Theoria, 2026, 41(3), 347-366
https://doi.org/10.1387/theoria.28092

THEORIA
ISSN 0495-4548 – eISSN 2171-679X

Are proper functions normative?

(¿Son normativas las funciones propias?)

Karl Gustav Bergman*
Universitat Pompeu Fabra
https://orcid.org/0000-0001-9635-6762

Keywords

Proper functions
Norms
Normativity
Oughts
David Papineau

ABSTRACT: Are proper functions normative? In this paper, I try to answer this question. Acknowledging that the notion of normativity is too ill-defined to afford a categorical yes/no answer, I proceed by attempting to identify arguments for an affirmative answer and trying to articulate what conception of normativity they rely on: what "normativity" has to be, in order for these arguments to work. I identify three arguments for the conclusion that proper functions are *bearer* normative, i.e., normative for the things that have the functions in question. I then propose that two of the arguments may be generalized to the *agentive* case, in defense of the conclusion that proper functions are also, at least in some cases, normative for agents.

Palabras clave

Funciones propias
Normas
Normatividad
Deber
David Papineau

RESUMEN: ¿Son normativas las funciones propias? En este artículo intento responder a esta pregunta. Reconociendo que el concepto de normatividad está demasiado mal definido como para ofrecer una respuesta categórica de sí o no, procedo a identificar los argumentos a favor de una respuesta afirmativa y a articular en qué concepción de la normatividad se basan: qué debe ser la «normatividad» para que estos argumentos sean válidos. Identifico tres argumentos en favor de la idea de que las funciones propias poseen *normatividad de dispositivo*. Es decir, que son normativas para las entidades que tienen las funciones en cuestión. A continuación, propongo que dos de los argumentos pueden generalizarse al caso *agente*, en defensa de la conclusión de que las funciones propias son también, al menos en algunos casos, normativas para los agentes.

Gako-hitzak

Funtzio propioak
Arauak
Normatibotasuna
Izanbeharrak
David Papineau

LABURPENA: Normatiboak al dira funtzio propioak? Artikulu honetan, galdera horri erantzuten saiatu naiz. Oharturik normatibotasunaren kontzeptua lausoegia dela eta, beraz, ezinezkoa dela bai/ez erako erantzun kategoriko bat ematea, saiatu naiz baiezko erantzunaren aldeko argudioak identifikatzen eta argudio horiek normatibotasunaren zer ikuskeratan oinarritzen diren artikulatzen: nolakoa izan behar du «normatibotasun»ak argudio horiek balekoak izan daitezen? Hiru argudio identifikatu ditut funtzio propioak haien eramaile diren entitateentzat normatiboak direla ondorioztatzearen alde. Ondoren, proposatu dut hiru argudio horietako bi agenteen kasura orokortu daitezkeela, funtzio propioak, kasu batzuetan behintzat, agenteentzat ere normatiboak direla defendatzeko.

* ***Correspondence to:*** Karl Gustav Bergman. Universitat Pompeu Fabra, Departament d'Humanitats, Edifici Jaume I, Ramón Trias Fargas, 25-27, 08005 Barcelona, Spain. – mail@karlbergman.com – https://orcid.org/0000-0001-9635-6762

How to cite: Bergman, Karl Gustav (2026). «Are proper functions normative?»; *Theoria. An International Journal for Theory, History and Foundations of Science,* 41(3), 347-366. (https://doi.org/10.1387/theoria.28092).

Received: 01 December, 2025; Final version: 02 February, 2026.
ISSN 0495-4548 - eISSN 2171-679X / © 2026 UPV/EHU Press

This work is licensed under a
Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License

1. Introduction

Proper functions seem to be, in some sense, normative. To say of the heart that it has the function to pump blood is, it seems, *ipso facto* to say that it is *supposed* to pump blood, or that it *ought* to pump blood, or that a heart that fails to pump blood is a *bad* heart. Theorists of proper function often treat it as a desideratum on their theories that they be able to account for this normativity. At the same time, there are those who deny that proper functions are normative in more than a deflationary or metaphorical sense:

> Whatever norms are, I take it that they must involve some kind of prescription, some kind of implication about what ought to be done. [...] It is a vulgar, and indeed dangerous, error to infer, from the premise that X has been biologically designed to Y, that in some sense X ought to Y. My knuckles have arguably been biologically designed to hit people with, but it doesn't in any sense follow that I ought so to use them. (Papineau, 1999, p. 21, fn. 5)

Meanwhile, whether and how proper functions are normative is of concern not only for the philosophy of proper functions itself. The answer is at stake in several key debates within philosophy of language, philosophy of mind, and epistemology.

For instance, is meaning and content normative, as Saul Kripke (1984) influentially suggested? Some have powerfully argued that the answer is "no" (Glüer & Wikforss, 2009; Hattiangadi, 2006)—but others (e.g., Jarvis, 2012) argue that these authors have overlooked the normativity of proper functions and that once we take it seriously, their arguments crumble. Relatedly, there is growing interest in the *norms of belief*: Do evidence alone give reasons for belief, or can belief also be justified by practical reasons (as argued by, e.g., McCormick, 2014)? This literature often appeals to the "aim of belief" (Shah, 2003; Wedgwood, 2002; Williams, 2006); and though writers understand this idea differently, it is naturally understood in functional terms: The aim of belief is its function. Finally, there is much recent interest in the idea that concepts of epistemic normativity, like justification and warrant, can be analyzed in functional terms (Burge, 2003; Graham, 2012; Kelp, 2018; Millikan, 1984b; Olson, 2018; Plantinga, 1993; Simion, 2019).

So the titular question seems motivated. In this paper, I'll take a stab at answering it. But it must be acknowledged, right out the gate, that the question does not admit of any neat yes/no answer. We simply do not have the sort of firm independent grasp on the notion of normativity that this would require. On one hand, "normativity" is a term of art unaccompanied by strong intuitions of the kind formed by everyday use. On the other hand, there is no generally agreed-upon stipulative definition that we can simply bring to bear. We are not completely in the dark, of course. We have some sense of what normativity is, some ideas about which things are *definitely* normative if anything is (like morality) and which things are *definitely* not (like rocks). But this is of limited help in controversial cases, and proper functions constitute one of those.

Accordingly, I will not defend a categorical yes/no answer to the titular question. What I will do instead is to look for *possible* arguments for an affirmative answer and try to articulate what conception of normativity they rely on: what "normativity" has to be, in order for these arguments to work.

In keeping with this general aim, I will spell out three arguments for the normativity of proper functions: The Argument from teleology, the Argument from propensity, and the Argument from copy-producing power. Each argument proceeds from a particular feature that proper functions have been argued to possess. It adds a *general doctrine on the nature of normativity*, and concludes that proper functions are normative. Much of the paper will consist in laying the ground for these arguments. I will devote fewer words to *defending* the general doctrines on the nature of normativity that the arguments rely on: The point is mainly to pin down these doctrines, to make it clearer what commitments accompany an affirmative answer to the titular question. That said, the exercise would be pointless unless there were *some* constraints on what normativity could be, so I will try to give these doctrines at least initial plausibility.

In formulating the arguments, I have been guided by the idea that an affirmative answer to the titular question should be based on features to proper functions whose normativity-conferring status is *independently* ascertainable. In other words, I have sought to identify features such that proper functions may be held, in virtue of them, to share a nature with more uncontroversial cases of normativity. This approach is not mandatory. One may take the normativity of proper functions as a brute datum, one that any conception of normativity must accommodate. I hope, however, that even philosophers with this latter inclination may find my conclusions of some interest, as they help us see some of the connections that do exist between proper functions and other, more paradigmatically normative phenomena.

As we will see below, in discussing the putative normativity of proper functions, it will be important to distinguish between *bearer norms* and *agent norms*. The former are norms applying to the thing (the organ, artefact, behavior etc.) that has the function, whereas the latter are norms applying to agents such as human beings. My three arguments are, in the first instance, arguments for the *bearer* normativity of proper functions. Developing these arguments are the task of section 4. In section 5, I consider the prospects for extending these arguments to the agent case. These two sections are preceded by two that lay the conceptual groundwork. In section 2, I explain proper functions. In section 3, I characterize normativity itself: its metaphysics, its structure, and some of the forms it can take.

