

Are We Free to Make the Laws?

Christian Loew (Umeå Universitet)

Andreas Hüttemann (Universität zu Köln)

Penultimate Draft, Forthcoming in *Synthese*

ABSTRACT. Humeans about laws maintain that laws of nature are nothing over and above the complete distribution of non-modal, categorical properties in spacetime. ‘Humean compatibilists’ argue that if Humeanism about laws is true, then agents in a deterministic world can do otherwise than they are lawfully determined to do because of the distinctive nature of Humean laws. More specifically, they reject a central premise of the Consequence argument by maintaining that deterministic laws of nature are ‘up to us’. In this paper, we present a new argument for Humean compatibilism. We argue that Humeans about laws indeed have resources for defending compatibilism that non-Humeans lack (though not for the reasons typically discussed in the literature). Moreover, we show that utilizing these resources does not lead to objectionable consequences. Humeans about laws should thus embrace Humean compatibilism.

ACKNOWLEDGMENTS. Both authors contributed equally to the paper. For helpful comments and suggestion, we would like to thank Helen Beebe, Mike Hicks, Vera Hoffmann-Kolss, Siegfried Jaag, Caroline Touborg, Bram Vaassen, an anonymous referee for this journal, and audiences at Düsseldorf, Oxford, and Umeå. Special thanks to Caroline Touborg for substantial help with section 5. This work was supported by Deutsche Forschungsgemeinschaft (FOR 2495).

§1 Introduction

Do Humean reductionists about laws of nature have distinctive resources for defending compatibilism about free will? Humean reductionists maintain that laws of nature are nothing

over and above the complete distribution of non-modal, categorical properties in spacetime.¹ For example, according to David Lewis's influential *Best Systems Account*, laws of nature are regularities in the simplest and most informative systematizations of what actually happens.²

Humean compatibilism, as we use the label, says that if Humean reductionism about laws is true, then determinism and free will (understood in terms of the ability to do otherwise) are compatible *because of* the distinctive nature of Humean laws. Humean compatibilism does not presuppose that Humeanism about laws is true. It merely concerns the implications Humeanism would have for free will if it were true. And, just like other forms of compatibilism, Humean compatibilism is neither committed to determinism nor to the existence of abilities to act otherwise. It is only committed to the compatibility of these two facts given a Humean view of laws.

A Humean view of laws may bear on the free will debate in various different ways. Like others who have written on the topic, we will focus on the most influential style of argument for incompatibilism about free will, viz., the Consequence argument. Humean compatibilists maintain that, given a Humean metaphysics of laws, deterministic laws are, in a sense, up to us. They thereby reject a central premise of the Consequence argument. Humean compatibilism is interesting independently of whether Humean reductionism about laws is actually true because it would show that the Consequence argument presupposes a non-Humean conception of laws.

¹ 'Law of nature' is sometimes used to mean propositions that play a certain role within science and sometimes to mean the worldly referents of these propositions. We will use the term in both senses and rely on context for disambiguation.

² Lewis (1973). For other Humean accounts of laws, see, e.g., Beebee (2000), Bhogal (2020), Cohen and Callender (2009), Dorst (2019), Hall (ms), Hicks (2018), Jaag and Loew (2020), and Loewer (1996).

In this paper, we defend Humean compatibilism by arguing that Humeans indeed have resources for defending compatibilism that non-Humeans lack (though not for the reasons typically discussed in the literature). Moreover, we argue that employing these resources to reject the Consequence argument comes at no extra cost for Humeans. In particular, it does not commit them to any implausible claims about abilities. We conclude that Humean compatibilism is an attractive feature of Humeanism about laws and, given the relative popularity of Humeanism, an important position in the free will debate.³

Here is our plan for the rest of the paper: In §2, we present the Consequence argument and the role assumptions about laws of nature play in it. In §3, we argue that the most developed Humean compatibilist arguments in the literature, due to Beebe and Mele (2002), are unsuccessful. In §4, we provide an alternative argument for why Humeans can hold that the laws are up to us that we take to be more successful. In §5, we argue that our version avoids the main objections against Humean compatibilism.

