, 2005) and Roux and Miles (2013) use related but somewhat different schemes, Wright ending up with a 12 class system and Roux and Miles a seven class system. What is *the* true ontology of social classes as types? I think that is a bad question. The various classifications are getting at somewhat different phenomena and are not incompatible. We seemingly need to be a pluralist about the ontology of classes as social types. This is again an instantiation of the contextualist naturalism I have been promoting.

So to sum up: there is extensive, empirically supported social science work that is committed to invoking classes in its explanation. So, to that extent on the naturalist position there is good reason to admit classes into our social ontology. That conclusion is made more subtle by recognizing the contextualist point that exactly how class is construed may vary by application. I have shown multiple instances of that phenomena. Thus, the general point is that contextualist naturalism gives us a useful framework to do social ontology, the main thesis of the paper.

I turn next to apply my naturalist metaontology—metaontology approached from a naturalist perspective where the ontological commitments have to be tightly defended on empirical grounds—to questions about the existence of race.¹¹ There are a number of individuals who deny for various reasons that race is real. Let me provide some references from the literature, both philosophical and social scientific. Brubaker in *Ethnicity without Groups* (2004), following Loveman (1999) in a seminal earlier article on the reality of social groups, says that races or ethnic groups are not bounded wholes, are not entities and are not collective actors (2004, p. 3), rather they are perspectives on the world (2004, p. 17). Racial groups are not real things but just categorizations. Pierson (1967) asserts a similar claim that race does not exist in Brazil. Loveman says that "'race" should be abandoned as a category of analysis" (1999, p. 2); explanations in terms of race confound categories with groups and reify "race" (1999, p. 2). Webster expands on this, arguing that race does not exist but that racial categories are the result of "racialization" by various groups, especially government and social scientists (Webster, 1993). These are social scientists. Among philosophers, the antirealist program is supported to various extents and in various ways. Atkin (2017) argues that our first job is to clarify our concept of race, where our concept is the common-sense notion (2017). He asserts that if race is real, it must be a natural kind (2012, p. 71), but doubts that it is. Glasgow offers similar views, saying that any discussion of race is bound by our ordinary concept (2017). Taylor argues that groups are real only if their members self-consciously recognize themselves as member of the group (2013, p. 106) and there is some type of collective agreement. Mallon (2016) and Elder-Vass (2011) sanction this requirement in some form.

Several interesting things can be seen here. The philosophers to varying extents buy into the conceptual analysis of common-sense notions as the method for investigating race. You will not find detailed appeal to empirical social science but the familiar conceptual exploration and argument typical in much philosophy. Interestingly, the

¹¹ This discussion draws on my previous work (Kincaid, 2018).

social scientists don't refer systematically to empirical work on race either. Both groups assert all-or-nothing positions that are supposed to hold about the use of race in empirical social sciences wherever and whenever it takes place. While there certainly is room for philosophically and social scientifically informed analysis of the concept of race, my naturalist metaontology fears that in these instances the conceptual is fairly distant from empirical social research. Also notable about these race skeptics and really most of the literature on race is how much it illustrates our earlier point that Quine's dictum is just a start. Even if we know there is essential quantification over race, there remains an entire project of deciding what the actual extension of "race" is for specific social science research results (see the antirealist theses below), another contextualist point. I should emphasize that this is not unique to the social sciences. The concept of a "gene" is widely recognized to take on different meanings in different applications (Moss, 2004). However, scientists nonetheless succeed because they can fill in the placeholder "gene" in specific contexts by detailing the kinds of experimental and causal network involved.

It is worth noting here that implicit in Quine's dictum is precisely this kind of appeal to a network to ground scientific categorization and objectivity. To be a bound variable is to be one with a host of ties to other theoretical and empirical claims that the holism of testing and the web of belief support. "Objective" categories and classifications are those that predict and are predicted by other theoretical claims and empirical data (see Kincaid, 2021a, 2021b). Simultaneously with Quine and Goodman, Cronbach and Meehl (1955) thought of valid categories as those that fit into a "nomological net"—they were predictive of other variables as well predicted by other variables. Since Quine similar positions are advanced by Kitcher (1992a, 1992b) on biological classification and Khaladi (2013) on social classification who talks about "epistemic kinds." Of course, concepts can be fuzzy and never be embedded in such networks, rendering them suspicious. The question is in part whether race is like that. On the naturalist approach, we determine whether race is real by asking whether there is solid empirical work that essentially employs the concept of race in successful explanations and predictions. Of course, even if the concept of race is essentially employed there is the further contextual step of deciding what that commitment comes to.

