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Should the Mathematical Fictionalist be a Moral Fictionalist too?

Mary Leng

On the face of it, the same motivations that lead some philosophers to adopt mathematical fictionalism also push in the direction of other fictionalisms too, including, in particular, moral fictionalism. A strong motivation for mathematical fictionalism is the sheer *strangeness* of the Platonist's abstract – nonspatiotemporal, mind- and language-independent – mathematical objects, and in particular the difficulty of saying anything positive about how physically located beings such as us could come to know about objects like *that*. Similarly, the moral realist's ontology of objective and categorical moral *reasons* strikes some as “strange, non-natural, and Moorean” (Nolan et al, 2005, p. 307), prompting epistemological worries apparently on a par with the worries that motivate many mathematical fictionalists. Perhaps in the moral case there is more hope for the project of simply *doing without* the problematic moral claims than there is hope of removing all problematic mathematical claims from our ordinary discourse. But doing without moral and evaluative language would require a radical change in the way we speak and think. Fictionalism offers those skeptical about moral *or* mathematical truth the chance to address those concerns without doing away with moral or mathematical discourse completely. If the problem in both cases is the same: widespread use of a discourse that appears to presuppose a ‘queer’, apparently unknowable, ontology, then perhaps the response on behalf of those who do not wish to accept such strange objects should be the same too: continued acceptance of the discourses in question, as merely useful fictions rather than bodies of literal truths?

There is certainly a striking similarity between the canonical presentations of epistemological worries about the ontology required to underpin mathematical and moral truth, due to Paul Benacerraf (1973) and J. L. Mackie (1977) respectively. Benacerraf's well-known worry that the ‘standard’ account of mathematical objects as abstracta “places them beyond the reach of the better understood means of human cognition (e.g., sense perception and the like)” (Benacerraf, 1973, p. 408) is echoed in Mackie's ‘argument from queerness’ against the supposition that there are objective moral values, according to which awareness of such values would require “some special faculty of moral perception or intuition, utterly different from our ordinary ways of knowing everything else” (Mackie, 1977, p. 38). In both cases the worries can be viewed as examples of what Huw Price (2011, p. 8) has called the *placement problem* “of ‘placing’ various kinds of truths in the natural world”. Given our view of ourselves as natural beings whose knowledge of the world around us is mediated through our sensory experience of that world, it becomes hard to find a place for mathematical or moral truths in that worldview that would also account for our ability to come to know such truths.

In the mathematical case, Benacerraf's worry has been taken seriously enough to prompt some to wonder whether we would really lose anything of value if we simply ceased believing that we knew *anything* about the abstract mathematical objects to which our ordinary mathematical theories appear to refer. Certainly given the immense utility of mathematics, we would lose a lot if we were to stop *doing* mathematics. But does our successful use of mathematics require that we believe in abstract objects as the referents of mathematical singular terms? Here the fictionalist approach to

mathematical theories offers an attractive option for those who wish to continue to use mathematics despite their ontological qualms. The mathematical fictionalist argues that it is coherent to continue to speak 'as if' there are mathematical objects in science and ordinary life, even if one does not believe that there are such things. The fictionalist's claim is that the role played by mathematical theories in empirical science does not require the truth of those theories or the existence of mathematical objects. Even if we do not believe that our mathematical theories are true, we can still make full use of those theories in describing, predicting, and arguably even explaining physical phenomena, since the success of those theories in all of these cases does not require their truth.

