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Moral supervenience

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ABSTRACT
It is widely held, even among nonnaturalists, that the moral supervenes on the natural. This is to say that for any two metaphysically possible worlds w and w', and for any entities x in w and y in w', any isomorphism between x and y that preserves the natural properties preserves the moral properties. In this paper, I put forward a conceivability argument against moral supervenience, assuming non-naturalism. First, I argue that though utilitarianism may be true, and the trolley driver is permitted to kill the one to save the five, there is a conceivable scenario that is just like our world in all natural respects, yet at which deontology is true, and the trolly driver is not permitted to kill the one to save the five. I then argue that in the special case of morality, it is possible to infer from the conceivability of such a scenario to its possibility. It follows that supervenience is false.

1. Introduction

It is a dogma, almost universally accepted, that the moral supervenes on the natural.[1] This is roughly to say that there can be no moral difference between two entities without a corresponding natural difference between them; if any two entities are alike in all natural respects, then they are alike in moral respects. Given that Martin Luther King was a good person, if someone were exactly like King in all natural respects, he too would be a good person. After all, anyone just like King in all natural respects would have done exactly what King did in exactly the same kinds of circumstances, and would have had exactly the same intentions, evaluative attitudes, and moral views as King had. Any such person would likewise be a good person. Similarly, if act A is right, and act B is wrong, then A and B must differ in some natural respect: perhaps A maximizes

happiness whereas B does not, or perhaps A is the keeping of a promise, whereas B is the breaking of one.

There are various ways to make this supervenience claim more precise. We will encounter some alternative supervenience theses in due course, but the formulation that will take center stage here is metaphysical, strong supervenience ('SUPERVENIENCE' for short):

> SUPERVENIENCE. For any two metaphysically possible worlds w and w', and for any entities x in w and y in w', any isomorphism between x and y that preserves natural properties preserves moral properties.

Despite its widespread acceptance, SUPERVENIENCE has given some meta-ethicists no end of grief.[2] Nonnaturalists, who claim that at least some moral properties are *sui generis* and irreducible to natural properties seem unable to explain why moral and natural properties necessarily co-vary. If moral concepts are irreducible, then they cannot be reductively analyzed in naturalistic terms; if moral properties and facts are *sui generis*, then they are not identical to, constituted by, or continuous with natural properties or facts.[3] But if moral properties are in this sense wholly distinct from natural properties, it seems difficult to explain why they necessarily co-vary with natural properties – and this explanatory deficiency strikes some critics as a major theoretical cost (MacPherson 2012; Schroeder 2014, Väyrynen 2017). Still, most contemporary non-naturalists are reluctant to reject SUPERVENIENCE.[4] I will argue here that rejecting SUPERVENIENCE is exactly what nonnaturalists ought to do.

My case against SUPERVENIENCE is inspired by the analogy G.E. Moore drew between moral concepts, such as the concept 'good', and phenomenal concepts, such as the concept 'phenomenal yellow' (Moore 1903). It turns out that there is more to this analogy than met Moore's eye. As we shall see, there is a crucial similarity between moral and phenomenal concepts, making it possible to mount a conceivability argument against supervenience along the lines of David Chalmers' well-known conceivability argument against the supervenience of phenomenal consciousness on the physical (Chalmers 1996, 2012).[5]

The argument, in broad outline, goes as follows. Let's say that N is a sentence in a canonical language stating all positive natural facts about our world. I will assume that the natural facts include: all of the physical, biological and chemical facts; all of the non-moral, social, linguistic, and psychological facts, such as that uttering sentence s of L counts as making a promise in context C, or that a particular act caused suffering; and all of the facts that are relevantly similar to, or continuous with, the aforementioned facts.[6] N thus constitutes a complete, non-moral description of all of the positive facts about our world.[7] It is a *positive* fact that there is a rabbit at such and such a position in space-time; it is a negative fact that there are no vampires.

Let's say that T is a 'that's all' statement to the effect that nothing more exists than is needed to satisfy N, and that I is an indexical marker, specifying an agent, time and location, marking the 'center' of a world that satisfies NT.[8] Finally, let's

say that *M* is an arbitrary normative, moral truth, such as that the holocaust was an atrocity, or that suffering is intrinsically bad. SUPERVENIENCE entails that □(*NT* ⊃ *M*), where □ is the metaphysical necessity operator and ⊃ is the material conditional.[9] In the next section, I will argue that instances of *NTI&~M* are conceivable,[10] and in §3, I will argue that that if *NTI&~M* is conceivable, then *NT&~M* is metaphysically possible. Clearly, if *NT&~M* is metaphysically possible, then SUPERVENIENCE is false.[11,12] Note that I will assume nonnaturalism throughout this argument – my central claim, after all, is that *nonnaturalists* ought to reject SUPERVENIENCE, though many of the considerations that I raise will have a wider appeal.

2. The conceivability of *NTI&~M*

For a sentence *S* to be prima facie conceivable is for it to be logically consistent and conceptually coherent, at least on the face of it. For a sentence *S* to be ideally conceivable is for it to remain coherent under ideal rational reflection. If *S* is ideally conceivable, then it is possible for an ideally rational being to maximally fill in the details of a scenario in which *S* is true without detecting any logical inconsistency or incoherence with anything knowable a priori.[13]

Some instances of *NTI&~M* are prima facie conceivable. For example, suppose that as a matter of fact, utilitarianism is true, and you ought to kill the one to save the five. Nevertheless, it is surely conceivable that deontology is true, and you are not permitted to kill the one to save the five. After all, deontologists might be mistaken, but they are not conceptually deficient. The conjunction of *NTI* and 'you are not permitted to kill the one to save the five' is neither logically inconsistent nor conceptually incoherent.[14] Or suppose that as a matter of fact, moral realism is true, and it is a robust, moral fact that you are permitted to kill the one to save the five. Nevertheless, it is surely conceivable that moral nihilism is true, and there are no robust, moral facts. After all, moral nihilists might be mistaken, but they are not conceptually deficient. The conjunction of *NTI* and 'it is not the case that it is morally permissible to kill the one to save the five' is neither logically inconsistent nor conceptually incoherent. Either way, we have good reason to think that *NTI&~M* is prima facie conceivable.