§2 Determinism and the Consequence Argument

If determinism is true, then truths about the distant past and the laws of nature together logically entail truths about our future actions. This entailment does not, all by itself, imply that we lack the ability to do otherwise. After all, that we will act in a certain way does not mean that we are not able to also do otherwise. So, if there is a conflict between determinism and the ability to act

³ Humean compatibilism is frequently mentioned as an option in the recent free will literature but typically not spelled out in detail. See, e.g., Beebe and Mele (2002), Ismael (2016), Perry (2004), and Swartz (2003). Beebe and Mele (2002) is the most detailed discussion of the view. However, we will argue that their arguments for the view are unsuccessful (see §3). Moreover, our view avoids the difficulties Beebe and Mele raise for their own version of Humean compatibilism (see §4). Esfeld (2021) defends a variety of Humean compatibilism that rejects a different premise of the Consequence argument, viz., the fixity of the past. We will set aside this proposal since it presupposes a non-standard understanding of Humeanism.

otherwise, it must arise from combining determinism with further assumptions. The influential Consequence argument attempts to supply such additional assumptions.

The Consequence argument attempts to show that if determinism is true, then our actions are not up to us in the sense that we cannot do otherwise. Here is an informal statement:

If determinism is true, then our acts are the consequence of laws of nature and events in the remote past. But it's not up to us what went on before we were born, and neither is it up to us what the laws of nature are. Therefore, the consequences of these things (including our present acts) are not up to us. (van Inwagen 1983: 56)

Even this informal presentation shows the importance of assumptions about the laws of nature in the argument. Specifically, the Consequence argument assumes that if something is a law of nature, then the truth of the relevant proposition is not up to us. Call this assumption the 'Fixity of the Laws'

Fixity of the Laws (FOL). If it is a law of nature that p , then it is not up to us whether p is true.

Following van Inwagen (1983: 66-67), we will understand the locution that something is 'up to us' in terms of the "ability to render a proposition false," where:

to be able to render a proposition false is to be able to arrange or modify the concrete objects that constitute one's environment—shoes, ships, bits of sealing wax—in a way sufficient for the falsity of that proposition. (van Inwagen 1983: 67).

So, to be able to render a proposition describing a law of nature false, you would have to be able to do something that suffices to make the relevant proposition false.⁴ We will use the same locution to understand the ability to do otherwise: An agent who actually performs an action *A* could have done otherwise, just in case she was able to render the proposition that *A* occurs false. In this sense, the action was up to her.

FOL is essential to the Consequence argument. If we are able to render laws of nature false, then the fact that doing otherwise is incompatible with the actual laws and the actual past would not prevent us from doing otherwise. As an analogy, being chained to a heavy object, even if you cannot break the chains, only restricts your ability to move if you are unable to move the object. So, if we reject FOL, we thereby undermine the most influential argument for the incompatibility of determinism and the ability to do otherwise. But does Humeanism support the rejection of FOL?

§3 Humean Compatibilism

Humeans hold that the world fundamentally consists only of the complete distribution of non-modal, categorical properties in spacetime, the so-called “Humean mosaic.” As Lewis (1986: ix) puts it, “[a]ll there is to the world is a vast mosaic of local matters of particular fact, just one little thing and then another.” Humean reductionists about laws of nature then argue that the laws reduce to the Humean mosaic.

⁴ As Lewis (1981) points out, to make a proposition about the laws of nature false, an agent need not have the ability to violate a law or cause a law to be violated but only the, according to Lewis, less outlandish ability to do something such that if one were to do it, a law would be false. See Fischer (1994) and Vihvelin (2013) for discussion. Incompatibilists, however, maintain that agents in a deterministic world lack even the latter ability (see van Inwagen 2004: 348–350).

Humean Reductionism about Laws. The laws of nature reduce to the complete distribution of non-modal, categorical properties in spacetime.⁵

David Lewis's *Best Systems Account* (BSA) is the best-known example of Humean reductionism. According to the BSA, the laws are contingent generalizations that are part of those systematizations of the Humean mosaic that best balance strength and simplicity (Lewis 1973; see, e.g., Loewer 2007 and Cohen & Callender 2009 for various modifications of the BSA). So, it is a law that p , just in case p is a contingent generalization in the best systems. In the following, we will focus on Lewis's BSA, but our argument equally applies to other Humean theories of laws.