2. *Proper functions*

Intuitively, a proper function is what its bearer—a biological trait, an artifact, a behavior—is *supposed to* do, in contrast to the many other things it could or might do. The proper function of a heart is to pump blood. Hearts also typically make thudding sounds, but that is not their function. The proper function of a hammer is to drive nails. It can also serve as a paperweight or a doorstop, but those are not its proper functions.

The notion of proper function is, in the first instance, identified ostensively, by enumeration of examples: the heart pumping blood, the hammer driving nails. We intuit that these examples have something in common. The intuition is corroborated upon recognition that the examples share certain general features.

One such general feature that has attracted special attention is *malfunction*. To attribute a function to an entity is not to say what it *will* do or even what it *could* do, because entities can fail to perform their functions and indeed be incapable of so doing. An injured heart may fail to pump blood. A hammer whose head has come loose is useless for driving nails. Such failures of performance don't mean that the thing lacks the function. To the contrary, it is only because it possesses the function that it makes sense to say that it has failed to perform it. As we'll see in section 4.1, this possibility of malfunction has sometimes been identified as that wherein the normativity of proper functions resides.

Another general feature of proper functions is that they enter into a special kind of explanation of the existence and structure of their bearers. To the question "why do we have hearts?" we can answer "they are there in order to pump blood." To the question "why do hammers look the way they do?" we can answer "in order to drive nails." These explanations have the structure of *teleological* explanations—explanations by appeal to an end. Thus, proper functions can be regarded as *teloi* for their bearers. We'll return to this idea in section 4.3.

Philosophical theories of proper function seek to achieve extensional adequacy by attributing the intuitively right functions to the right things, while also accounting for the general features just described.

Such theories are often expected to satisfy some additional constraints. One such constraint is *naturalism* or *reductionism*, meaning that the conditions for possessing this-or-that proper function should be specifiable in terms that make reference neither to functions nor to other domains in need of reduction. Importantly for present purposes, the latter category includes the *normative* domain. If, as some have argued (e.g., Jarvis, 2012), the functional is reducible to the normative, then the titular question would be trivially answerable in the affirmative. So as not to make life too easy for ourselves, and in keeping with majority opinion, we'll take the reductionist assumption on board here.

Another commonly accepted constraint is *objectivity*. When something has a function, that's an objective fact about it—not, for instance, something projected upon it by the observer. This assumption has been challenged, e.g., by Searle (1995). Here, nevertheless, we will take it on board.

There are two main families of theories on the nature of proper function meeting the constraints of reductionism and objectivity. First, we have *etiological views* (Godfrey-Smith, 1994; Millikan, 1984a; Neander, 1991; Wright, 1973), according to which a proper function is, very roughly, a selected effect: something the bearer's ancestors have done, such that the propensity to do it is heritable and which helps explain the past persistence and proliferation of the function-bearer lineage.

Second, we have *propensity views*, which hold that functions are, roughly, effects such that if they were produced by the function-bearer, this would lead to some outcome—e.g., an increase in the bearer's fitness (Bigelow & Pargetter, 1987; Griffiths, 2016; Nanay, 2010) or maintenance of the structural integrity of the enclosing organism (e.g., Mossio *et al.*, 2009). Sometimes, the view is formulated in the indicative—a function is an effect that an entity produces and which leads to the relevant outcome—but the counterfactual formulation, made explicit by Nanay (2010), seems preferable, since it accommodates the possibility of malfunction. Unlike etiological views, propensity views make no particular demands on a function-bearer's history—indeed, the bearer may altogether lack a selective history.

It is fair to say that of these two broad views, the etiological theory is the leading contender. In section 4.4, we will take a closer look at the two and their respective implications for this essay's topic.

Both views are primarily motivated by reflection on *biological* functions. It is a further question whether they can be generalized to other seemingly function-bearing entities—in particular, to artifacts. It seems *prima facie* plausible that artifacts, like hammers, derive their functions neither from selection nor propensities, but from the intentions of their creators. Despite this, representatives of both camps have argued that their views generalize to artifacts, given due generalization of the operative notions of fitness, selection history, and so forth. The alternative is a *pluralism* about proper functions, according to which biological and artifactual functions require distinct theoretical accounts. Here, I do not take stands in this debate. I limit myself to highlighting, in what follows, those points at which a commitment to pluralism would impact the argument.

With this primer on proper functions now concluded, we'll turn next to consider the notion of normativity itself.

3. Normativity

What is normativity? As noted in the introduction, we don't possess any very informative definition of this notion. There are theories, but they are controversial and best not presupposed at the outset.

But we are not completely in the dark. We have some grasp, albeit a loose one, of what normativity is, and some sense of which things are called "normative." By gathering these ideas together, we can assemble a preliminary characterization of normativity suitable for our purposes. We can say what sort of thing normativity attaches to, characterize the structure of normative facts, and sketch a typology of different sorts of normativity. This I will do in, respectively, the three subsections to follow.

3.1. The normativity of what?

The word "normative" is used in many ways. We talk about

— Normative properties

— Normative facts

— Normative concepts

— Normative terms

and so on.

The question whether *proper functions* are normative sounds like a material-mode question, a question about properties and facts "out there" rather than about the representational devices—concepts and words—with which we think and talk about those properties and facts. This is also how the question will be understood here. It would be possible to conduct the investigation in the formal mode, examining whether the *concept* of proper functions or the *term* "proper function" are normative. However, we are assuming that proper-function discourse is factive and that "proper function" refers to a real, objective feature of things. On this assumption, the answer to the material-mode question bears directly on the formal-mode one. If it turns out that proper functions, the worldly phenomena, are normative, then it follows that the concept/term is also normative, in at least one important sense. *Mutatis mutandis* if it turns out that they're not. (Granted, even if proper functions themselves are not normative, there is a further sense in which the concept or word could still be; but I will not explore this possibility here.)

The question whether proper functions are normative, then, will be understood as a question about worldly phenomena. Which worldly phenomena? Well, proper functions, of course—but what are those? Viewed in the abstract, a proper function is just some possible effect an entity could have: pumping blood, driving nails, etc. But effects, as such, do not seem like the right sort of thing to be normative. When we talk about more familiar kinds of norms, like moral norms, it is not the *action* φ, the one Peter ought morally to perform, that is considered normative. Rather, what's normative is the *fact* that Peter morally ought to φ. By analogy, our question here is whether *proper-function facts*—facts of the form [bearer b has proper function ψ]—are normative.

Are *all* such facts normative if any of them are, or could it be that only some are? I take it that when we attribute normativity to proper-function facts, we typically imagine that there's something about the *proper-function relation*—the relation in which a bearer b stands to an effect ψ when ψ-ing is its proper function—that confers normativity on the fact that b has proper function ψ. If this is right, then, since this relation is a component of all proper-function facts, all of them are normative if any are. I will not presuppose that here, however. I'll leave open the possibility that only some proper-function facts are normative. In particular, if pluralism about proper functions is true (see end of last section), it would not be too surprising if it turned out that, e.g., biological functions are normative but artifactual ones not (or vice versa).

Below, I will often speak of facts about morality or rationality, thereby presupposing that there *are* indeed facts of these kinds. This, I recognize, is controversial. However, I think it will be clear that none of my arguments rely on these assumptions. My references to moral facts etc. can be considered hypothetical: If there are such facts, this is what we should say about them.

3.2. Structure of normative facts

Inspecting the aforementioned normative fact that Peter ought morally to φ, we see that it seems to involve two entities: a *type of conduct*, φ, and a *subject*, Peter, where Peter is linked to φ-ing by a special relation, the "morally-ought-to relation." In virtue of standing in this relation to φ, Peter is "called upon" to engage in the conduct in question and "precluded from" engaging in the complementary conduct, not φ-ing (Copp, 2024, p. 15). Some such structure seems to be present in most, if not all, of the facts we think of as normative. The subject need not be a specific individual: It may be a group or a kind, perhaps a very insubstantial kind such as rational beings generally.