Despite the prima facie conceivability of *NTI&~M*, many friends of SUPERVENIENCE put it forward as a *conceptual* truth (Cf. Dreier 1992; MacPherson 2015; Ridge 2007). So, they clearly do not regard instances of *NTI&~M* as ideally conceivable. But why should we think that no instance of *NTI&~M* is ideally conceivable? One reason is that we find it difficult to imagine a situation in which, say, Hitler did all the things he actually did, yet did no wrong. However, as Allison Hills (2009) argues, our failure to imagine morally abhorrent scenarios might better be explained by the phenomenon of imaginative resistance: if we try to imagine a world that satisfies *NTI* but where Hitler did no wrong, we are prevented from doing so by a powerful feeling of moral disgust. If this is the best explanation

of our failure of imagination here, then unimaginability does not in this case imply inconceivability. Similarly, many of us will experience imaginative resistance if we try to imagine taking pleasure in eating human flesh, though it is conceivable for someone to take pleasure in eating human flesh nonetheless. Nevertheless, though we may be unable to imagine a world where Hitler did all the things that he actually did yet did no wrong, we *can* imagine worlds that are just like ours but where deontology is true, utilitarianism is true, or virtue theory is true, regardless of which first order normative theory is in fact true at our world (Rosen forthcoming). Since we can imagine these innocuous violations of SUPERVENIENCE, while we cannot imagine the more horrific sort, it seems that the best explanation of the limitations on our imagination in the horrific cases is not that SUPERVENIENCE is a conceptual truth. At any rate, the falsity of SUPERVENIENCE does not require that *every* instance of *NTI&~M* is possible. There may be some constraints, perhaps placed by our normative concepts or by the essences of normative properties, that rule out worlds that satisfy *NTI* but where Hitler's actions were morally permissible. It is enough to reject SUPERVENIENCE that there are innocuous violations of *NTI&~M* that are ideally conceivable.

Since imagination is not a good guide to conceivability in this case, how can we establish whether or not violations of SUPERVENIENCE are conceivable? One way to do so is to determine whether there is an a priori entailment from *NTI* to an arbitrary moral truth *M*. If there is such an a priori entailment, *NTI&~M* is not ideally conceivable, since it is incompatible with something that we know a priori.[15] As we shall see, however, none of the usual arguments for a priori entailments of this kind is satisfactory, particularly from a nonnaturalist point of view.

2.1. *Conceptual entailments*

One way to argue that there is an a priori entailment from *NTI* to *M* would involve showing that moral concepts are reductively analyzable. If moral concepts are reductively analyzable, then an ideal being who knows *NTI* and grasps our moral concepts is in a position to deduce *M* without recourse to any further empirical information. However, this strategy for defending the a priori entailment from *NTI* to *M* is not open to nonnaturalists, who follow Moore (1903) in denying that moral concepts are reductively analyzable. The central insight of Moore's infamous Open Question Argument can be glossed as follows: any statement of an analytic equivalence between an arbitrary normative concept and any naturalistic definition of it can be coherently questioned. Someone who is fully competent with the term 'good' and with relevant natural terms can sensibly raise the question: '*x* is *F*, but is *x* good?', where '*F*' can abbreviate any natural term that you like. The moral is that there is no reductive definition of any moral term that underwrites an a priori entailment from *NTI* to *M*: knowledge of *NTI* together with a full grasp of the meanings of the terms in *N* does not put one in a position to know *M* without recourse to any further information.

Now, Moore assumed that a reductive analysis of a normative concept takes the form of a definition. An alternative view is that normative concepts can be given a reductive *functional* analysis (Jackson 1998). A third view is that normative terms cannot be reductively analyzed in either way, though they nevertheless *designate* natural properties – just as 'water is H_2O' is not analytic, though 'water' picks out H_2O nonetheless (Boyd 1988). Though these theories are prominent forms of naturalism, and no more attractive to non-naturalists than analytic naturalism, it will be instructive to consider one central objection to all such theories: the disagreement problem.[16]

The disagreement problem arises with the attempt to assign a meaning or a content to moral judgments and moral concepts in such a way that can make sense of genuine, substantive moral disagreements. In order for there to be a genuine moral disagreement between, for instance, a utilitarian and a deontologist over whether it is right to kill the one to save the five, the utilitarian and the deontologist must be talking about the same thing – *rightness* – when they disagree about what is right. If they have distinct concepts of rightness, and if their concepts have different extensions, then they talk past one another; their disagreement is merely verbal. The problem is that any account of the principle that fixes the reference of a moral concept to a natural property renders some intuitively genuine moral disagreements merely verbal.

For instance, consider Jackson's moral functionalism, according to which moral terms and concepts can be functionally analyzed in terms of a network of platitudes of three broad types. First, the pure moral platitudes specify analytic relations between pure moral concepts, and include such platitudes as: 'if something is good, then it is not bad'. Second, moral psychological platitudes characterize the role moral concepts play in motivation, such as, 'if a rational agent judges that she ought all things considered to do A, then she is typically motivated to some degree to do A'. Third, mixed platitudes specify a priori entailments between the natural and the normative. The mixed platitudes are clearly where the action is, since they include natural-normative conditionals, such as 'if an experience is pleasant, then it is to some extent good,' or 'if S promises to do A, then S has a *pro tanto* reason to do A'. Jackson argues that these platitudes – or rather those that would be included in our mature moral theory – fix the reference of our moral concepts to the occupiers of the relevant functional roles. For instance, the concept 'good' picks out the property that occupies the goodness-role, that satisfies the platitudes that define the concept 'good'. The mixed platitudes ensure that if any property satisfies the goodness-role, it will be a natural property of some kind, albeit potentially one that is highly disjunctive.[17]

The disagreement problem arises when we imagine that we come across a community of people who are very much like us, who speak a language very much like English, and who use all of the natural predicates, such as 'pleasure', 'pain', 'torture', etc. in much the same way that we do. The only difference lies in their use of moral predicates, such as 'good' and 'right'. Though they accept the

same analytic and psychological platitudes that we accept, they accept radically different mixed platitudes. For instance, whereas our mature moral theory contains the platitude 'if something is pleasant, then it is to some extent good', their mature moral theory contains the platitude, 'if something is painful, then it is to some extent good'. Let's call them the Evils, and their language Evil-English. (Of course, Evil-English may just be English, as spoken by Evil people.)[18]

Intuitively, we have a genuine disagreement with the Evils about whether pleasure is good. Yet, Moral Functionalism predicts that there is no genuine disagreement here at all. According to Moral Functionalism, the Evils' expression 'good' does not receive the same functional analysis as the English expression 'good', since the mixed platitudes are not shared between us. In addition, the Evil's term 'good' has a different extension from our term 'good', since different natural properties occupy the functional role of their term 'good' than occupy ours. If our moral terms have both different functional analyses and different extensions from the Evils' moral terms, there is no shared meaning or content that we accept and they reject; the dispute between us is merely verbal. We can all agree that 'pleasure is good' is true in English, but not in Evil-English. And we can all agree that pleasure is F, where F is the natural property picked out by 'good' in English, and that pleasure is not F^*, where F^* is the natural property picked out by 'good' in Evil-English. Though we *appear* to disagree with the Evils whether pleasure is good, there is no genuine disagreement between us.[19]

The problem with Moral Functionalism is that it treats the mixed platitudes, which are substantive moral judgments, as fixing the referents of our moral terms and concepts, and this entails that genuine disagreement over those substantive moral matters is impossible. This problem generalizes to other ways of fixing reference to natural properties. We can state the problem in general terms by focusing on the status of normative bridge principles of the form 'If x is F, then x is G' (where F is a natural property and G is a moral property). Now, consider some such normative bridge principle, B. If B is analytic of some moral concept of ours, then genuine disagreement over B is impossible, because a member of a linguistic community in which B is not accepted does not share our moral concepts. If B fixes the referent of some moral concept, then similarly, genuine disagreement over B is impossible, once again because a member of a community in which B does not play a reference-fixing role does not share our moral concepts.[20] However, some bridge principle must be either analytic or reference-fixing if there is to be an a priori entailment from the natural to the normative truths.