Let's use the naturalist perspective to look at various conceptual doubts about the reality of race. The above authors and other writers on race (and similar claims are made about ethnic groups and castes) have raised these kinds of doubts about the reality of race¹²:

Individuals classified by racial terms do not share a common culture and do not identify with the groups that are described, thus they cannot be real groups.

It is an empirical question which groups at what time and place share such identifications. There is no conceptual argument that will show such groups nonexistent. Furthermore, if we are seeking objective categorizations and explanations as cited above, it is also an empirical question whether this criterion is necessary for empirical success. We may be able to find a causal relation between race and other social factors without invoking a common culture.

¹² In a way these can be linked to requirements for being real. *They are negative necessary conditions for being real—X is not real if X is socially constructed, etc.*

A real social group must have collective agreement, common knowledge, collective recognition or some kind of group intentionality that makes for collective agents, but racial groups do not have these.

This claim gets the same response as the previous complaint about race: it is an empirical question whether these collective intentionality notions are essential for objective classification and explanation. The notions are very vague and social scientists have not pursued them in any very direct way. To say that races and other ethnic groups are real does not commit us to saying that they are collective “agents” which is a controversial notion among philosophers. Sometimes social scientists model some social groups as maximizing some utility function—political parties and firms are sometimes treated this way—but even if these are legitimate, this may not be a good modeling strategy for many social groups and that seems fairly certain for modeling race.

The common-sense notion of race is biological, but biological conceptions of race are misguided.

The naturalist metaontological approach is not committed to using common sense concepts, though it may be important to explain why people use them as they do. There are also attempts to salvage a biological notion of race. Maybe notions of genetic origins and admixture have some explanatory uses, e.g. in some medical explanations. However, the social science of race is almost uniformly not committed to biological notions, so this complaint ignores the actual social research.

Race is not a natural kind.

The contextualist version of naturalism I described in Sect. 1 is suspicious of the picture of science as about natural kinds that ground universal laws. Both concepts are hard to spell out, and often are spelled out in terms of each other. On a less a priori conceptual approach, we can refer to stable categories which provide objective and explanatory classifications. Which categories those are for which particular piece of research has to be evaluated case by case by looking at empirical details.

That said, there are interesting open questions about how to interpret ontologically well confirmed appeals to race. The kinds idea suggests that we think of race as a type. So, quantifying over race is attributing a predicate to individuals. Surely lots of empirical research on race works like this, though it nonetheless usually works by invoking a historically specific social group. But an alternative (or complimentary?) ontology would be to see racial groups as concrete particulars. So, “African Americans in the US from the seventeenth century to the present” would be a particular social group which social scientists could use in causal explanations. Obvious questions of individualism and holism are lurking here. This is another instance of the idea that what is quantified over has to be interpreted. It also supports the idea that social ontology questions are likely to be local—asking whether race *tout court* exists is the wrong way to proceed.

There are fairly obvious individualism versus holism issues here as well. An extreme version of the individualist doctrines is that there is no such thing as race, just racialization. This has been put forth by both social scientists and philosophers. Again, my contextualist naturalist metaontology suggests that this is an empirical claim and that blanket statements are unlikely to be true. “The just racialization” claim is unclear, but

one natural reading is that race is not a social entity that we need to invoke because the phenomena are really fully explained by individual attitudes. I think there is strong evidence against this claim, with the most obvious factor being the legacy of past discrimination which is at the core of structural racism.

The category of race is socially constructed. There are at least three quite distinct possible notions of socially constructed that would support skepticism about race.¹³ The thesis may be:

- (1) Social processes are involved in the social science studying race and other social groups
- (2) If social processes are involved in social science racial, etc. categories, they must be impositions, not objective explanations.
- (3) Social processes are part of the phenomena of race, etc.

The third thesis is obviously true and arguably irrelevant to question of the reality of race—all social phenomena are socially constructed in this sense but that is hardly an argument that no social phenomena are real. The first thesis is obviously true—all science is a social process—but the second thesis does not follow from this claim unless there is an argument that there are biasing social processes. No doubt lots of social science research on race has been biased, but I see no reason that is inevitable.

Thus, the responses to skeptical doubts about race have a common theme: empirical social science should determine our social ontology. Of course, conceptual clarification remains important, but only in service of empirical progress in social research.

Having deflected all-purpose conceptual skeptical doubts about the reality of race, let me finish my discussion of my metaontology applied to race. We can make the approach still more concrete by describing the kind of claims and evidence that social scientists think support the reality of race. These claims put the category “race” into the kind of “nomological net” described above. The claims fall into two basic categories, one arguing for the reality of race based on past disadvantage and the other based on ongoing discrimination. In line with contextualism, I think the evidence and claims that are persuasive will vary across time and place. I focus on the US.