In the case of the fact that Peter ought to φ, we can read this tripartite structure off of the syntactic structure of the sentence used to identify it, "Peter ought to φ," which contains terms referring to all three components. This is not al-

ways the case. Consider facts like *φ-ing is right*, whose identifying sentence has no term naming a subject (the sentence's *grammatical* subject instead names a conduct). But even in such cases, it is clear that the norm "calls upon" *somebody* to do the *φ*-ing, even if this somebody is just people, or rational beings, generally. Some subject is *involved* in the fact or presupposed by it, even if not named in the sentence that identifies it. Indeed, I find it hard to see what would be normative about a fact unless it, as it were, *placed demands* on someone (or something).

Some *evaluative* facts, such as the fact that some state of affairs or outcome is good, are identified by sentences lacking names for either subjects or conducts. But even here, it seems, subjects and conducts are *involved*: The obtaining of such a fact means that some subject (which may, again, be people or rational beings generally) is called upon to engage in some conduct, such as striving to bring about or preserve the outcome or state of affairs in question, *modulo* other considerations.

One clear counterexample is facts about permission, such as the fact that Peter is morally permitted to *φ*. This fact does not call upon anyone to do anything—though it has implications for the structure of calling-for and precluding, by withholding from *φ*-ing the status of being precluded. It seems unlikely, however, that proper-function facts will turn out to be normative in the manner of permission facts, so we can safely bracket this counterexample for present purposes.

3.3. Degrees of normativity

It is widely held that normativity comes in two varieties: *strong* and *weak* (Schulte, 2020), or *robust* and *formal* (McPherson, 2011); or *reasons-implying* and *rules-implying* (Parfit, 2011). Though the distinction eludes neat definition (a recurring theme in this essay), strong normativity is typically understood to be the sort of normativity that is "genuinely action-guiding" or has "genuine normative clout," whereas weak normativity lacks those qualities. It is typically assumed that morality and rationality are strongly normative. Sometimes, as in (Parfit, 2011, , vol. 2, p. 268), strong normativity is defined in terms of *reasons*: It is the kind of normativity that entails reasons for action. Sometimes it is defined in terms of *oughts*: It is the kind of normativity that entails oughts.[1] Weak normativity, on the other hand, is "merely connected to judgments of correctness and incorrectness" (Schulte, 2020, p. 2284; cf. McPherson, 2011, p. 232). Standard examples of weak normativity come from the world of games, social conventions, and other man-made systems of rules.

It is a natural thought that insofar as proper functions are normative, their normativity is, at best, weak (e.g., Schulte, 2020, p. 2284). This may be so; but it's important to forestall a suspicion that may accompany this thought, namely, that there is something *trivial* about the claim that proper functions are weakly normative, so that if an affirmative answer to the titular question rested only on this claim, that answer would be obvious and therefore uninteresting. This suspicion, I believe, is groundless.

To explain why, I first need to introduce the notion of a *standard*. By a "standard," I mean a certain kind of formal object: roughly, a specification of the conditions under which the standard is met and those under which it is not. Standards, in this formal sense, are akin to the kind of abstract object that Paul Boghossian and others call a "rule" (Boghossian, 2015). They can be likened to propositional contents, especially when these are construed as sets of worlds.[2] Just like a proposition can characterize the actual beliefs of some real person, so a standard can characterize a substantive norm or body of rules that possesses concrete reality, e.g., Spanish law. But just like propositions are not *identical to* beliefs, but are just formal objects that can be used to characterize them, so the standard that characterizes Spanish law is

[1] Though not any ought will do. As we'll see, proper functions entail oughts, but this is presumably insufficient to render them strongly normative.

[2] Indeed, standards may be construed as normative contents à la Allan Gibbard (1990; 2003), i.e., as partitions of the set of all possible token actions into the "forbidden" and the "permitted."

not identical to Spanish law itself, considered as a concrete social-historical reality. And just as there is an abundance of propositions that do not characterize the beliefs of any real person, so there is an abundance of standards that do not characterize any norm or body of rules.

Now, the suspicion that there's something trivial about the claim that proper functions are weakly normative arises, I believe, from a certain view of what weak normativity consists in; namely, that it consists in *being characterizable by a standard*. If this were all that weak normativity consisted in, there would indeed be something trivial about it, since this property is very easy to come by. Given only a suitable *mapping* (i.e., a function in the mathematical sense—I use the word "mapping" here to avoid confusion) from standards to facts, *any* fact can be characterized by reference to a standard, as the standard's image under the mapping. For example, my being in the habit of drinking coffee in the mornings can be characterized by reference to the standard—call it Coffee—that requires drinking coffee in the morning: I'm in the habit of doing what Coffee requires. (Note that the word "requires" is idle here—it's just a label for the relevant partition.)

But for precisely this reason, weak normativity should *not* be identified with being characterizable by a standard. There is obviously nothing normative, not even weakly so, about the fact that I drink coffee in the morning. Or, if we insist that there is, then it is nevertheless clear that the standard examples of weak norms—the rules of chess, club bylaws, Spanish law—are normative in some *further*, more substantive sense.

Spanish law is characterizable by the Spanish-law standard, but this fact does not exhausts their relation. They relate in a characteristically normative way: Spanish law, as we might say, renders the Spanish-law standard *in force* for specific subjects (cf. Glüer & Pagin, 1998; García-Carpintero, 2022). Ana, a inhabitant of Spain, is subject to Spanish law—it is in force for her. She is not subject to "Shmanish law," which is like Spanish law except that it also requires you to walk backwards on Thursdays. During a game of chess, the rules of chess are in force for the players. The rules of *schmess*—like chess, but the knight can move diagonally (McPherson, 2011)—are not in force.

Some philosophers, like Manuel García-Carpintero (2022, p. 18), suggest that a standard's being in force is a matter of there being reasons to conform to it. If so, in-force-hood would seem to reduce to *strong* normativity. But surely, there exists a degree intermediate between strong normativity and mere standard-characterizability. There are systems of rules that, while not necessarily yielding reasons for action in the ethicist's sense, are nevertheless more than *just* things we can describe with reference to formal objects. Spanish law may not by itself give Ana reasons to act (though of course, she may have prudential and moral reasons to obey the law), but there is a clear sense in which it *exerts authority* or *wields clout* over her, in a way the fact that I'm in the habit of drinking coffee does not (over me or anyone else). Precisely what this rendering-in-force consists in is something to which I'll return later (section 4.4), but I take it that the intuition is clear.

The claim that proper functions are weakly normative, then, cannot be reduced to the claim that they are characterizable by reference to standards. They *are* characterizable by reference to standards, that much is true. The proper function to ψ can be characterized as the proper function to do what S_ψ requires, where S_ψ is the standard that requires ψ-ing. If this were all that we could say about them, this would indeed be a trivial and uninteresting fact about them. But to say that they are weakly normative is to say something more: It is to say that they render those standards *in force*, in the way Spanish laws renders the Spanish-law standard in force. This claim is nontrivial. In section 4.4, I will give reasons to think it is true.

If it is true, does that entail an affirmative answer to the titular question? Some may think that weak normativity is not really normativity at all. But this, I think, is wrong: Weak normativity, in the above sense, is really a kind of normativity. For one, it evinces the tripartite structure described in section 3.2. It involves a subject or subjects (Ana) and a type of conduct (obeying Spanish law); and by rendering in force a standard requiring that conduct for the subject, it would seem to "call upon" the subject to engage in the conduct, in some natural sense of that deliberately vague term.

But we need not settle this issue here. Our aim, as stated in the introduction, is to find possible arguments for an affirmative answer to the titular question and try to articulate what conception of normativity they rely on. Here, we have articulated one conception. The corresponding argument, as noted, will come in section 4.4.

4. Bearer normativity

We now have some sense of what normativity is and the different forms it takes. It is time to get to work and examine what can be said in favor of the view that proper functions possess the quality thus characterized.

Here's one place to start. If I was right in section 3.2, normative facts characteristically involve a *subject* for which the norm in question is a norm. We may then ask: If proper-function facts are normative, *who are they normative for*? The most natural answer, I believe, is that they are normative *for the functions' bearers*. In a word, proper functions are "bearer normative." In this section, we will explore this idea.