In order to make good on this fictionalist claim (that the uses we put our mathematical theories to don't require us to take those theories to be true), mathematical fictionalists have had to answer two key questions: (1) *what* is it that mathematics being used to do, and (2) *why* should we expect the mathematical theories we have to be useful in this way if we do not take them to be bodies of truths. Focussing on our use of mathematics in empirical science, fictionalists have argued that our interest there is ultimately on predicting and explaining the behaviour of systems of *nonmathematical* objects that we take to be the causes of our observations. By mixing mathematical and empirical assumptions together (against the assumed backdrop of ZFC set theory with physical objects as *urelements*) we are able to make use of the descriptive resources of our mathematical theories to describe features of systems of physical objects, and having done this we are able to make use of the techniques of mathematical theories to draw conclusions ultimately about the physical world. This basic picture, according to which the primary use we put mathematics to is to enable us to describe and predict the behaviour of systems of physical objects, has been developed in two different ways in the literature, Hartry Field's so-called 'hard road' defence of nominalism (1980), and the 'easy road' alternative preferred by more recent fictionalists (myself included (Leng 2010), but also Balaguer 1998, Yablo 2005 and others). Field's approach involves showing first that we can express the content of our scientific theories in non-mathematical terms, and then explain the successful use of mathematically-stated versions of those theories as *conservative extensions* of our non-mathematical theories. The more recent 'easy road' nominalists concede to the realist that we may not be able to find non-mathematical versions of our scientific theories, but argue that it is nevertheless coherent to continue to use our mathematically-stated scientific theories believing only that they are *nominalistically adequate*, and not that they are literally true.

So much for mathematical fictionalism. If we are tempted by the parallel between Benacerraf's worries and Mackie's, we might indeed wonder whether we should adopt the parallel solution of moral fictionalism, arguing that it is OK to continue to speak 'as if' there are objective values for the advantages that such talk affords us, even if we do not believe that there really are any such things. But how does the parallel position of 'moral fictionalism' fare when compared with the mathematical fictionalist's account of the advantages of speaking 'as if' there are mathematical objects while withholding belief in such things? Again, the fictionalist is faced with two key questions: (1) *what* is it that moral discourse is being used to do, and (2) *why* should we expect moral talk to be useful in this way if we do not believe our moral claims to be true.

As compared with the mathematical case, where there is a reasonable amount of consensus on what it is that mathematics is useful for, a first difficulty in assessing moral fictionalism is that it is much less clear precisely what the advantages might be of speaking *as if* there are objective values if one does not believe in such things. There are a number of fictionalist accounts of morality, offering quite different accounts of why we should continue making use of moral discourse if we do not believe that our moral claims are literally true, and for each purported use of moral discourse, the key question will arise: if *that* is what we're using the discourse for, *why* should we expect it to be useful in that way if we do not believe our moral claims to be true. To assess the prospects for 'moral fictionalism' in answering this key question, it will thus be helpful to look at some candidate fictionalist accounts of the role of moral discourse. In this regard, Daniel Nolan, Greg Restall, and Caroline West (2005) offer a paper-length sketch of a moral fictionalist position, whereas Richard Joyce (2001) and Mark Kalderon (2005b) present book-length developments of two quite different versions of moral fictionalism. We will start with some suggestions made by Nolan, Restall, and West concerning the value of speaking *as if* there are moral truths, before looking at the more detailed development of some of these suggestions offered by Kalderon (2005b) and Joyce (2001) respectively.

1. Candidate Advantages of Moral Discourse: Nolan, Restall, and West (2005)

Daniel Nolan, Greg Restall, and Caroline West (2005) offer the following as advantages of continuing with moral discourse even if we do not accept the truth of moral claims.

- (1) Psychological convenience: moral discourse pervades our current thinking, and it would be challenging to give up on such discourse;
- (2) Applied ethics: to avoid raising complex metaethical issues when dealing with applied questions, speaking 'as if' there are moral facts enables us to participate in discussions about what we morally ought to do;
- (3) Expressive power: "There are sentences with moral vocabulary, which we use to imply things about non-moral features of the world, where it seems difficult to identify those features in non-moral terms" (Nolan *et al* 2005, p. 312). Fictionalism allows us to continue to use these expressive resources without finding non-moral paraphrases.
- (4) Coordinating attitudes and regulating interpersonal conflict when people disagree. "These patterns or conventions of talking and thinking when deciding on collective action or resolving practical conflicts are ubiquitous and important in maintaining any social relationships: and it seems *prima facie* an advantage to be able to hold on to these" (*ibid.* p. 313)

I will pass over (1) and (2) rather quickly, except to note in the case of (2) that if one has given up on the idea that there is a fact of the matter about what we morally ought to do, it's hard to see how the fact that we would still be able to participate in discussions about what we morally ought to do would provide a reason to continue with the moral fiction (unless one just really likes moralizing for its own sake). Presumably our continued keenness to participate in applied ethics discussions should itself depend on our having an answer to the question of what moral thinking is for if we do not believe in moral facts, so by itself the fact that adopting moral fictionalism allows us to continue with such discussions is only a very weak reason to continue to speak as if there are moral facts.