Does Humean reductionism about laws provide a reason for rejecting FOL? Humeans, of course, might reject FOL for reasons having nothing to do with their metaphysics of laws. For example, Lewis (1981) rejects FOL by arguing that we have the ability to do something such that if we did it, a law of nature would be false. Lewis, however, motivates this ability not by appealing to this Humean view of laws but argues that it follows from independently plausible considerations about counterfactuals (see Vihvelin 2013: ch. 7). So, while Lewis is a Humean and a compatibilist, he is not a 'Humean compatibilist' in our sense because his argument does not appeal to any resources that are distinctively Humean. Humean compatibilists, as we understand

⁵ David Lewis formulated Humeanism in terms of supervenience rather than reduction. However, in subsequent discussions it is common to understand it as a claim about reduction (see Bhogal 2020 and Hall ms).

the term, argue that if Humeanism is true, then compatibilism can be defended *because of* the distinctive nature of Humean laws.

In this section, we will argue that the most prominent arguments for Humean compatibilism in the literature, due to Beebe and Mele (2002), are unconvincing. We will then present, in the next section, what we take to be a more successful Humean argument against FOL. Beebe's and Mele's official line of argument is that Humeans can reject FOL because "a Humean about laws can hold that there is a sense in which the laws of nature are 'up to us'" (ibid.: 202). Their arguments, however, target FOL only indirectly. These arguments aim to show primarily that if Humeanism is true, then the ability to do otherwise is compatible with determinism. Only in a second step do Beebe and Mele use this conclusion as a modus tollens of the Consequence argument, arguing that its premise FOL must be false (ibid.: 209). A disadvantage of this indirect strategy is that it does not tell us what is wrong with this premise. Our own argument in the next section, by contrast, targets FOL directly.

Beebe and Mele provide two distinct arguments. We will argue that both are unsuccessful. The first argument starts from the observation "that ordinary future facts themselves do not impose limits on our abilities" (ibid.: 207), where 'ordinary facts' presumably means 'non-modal facts'. Beebe and Mele support this claim with the following example: Suppose it is true that Fred will eat toast for breakfast tomorrow morning. Does this fact, all by itself, show that Fred cannot do otherwise? Beebe and Mele point out that most participants in the free will debate would not think so. If the mere existence of true propositions about our future actions already deprived us

of the ability to do otherwise, then skeptics about free will would not need to appeal to determinism to argue that we lack this ability.⁶

Beebe and Mele go on to argue that Humean laws do not deprive us of the ability to do otherwise for the same reason future facts do not deprive us of this ability. They call the ability to perform either one of two incompatible actions a ‘dual ability’:

On a Humean conception of laws, just as facts about the future do not deprive us of present dual ability [sic], facts about what laws there are do not deprive us of such ability either, since the relevant feature of laws just is the fact that part of what laws describe is the future. (Beebe and Mele 2002: 208)

At the heart of the Consequence argument is the idea that the laws of nature, together with truths about the past, logically entail how we will act. However, if Humeanism is true, then law statements only describe ordinary (in the sense of ‘non-modal’) truths about the world. For example, according to Lewis’s BSA, law statements describe a special class of regularities, viz. those in the best systems. Hence, argue Beebe and Mele, if you grant that ordinary future facts do not deprive us of the ability to do otherwise, then you also should not take the Consequence argument to show that Humean laws deprive us of the ability to do otherwise. Humean laws, after all, merely summarize truths about the past, present, and future. Beebe and Mele (2002: 208), therefore, conclude that since Humean laws are compatible with doing otherwise, “a

⁶ Fatalists do think that ordinary truths about the future deprive us of the ability to do otherwise (see Taylor 1962). However, most skeptics about free will are not fatalists.

Humean [...] can reject the general claim that ‘if P is a law of nature, then no one can render P false’.” In other words, Humeans can reject FOL.

Beebe’s and Mele’s argument, however, provides no independent support for rejecting FOL.

We can see this from the following consideration: The reason why ordinary future facts like that we will eat toast for breakfast tomorrow do not deprive us of the ability to do otherwise is precisely *because* these truths are up to us. For instance, the fact that Fred will eat toast for breakfast tomorrow morning does not deprive him of the ability to eat cake instead because whether he will eat toast tomorrow causally depends on what he decides now and, in this sense, is up to him. So, Fred can render false the proposition that he will eat toast tomorrow by now deciding to eat cake.