4.1. Bearer normativity: the very idea

To introduce our theme, let us return to the introductory quote from David Papineau:

> It is a vulgar, and indeed dangerous, error to infer, from the premise that X has been biologically designed to Y, that in some sense X ought to Y. My knuckles have arguably been biologically designed to hit people with, but it doesn't in any sense follow that I ought so to use them. (Papineau, 1999, p. 21, fn. 5)

(Papineau talks about "biological design" rather than "function," but I take it that to him, these amount to the same.)

The first thing to note is that, *contra* Papineau, proper functions *do* imply oughts (and their close linguistic cousins, shoulds).[3] We say things like, "the heart ought to pump blood," meaning: that is its function. The electrician says, "this circuit should give current to the bathroom lights," meaning: that is its function. Indeed, one way of saying that something functions properly is to say that it "works as it ought to" or "as it should."

Now, these are oughts applying to the *bearers* of said functions: It is the *heart* or the *circuit* that ought to do something. Papineau, meanwhile, is surely right that it would be a mistake to infer, from the fact that his knuckles are for punching, that *he*, the knuckles' proud owner, ought to punch.[4] But this only shows that proper functions are not normative for any *agents* who happen to be around. They could still very well be normative for their *bearers*. They could be bearer normative.

Does the notion of bearer normativity make sense? Many paradigm instances of normativity apply to agents. Norms of morality and practical rationality, for instance, are norms governing action: They prescribe conduct for agents. Bearers, however, are not agents, and so one may wonder if the notion of a norm is even applicable to them.[5]

---

[3] At least some of the time—cf. (Franssen, 2009, p. 113 ff.)

[4] It also sounds weird to say that Papineau's *knuckles* ought to punch. However, this is an artifact of the example. Presumably, the function of Papineau's knuckles is not in fact to punch, full stop, but rather to increase the pain and trauma inflicted upon his adversary *if and when* he punches. The function is *relational*, in Millikan's (1984a, p. 39 ff.) sense. And saying "Papineau's knuckles ought to increase the pain and trauma inflicted on his adversary if and when he punches" sounds much less weird.

[5] I assume, here and throughout, that organism—and so, *a fortiori*, agents—lack proper functions of their own. This, I take it, is the majority opinion; though see (Burge, 2003) for an opposing view.

Certainly, the idea of a *prescription* applying to a nonagent makes little sense, but it is not a given that all norms need be prescriptions, and seeming examples of nonagentive norms are not far to seek. Epistemic norms, for instance, apply to episodes of belief-formation and the like, which arguably aren't actions—at least not in the normal sense. They are, of course, things that happen in agents, but so is the pumping of hearts and the punching of knuckles. Such mere spatial proximity to an agent can hardly be enough. Indeed, it is presumably precisely because epistemic norms can plausibly be construed as nonagentive that many authors have found it reasonable to analyze them in functional terms (cf. Introduction). Other *prima facie* examples of nonagentive norms can also be found, such as norms of attributive goodness, i.e., norms for what constitutes a good instance of a kind (Geach, 1956). These, too, have been identified with functional norms by some authors (e.g., Kelp, 2018). We cannot reject the idea of bearer norms out of hand, then, so let's take the possibility seriously.

I have already suggested one model on which to think of bearer normativity. A normative fact, I suggested in section 3.2, has a tripartite structure involving a subject, a conduct or behavior, and a normative relation linking them. For a fact to be normative *for bearers*, I suggest, would be for a bearer to take the place of the subject in a structure of this kind. Now, a proper-function fact, [*b* has proper function ψ], *does* involve a bearer *b* linked to a "conduct" ψ (on a suitably broad construal of the term "conduct"), but this, in and of itself, is clearly pitifully insufficient for normativity. The fact that my heart does *not* have the function of driving nails links my heart to the behavior of driving nails, but there's nothing normative about *that* fact.

Some have perceived a sufficient condition for normativity in the *possibility of malfunction*, i.e., the fact that it is possible for a bearer to have proper function even if it doesn't actually perform that function and even if it is incapable of performing it (due to injury or congenital defects). This feature of proper functions has taken center stage in discussions about its putative normativity.[6] Some have, indeed, suggested that this is *all* it consist in. So Justin Garson writes that by "normativity," he simply means that "it is logically possible for a trait token to have a function that it cannot, in fact, perform" (Garson, 2019, p. 5). The reason for this, I believe, is that anything that aspires to any kind of "normativity" must meet some such condition. Compare moral norms. It would be a strange moral norm indeed that applied to you only if you obeyed it. Norms, by their nature, seem to permit both conformity and violation.

But though this condition may be necessary for normativity, it is clearly not sufficient. *Being indifferent about ψ-ing* is consistent with not ψ-ing and with being incapable of ψ-ing, and so is *being such that if one ψ-ed, one would explode*. But there is nothing even remotely normative about either of these properties.

What is missing from these counterexamples is, precisely, any sense that the thing possessing one of these properties is thereby *called upon* to ψ and *precluded from* not ψ-ing (or vice versa). If I'm indifferent about ψ-ing, that neither calls for nor precludes me from ψ-ing. That's just a fact about me. If I would explode if I ψ-ed, that would seem to preclude me from ψ-ing, but that's not the case if I am, for instance, a dynamite stick. The counterfactual relation itself neither calls for nor precludes anything; if any calling-for or precluding is being done, it is done by independent norms governing the subject, like a prudential norm telling people not to explode.

Do proper functions possess this further feature? When a bearer *b* has a proper function ψ, is the bearer thereby *called upon* to ψ? Well, it sure seems like *something* of the sort is going on. There's a quite intuitive sense in which functioning constitutes the "good case," malfunction the "bad case." This is marked by the language we use to talk about functions. We call failure to perform a function *dys*function or *mal*function;[7] and, as we saw above, the bearer "is supposed to" or "ought to" perform its function.

---

6 Particularly in relation to the so-called "disjunction problem" in the theory of mental content (Fodor, 1984; cf. Neander, 1996).

7 However, it may not in general be true that failure to perform a function amounts to dysfunction or malfunction. If a woman's Fallopian tubes are blocked, her reproductive system will fail to perform its function, and so will its parts, e.g., the ovaries, since *their* function is (*inter alia*) to contribute to the functioning of the system as a whole. But it sounds strange to say that the ovaries *malfunction* or are *dysfunctional* in this scenario. If anything is dysfunctional, that would be the Fallopian tubes (Neander, 1995).

4.2. Bearer oughts

This is a start, but not a very helpful one. If someone is skeptical that proper functions are normative for bearers, they should not let themselves be swayed by the observation that we sometimes use the normative-sounding "ought" to attribute functions. "Ought," "should," and other so-called *weak necessity modals* have non-normative readings. Some think these verbs have an *epistemic* reading, roughly synonymous with "it is probable that." Others think they have a "pseudoepistemic" reading (more on which soon). If the proper-function ought belongs to one of these non-normative kinds, then it presumably has no bearing on whether proper functions are normative, for bearers or for anything else.

Now, as a matter of fact, I don't think that the proper-function ought is either epistemic or pseudoepistemic. Start with the epistemic ought. In our example above, the electrician says, "this circuit ought to give current to the bathroom lights." We can very well imagine that he says this while being fully aware that *at present*, the circuit does *not* give current to the bathroom lights (that's the problem he has been hired to fix). Thus, his claim cannot be paraphrased as "it is probable that this circuit gives current to the bathroom lights." So the proper-function ought is not an epistemic ought.