Proposal (3) is more interesting given the analogous claims about the expressive power of mathematical vocabulary. Nolan, Restall, and West explicitly appeal to Field's fictionalism in their

defense here, noting the advantages of mathematical vocabulary in allowing us to express empirical claims in a succinct manner and suggesting that moral vocabulary may have a similar role. Thus, according to Nolan, Restall, and West, “To say that there are no prime numbers between 23 and 29 is much more succinct than any equivalent nonmathematical expression” (*ibid.* 311), and similarly, the claim that “the property rights of some farmers have outweighed the rights of the environment in this case” (*ibid.* 312) may be a much more efficient way of expressing something that we would find very hard to express in non-moral terms. This is not quite right, however: for Field, this pure mathematical claim about prime numbers expresses *no* non-mathematical content, but may be part of a theory that, combined with suitable bridge laws, enables us to derive non-mathematical consequences from non-mathematical claims more efficiently. The analogy in the moral case would be to say that the relevant claim about property rights, expressing a purported moral truth, does not itself directly express any particular non-moral content (it is not strictly equivalent to any non-moral claim), but nevertheless is of value because of the non-moral consequences it allows us to draw. But to make good on this picture the moral fictionalist would need to offer a story as to why the claims of our preferred *moral* theory, together with appropriate bridge laws, would (a) enable us to derive true non-moral claims, and (b) be particularly helpful in enabling us to do so. But it is entirely opaque as to why, if our interest is primarily in deducing true *nonmoral* claims, it may be helpful to ‘ascend’ to a moral theory, and Nolan, Restall, and West’s ‘rights’ example does little to motivate this thought. As they point out, their ‘rights’ claim has the “non-normative consequence that there are farmers” (*ibid.*, p. 312), but this is hardly something that we would need to appeal to a claim about the property rights of farmers to recognise. *If* part of the value of moral discourse is that it provides us with expressive resources to say things that are ultimately about non-moral matters, and *if* by expressing things in moral terms we can more easily draw out the non-moral consequences of our non-moral assumptions, this is not something that is in any way established by Nolan, Restall, and West’s sketchy appeal to the analogy with mathematics. Perhaps, though, there is scope for developing something like this ‘expressive role’ account of the value of moral discourse by appealing to the picture found in expressivism itself, according to which the purpose of moral claims is to express our *attitudes*. This picture is developed in Mark Kalderon’s (2005b) version of moral fictionalism, which we will return to in the next section.

An alternative to accounting for the value of the moral fiction in terms of its enabling us to express and derive certain non-moral truths is the suggestion in (4) that we may choose to adopt a moral fiction as a solution to a practical coordination problem. Suppose we agree with Mackie that there are no categorical imperatives, and the question ‘What ought I to do?’ can only be answered with reference to my own subjective ends. Nevertheless, Nolan, Restall, and West point out, there will be cases where, “where collective action is needed or the proposed actions of different people interfere with each other” (*ibid.* 312), and in such cases, it will be practical to have an agreed upon recipe for answering the question ‘what ought we to do?’. A shared moral framework provides such a recipe. But why should we think that adopting an elaborate moral fiction offers a *good* solution to such coordination problems? If we really agree that there is not a single objective answer to ‘What ought I to do?’, why not simply agree to solve coordination problems by, e.g., tossing coins? Perhaps it could be shown that adopting our particular moral framework enables us to solve coordinate action in a way that is most likely to be mutually advantageous, in such a way that following the moral prescriptions of our moral framework is optimally prudential for all of us. Something like this line of defense is close to that developed by Joyce (2001), so will be considered in detail below.