The disagreement problem is not the exclusive bugbear of naturalists (Eklund 2017). Cuneo and Shafer-Landau (2014) have argued for an a priori entailment from the natural to the moral truths, which is explicitly nonnaturalist in its meta-ethical commitments, yet which faces the disagreement problem nonetheless. Shafer-Landau and Cuneo argue that there is a set of what they call 'moral fixed points', which are a priori knowable moral truths, such as that

it is wrong to torture others simply because they have inconvenienced you. According to Cuneo and Shafer-Landau, the moral fixed points do not directly constitute moral concepts, but constitute the moral domain – in order for a system of beliefs to count as a moral system, it must contain the moral fixed points. Nevertheless, the claim that the moral fixed points constitute the moral domain faces the disagreement problem.

Consider once again the Evils, who use the terms 'pleasure' and 'torture' as we do. Now suppose that they do not accept the moral fixed points; in particular, they judge that it is permissible to torture others just because they have inconvenienced you. Once again, despite the differences, we seem to have a genuine moral disagreement with the Evils about whether it is wrong to torture others just because they have inconvenienced you. However, Shafer-Landau and Cuneo's theory predicts that our disagreement is not genuine. On their view, since the Evils' system of beliefs does not contain the moral fixed points, it is not a moral system, however much it may seem like one. If the Evils' system of beliefs is not a moral system, then the concepts that figure in those beliefs are not moral concepts, and do not pick out the moral properties that our genuinely moral concepts pick out.[21] Let's say that the Evils' concept 'wrong' picks out the property of being wrong*, whereas our concept picks out the property of being wrong. We can all agree that torturing someone merely because they have inconvenienced you has the moral property of being wrong but not the non-moral property of being wrong*. So this cannot be what the disagreement between us and the Evils is about. Once again, we disagree with the Evils on fundamental moral principles. To treat these principles as constitutive of the moral domain is to misrepresent fundamental moral disagreement.

In general, any theory that postulates a conceptual or analytic a priori entailment from *NTI* to *M* will give rise to difficulties similar to those we have encountered above. If acceptance of some moral bridge principle is necessary for deployment of a particular moral concept, or the deployment of moral concepts in general, then any community that rejects a principle that we accept fails to deploy the same moral concepts that we do, no matter how much they resemble us in other respects. Yet when we consider disagreement cases, where some group of people resemble us in every respect, save that they reject some moral principle that we accept, we have the strong intuition that we have a genuine disagreement, and hence that their moral terms have the same meanings and extensions as ours.[22] This suggests that these fundamental moral principles – such as that if something is pleasant then it is to some extent good, or that it is wrong to torture others simply because they have inconvenienced you – are neither analytic nor reference-fixing.[23] And this undercuts one kind of argument for the claim that there is an a priori entailment from the natural truths to the moral truths.

2.2. *Synthetic a priori entailments*

Instead of arguing that the a priori entailment from *NTI* to *M* is analytic, perhaps it could be argued that the entailment is synthetic. If there is a synthetic a priori entailment from *NTI* to *M*, then an ideal being who knew the natural facts and this synthetic a priori entailment, would be in a position to deduce the normative facts without recourse to any further empirical investigation. It would follow that *NTI&~M* is not compatible with all we know a priori, and thus is not ideally conceivable.

For instance, there might be a synthetic a priori principle which states that a metaphysical relation holds between the natural and the moral. What could this relation be? We can at the outset set aside the suggestion that the relation is identity, since nonnaturalists explicitly deny that normative facts or properties are identical to natural facts or properties. Two alternatives immediately suggest themselves. The first is to say that the normative facts are grounded in the natural facts. The second is to say that normative properties have natural essences. As we shall see, neither suggestion proves to be compatible with nonnaturalism.

2.2.1. *Grounding*

There is a tempting picture of moral explanation according to which if any entity has a moral property, there must be some natural properties *in virtue of which* it has that moral property: if an act is right, there are some natural features of the act in virtue of which it is right; if something is good, there are some natural features of it in virtue of which it is good (Cf. Jackson 1998; Olson 2014). These natural features are the so-called 'right-making', and 'good-making' features. One of the central tasks of moral theory is to identify the most fundamental right-making and good-making features; to arrive at fundamental moral principles which state the natural properties in virtue of which something is right or good.

This picture suggests that moral explanation is a kind of metaphysical grounding explanation, which also concerns the facts in virtue of which some further fact obtains, or what makes it the case that some fact obtains (Cf. Rosen 2010). To say that what makes an action right is that it maximizes happiness, on this view, is to say that rightness is metaphysically grounded in happiness maximization. If moral explanation is a species of metaphysical grounding explanation, and if every moral fact can be explained in naturalistic terms, then the moral facts are fully grounded in natural facts. If this is true, then this gives friends of Supervenience all they need. Though the concept of grounding is highly contested, it is widely agreed that there is a link between grounding and necessity (where [p] is the fact that p, Γ is a collection of facts, and [p] ← Γ says that [p] is fully grounded in Γ):[24]

Grounding − Necessity Link: If $[p] \leftarrow \Gamma$ then $(\Gamma \supset [p])$

If the moral facts are fully grounded in natural facts, then SUPERVENIENCE follows. And if the basic moral principles that state these grounding relations are knowable a priori, then there is an a priori entailment from the natural facts to the moral facts.

However, we can put pressure on the claim that the moral facts are fully grounded in natural facts by appeal to the *Moral Relevance Argument* (Schroeder 2005; Väyrynen 2013). Suppose that we give an explanation of a moral fact, *M*, by appeal to some natural fact, *N*. Suppose we say, for instance, that act A is right in virtue of the fact that it maximizes happiness. The Moral Relevance Argument then goes as follows:

The Moral Relevance Argument

(P1) *N* explains *M* if and only if *N* is morally relevant to *M*.

(P2) A complete explanation of *M* by *N* must explain the fact that *N* is morally relevant to *M*.

(P3) The fact that *N* is morally relevant to *M* is a moral fact.

(P4) *N* cannot explain the fact that *N* is morally relevant to *M*.

(C1) The explanation of *M* by *N* is incomplete. To be completed, it must be supplemented with a moral fact.

(C2) Since *N* and *M* are schematic letters, there is no complete naturalistic explanation of a moral fact.