What about the pseudoepistemic ought? This is an invention of Seth Yalcin (2016), who defends it using examples similar to that of our electrician. On the pseudoepistemic reading of "ought," ⌜*s* ought to ψ⌝ means roughly ⌜It would be normal for *s* to ψ⌝; an idea that Yalcin further elaborates in these terms:

> Roughly [the normality reading] expresses something about what one is, or would be, entitled to expect to be true. (Yalcin, 2016, p. 245) [8]

Is this an accurate paraphrase of the proper-function ought? It seems more promising than the epistemic reading. Even if the electrician knows that the cicuit does not carry current, he might well be entitled to expect it to: *Normally*, that is what the current would do (cf. Franssen, 2009). But it does not seem that the oughts licensed by proper-function attributions in general permit this paraphrase. The function of the sperm is to fertilize the ovum, and so the sperm *ought* to fertilize the ovum. But we are not entitled to expect, of any given sperm, that it will fertilize an ovum.[9]

So the proper-function ought is neither epistemic nor pseudoepistemic. But it is not therefore normative. It could constitute a yet further non-normative kind of ought. The very fact that "ought" possesses non-normative readings means that this possibility remains open, even if none of the specific non-normative readings proposed in the literature hitherto fit the bill.[10]

How are we to tell whether the proper-function ought is indeed normative? I despair of finding a way to do so that is *independent* of the larger question we are trying to answer, viz., whether proper functions themselves are normative. If

---

If the normative-sounding notions of dys- and malfunction fail to overlap with function failure, this might be thought to spell trouble for the view that proper functions are bearer normative. But this reasoning is far from conclusive. For one, some have argued that precisely because the ovaries *do not* dysfunction, neither should they be ascribed any function that fails to be performed in the scenario at hand: only *proximal* effects qualify as proper functions (Fagerberg & Garson, forthcoming). Second, "failure" itself has a normative ring, so already our willingness to say that the ovaries *fail* to perform their function may be taken to imply that a norm has been violated.

Third, we need not suppose that the norm constituted by a proper function ψ has the simple content: ψ! The relationship between a proper function and the requirement it makes, the conduct it favors, may be more indirect. For instance, it may be that the proper function to ψ constitutes a norm saying: ψ unless unable due to the malfunctioning of cooperative systems!

8 Interestingly enough, this means that the pseudoepistemic ought is, in a sense, normative—but normative, not for *b* itself, but for *us*: It governs what is legitimate for us to expect.

9 I owe this point to Thomas Raleigh.

10 Parallel considerations could, I believe, be advanced against an attempt to establish the normativity of proper functions on the basis of the "supposed to" locution, the "dysfunction" locution, etc.

they are, we may perhaps conclude that proper-function ought is, as well. But of course, once we have established the former, we have answered the titular question—and any further conclusions about "ought" is a mere bonus.

4.3. Teleology

Let's recap. We are evaluating the claim that proper functions are normative for their bearers. This, I suggested, amounts to determining whether the proper-function relation is indeed a *normative relation*, one in virtue of which the bearer is in some sense "called upon" to perform its functions. How can this be shown?

Above, I criticized the notion that the normativity of proper functions derives from the *possibility of malfunction*. This was one of the two "general features" of proper functions introduced in section 2. It would make sense, then, to now turn to the second of the two—*teleology*, the idea that proper functions are *teloi* or ends for its bearers—and see if a case for bearer normativity can be made on *its* basis.

An end can, arguably, give rise to norms. Given an end of ours, there is a sense in which we ought to do what conduces to that end. This "teleological ought" manifests in such everyday expressions as

(1) If Peter wants to rob the bank, he ought to buy a gun on the black market.

In this case, the "end" is the intention or desire of an agent, and functions, it may be thought, are not ends in *that* sense.[11] But perhaps this is inessential, and other kinds of ends, including proper-functional ones, can also generate teleological oughts.

Whether this is plausible depends, in part, on how teleological oughts arise. On one influential view, teleological ought-facts like (1) obtain in virtue of a normative principle along the lines of

> Instrumental rationality.
>
> One ought to take the means to one's ends.

where the "ought" is the ought of rationality. Function-bearers are presumably not subject to norms of rationality (at least not in general), so if this is how teleological oughts arise, there is no reason to think that they are generated by proper-functional ends in addition to intentional ones.

It may, perhaps, be argued that though function-bearers are not subject to norms of rationality, they are governed by normative principles of an analogous sort. But even if so, there is a further problem. If teleological oughts are generated by some overarching normative principle akin to Instrumental rationality, then there is, arguably, nothing normative about the ends in themselves: They are then just *normatively relevant factors* that combine with a general normative principle to produce specific normative facts.[12] If so, then even if proper functions are ends, it does not follow that they are normative.

Instrumental rationality faces the *bootstrapping problem*: It seemingly permits agents to subject themselves to rational norms simply by adopting certain ends, regardless of how ill-advised the ends themselves are. So Peter, by forming the ill-advised intention to rob the bank, would impose on himself a rational obligation to buy a gun on the black market. In response to this problem, some have suggested that the teleological ought is not an ought of instrumental ra-

[11] On the other hand, according to teleosemanticists like Millikan (1984a, p. 140), the ends defined by desires *are* proper-functional ends, since on this view, a desire has the proper function to bring about its own satisfaction.

[12] Compare: It may be the case that one ought morally to maximize happiness and that φ-ing would maximize happiness. If so, then one ought morally to φ. But the fact that φ-ing would maximize happiness is not therefore itself a normative fact.

tionality, but an *end-relative* ought generated by the end itself. Stephen Finlay has probably taken this idea furthest, arguing that *all* oughts are end-relative:

> Every "ought" presupposes some particular end as framing a normative perspective, and recommends a course of action from that particular point of view as serving that end. (Finlay, 2009, p. 171)

Finlay's theory primarily concerns normative *language*, and if it has any implications for normativity as a worldly feature, they are deflationary: For it to be the case that *S* ought to φ, relative to some end *E*, is just for φ-ing to be conducive to *E*. If that is all normativity is—indeed, as long as this is *sufficient* for normativity—there is no particular reason why facts generated by proper functions about what is conducive to performance of them could not also be considered normative.

Arguably, however, there still would be nothing normative about the fact that *b* has proper function ψ, just as, even if Finlay is right, there is arguably nothing normative about the fact that Peter wants to rob the bank. Though these facts would have the power to generate normative facts, i.e., facts about what is conducive to the ends in question, they themselves remain purely descriptive facts about *b* and Peter.

Could this last claim be denied? Perhaps end-facts, in virtue of having the envisioned norm-generating power, themselves deserve to be called "normative"—in at least a derivative sense. If this principle is defensible, we have indeed found one way to argue for an affirmative answer to the titular question; to wit:

Argument from teleology

(1) End facts give rise to normative facts.
(2) In virtue of (1), end facts are themselves (derivatively) normative.
(3) Proper-function facts are end facts.
(4) So, proper-function facts are (derivatively) normative.

This, then, constitutes the first of the three arguments promised in the introduction. As I indicated there, the argument combines a general doctrine on the nature of normativity (comprising premises 1 and 2) with a feature specific to proper functions (premise 3).

4.4. Bearer normativity reduced

We have now considered the proper-function ought as well as the two "general features" of proper functions described in section 2 —*possibility of malfunction* and *teleology*. We have thereby, I fear, exhausted what can be accomplished relying exclusively on the pre-theoretical notion of proper function. If we want to say more, we need some *theory* of proper functions, capable of yielding us a more fine-grained idea of what they consist in and what they entail.

Fortunately, we are already familiar, since section 2, with two such theories: the propensity view and the etiological view. Now, both these views are controversial (indeed, they are rivals), and it would be preferable not to rest our investigation on controversial assumptions. Ideally, we would do it the other way around: *first* determine whether proper functions are normative, and then use this as a *datum* by which to test rival theories of proper functions. However, I don't see any way to proceed without bringing *some* additional theoretical assumptions into the picture, and the extant reductive theories is the best we have in this respect. Fortunately, there are independent ways to evaluate these theories, so we need not treat them as brute assumptions. Thus, in this section, I propose to consider the two views in turn and examine whether an argument for the normativity of proper functions can be constructed on their basis.

The resulting arguments will only extend so far as the reductive theories themselves. In particular, if you're a pluralist about proper functions (cf. end of section 2) and believe that different classes of proper functions yield to different reductive accounts, then you may need a different argument for each such class.

4.4.1. The propensity view

According to the propensity view, recall, a bearer has the proper function to ψ iff ψ-ing would lead to some specified outcome, like increased fitness or maintenance of the organism's structural integrity. Does this counterfactual property have anything normative about it? Is there a sense in which it "calls upon" the bearer to ψ?