2. Moral Discourse as Expressing Attitudes: Kalderon (2005b)

Back, though, to the expressive value of the moral fiction, and in particular to Mark Kalderon's (2005b) development of that idea. According to Kalderon, although moral sentences express moral propositions that we have no reason to believe, when we engage in moral discourse our purpose is to express noncognitive attitudes. Speaking 'as if' there are moral truths is thus a way of expressing relevant attitudes and recommending those attitudes to others. But if we think that the purpose of moral discourse is to express attitudes, what reason have we to believe that moral discourse is effective in serving this purpose? In the case of mathematics, fictionalists offer reasons for believing that our mathematical theories will not allow us to derive nominalistic consequences that are not already part of the nominalistic content of our theoretical assumptions. Can an analogous defense be made of moral theorizing, such that a speaker who starts with a collection of attitudes and 'ascends' to a moral theory as a way of expressing those attitudes, will not in the process end up (by following a chain of moral reasoning) expressing attitudes that that speaker is not in some sense rationally required to endorse?

Here, despite Kalderon's hopes to avoid the challenge that the 'Frege-Geach problem' presents for standard expressivist versions of non-cognitivism, a version of that very challenge arises. For, to use a standard example, the moral fictionalist may express a negative attitude to lying by means of the moral utterance 'Lying is wrong'. And that fictionalist may further express a complex attitude to lying by means of the conditional utterance 'If lying is wrong, then getting one's little brother to lie is wrong' (I set aside for now the question of just what that complex attitude could amount to). In the fiction, they will then be able to draw the conclusion 'getting one's little brother to lie is wrong'. But what reason have we to think that someone who endorses the attitudes associated with the two premises of this argument will also take themselves to be committed to endorsing the attitude associated with the argument's conclusion? We would need some argument that the moral fiction is conservative in the sense of 'appropriate attitude' preserving, so that it does not take us from attitudes that we take it as appropriate to endorse to attitudes that we do not – or need not – take it as appropriate to endorse.

Kalderon (2008) considers a version of this objection, as originally raised by Matti Eklund in his 2007 version of Eklund 2015. (As Eklund (2015) points out, essentially the same point is raised independently by James Lenman (2008).) Kalderon's response to Eklund focusses on the attitude involved in endorsing the conditional premise of the argument, which he takes to be an endorsement of a sensibility that tends "to have the affect involved in accepting the consequent when having the affect involved in accepting the antecedent" (Kalderon 2008: 142), something that might be equivalent to Simon Blackburn's notion of "tying oneself to the tree" (Blackburn 1988: 516) when one endorses a conditional, which is offered in the context of presenting Blackburn's own 'logic of attitudes' as a response to the Frege-Geach problem as it arises for quasi-realism. Such a solution *may* do the job (I suspect that it stands or falls with Blackburn's 'logic of attitudes', which is not, of course, without its own difficulties). However, all of this just raises the question of whether Kalderon's version of fictionalism offers any real advantages over more standard noncognitivist approaches, such as Blackburn's quasi-realism, if it needs to develop an equivalent 'logic of attitudes' to explain why we should expect moral arguments to be conservative over appropriate attitudes. Kalderon thinks there are advantages, in particular in avoiding the difficulty of explaining how the premises of moral arguments are meant to *entail* their conclusions, if moral utterances embedded in, e.g., the antecedent of a conditional have a different meaning from non-embedded utterances. But preserving 'entailment' in the fiction will be a hollow victory for the fictionalist if the

justification for paying attention to any of those entailments requires us to do absolutely everything the standard non-cognitivist is asked to do in explaining how the *attitudes corresponding to* the premises of moral arguments in some sense ‘imply’ the attitudes corresponding to their conclusions. If the ‘point’ of moral discourse is to express attitudes, it’s not clear that there’s any great advantage to developing this insight in a fictionalist as opposed to quasi-realist manner, and if the Frege-Geach problem is, as many think, a substantial obstacle for Blackburn’s quasi-realism, it would seem to present just as much of an obstacle to the moral fictionalist.¹