Each of the premises of the moral relevance argument is plausible. First, it is plausible that maximizing happiness makes an act A right iff maximizing happiness is morally relevant to A's rightness.[25] This is difficult to deny: many other natural facts, such as the fact that A was triggered by a particular pattern of neural activation in a particular agent's brain, are not morally relevant to the fact that A is right, and hence need not be included in the complete explanation of what makes A right. Second, it is plausible that part of the complete explanation of what makes A right ineliminably includes the fact that A's maximizing happiness is morally relevant to its rightness. Any explanation of the rightness of A that left this out would leave out a vital piece of information. Third, it is plausible that moral relevance facts are moral facts. After all, moral relevance facts relate natural properties to moral properties; they state that some natural fact *N* (that act A maximizes happiness) is morally relevant to some moral fact *M* (that A is right), just as basic moral principles do. If these are not moral facts, it is difficult to know what are.[26] Fourth, it is plausible that the fact that A maximizes happiness does not explain why its maximizing happiness is morally relevant to its rightness: explaining the relevance of maximizing happiness to rightness by appeal to the fact that A maximizes happiness seems to put the explanatory cart before the horse.[27] However, if the Moral Relevance Argument is accepted, then it is not the case that every moral fact has a complete metaphysical grounding explanation in terms of natural facts. Thus, there is no grounding relation

between natural and moral facts that delivers an a priori entailment from *NTI* to an arbitrary moral fact *M*.

Clearly, a proponent of the view that the moral facts are wholly grounded in the natural facts needs to resist the Moral Relevance Argument. An obvious way to do so is to reject the view that the moral relevance of *N* to *M* cannot be explained by *N* itself. One might argue, for instance, that the intrinsic nature of the natural fact *N* both guarantees that *M* exists, and also guarantees that *M* has the intrinsic nature that it does (Cf. Bennett 2011; Väyrynen 2013). In guaranteeing that *M* exists, *N* explains its relevance to *M*, while in guaranteeing that *M* has the intrinsic nature that it does, *N* explains *M*. However, it is not clear that this move is open to the nonnaturalist. For, this way of resisting the normative relevance argument entails that, given the existence of the natural facts, and given their intrinsic natures, nothing more has to obtain for the moral facts to exist. And this seems to be incompatible with the claim that the moral facts are *sui generis* (Väyrynen 2013). To say that the moral facts are *sui generis* entails that the moral facts are not constituted by the natural facts. But it is hard to see how the moral facts could be *sui generis* in this sense if the existence of the natural facts guarantees the existence of the moral facts. Since constitution is generally understood to be distinct from merely necessary co-variation, it is plausible that a central part of what it is for Γ to constitute [p] is for it to be the case that the existence of Γ guarantees the existence of [p]. However, the claim that the moral facts are constituted by natural facts is a central doctrine of a familiar form of moral naturalism, which is obviously incompatible with non-naturalism.

2.3. Essentialism

Instead of postulating a grounding relation between the moral and the natural facts, it might be argued that it is in the essence of some collection of entities (objects, properties, relations, or whatever) that the moral supervenes on the natural. Essentialists about metaphysical modality hold that,

> MODAL ESSENTIALISM: If it is metaphysically necessary that *p*, then there is some collection of entities X such that it is in the essence of X that *p*.

However, as Gideon Rosen has argued, MODAL ESSENTIALISM and SUPERVENIENCE are incompatible with nonnaturalism. His argument (simplified considerably) goes as follows.

First, the nonnaturalist's claim that moral properties are *sui generis* entails that there is some moral property *M* that does not admit of real definition in wholly non-normative, naturalistic terms. On a simple account of real definition, *φ* defines *F* iff,

(a) It is in the essence of *F* that $\forall x\,(Fx \leftrightarrow \varphi x)$.
(b) The essences of the constituents of *φ* make no non-trivial reference to *F*.

Second, SUPERVENIENCE entails that each normative property is necessarily equivalent to some (potentially infinite) disjunction of natural conditions. If we let $N_i(x)$ denote the fact that x instantiates some purely natural property, and let G denote an arbitrary normative property, then SUPERVENIENCE entails:

(1) $\Box\ \forall x\ (Gx \leftrightarrow (N_1(x) \lor N_2(x) \lor, \ldots))$

Now, if (1) is an essential truth, then assuming MODAL ESSENTIALISM, there must be some collection of entities, such that it is in the essential natures of those entities that (1). One possibility is that it is in the essence of the moral property G that (1). But if so, then (1) constitutes a real definition of G, stated in naturalistic terms. If we make the simplifying assumption that G is the only moral property around, then this amounts to the claim that moral properties have natural essences, which is clearly incompatible with nonnaturalism. This simplifying assumption is not as outlandish as it might seem, since many hold that some normative property or other is fundamental in the sense that all other normative properties can be reduced to it. But even if this is not the case, the simplifying assumption can be lifted, and the argument goes through.[28]

Alternatively, one might try to argue that it is in the essence of some natural property or properties that (1) holds. Rosen rejects this 'pan-normativist' strategy since he claims the essences of natural properties make no non-trivial reference to moral properties – for instance, the essence of being a proton makes no non-trivial reference to goodness. To Rosen's considerations, we can add a further difficulty: the suggestion that (1) lies in the essence of some natural properties is incompatible with nonnaturalism, if we assume the plausible principle that essence requires existence:

> ESSENCE REQUIRES EXISTENCE: The claim that it is essential to x that p logically entails the existence of x and of every entity mentioned in p.

ESSENCE REQUIRES EXISTENCE is hard to deny. It is hard to see how something could have an essence if there were no such thing to have the essence. And it is hard to see how something could figure in the essence of another thing, if there were no such thing to figure in its essence (Cf. Kment 2014:155). The trouble is that if it is essential to some natural property F that (1), then the existence of F guarantees the existence of G. Once again, this might be captured by the claim that the natural property F constitutes the moral property G, which conflicts with the nonnaturalist's claim that moral properties are sui generis.

Stephanie Leary (2017) has recently advanced a third suggestion. She claims that there are hybrid properties whose essences involve both natural and moral properties. For example, she claims that it is in the essence of being a pain that,

(c) If one's C-fibres fire, then one is in pain.
(d) If x is a painful experience, then x is bad.

Leary's suggestion is that the essence of pain both grounds the supervenience of the badness-facts on the pain facts, and grounds the supervenience of the

pain facts on the purely natural facts. More generally, the suggestion is that the essences of hybrid properties ground both the supervenience of the moral on the hybrid, and the supervenience of the hybrid on the purely natural. Since the supervenience relation is transitive, it follows that the moral supervenes on the purely natural.