Clearly, the sought-for normativity cannot inhere in the counterfactual structure, as such, of the property. For any outcome *O*—e.g., an increase in global well-being or global paperclip supply—we can define counterfactual properties that stand to *O* as propensity functions stand to their defining outcome (fitness, structural integrity); viz., the property of being such that if you ψ, *O* comes about. Call such properties "*O*-functions." Obviously, for most *O*s, the corresponding *O*-functions have nothing normative at all about them, nor is there, accordingly, anything normative about the fact that some entity has an *O*-function. The property of *being such that if you're dropped, you get closer to the Earth's center of gravity* is shared by most terrestrial objects, including humble rocks, but nobody would say that having this property "calls upon" the rock to be dropped, in any interesting sense. Accordingly, if propensity functions are normative, then their normativity must derive from the specific outcome in question (fitness, structural integrity).

Can these outcomes carry this weight? That seems uncertain, at best. On one hand, it is very tempting to say that fitness or the organism's structural integrity constitute "goods," in a way a rock's proximity to the Earth's center of gravity does not. It is, accordingly, tempting to say that performing one's propensity function guarantees that things go "well," while failure guarantees that things go "badly." This, one may think, amounts to a more substantial notion of normativity: When a bearer has a proper function, it is "called upon" to perform it in the sense that *if* it performs it, things go well.

Even if this is granted, it remains to be shown that possessing one of the corresponding counterfactual properties—being such that if you were to ψ, one of these goods would result—actually subjects the bearer to a norm. Now, on at least some normative views, at least some norms are such that if you were to conform to them, goods would result. For instance, according to utilitarianism (specifically, objective act utilitarianism), conformity to moral norms would increase global well-being, simply because morality, on this view, says to perform acts that would have this effect. Granted, utilitarianism is a first-order view, lacking direct implications for wherein the normativity of moral norms consists. Utilitarianism is consistent with it simply being a *normatively relevant* fact that an action would maximize global well-being, one that combines with independent moral principles to produce oughts (cf. fn. 12, above). Nevertheless, we can imagine a view according to which the fact that *S* ought morally to φ *just is* the fact that *S*'s φ-ing would maximize global well-being. On such a view, moral normativity *reduces* to the counterfactual propensity to yield a good.[13] Once this is granted, it may as well be granted that any counterfactual propensity to yield a good constitutes a normative fact in like manner. Given this, the propensity theorist has an argument for an affirmative answer to the titular question, the second of the three arguments promised in the introduction. It goes as follows:

Argument from propensity

(1) Proper-function facts are facts of the form: [If *b* were to ψ, (fitness/structural integrity/etc.) would result], (*The propensity view*)

(2) Any fact of the form [If *S* were to φ, a good would result] constitutes a normative fact whereby *S* is called upon to φ. (*Reductive thesis about normativity*)

[13] This view of normativity is a cousin of the end-relative view described in the previous section, but with *goods* in the place of *ends*.

(3) (Fitness/structural integrity/etc.) is a good.

(4) A proper-function fact constitutes a normative facts whereby *b* is called upon to ψ.

Now, the *reductive thesis about normativity* gets whatever initial plausibility it has from the case of global well-being. Global well-being is a *universal* or *objective* good—but fitness, structural integrity, etc. are, at most, goods for the bearer itself or, perhaps, for the enclosing organism. Clearly, if such relative goods are admitted unrestrictedly into *reductive thesis about normativity*, the result is wild overgeneration of norms: Any good for *anyone* will impose a norm on *anyone else*. We should thus restrict the reductive thesis so that a relative good imposes a norm only on those things *for which* it is a good.

The question is then whether fitness, structural integrity, etc. are goods for bearers. This seems questionable. Indeed, it is unclear whether bearers, who are not agents or experiential subjects, *have* goods to begin with. Defending this claim is the argumentative burden for whoever wishes to pursue the Argument from propensity.

4.4.2. The etiological view

The etiological view, recall, identifies proper functions with ancestral, fitness-conducive, heritable effects. There is no guarantee that what was fitness-conducive to past generations will continue to be so, nor, indeed, that it will have any particular consequences at all, good or bad. The Argument from propensity is therefore not available to the friend of the etiological view.

But the latter can look elsewhere for the would-be normativity of proper functions. For a bearer *b* to have proper function ψ is, according to the etiological theory, for ancestral episodes in which ψ was produced to contribute to *explaining the bearer's existence* as well as *its own propensity to* ψ (insofar as it has such a propensity)—since the bearer's ancestors have enjoyed preferential replication in virtue of these ancestral productions of ψ. In virtue of this, I believe, the etiological function stands to the bearer in a position quite similar to that in which at least some *social norms*, of the weakly normative kind discussed in section 3.3, stand to the people for whom they are in force.

In virtue of what does a social norm obtain? There may not be any *general* answer to this question; but for at least one important class of social norms, it seems their obtaining consists in part in the fact that some specific form of conduct has come to attain the status of a *model* on which further instances of the conduct have been patterned. The conduct has, in effect, exercised a *power to produce copies of itself*. Such copying has taken place in part due to a general human penchant for imitation, in part due to the effects of this behavior itself; e.g., in enabling coordination, in forestalling social aggression directed against nonconformists, etc. Whether this is true of Spanish law is arguable, but it seems an apt characterization of many less formal, unspoken social norms, like rules of etiquette or linguistic rules (cf. Millikan, 2005). Importantly, behaviors that merely have the potential to generate copies of themselves do not suffice for there to be social norm: it must be a historical fact that such copying has occurred.

Now, consider a specific subject, such as Ana. In virtue of what is a social norm of the above kind in force *for her*? There is a sense of "in force" in which a given social norm is in force for Ana only if it gives her (rational, moral) reasons to obey it, and another sense in which it is in force only if she reflectively endorses the norm and its authority over her, but these are not the senses of "in force" we are after. Suppose, for concreteness sake, that Ana is visiting a place where women, as a matter of custom, are required to cover their hair. Ana may not care about this norm (or even know about it), and it may not enjoy the backing of rationality or morality, but there is still a sense in which it is in force for her, simply because she is situated, as it were, within its "social force-field." What this seems to amount to is that Ana is within reach of the aforementioned power of the customary pattern of conduct, covering your hair as a woman, to produce copies of itself.[14] If Ana

[14] What it means to be "within reach" of this power is a matter of degree—as it should be, since whether a social norm is in force for a subject is intuitively also a matter of degree. The cover-your-hair norm is intuitively less in force for Ana than for a local woman, though Ana does not entirely escape its authority.

chooses nonconformity, she risks disapproval and consternation or, at best, being treated like a know-nothing tourist; while if she does conform, this stands to facilitate her interactions with the locals. This is true whether or not these factors give Ana genuine reasons to cover her hair, and whether or not she reflectively endorses them as reasons; and it will—*ceteris paribus*—increase the likelihood that she conforms, whether or not she ultimately does so. If she does choose to conform for any of these reasons, it will be due to the same mechanisms that were responsible for producing past instances of the normatively favored conduct and which continue to act on her in the present.

This structure has obvious parallels to etiological functions. When a heart has the etiological function to pump blood, it is because past blood-pumping hearts have exercised a power to produce copies of themselves—a power deriving from its superior fitness relative to other hearts lacking this capacity—just like Ana is under the influence of the hair-covering norm insofar as she is subject to *its* copy-producing power. In both cases, this copy-producing power may fail to manifest fully, producing an Ana with bare hair or a heart that doesn't pump blood. In Ana's case, this will typically trigger a process of social feedback which may lead future timeslices of Ana to have their hair covered, whereas in the heart's case, it will most likely just lead to its death[15]—but then, at least, it will leave room for other hearts that do pump blood. But none of these downstream effects are essential: Ana may in fact find her nonconformist behavior encouraged, and the non-beating heart could (through some contrived setup) turn out to be fitter than its beating cousins.

These parallels are suggestive, but is there reason to believe that they are *sufficient* to confer upon proper functions a normativity of the sort social norms enjoy? Though this is not the place for detailed argument, I believe there is indeed some grounds for optimism on this score. In essence, the idea would be that past copy-producing power licenses a pattern of *explanation* that seems characteristically normative. If Ana does end up covering her hair, a sufficient answer to the question *why* she did so seems to be *that it is a norm* to do so. If she doesn't, on the other hand, that requires special appeals: She didn't know about the norm, or didn't care. This explanatory pattern is in turn explained by the hypothesis that the norm *consists in* the historically copy-producing power of the hair-covering behavior: Current instances of the behavior exist because past instances have exercised that power. Meanwhile, nonconforming behaviors require separate explanation.