3. Moral Discourse as Prudential (Joyce 2001)

Richard Joyce’s account of the ‘point’ of moral discourse is quite different. He does not think that moral claims are being used to express anything other than their literal (and false) meanings. Nevertheless, Joyce thinks that acting in accordance with the demands of our moral theory is something that we have good *non-moral* reasons to do. That is, collectively deciding to cooperate as a society, to treat others with respect, to keep promises, pay debts, and so on, can produce conditions in which individuals can better pursue their own ends, whatever they may be. So it may turn out to be rational for us to act in accordance with the demands of a moral theory, even if there aren’t any genuine *moral* reasons to act. Why, though, keep the moral vocabulary at all? Joyce thinks we have very good reasons not to kill, steal, or lie. He just thinks that it is a mistake to think of these as categorical *moral* reasons existing independently of our individual ends. Rather, in so far as we are “ordinarily situated persons with normal human desires” (Joyce 2001, p. 222), Joyce thinks there are considerations in favour of thinking that adhering to the demands of our society’s moral system will likely be in our long-term best interests. But there will be some peculiar cases (the shepherd, Gyges, with his ring of invisibility that enables him to pursue his own advantage at the expense of others without being discovered, or an individual “who has had an unusual socialization process to the extent that her desires are aberrant” (*ibid.*, 222)) where, for those individuals, the demands of morality do not correspond with the demands of practical rationality, and for such individuals adopting the moral fiction is not good advice.

What is interesting about Joyce’s picture in relation to the other fictionalist accounts of mathematics and morals we have looked at is that, whereas in the previous cases we have demanded a kind of ‘conservativeness’ result: a guarantee that, if you adopt the fiction it will not lead you astray in pursuing the practical ends for which the fiction has been adopted (whether that be scientific representation/prediction/explanation in the case of mathematics, or expressing attitudes in the case of Kalderon’s moral fictionalist), in Joyce’s case it seems that his account *must* have as a consequence that adopting the moral fiction in some cases *will* sometimes lead us astray, in recommending that at least some people do some things they have no (prudential) reason to do. For, if it were uniformly the case that, regardless of any individual’s special circumstances or desires, adopting the moral fiction and acting in accordance with its demands would always be the

¹ It is worth noting that the similarities between quasi-realism and fictionalism have led some (e.g. Lewis (2005)) to suggest that quasi-realism is best understood simply as a version of moral fictionalism. Blackburn (2005) resists this identification, questioning whether we can make sense of the false ‘literal’ content that the moral fictionalists claim our moral claims to have, or whether, even if we could make sense of such a content, this alleged false content is in any way a part of our moral practise. I do not have the space here to consider this claim as to the identity or otherwise of fictionalism and quasi-realism, but regardless of whether the views ultimately amount to the same thing, my suggestion is that they are equally challenged by the Frege-Geach

practically rational thing to do, then Joyce's objection to a realist construal of moral reasons would disappear. Joyce's concern, though, is that morality presupposes categorical imperatives, but that no sense can be made of a categorical reason to act that operates independently of one's individual ends. It is thus essential to Joyce's account, if it is not to collapse to ethical egoism, that adopting the moral fiction can only be good advice for most ordinarily-situated people with fairly typical human desires, and not that it provides universally good reasons to act.

But why, then, not make this clear by replacing the categorical framework of moral demands with a hypothetically stated alternative, prefaced with something like, "*if* you are an ordinarily-situated human with typical human desires, then acting in accordance with the following demands will help you to satisfy those desires"? In such a case, we need not engage in any fiction of categorical imperatives at all, but will instead recognise what are usually called 'moral' reasons as good practical recommendations for us to follow if our circumstances and desires are typical. Furthermore, prefacing in this way will help those people whose interests would *not* be best served by acting in accord with the demands of a moral theory not to be misled. Insofar as they recognise their atypical circumstances they will not be led to act 'morally' when doing so is not in their best interests. If adopting the perspective of morality is guaranteed to lead some atypical individuals to act in ways that are against their own best practical interests, and if typical individuals could be brought to see that acting in accordance with the moral framework was likely to be in their own best interests, whether moral reasons are viewed as 'categorical' or not, why even pretend that there are categorical moral reasons to act?