This proposal is not ultimately compatible with nonnaturalism, however. To see why, note that the supervenience of the moral on the hybrid entails that the moral facts necessarily co-vary with some conditions stated in hybrid terms. If we let $H_i(x)$ denote the fact that x instantiates some hybrid properties, the supervenience of the moral on the hybrid entails:

(2) Necessarily, $\forall x \, (Gx \leftrightarrow (H_1(x) \lor H_2(x) \lor \ldots))$

And the supervenience of the hybrid on the natural entails (3):

(3) Necessarily, $\forall x \, (Hx \leftrightarrow (N_1(x) \lor N_2(x) \lor \ldots))$

The claim that (2) and (3) are grounded in essential truths about some collection of hybrid properties, as Leary suggests, together with ESSENCE REQUIRES EXISTENCE, is incompatible with nonnaturalism. If (2) is an essential truth, then given ESSENCE REQUIRES EXISTENCE, the existence of the hybrid fact guarantees the existence of a moral fact. Once again, this claim is equivalent to the claim that moral facts are *constituted* by hybrid facts, which is incompatible with the non-naturalist's claim that moral properties and moral facts are *sui generis*. Moreover, if (3) is an essential truth, then the existence of a hybrid fact guarantees the existence of a purely natural fact, which amounts to an implausible pan-normativism, given that hybrid facts are partly normative.

These are some of the main options for supporting the view that there is a synthetic a priori entailment from the natural facts to the moral facts. No doubt there are others, but it is plausible that they will suffer similar difficulties. The trouble is that to postulate an a priori entailment from the natural to the moral, whether analytic or synthetic, involves postulating a more intimate connection between the moral and the natural than is compatible with nonnaturalism. The non-naturalist's distinctive claim that moral facts and properties are *sui generis* seems to be incompatible with there being *any* more intimate relation between the natural and the moral than metaphysically necessary co-variation. However, if there is no a priori entailment from the natural truths to the moral truths, then *NTI&~M* is ideally conceivable.

3. From conceivability to possibility

Nonnaturalists' good reason to think that instances of *NTI &~M* are ideally conceivable gives rise to good reason to think that instances of *NTI &~M* are metaphysically possible. It is widely agreed that conceivability is at least a good guide to metaphysical possibility, even if there are certain cases in which

conceivability does not entail possibility (Cf. Yablo 2002). However, as we shall see, in the particular case of morality, the inference from conceivability to possibility seems to go through.

One way to resist the inference from conceivability to possibility here would be to appeal to familiar Kripkean a posteriori necessities, such as 'water is H_2O': since 'water is H_2O' is a posteriori, it is conceivable that water is not H_2O; but since 'water is H_2O' is necessary, it is not metaphysically possible that water is not H_2O. Assuming that our world is a utilitarian world, perhaps 'act A is right if and only if it maximizes happiness' is an a posteriori necessity. In that case, it is conceivable that deontology is true, but it is not metaphysically possible.

There are several points that can be made in response to this line of resistance to the inference from conceivability to possibility. First, if moral truths are Kripkean a posteriori necessities, and if this is modeled on 'water is H_2O', then moral concepts must designate natural properties, just as 'water' rigidly designates H_2O. If 'good' designates some natural property, such as pleasure, and this is an a posteriori necessity, then it might be conceivable that experience *E* is pleasant but not good, though it is not metaphysically possible that *E* is pleasant but not good. However, the claim that moral concepts designate natural properties is a central thesis of a familiar form of naturalism (Boyd 1988); this is obviously incompatible with the nonnaturalist's claim that moral concepts pick out *sui generis* moral properties. So, nonnaturalists cannot resist the inference from conceivability to possibility in this way.

Another way to resist the inference from conceivability to possibility appeals to nesessitarianism about basic moral principles:

NECESSITARIANISM: basic moral principles are metaphysically necessary.

If NECESSITARIANISM is true, then the basic moral principles trivially supervene on the natural facts. And if contingent moral facts are fully explained by natural facts together with basic moral principles, then the contingent moral facts likewise supervene on the natural facts. If utilitarianism is true, on this view, then it is a necessary truth, and deontology, though conceivable, is necessarily false. Compare: it is both conceivable that God exists and that God does not exist, but if God exists, then it is necessarily true that God exists, and necessarily false that God does not exist, in which case, you cannot infer from 'it is conceivable that God does not exist' to 'God does not exist.'[29]

However, this line of resistance faces exactly the same difficulties that have been raised against SUPERVENIENCE. As we have seen, nonnaturalists have good reason to deny that there is any more intimate connection between the natural and the moral truths than metaphysically necessary covariation, such as conceptual entailment, identity, grounding, or constitution. But this seems to eliminate in one stroke all of the ways in which one might argue that NECESSITARIANISM is true. So, though NECESSITARIANISM entails SUPERVENIENCE, it is unclear how NECESSITARIANISM might be defended, at least if the foregoing arguments are on the right track.

Finally, we can provide positive support for the inference from conceivability to possibility by noting that just like phenomenal concepts, moral concepts are 'super-rigid'.[30] Let's say that an epistemically possible scenario is a maximal and consistent description of a way things could actually have turned out to be that cannot be ruled out a priori. Super-rigidity can then be characterized as follows.

SUPER-RIGIDITY. A concept is super-rigid if it has the same extension in all metaphysically possible worlds, and in all epistemically possible scenarios.

If an arbitrary sentence S contains only logical vocabulary and super-rigid terms, then it is super-rigid, and 'it is conceivable that S' entails 'it is metaphysically possible that S'. It is easy to see why this is so: to say that S is conceivable is to say that there is some epistemically possible scenario at which it is true. Epistemically possible scenarios can be seen as descriptions of centered worlds, $\langle w, a, t \rangle$ consisting of a metaphysically possible world marked with a 'center', indicating an agent a and a time t. To say that S is metaphysically possible is to say that there is a metaphysically possible world at which S is true. If the terms in S have the same extension in all metaphysical and epistemic possibilities, then if S is true at an epistemically possible scenario, there must be a corresponding metaphysically possible world w in $\langle w, a, t \rangle$ at which S is true.

A strong case can be made for the super-rigidity of moral terms, at least from a non-naturalistic point of view. First of all, according to the non-naturalist, 'good' picks out a *sui generis* moral property. Though this does not entail that 'good' picks out the same *sui generis* moral property in all metaphysically possible worlds, this is a plausible further assumption for a non-naturalist to make. Furthermore, it is plausible that our moral terms are epistemically rigid. This is supported by the intuitions that are involved in the disagreement problem. If genuine disagreement on all substantive moral matters is possible, then no bridge principle B is either analytic or reference-fixing. This shows that the extensions of our moral terms at epistemically possible scenarios do not depend on the natural descriptions of those scenarios: *however* the actual world might turn out to be in natural respects, moral terms such as 'good' and 'right' pick out the same non-natural properties. Since it is plausible that our moral terms are both metaphysically and epistemically rigid, it is plausible that they are super-rigid.