But not all ordinary future facts are like that. Suppose Fred sits in a taxi on the way to the airport. The only way he can make it to his conference on time is if his flight leaves as scheduled. All alternative flights leave too late and other means of transportation would be too slow. Suppose further that indeterminism is true and that present facts do not determine whether his flight will leave on time or not. However, it is a true fact about the future that his flight *will* be cancelled. Moreover, this future fact is not up to Fred. Nothing he can do now would change the fact that his flight will be cancelled. Fred then at present lacks the ability to make it to his conference on time because of a fact about the future: given that his plane will be delayed, nothing he can do now would make it that he arrives at the conference on time. Moreover, the future flight cancellation deprives him of a present ability precisely because it is not up to him.⁷

⁷ We learned about this type of case from Kadri Vihvelin. See Vihvelin (2020) for more discussion of how future facts can deprive us of present abilities.

Pointing out that Humean laws in part concern ordinary truths about the future then is not enough to show that they do not deprive us of the ability to do otherwise. As the above considerations show, some ordinary truths about the future (viz., those that are not up to us) can deprive us of present abilities to act. For their argument to be successful, Beebe and Mele would need an additional argument to the effect that Humean laws are analogous to future facts that are up to us, such as what we will eat for breakfast, rather than future facts that are not up to us, such as what flights will be cancelled. If they were to simply assume that Humean laws are analogous to the former kinds of facts, then their argument would already presuppose what it is intended to show, viz., that Humean laws are up to us. So, as it stands, Beebe's and Mele's first argument presupposes rather than establishes that Humean laws are up to us.⁸

Beebe and Mele provide a second argument for the claim that if Humeanism is true, deterministic laws do not deprive us of the ability to do otherwise. All common Humean theories of laws entail that the laws are determined by the complete spatiotemporal distribution of particular facts, including future facts (see Vihvelin 1990: 377). For example, according to Lewis's BSA, the laws are the generalizations in those systems that best systematize the entire spatiotemporal distribution of properties: past, present, and future. So, future facts help determine whether some system is the best systematization of the overall distribution of properties. Beebe and Mele argue that because Humean laws have this feature, they are irrelevant for what we are presently able to do. They maintain that from a

⁸ There may seem to be an obvious way of supplementing Beebe's and Mele's argument: just argue that Humean laws, just like what Fred will eat for breakfast, do depend on our present actions. In fact, the argument we will present in the next section is along these lines. Beebe and Mele, however, do not support this additional step in the argument. Moreover, doing so would undermine FOL directly, and so would make their appeal to the analogy between laws and future facts superfluous.

Humean perspective, it seems rather peculiar to claim that in order to judge whether Fred has the ability to skip breakfast [one] has to wait for the end of the world, figure out what the laws are, and then—retrospectively—make a call on Fred’s current ability to skip breakfast.” (Beebe and Mele 2002: 208)

The argument, in short, is that insofar as Humean laws are partly determined by what happens in the future, they are irrelevant to what we can do now. Hence, deterministic laws do not deprive us of the ability to do otherwise.

We find this argument unpersuasive. It is indeed a surprising feature of Humean reductionism that the laws are determined (partly) by facts about the future.⁹ However, given this surprising feature of Humeanism, it is not peculiar at all—at least not *from a Humean perspective*—that what abilities agents have is also partly determined by future facts. Humeans, after all, are very explicit that the laws matter for assessing various modal claims. For example, what causes what plausibly depends in part on what the laws of nature are (Paul and Hall 2013: 4). Many Humeans accept this fact. For example, Lewis (1986) analyzes causation in terms of counterfactuals, which he in turn analyzes in terms of the laws. Lewis’s counterfactual theory of causation, when combined with his Humean theory of laws, then entails that whether an event *c* causes another event *e* is partly determined by facts about the future. Like most other Humeans, Lewis accepts this consequence rather than endorsing a revisionary theory of causation. Moreover, Lewis (1997) analyzes dispositions in terms of causation and counterfactuals, with the consequence that whether a vase is breakable also partly depends on facts about the future.