Here Joyce thinks that adopting the fiction of categorical moral reasons to act has a psychological purpose, insulating us against weakness of will and failures to do what is in our long term best interest for short term practical gain. We may know that it is really in our long term best interests not to steal for short term gain, but at the same time we may find it hard to keep that in mind when faced with the temptation of stealing when we think we can get away with it. Adopting the fiction that there is a moral demand on us not to steal will, Joyce thinks, puts us in a position where we will not even entertain stealing as a possibility, and so will not succumb to temptation. By committing to acting in accordance with the fiction even when it may seem to us that breaking from the fiction is in our immediate short term interest we are, Joyce claims, in the position of Odysseus tying himself to the mast of his ship so as not to succumb to the siren song (*ibid.* 223). The trouble with this answer is that, while we can see how someone who genuinely believes they have a categorical reason not to steal will hold back from temptation, it's hard to see how someone who knowingly *pretends* that they have such a reason, and does so because they hold the belief that it is really in their long term self-interest not to steal, is going to be any more immune to temptation than someone who simply holds the belief that it is in their long term self-interest not to steal and does not pretend anything. Why should the fact that one is knowingly *pretending* that one has a categorical moral reason not to steal be expected to be any more effective in stopping one from succumbing to temptation than the fact that one genuinely believes that, given one's long term best interests and circumstances, one really does have every reason to refrain from stealing? (Lenman 2013, pp. 405-6 makes just this point.) We will only be motivated by the mere pretense that we have a moral reason to act if we remind ourselves of the very good non-moral reasons we have to act in accordance with the demands of our moral theory. But then why not think that those excellent non-moral reasons are motivation enough?

4. Does mathematical fictionalism require moral fictionalism too?

In comparison with mathematical fictionalism, then, the various versions of moral fictionalism we have considered have a less compelling story to tell of (a) what is the discourse they take to be fictional useful for, and (b) why we should expect it to be useful for that purposes if it is indeed merely fictional. If the purpose of the moral fiction is to express attitudes, the moral fictionalist has at least as much trouble as a quasi-realist expressivist in explaining why we can trust moral reasoning to be 'appropriate attitude'-preserving. On the other hand, if the purpose of adopting the moral fiction is to prompt us to do things that we, given our fairly ordinary circumstances and unremarkable human desires, have good non-moral reasons to do anyway, it's not at all clear that we are better served by *pretending* that we have a moral reason to ϕ as opposed to attending directly to the perfectly good non-moral reasons for us to ϕ given our aims and circumstances. If the mathematical fictionalist's motivations for avoiding mathematical Platonism do also speak against moral realism, then it is not at all clear that the mathematical fictionalist's best way of developing an anti-realist approach to morality is to adopt a fictionalist attitude to moral thinking, as opposed to either abandoning moral discourse or offering an alternative non-cognitivist interpretation.

But *do* the reasons that speak against mathematical Platonism also speak against moral realism? Here, despite the parallels between Benacerraf's presentation of his concern with the Platonist's mathematical objects and Mackie's presentation of his concern with the realist's moral truths, there does seem to be a significant difference. Whereas in the mathematical case for every axiomatic mathematical theory the Platonist posits the existence of a domain of abstract – that is, nonspatiotemporal, mind- and language-independent – objects satisfying those axioms, the realist's moral *reasons* need not be thought of as a distinct domain of objects, as T. M. Scanlon (2014, p. 30) stresses:

belief in irreducibly normative truth does not involve commitment to any special entities. The things that can be reasons are not a special kind of entity but ordinary facts, in many cases facts about the natural world.

There is nothing particularly queer about our ability to know that such facts about the natural world obtain, so if there is a 'queerness' challenge about moral reasons analogous to the challenge presented by abstract mathematical objects, it cannot be simply that the kinds of things that the realist takes to count as reasons are epistemically inaccessible in the same way that the Platonist's abstract mathematical objects appear to be.