Of course, if we want to know whether we can infer from the conceivability of NTI&~M to its possibility, it is not enough that M is super-rigid; we need to know whether NT is super-rigid as well. If it is, then there is a straightforward inference from the conceivability of NTI&~M to the metaphysical possibility of NT&~M, and hence to the failure of SUPERVENIENCE. Moreover, it is plausible that at least some of the morally relevant terms in N are super-rigid, such as the terms for pleasure and pain, which are phenomenal terms, and hence super-rigid.[31]

However, if NT is not super-rigid, then the failure of SUPERVENIENCE does not immediately follow. For instance, suppose that 'mass' is not super-rigid, and picks out different intrinsic properties at different epistemically possible scenarios: if it turns out that some property mass* actually plays the mass-role, 'mass' picks

out mass* not mass. If *NT* is not super-rigid, then the inference from the conceivability of *NTI&~M* to the metaphysical possibility of *NT&~M* fails, because we have to acknowledge that a possible world at which *NTI&~M* is true might be one that differs from our world in some of its intrinsic natural properties. However, the result is a view that is decidedly odd. According to this view, the fact that some act A is right does not supervene on such facts as that it maximizes happiness, but on some facts about intrinsic natural properties, such as that mass occupies the mass-role, as opposed to mass*. Yet, it is implausible that rightness supervenes on such intrinsic natural properties, because these properties seem not to be morally relevant at all. For the foregoing reasons, we are justified in accepting the inference from the conceivability of *NTI &~M* to the possibility of *NT&~M*.

4. Primitivist moral realism

In the remainder of this paper, I would like to make a case for primitivist moral realism. The primitivist agrees with the nonnaturalist that the moral is irreducible and *sui generis*, but departs from traditional nonnaturalism in rejecting Supervenience. Rather, according to primitivism, all moral facts are metaphysically contingent, both particular moral facts, such as that a particular act A is right, and universal moral facts, such as that, for all acts *x*, *x* is right iff *x* maximizes happiness. The particular fact that A is right is fully explained by the natural facts together with this basic moral principle. Basic moral principles are universal generalizations, and support counterfactuals: if it is a basic moral principle that an act is right iff it maximizes happiness, then if some act A* *were* to maximize happiness, it *would* be right. Moreover, basic moral principles hold with their own, *sui generis* kind of normative necessity, understood as a kind of 'fact-independence'. Following Rosen (forthcoming), we can say:

> Fact-Independence: for a proposition *p* to be fact-independent at *w* is for *p* to be a proposition true at *w* such that for any wholly non-normative proposition *q*, the counterfactual "if *q* had been the case, *p* would still have been the case" is true at *w*'.[32]

And, still following Rosen, we can define normative necessity and normative possibility as follows:

> Normative Necessity: for a proposition *p* to be normatively necessary at *w* is for *p* to be either fact-independent at *w*, or for *p* to be true at every possible world *w*' such that every fact-independent moral principle true at *w* is true at *w*'.

> Normative Possibility: for a proposition *p* to be normatively possible at *w* is for *p* to be true at some possible world *w*' such that every fact-independent moral principle true at *w* is true at *w*'.

With this in place, we can see how the primitivist can capture many of the pre-theoretic intuitions with which we began. For instance, take the intuition that if anyone were exactly like King in natural respects, he would be a good

person. According to the primitivist, this intuition is to be taken at face value – as a *counterfactual*. And the truth of this counterfactual is compatible with the rejection of SUPERVENIENCE. When we evaluate the truth of counterfactuals, we need only look at the closest possible worlds at which their antecedents are true (Cf. Lewis 1973). In this context, the closest possible worlds are those that are just like our world in every respect, save those respects that are incompatible with the existence of someone distinct from King, but exactly like King in all natural respects. Crucially, among the facts we hold fixed when considering the truth of this counterfactual are the basic moral principles that are true at our world. Since these basic moral principles, together with the natural facts, fully explain King's goodness, they will, together with the natural facts at *w*, fully explain the goodness of someone just like King in all natural respects.

Or consider the intuition that there can be no moral difference without a corresponding natural difference. The primitivist takes this to be an intuition involving *normative* as opposed to metaphysical possibility. What it says is that it is not *normatively* possible that *w* and *w'* differ in moral respects without differing in some natural respects. Once again, to evaluate this claim, we look at worlds *w* and *w'* that share the same basic moral principles, and consider whether there can be a moral difference between *w* and *w'* without a corresponding natural difference. According to the primitivist, any particular moral fact is fully explained by the natural facts and basic moral principles, so if *w* and *w'* are alike in all of their basic moral principles, as we have assumed, then any moral difference between *w* and *w'* must be explained by a difference in natural facts. The primitivist can readily capture the intuitions typically invoked in support of SUPERVENIENCE.

Furthermore, there are several supervenience theses, weaker than SUPERVENIENCE, that are compatible with and can be explained by primitivist moral realism, such as for instance the following:

> WEAK SUPERVENIENCE: For any metaphysically possible world *w*, and any individuals, *x* and *y* in *w*, if *x* and *y* are alike in natural respects, then they are alike in moral respects.

Some have argued that non-naturalists, or cognitivists more generally, cannot explain WEAK SUPERVENEINCE (Cf. Blackburn 1993, Hare 1984). Yet, this is not the case. Cognitivists in general, and primitivists in particular, can easily explain WEAK SUPERVENIENCE, so long as it is assumed that moral principles are universal laws:[33] if it is a universal moral law at *w* that an act is right iff it maximizes happiness, then this holds everywhere in *w*. It follows that if acts A and B in *w* both maximize happiness, then A and B are both right in *w*.

Indeed, the primitivist can accept that the moral strongly supervenes on the natural, albeit with normative as opposed to metaphysical necessity:

> NORMATIVE SUPERVENIENCE: For any two possible worlds *w* and *w'* that share basic moral principles, if *w* and *w'* are alike in natural respects, then they are alike in moral respects.

Thus, primitivism seems to do well at capturing our intuitions. However, there are two objections to primitivism, which many will no doubt find pressing. The first, I have touched on already: I have argued that traditional nonnaturalists have good reason to reject the view that moral principles are a priori. But this threatens to undermine our capacity to know moral principles at all, since many hold that knowledge of fundamental moral principles is a priori.

The solution to this difficulty is to recognize a grey area between a priori and a posteriori knowledge: our knowledge of moral principles is 'armchair', continuous with our knowledge of counterfactuals in scientific and mundane contexts. As Williamson (2005) has argued, knowledge of counterfactuals is neither strictly a posteriori nor strictly a priori, since it can involve varying degrees of sensitivity to evidence. Empirical background beliefs constrain our imagination of how things would be under the conditions stated in the antecedent of the counterfactual under consideration.[34] When we consider moral counterfactuals, empirical evidence together with moral background beliefs constrain our imagination of how things would be under the stated conditions. Though Williamson rejects the traditional view of a priori knowledge, there is no need for us to go this far. We can accept Williamson's model of our knowledge of counterfactuals without subscribing to the view that this exhausts the methods by which we can come to know modal truths.