The explanatory pattern laid out above precisely parallels an explanatory pattern to which proper functions give rise: We can explain *why* an entity ψ-s by citing the fact that it has the function to ψ, while explaining why it doesn't ψ requires separate appeal. The etiological theory can readily account for this pattern.

This parallel provide a starting-point from which the etiologist could argue that proper functions are normative in something like the way social norms are. In abstract form, the argument might look like this:

> Argument from copy-producing power
>
> (1) For S to be under the influence of the copy-producing power of past instances of a conduct φ constitutes for S to be subject to a weak norm in favor of φ-ing. (*Reductive thesis about weak normativity*)
>
> (2) For b to have proper function ψ is for b to be subject to the past copy-producing power of past instances of b's ψ-ing. (*Implication of the etiological view*)
>
> (3) So, for b to have proper function ψ is for b to be subject to a weak norm in favor of ψ-ing.

This, then, is the last one of the three arguments promised in the introduction. It is impressionistic, but I believe it provides a promising starting point. There is nevertheless much work left to do. Paradigm cases of weak norms have further features for which there exist no parallel in the proper-function case. For instance, social norms are typically *endorsed* by

[15] This could also happen to Ana, provided that the norm in question is backed by sufficiently draconian policing.

many of those subject to them, reinforced by explicit codes and rules, and so on. An argument is needed that these further features are inessential to their normativity. Hopefully, the present discussion can inspire continued inquiry.

5. Agent norms

In the previous section, I looked at ways to argue that proper functions are bearer normative. Even if one of these arguments works, it may seem disappointing if bearer normativity is the *only* normativity that proper functions possess. Much of the interest philosophers have taken in the putative normativity of proper functions is due to the hope one may thereby find means to account for semantic norms, speech-act norms, and epistemic norms—all of which seem to apply to *agents*, *qua* speakers and knowers. One could argue that such norms are not really agentive at all, that they do not impose any kind of ought, reason, or obligation on agents but are themselves bearer norms governing, e.g., the language faculty or the belief-forming apparatus (e.g. Olson, 2018). But this type of view would itself be deflationary of the relevant kind of normativity and is bound to strike many as disappointing, if not implausible.

In the introductory quote, Papineau insists that proper functions do not entail any oughts for agents. This seems correct, at least if we have in mind oughts expressive of recognized forms of "strong" normativity, such as morality or rationality. There is room to quibble here, especially about the exact meaning of "entail." Clearly, proper functions can be morally or prudentially *relevant* to agents in various ways, as argued, e.g., by Christoph Kelp (2018). In other words, they can have implications for what agents ought morally or rationally to do, given a background of contingent facts and general normative principles. However, this presumably does not suffice to confer normativity on the proper functions themselves, since almost any fact can, under the right circumstances, be normatively relevant in this way. Let us therefore grant Papineau that proper functions do not "entail" moral or rational oughts in any sense strong enough to confer normativity on the former.

But is this the only way to establish that proper functions are normative for agents? When we, in the preceding section, discussed the *bearer* normativity of proper functions, we didn't approach the issue in terms of some independently characterized family of bearer-normative facts that would confer their normativity upon proper functions by being "entailed" by them. Rather, we directly interrogated the possible normativity of these proper-function facts themselves. In doing so, we did not assume that this would-be normativity had to reduce to moral, rational, or any other form of antecedently recognized normativity. We should extend to agents the same courtesy: If proper functions subject them to normativity, it may well be a *sui generis* form of functional normativity.

If this is so, then it seems proper functions would also entail oughts for agents—*sui generis* functional oughts, of the form discussed in section 4.2. For "ought" is a flexible word which lends itself readily to relativization to norms of all kinds, not only to morality or rationality, but also to etiquette, conventions, club rules, and so forth. If proper functions impose *sui generis* functional norms on agents, then we would be able to relativize "ought" also to these norms. But there is no reason to assume that those oughts must be independently ascertainable, i.e., discernible *before* we have established that proper functions subject agents to functional normativity. Compare: We learn of etiquette oughts *by* learning that agents are subject to etiquette norms.

If proper functions are normative for agents, we should expect them to involve the sort of tripartite structure discussed in section 3.2, with the agent related to a conduct by a normative relation whereby it is "called upon" to engage in that conduct. Now, in our standard format for referring to proper-function facts—"[b has proper function ψ]"—there figures no name of any agent that could be called upon to do anything. But even if agents do not themselves have functions, it is conceivable that proper-function facts sometimes situate agents in the tripartite structure of section 3.2. As I argued there, a fact may *involve* a subject and a conduct in the way characteristic of normativity even if that subject and conduct are not named in the sentence standardly used to identify the fact. Perhaps proper-function facts sometimes involve agents in this way.

Here's one way to argue that they do. There are many sub-agential function-bearers who perform their functions, in part, by prompting certain behaviors on the part of the enclosing agent. Certain hormones may have the function of making us respond aggressively to threats: They perform their function by prompting aggressive action in the face of threats. In such cases, though the agent is not the proper function's bearer, the proper function nevertheless consists in the production of an agent-level behavior. It is an *agent-mediated function*.

Even if proper functions are normative, it does not follow that agent-mediated functions are normative *for the mediating agent*: It could be that the normativity targets only the bearer, with no normative pressure on the agent to cooperate and mediate the function's performance. Some additional premise is needed.

The requisite extra premise might be found in the reasoning in section 4.4. First, suppose the Argument from propensity is right, and the bearer normativity of proper functions consists in their counterfactual propensity to yield goods (fitness, structural integrity). In the case of agent-mediated functions, the agent behavior constituting the mediation will itself evince the relevant counterfactual propensity and thus, by the *reductive thesis about normativity*, a norm will be imposed on the agent as well.

Second, suppose that the Argument from copy-producing power is right, and the bearer normativity of proper functions consists in bearers being within reach of the copy-producing power of ancestral function-performing bearers. In the case of agent-mediated functions, the mediating agent will also, and for the same reason, be within reach of the copy-producing power of ancestral mediating agents; and thus, by the *reductive thesis about weak normativity*, the agent will itself be subject to a weak norm.

Thus, an argument to the effect that proper functions are sometimes normative for agents may be in the cards, contingent on the success of the arguments in section 4.4.

6. Conclusion

In this paper, I have sought to formulate arguments in favor of the view that proper functions are normative. I have identified three potential such arguments: the Argument from teleology, the Argument from propensity, and the Argument from copy-producing power. These arguments each represents a possible way forward for whoever wishes to defend an affirmative answer to the titular question on the basis of an independently evaluable conception of normativity. Even those who hold that no such argument is needed may find interest in these arguments, insofar as they suggest ways in which proper functions resemble other, more paradigmatically normative phenomena.

If I personally had to pick one of the three arguments as most promising, it would be the Argument from copy-producing power. The other two arguments rely on reductive views about the nature of normativity in general, whereas this one relies only on a reductive view about weak social normativity—a *prima facie* more promising candidate for reduction. Again, however, I stress that the purpose of the present exercise has not been to conclusively defend these arguments, but to take preliminary stock of them and to identify their accompanying commitments as regards the nature of normativity.

There are some topics that I, for lack of space, have had to pass over in silence. One of these is evaluativity and the claim, defended by Christoph Kelp (2018), that proper functions ground norms of attributive goodness. I hope to return to this topic in future publications.

To close, some words about implications. I believe my discussion can contribute clarity to the debate on the normativity of proper functions. Of particular importance in this regard is the distinction between bearer normativity and agentive normativity, which I believe must be kept firmly in view in any future discussion of this topic. We have also seen that some "easy" arguments for the normativity of proper functions, like the appeal to the possibility of failure, are in-

adequate, and that what remains carries with it commitments of a much more substantial sort. This may in turn help us advance those debates in epistemology and philosophy of language where appeal to proper-functional normativity is made, by making clearer what work such an appeal can and cannot perform. Finally, by spelling out the general structure of normativity as such, as well as by identifying specific views on its nature and tracing their implications, my discussion can hopefully contribute to a better understanding of this fraught topic.