Insofar as categorical moral reasons to act present an epistemic challenge, the worry must concern our ability to know *of* certain facts *that* they are reasons – again, to use Scanlon's framework, to know claims of the form "*p* is a reason for a person *x* in situation *c* to do or hold *a*" (*ibid.*, p. 31). One worry that may arise about such facts concerns the nature of the 'is a reason' relation. Perhaps the problem is not with the positing of an epistemically inaccessible domain of *objects*, but rather with the positing in the moral case of *non-natural* moral properties and relations, such as a non-natural 'favouring' relation, that cannot be reduced to the natural properties and relations we uncover through the natural sciences. So to the extent that mathematical fictionalists are motivated by the thought that we cannot provide a scientific account of our ability to know about abstract mathematical objects, perhaps they should likewise be sceptical of our ability to come to know that "*p* is a reason for a person *x* in situation *c* to do or hold *a*", if we cannot reduce this relation to

natural relations that can be studied by the empirical sciences. In that case, at the very least, consistent mathematical anti-Platonists ought to avoid *non-naturalist* accounts of the moral.

This is certainly where Jonas Olson (2014) identifies the real force of Mackie's queerness worries. The central worry, he claims, is with the positing of irreducibly normative reasons to act. Olson distinguishes between 'reducible' reasons and 'irreducible' reasons, where "Reducible reasons are reducible to facts about what promotes desire satisfaction, or to correctness norms that may or may not be conventional", and argues that, whereas there is no mystery in our having reasons to act against the backdrop of a framework of norms, the moral realist's moral norms are not intended to be framework-relative. Thus,

given any norm, N, we can always ask the normative question whether there are any reasons to comply with N. We are then not just asking whether it is correct according to some other norm, N', to comply with N. That of course only invites the question whether there are reasons to comply with N'. When we ask the normative question we ask about irreducibly normative reasons. (Olson, 2014, p. 122)

The mysterious 'queerness' in moral realism is, for Olson, in the idea of an irreducibly normative 'favouring' relation over and above any particular framework of conventional norms.

But if this is the concern then, as I have argued elsewhere (Leng 2016), insofar as mathematical fictionalists are motivated by a version of *Quinean* naturalism, they should perhaps be less concerned about our talk of a normative 'favouring' relation, even if this is not reducible to natural relations. After all, precisely Olson's concern about the mysterious nature of our purported irreducibly normative reasons to act in accordance with a normative framework can be found in Rudolf Carnap's (1950) worry about external reasons to *believe* in accordance with a theoretical framework. According to Carnap, before we can go about *any* empirical inquiry, we need to adopt a framework of conventions that give meaning to our vocabulary. Against the backdrop of those conventions, we can inquire into what there is, according to our framework. But when as philosophers we try to ask metaphysical questions about what there *really* is, we try to ask from a perspective *external* to those theoretical framework, 'Do we *really* have reason to believe the claims that are warranted according to the internal standards of the framework?'. And, Carnap thinks, we cannot make sense of these framework-free questions; questions about what we have reason to believe can only be made sense of against a backdrop of conventions that give meaning to our theoretical terms. All we can do is make a practical choice, to adopt whichever theoretical conventions are most convenient.

Quine's response to Carnap was to *agree* that we cannot make sense of the metaphysician's 'framework-free' external questions, asking what we *really* have reason to believe independent of any framework's meaning-given linguistic conventions. But where Quine parts company with Carnap is in his attitude to the theoretical frameworks we do in fact adopt. Whereas for Carnap a framework's conventional rules are always mere conventions put in place in advance of inquiry, and thus never in receipt of empirical confirmation, for Quine, the fact that an empirical framework, rules and all, *has* been adopted and has thus proved useful to us in organizing our experiences *just is* confirmation for the whole package, including the parts that were initially presented as conventions.

For the theoretical framework that has proved most useful for us in empirical science – in answering questions about what we have reason to believe – the fact that, according to the internal standards of that framework we have reason to believe that there are Φ 's *just* is our reason to believe that there are Φ 's.