The second objection to primitivism is that it leaves the basic moral principles unexplained (Cf. Väyrynen 2017). Why is it that utilitarianism is true at w, while deontology is true at' w'? If utilitarianism is a contingent truth, there seems to be no deeper explanation available of why it is true at one world but not another. Of course, primitivism can explain non-basic, contingent moral truths, such as that a particular act is right. But it cannot explain why the basic moral laws hold here but not elsewhere.

Even so, it is not immediately clear why this is a problem. Notice that a similar objection could be raised against the widespread view that the laws of nature are metaphysically contingent. If the laws of nature are contingent, then there are some worlds at which they do not hold, and there is no deep metaphysical explanation as to why these laws hold at some worlds and not at others. If this worry is not pressing with regard to contingent laws of nature, there is no reason why it should be pressing with regard to contingent laws of morality either.

Moreover, traditional nonnaturalists, who accept NECESSITARIANISM and SUPERVENIENCE do not have a lighter explanatory burden. If there are necessary connections between natural properties and moral properties, then this stands in need of explanation. As we have seen, since traditional nonnaturalists hold that moral properties are irreducible and *sui generis*, they cannot explain these necessary connections by appeal to a priori entailments, be they analytic or synthetic.[35]

Notes

1. Though I discuss moral supervenience here, everything that I say here extends to normative supervenience more generally.
2. There are several different versions of the supervenience argument against non-naturalism. For a historical overview, see MacPherson 2015. Blackburn 1971, 1984, 1985 (whose target is cognitivism more generally) appears to assume WEAK SUPERVENIENCE: For any metaphysically possible world w, and any entities x, y in w, if x and y are exactly alike in all natural respects, then they are exactly alike in all moral respects. And as I argue in §4, nonnaturalists can explain WEAK SUPERVENIENCE. A more pressing worry for nonnaturalists, relying on the assumption of SUPERVENIENCE, has been put forward by MacPherson 2012; Schroeder 2014; and Jackson 2003. See Väyrynen (2017) for an excellent overview.
3. One might quibble with this characterization of nonnaturalism; some might characterize nonnaturalism as the narrow thesis that the moral facts are not identical to the natural facts. But that would lead us to classify as a nonnaturalist someone who denies that moral properties are identical to natural properties, but maintains that all moral properties have natural essences. Yet this view is really just a familiar form of naturalism, according to which the moral terms 'good', 'right' and so on, pick out essentially natural properties.
4. Contemporary non-naturalists include Cuneo 2007; Enoch 2011; Fitzpatrick 2012; Huemer 2005; Shafer-Landau 2003, Wedgwood 2009; Parfit 2011;. Some non-naturalists who reject SUPERVENIENCE include Allison Hills (2009), Debbie Roberts (forthcoming), Kit Fine (2002) and Gideon Rosen (forthcoming), and Ralph Wedgwood (2000). Fine and Rosen reject supervenience on broadly essentialist grounds. Wedgwood (2000) suggests that we can accept SUPERVENIENCE together with a weaker modal logic than S5. However, I take it that S5 is widely assumed to be the logic of metaphysical modality. So, insofar as Wedgwood rejects SUPERVENIENCE together with S5, he rejects the most common form of the moral supervenience thesis. (See Schmitt and Schroeder 2011 for discussion.) Moore is generally taken to assume SUPERVENIENCE, though Fine (2002) claims that Moore (1922) can be read as rejecting the metaphysical supervenience of the ethical on the natural.
5. Rosen (forthcoming) has recently argued that nonnaturalism is incompatible with SUPERVENIENCE, assuming an essentialist account of metaphysical modality (see also Fine 2002). The argument presented here is more general, since it does not assume essentialism throughout. I discuss Rosen's argument against SUPERVENIENCE in Section 3, and his account of normative necessity in §4.
6. This characterisation of the natural facts, as including those facts that are 'continuous' with the paradigmatic natural facts (MacPherson 2012) does not beg the question against Sturgeon (1988), who holds that moral properties are natural properties, but that they are not identical to any other natural properties. If Sturgeon is right, then the canonical language contains some natural predicates that pick out moral properties, though N does not contain any moral predicates.
7. What about the supernatural facts, such as facts about what God favours? I will simply set aside the supernatural facts here for simplicity. Nothing much hinges on this simplification.
8. In this framework, if the moral truths supervene on the natural truths, then it is possible for an ideal being, who is omniscient of the natural truths and the a priori truths to deduce the moral truths without recourse to any further empirical information. The indexical marker I is needed because it is arguably not possible

to know the indexical truths on the basis of knowledge of natural truths and a priori principles (Cf. Lewis 1979; Perry 1979). If there are any agent-relative moral truths, for instance, then knowledge of these will require knowledge of some indexical information. Notice, however, that the claim is not that the moral truths supervene on the indexical truths. These figure in the 'scrutability' base, which is epistemic, not in the supervenience base, which is metaphysical (Cf. Chalmers 2012).

9. Notice that $\Box(NT \supset M)$ is a *minimal* supervenience thesis, much weaker than Supervenience, since Supervenience entails $\Box(NT \supset M)$, but $\Box(NT \supset M)$ does not entail Supervenience. Whereas Supervenience describes a relation that holds across all metaphysically possible worlds, $\Box(NT \supset M)$ only states that necessarily, if any world is like *our* world in all natural respects (and that is all), then it is like our world in all moral respects.

10. It is worth noting that Chalmers himself seems to be inclined to favour the view that there is an a priori entailment from the natural truths to the moral truths, and hence that *NT*&~*M* is not ideally conceivable (Cf. Chalmers 2013). However, Chalmers' arguments assume some form of normative anti-realism, which is obviously incompatible with nonnaturalism. As a result, his arguments for an a priori entailment from the natural truths to the moral truths are not strictly relevant here. Moreover, it is not clear that Chalmers' normative anti-realism is compatible with other parts of his doctrine, such as his account of the determination of semantic and intentional content, which is achieved at least in part by a subject's *ideally rational* dispositions: what you mean by 'bachelor' is determined in part by your ideally rational dispositions to assign an extension to 'bachelor' when presented with various logically possible scenarios (See Chalmers 2011). Crucially, Chalmers takes rationality to be normative – what an ideally rational agent does in a given situation corresponds to what an ordinary agent ought rationally to do in that situation. But if there is a determinate fact of the matter what 'bachelor' means, and if this is determined in part by which extension an ordinary agent rationally ought to assign to 'bachelor' at a scenario, then there must be a normative fact of the matter what extension the agent rationally ought to assign to 'bachelor' at that scenario. This is incompatible with normative anti-realism.

11. The formulation follows Chalmers (2012).

12. The argument assumes that there are some moral truths. But since this is entailed by nonnaturalism, it is uncontroversial in the present context.