Acknowledgements

I owe thanks to Fabian Hundertmark, Stephen Mann, Manolo Martínez, Peter Schulte, and Abel Suñé; to audiences at the BIAP workshop in epistemic normativity, the Barcelona mental content workshop, and the Functions and Norms conference at the University of Luxembourg; as well as to two anonymous referees for Theoria.

REFERENCES

Bigelow, J., & Pargetter, R. (1987). Functions. *Journal of Philosophy*, *84*(4), 181-196. https://doi.org/10.2307/2027157

Boghossian, P. (2015). Rules, Norms and Principles: A Conceptual Framework. In M. Araszkiewicz, P. Banaś, T. Gizbert-Studnicki, & K. Płeszka (Eds.), *Problems of Normativity, Rules and Rule-Following* (pp. 3-11). Springer. https://doi.org/10.1007/978-3-319-09375-8_1

Burge, T. (2003). Perceptual Entitlement. *Philosophy and Phenomenological Research*, *67*(3), 503-548. https://doi.org/10.1111/j.1933-1592.2003.tb00307.x

Copp, D. (2024). *Ethical naturalism and the problem of normativity*. Oxford University Press. https://doi.org/10.1093/oso/9780197601587.001.0001

Fagerberg, H., & Garson, J. (forthcoming). Proper Functions Are Proximal Functions. *British Journal for the Philosophy of Science*. Forthcoming. https://doi.org/10.1086/731869

Finlay, S. (2009). Against All Reason? Scepticism about the Instrumental Norm. In C. R. Pigden (Ed.), *Hume on Motivation and Virtue* (pp. 155-178). Palgrave Macmillan. https://doi.org/10.1057/9780230281158_8

Fodor, J. (1984). Semantics, Wisconsin style. *Synthese*, *59*(3), 231-250. https://doi.org/10.1007/bf00869335

Franssen, M. (2009). The Inherent Normativity of Functions in Biology and Technology. In U. Krohs & P. Kroes (Eds.), *Functions in Biological and Artificial Worlds: Comparative Philosophical Perspectives*. MIT Press.

García-Carpintero, M. (2022). How to Understand Rule-Constituted Kinds. *Review of Philosophy and Psychology*, *13*(1), 7-27. https://doi.org/10.1007/s13164-021-00576-z

Garson, J. (2019). *What biological functions are and why they matter*. Cambridge University Press.

Geach, P. T. (1956). Good and Evil. *Analysis*, *17*(2), 33-42. https://doi.org/10.2307/3326442

Gibbard, A. (1990). *Wise choices, apt feelings: A theory of normative judgment*. Clarendon Press.

Gibbard, A. (2003). *Thinking how to live*. Harvard University Press.

Glüer, K., & Pagin, P. (1998). Rules of Meaning and Practical Reasoning. *Synthese*, *117*(2), 207-227. https://doi.org/10.1023/A:1005162503125

Glüer, K., & Wikforss, Å. (2009). Against Content Normativity. *Mind*, *118*(469), 31-70. https://doi.org/10.1093/mind/fzn154

Godfrey-Smith, P. (1994). A Modern History Theory of Functions. *Noûs*, *28*(3), 344-362. https://doi.org/10.2307/2216063

Graham, P. J. (2012). Epistemic Entitlement. *Noûs*, *46*(3), 449-482. https://doi.org/10.1111/j.1468-0068.2010.00815.x

Griffiths, P. E. (2016). Proximate and Ultimate Information in Biology. In M. Couch & J. Pfeifer (Eds.), *The Philosophy of Philip Kitcher* (pp. 74-97). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199381357.003.0004

Hattiangadi, A. (2006). Is Meaning Normative? *Mind & Language*, *21*(2), 220-240. https://doi.org/10.1111/j.0268-1064.2006.00312.x

Jarvis, B. W. (2012). Norms of intentionality: Norms that don't guide. *Philosophical Studies*, *157*(1), 1-25. https://doi.org/10.1007/s11098-010-9610-4

Kelp, C. (2018). Assertion: A Function First Account. *Noûs*, *52*(2), 411-442. https://doi.org/10.1111/nous.12153

Kripke, S. (1984). *Wittgenstein on rules and private language: An elementary exposition*. Harvard University Press.

McCormick, M. S. (2014). *Believing against the evidence: Agency and the ethics of belief*. Routledge.

McPherson, T. (2011). Against quietist normative realism. *Philosophical Studies*, *154*(2), 223-240. https://doi.org/10.1007/s11098-010-9535-y

Millikan, R. G. (1984a). *Language, thought, and other biological categories: New foundations for realism*. MIT Press.

Millikan, R. G. (1984b). Naturalist Reflections on Knowledge. *Pacific Philosophical Quarterly*, *65*(4), 315-334. https://doi.org/10.1111/j.1468-0114.1984.tb00233.x

Millikan, R. G. (2005). Language Conventions Made Simple. In *Language: A Biological Model* (pp. 1-23). Oxford University Press.

Mossio, M., Saborido, C., & Moreno, A. (2009). An Organizational Account of Biological Functions. *The British Journal for the Philosophy of Science*, *60*(4), 813-841. https://doi.org/10.1093/bjps/axp036

Nanay, B. (2010). A Modal Theory of Function. *The Journal of Philosophy*, *107*(8), 412–431. https://doi.org/10.5840/jphil2010107834

Neander, K. (1991). The Teleological Notion of 'Function'. *Australasian Journal of Philosophy*, *69*(4), 454-468. https://doi.org/10.1080/00048409112344881

Neander, K. (1995). Misrepresenting & Malfunctioning. *Philosophical Studies*, *79*, 109-141. https://doi.org/10.1007/BF00989706

Neander, K. (1996). Swampman Meets Swampcow. *Mind & Language*, *11*(1), 118-129. https://doi.org/10.1111/j.1468-0017.1996.tb00036.x

Olson, J. (2018). Moral and Epistemic Error Theory: The Parity Premise Reconsidered. In C. McHugh, J. Way, & D. Whiting (Eds.), *Metaepistemology* (pp. 107-121). Oxford University Press. https://doi.org/10.1093/oso/9780198805366.003.0007

Papineau, D. (1999). Normativity and judgment. *Aristotelian Society Supplementary Volume*, *73*(1), 17-43. https://doi.org/10.1111/1467-8349.00047

Parfit, D. (2011). *On what matters*. Oxford University Press.

Plantinga, A. (1993). *Warrant and proper function*. Oxford University Press.

Schulte, P. (2020). Why mental content is not like water: Reconsidering the reductive claims of teleosemantics. *Synthese*, *197*(5), 2271-2290. https://doi.org/10.1007/s11229-018-1808-6

Searle, J. R. (1995). *The Construction of Social Reality*. Free Press.

Shah, N. (2003). How Truth Governs Belief. *The Philosophical Review*, *112*(4), 447-482. https://doi.org/10.1215/00318108-112-4-447

Simion, M. (2019). Knowledge-first functionalism. *Philosophical Issues*, *29*(1), 254-267. https://doi.org/10.1111/phis.12152

Wedgwood, R. (2002). The Aim of Belief. *Philosophical Perspectives*, *16*, 267-297. https://doi.org/10.1111/1468-0068.36.s16.10

Williams, B. (2006). Deciding to believe. In *Problems of the self: Philosophical papers 1956-1972* (pp. 136-151). Cambridge University Press.

Wright, L. (1973). Functions. *The Philosophical Review*, *82*(2), 139. https://doi.org/10.2307/2183766

Yalcin, S. (2016). Modalities of normality. In N. Charlow & M. Chrisman (Eds.), *Deontic Modality* (pp. 230-255). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198717928.003.0009

Karl Bergman is currently a postdoc within the *Thought Sharing in Action* project at Pompeu Fabra University. His research interests include proper functions, mental content, meaning and communication, and metaethics.

Address: Universitat Pompeu Fabra, Departament d'Humanitats, Edifici Jaume I, Ramon Trias Fargas, 25-27, 08005 Barcelona, Spain. E-mail: mail@karlbergman.com – ORCID: 0000-0001-9635-6762