Quine is normally read as arguing that we should privilege natural science as the framework for answering questions about what there is, and thus as presenting a problem for theoretical domains that are not reducible to the natural sciences. However, I have argued (Leng 2016), Quine's motivations for his 'naturalism' require neither 'scientism' nor 'physicalism'. Rather, I argue, the very same Quinean reasons for trusting our inherited scientific worldview (on the grounds that we can "do no better" (Quine 1957b, p. 22) in answering questions concerning what it is that we have reasons to believe) also speak in favour of trusting our inherited normative worldview (on the grounds that we can do no better in answering questions concerning what it is that we have reasons to do). The reason we trust 'science' is because it is the result of our best collective efforts at trying to predict and explain the world around us, over years of refining our 'common sense' starting points:

[W]e do not break with the past, nor do we attain standards of evidence and reality different in kind from the vague standards of children and laymen. Science is not a substitute for common sense, but an extension of it. The quest for knowledge is properly an effort simply to broaden and deepen the knowledge which the man on the street already enjoys, in moderation, in relation to the commonplace things around him. (Quine 1957a, p. 229)

We are simply deluded if we think we have a further metaphysical/first-philosophical standpoint that enables us to answer the external question *ought we really to believe what our best scientific theories tell us we ought to believe?* All of our best efforts at uncovering what we *really* have reason to believe have been incorporated in our best science already, so the best we can do is direct our efforts internally and ask whether a given assumption is really supported according to our internal scientific standards.² But the same, I argue, can be said when it comes to the question of what we have reason to *do*. To the extent that our community's collective best efforts at refining our common sense assumptions about how we should act have resulted in adopting a framework of norms according to which there are some things we categorically ought to do no matter what our own individual preferences are, then it is at least in the spirit of Quinean naturalism to trust those conclusions, at least "as a going concern", on the same grounds that we trust empirical science. We thus should reject the external question *ought we really to act in the ways our shared moral standards tell us we ought to act?* To the extent that our current moral framework is the result of our collective best efforts at answering the question 'How ought we to behave?', we can do no better than to trust the framework we find ourselves with.

Conclusion

² This internal approach to reading off our commitments from our empirical scientific theories makes mathematical fictionalism at least a going concern. To the extent that it can be argued (as I attempt in Leng 2010) that our ordinary scientific standards of confirmation do not support taking a realist as opposed to a fictionalist account of the mathematical theories used in empirical science, the naturalist philosopher of mathematics can both follow Quine in trusting science to tell us what there is while at the same time diverging from Quine's indispensability argument by questioning whether science really does tell us that we have reason to believe in abstract mathematical objects.

Fictionalists about a discourse D advocate continued use of the discourse even if one is skeptical as to the truth of the claims of D, when taken literally. In order to justify the fictionalist stance, one needs an account of what purpose there is to continuing with D-talk, and why it is reasonable to expect that continuing with D-talk will effectively serve that purpose, if one does not believe that one's D-claims are true. Mathematical fictionalism (in both its hard road and easy road versions) has, I have claimed, a plausible story about why it is reasonable to continue to speak as if there are mathematical objects in order to describe, predict, and perhaps explain physical phenomena, even if one does not believe that one's mathematical claims are literally true. The various versions of moral fictionalism I have considered make a less strong case for continuing to speak 'as if' the claims of a moral 'fiction' are true. So if one takes it that one ought not to believe the claims of our ordinary moral discourse, taken literally, then it's not at all clear that the next best thing is to adopt the discourse as a fiction, as opposed to endorsing some other non-realist account.

At least on the face of it, though, it may look like the 'naturalist' placement worries that push the mathematical fictionalist to look for an anti-Platonist account of our use of mathematical theories should also push in favour of an anti-realist account of moral discourse – if not moral fictionalism then some other version of anti-realism. Insofar as an irreducibly normative 'favouring' relation cannot be known about through the usual methods of the natural sciences, if naturalism requires that we account for all knowledge as reducible to empirical scientific knowledge, then a domain of irreducibly normative, categorical reasons to act might seem to be just as epistemically inaccessible as abstract mathematical objects. I have suggested, however, that at least to the extent that the mathematical fictionalist's naturalism is motivated by Quinean considerations, those Quinean arguments actually endorse taking a non-skeptical approach not just to the claims of our best scientific theories, but to the claims of our moral discourse too, insofar as they are the result of our best collective efforts at answering questions concerning what ought we to do. If this is right, then a marriage of mathematical fictionalism with even a non-reductive form of moral realism may not be as strange as it first appears.

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