13. The notion of ideal conceivability that I will be working with here is what Chalmers (2002) calls *negative* ideal conceivability. In contrast, a sentence *S* is *positively* ideally conceivable just in case it is possible to imagine clearly and distinctly a scenario in which *S* true. The problem with appealing to positive conceivability in this context has to do with the imaginative resistance we encounter when we attempt to positively conceive of morally abhorrent scenarios (Hills 2009). In this special case, our inability to imagine these scenarios does not entail that those scenarios are not positively, ideally conceivable. Fortunately, negative ideal conceivability is sufficient for my purposes here. As I have suggested, a sentence *S* is ideally negatively conceivable just in case it remains coherent under ideal rational reflection. What this means is that an ideally rational being can arbitrarily fill in the details of a scenario in which *S* is true without detecting any logical inconsistency or incoherence. As I discuss in §3, a sentence *S* is epistemically possible just in case there is some epistemically possible scenario at which *S* is

true, where an epistemically possible scenario is a maximal and consistent set of sentences describing a way the world could have turned out to be that is compatible with everything we know a priori. If S is negatively ideally conceivable, then it is possible for an ideally rational being to fill in the details to yield a maximal and complete description of a way the world could have turned out to be without detecting any incoherence; in short, if S is negatively conceivable, then S is epistemically possible. And it is the epistemic possibility of S that is crucial for the argument from conceivability to possibility that I sketch in §3. One worry about working with a notion of merely negative conceivability arises from cases of unprovable mathematical statements, where both the statement and its negation are negatively ideally conceivable, but only one of them is true. I will set this issue aside here, since moral truths do not seem relevantly similar to mathematical truths, where it can be proven that some truths are unprovable. Moreover, negative ideal conceivability can at least been seen as good evidence for positive ideal conceivability.

14. The example is due to Yablo (ms).

15. Thus, the burden of proof shifts onto the friend of Supervenience. Another way to motivate this shift in the burden of proof appeals to the Lewisian *Principle of Recombination* according to which 'patching parts of different possible worlds yields another possible world…anything can exist with anything else, at least provided they occupy distinct spatiotemporal regions. Likewise, anything can fail to exist with anything else.' (Lewis 1986, 87–88) Of course, the Principle of Recombination must be restricted. For instance, if consciousness is essentially a physical process of the brain, then a conscious brain is possible, though a brain without consciousness is impossible. Nevertheless, the Principle of Recombination acts as the *default* assumption that the space of metaphysical possibility has no gaps. Any violation of the Principle of Recombination must be *established*. I am grateful to discussion with Tristram MacPherson on this point.

16. This is similar to what Mark Schroeder (presentation) calls the 'common subject matter problem'.

17. Jackson (1998) assumes that the class of natural properties is closed under disjunction and conjunction.

18. This case is reminiscent of Moral Twin Earth cases, where the relevant community is on Moral Twin Earth, modelled on Putnam's famous Twin Earth. Though there are versions of such cases in Hare (1952); as well as Smith (1994); the most prominent recent versions were put forward by Horgan and Timmons in 1991. In the Horgan and Timmons (1991) characterisation, on Moral Twin Earth there is a different property occupying the goodness role, whereas in my characterization, certain aspects of the role (the mixed moral platitudes) differ. Moral Twin Earth cases have been extensively discussed, and details of the formulation of these cases has been called into question (Cf. Dowell 2016). The disagreement problem can be seen as the central issue at the heart of Moral Twin Earth arguments (Cf. Eklund 2017).

19. It might be tempting to respond to such a case by claiming that we have a practical disagreement about what to do, or a clash of attitudes, rather than a disagreement in belief (Stevenson 1944). However, one of the signal virtues of cognitivism – the view that moral judgments are belief-like – is that it can give a straightforward account of moral disagreement, whereas non-cognitivists must resort to treating moral disagreements as practical disagreements about what to do, or clashes of attitude. These strategies are thus not congenial to nonnaturalism. Moreover, as I have argued elsewhere, non-cognitivists have

more trouble than they typically acknowledge in making sense of normative disagreement (Hattiangadi forthcoming).

20. One attempt to sidestep this issue involves appealing to external use facts to determine a common subject matter (Recanati 1997; Schroeter 2014). However, the problem in cases of substantive moral disagreement is that the use facts do not determine a unique subject matter. Given the unresolved dispute between utilitarians and deontologists, and given the complex array of moral intuitions in the face of various iterations of the trolley problem and other test cases, it is not clear whether our collective use of the term 'right' picks out the property of maximizing happiness or not. Moreover, even if it did turn out the use facts determine that 'right' picks out the property of maximizing happiness, this would not suffice to settle the dispute. Deontologists would not advocate a revised use of 'right'; rather, they would claim that their view captured rightness all along.

21. I make the plausible assumption that non-moral concepts do not pick out moral properties.

22. Could fundamental moral principles be both substantive and analytic? Perhaps, but this would not solve the problem, since *genuine disagreement* is lost so long as the principles are thought to be analytic, whether or not they are also thought to be substantive. I am grategul to Gurpreet Rattan for discussion on this point.

23. For further discussion of this point, see Bedke (2012).

24. Cf. Rosen (2010) and Fine (1994). However, note that Leuenberger (2013) questions this.

25. I take this to mean not that maximizing happiness is relevant to *some moral fact or other*, but that it is specifically relevant to the *fact that A is right*.

26. I will later consider the possibility that the principles that link the natural and the moral are *both* metaphysical and moral facts. The point here is that it is implausible that these facts are metaphysical but not moral.

27. This loosely follows Väyrynen's formulation of the normative relevance argument which, as the title suggests, in Väyrynen's case is couched in terms of normative explanation, rather than moral explanation.

28. See Rosen (forthcoming) for details.

29. I am grateful to Jonas Olson for the analogy.

30. The terminology is due to Chalmers (2013).

31. For an argument to the effect that phenomenal terms and phenomenal concepts are super-rigid, see Chalmers (2013).

32. Rosen ms. Note that Rosen calls this principle 'normative necessity'. See also Danielsson (2001), who puts forward a notion similar to Rosen's notion of fact-independence.

33. It can also arguably be explained by analytic naturalists (Cf. Jackson 2003) and traditional nonnaturalists (Cf. MacPherson 2012).

34. Does this offer a way out for the traditional nonnaturalist? After all, Williamson defines metaphysical necessity and possibility in terms of counterfactuals, and argues that we have armchair knowledge of metaphysical modality. However, no armchair argument for SUPERVENIENCE is forthcoming. On the face of it, even if our world is a utilitarian world, we can imagine a world that is just like our world in all natural respects at which deontology is true. The natural facts do not constrain the imagination in such a way as to rule out the truth of deontology. At best, we might hope that we will discover that the natural facts will do so in the long run. Nevertheless, at present, there is no argument for SUPERVENIENCE.

35. Early versions of this paper have been presented at the Normativity Workshop, Uppsala University, the Higher Seminar in Theoretical Philosophy at the University

Disclosure statement

Notes on contributor

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