*Evidence for ongoing discrimination*¹⁴: Numerous kinds of data suggest that African-Americans are treated differently than whites. Audit studies involve sending identical individuals in terms of qualifications, etc. to apply for housing, loans or employment. Study after study shows differential treatment (Bonilla-Silva, 2014). Thus, race determines access to financial, educational and employment opportunities which then explain differential economic outcomes, housing patterns, mental health conditions, and other social variables. Statistical studies of wages and observational studies of teacher-student interaction show differential treatment of African Americans. There

¹³ The issues here are complex and there is a large literature about social construction, both from philosophy and elsewhere. For example, there is distinction made by philosophers who write about race between causally and constitutively socially constructed (Haslanger, 2003; Mallon, 2008). The sense used here is the causal notion. The constitutive notion talks about what is needed to define the concept and metaphysically necessary properties. Needless to say, this second approach is suspicious from a naturalist perspective—it is conceptual analysis again—but I cannot explore those issues here.

¹⁴ Even liberals buy into the myth that racial discrimination is a thing of the past. See Krugman (2008) for the US and Seekings and Natrass (2000) for South Africa.

is a large body of evidence of different kinds and for different causal processes where appeals to race are essential to explaining social phenomena.

Evidence for the effects of past discrimination The evidence is extensive. Basically, up until the 1960s and the civil rights movement there was systematic, organized and government-supported processes that favored whites over African Americans. Wealth is a prime example. Household wealth of African Americans is significantly below that of whites even controlling for current education, income and so on. Government programs after the Civil War distributed free land to white settlers but not African Americans. Federal subsidized housing loans were available to whites but not African Americans. Whites organized to influence banks not to provide housing loans to African Americans. Housing ownership and property value growth and inheritance are the major source of current wealth in the US. Spatial segregation was part of this process and has numerous causal influences that affect African Americans in negative ways that have strong effects on current social phenomena (poverty, crime, educational quality, health, etc.).

These facts again show that race is a key explanatory variable in understanding social patterns and thus that within the US in this case the empirical evidence seems to show that we need to treat race as real. (Thus, the naturalist view point would argue for race as a part of our social ontology when it comes to our accounts of the United States.) In addition, these systemic factors show quite clearly that the “there is no race, just racialization” claim is suspect.¹⁵ The social phenomena involve much more than individual racist attitudes; rather an entire system of government and civil society social institutions in the past produced enduring and feedback-driven differential paths for African Americans. These different paths are not just a function of skin color—they are rather the result of causal factors acting on a specific group of people with a common historical origin in the African slave trade.¹⁶

So, as with individualism and class, the social ontology of race calls for a careful look at what empirical social science tells. However, it is not a simple matter of reading the answer off what good social research quantifies over, another contextualist point. That is a first start, but then there are further interpretive issues still to be addressed. These are interesting issues in social ontology that philosophers can contribute to but obviously not independently of the empirical results.

¹⁵ Khalifa and Lauer (2021, 2023) challenge the claim that even though social science uses the concept of race that does not mean it explains social phenomena. I am not sure I understand the argument. I understand (though think they are implausible) a fictionalist or instrumentalist view, but I am not sure that is what they have in mind. If the claim is that there is no race, just racialization then I have addressed that briefly above. I think there is explanatory work for concept of race to depending on the context; the systemic factors such as the distribution of wealth between races does not easily lend itself to the racialization only account. This discussion does emphasize the point mentioned earlier that finding existential commitment has to be interpreted.

¹⁶ Someone might react to the diversity in class and race concepts by taking a nominalist line and thinking this shows race and class do not exist. But when we look at specific versions of race and class concepts as I have we see that they can play an essential role in well-supported accounts and explanations, thus giving a strong reason not to reject their existence.

4 Conclusion

Naturalist approaches to social ontology promise greater ties and relevance to the empirical social sciences. They do not deny that conceptual clarification is of value, but do insist that clarification go hand in hand with theoretical and empirical social science. Determining the ontology of well-confirmed social science requires interpretation and argumentation to distinguish surface commitments from more substantial ones, and philosophers can help in that project. I have sketched a research approach to social ontology and given illustrations. No doubt there are multiple further questions about how to develop the naturalist approach, and several of them have been noted. However, hopefully this paper lays some ground work for pursuing them.

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Conflicts of interest The author declares no conflicts of interest.

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