⁹ Armstrong (1983: 102) criticizes Lewis’s BSA precisely because it has this implication. Thanks to Siegfried Jaag for discussion of this point.

Yet, if Humeans hold that future facts are relevant for causation, counterfactuals and dispositions, why is it peculiar for them to say the same about abilities? We contend that since Humeans accept that the laws are partly determined by future facts, it is extremely natural for them to accept that all other modal facts for which the laws are relevant, including what we can do, are also partly determined by future facts.¹⁰ In sum, Beebe's and Mele's arguments fail to show that Humeanism motivates rejecting FOL.

§4 Making the Laws

Despite our worries about Beebe's and Mele's arguments, we think that a Humean metaphysics of laws *can* justify rejecting FOL. Let us start by introducing a background assumption. As mentioned above, Humean reductionists hold that the laws of nature reduce to the Humean mosaic, that is, the complete distribution of non-modal, categorical properties in spacetime. We will assume that this reduction is understood in terms of grounding. According to this interpretation of Humean reductionism, the laws of nature are grounded in the Humean mosaic.

We have two reasons for this grounding-based interpretation of Humean reductionism: First, understanding Humean reductionism in terms of grounding has become common in recent years. For example, Loewer (2007: 131), while defending Humean reductionism, points out that the Humean mosaic "metaphysically explains (or is part of the explanation together with the characterization of a Best Theory) why specific propositions are laws." And Maudlin (2007: 72), while criticizing the view, emphasizes that on a Humean conception of laws, "the laws are what

¹⁰ You may worry how we could ever come to know propositions about laws, causation, and abilities if they are, in part, made true by facts in the distant future. Humeans, however, argue that induction, which allows us to have justified beliefs in the relevant propositions based on our present evidence, is no more problematic on their account than on competing accounts of natural modality (see Beebe 2011).

they are in virtue of the [Humean] Mosaic rather than vice versa.” Both metaphysical explanation and the ‘in virtue of’ locution are typically used to indicate grounding (see also Miller 2015).

Second, understanding Humean reductionism in terms of grounding makes it easier for us to state our argument since the logic of grounding is relatively well-explored. Specifically, we will appeal to the notion of a ‘difference-making ground’. We suspect that our argument is also compatible with other accounts of reduction, but we will not attempt to show this here. If you are skeptical about grounding, you can read our argument as a conditional: If Humeans understand reduction in terms of grounding, they have distinctive resources for resisting the Consequence argument.

Our argument for Humean compatibilism has two parts. The first part is that ‘up to us’ obeys a transfer principle:

Transfer Principle (TP). If p is up to us and p is a difference-making ground of q , then q is up to us.

Difference-making grounds are grounds that are non-redundant. Suppose the set F contains the complete grounds of q . A fact p is then a difference-making ground of q , just in case: (i) p is part of F , and (ii) without p the remaining facts in F would no longer be complete grounds of q (Krämer und Roski 2017: 1195). For example, consider the conjunction ‘ r & s ’. Its complete grounds are the fact that r and the fact that s . Each of these facts is also a difference-making ground because neither r nor s by itself is a complete ground of the conjunction. By contrast, r and s are not difference-making grounds of the disjunction ‘ r or s ’ because each one without the

other would still be a complete ground of the disjunction. We will say more about difference-making grounds below when we explain TP's role in our argument for Humean compatibilism.

As mentioned earlier, we understand the idiom 'up to us' in terms of the ability to render a proposition false. TP then says that if you have the ability to render p false and p is a difference-making ground of q , then you have the ability to render q false. For example, suppose you can render false the proposition that you raise your hand. And suppose that raising your hand is a difference-making ground of the fact that a certain candidate is elected into office. Then, according to TP, you can thereby render the proposition that the candidate is elected false.

Formulating TP in terms of difference-making grounds rather than grounds *simpliciter* avoids certain counterexamples. Suppose you can render the proposition that you will raise your hand false and raising your hand is among the grounds of a certain candidate's election. However, suppose the candidate received more votes than she needed to get elected. Even though raising your hand was then up to you and was also an ontological ground of the candidate's being elected, you could not have rendered the proposition that she gets elected false. The candidate did not need your vote to be elected. Using difference-making grounds instead of grounds *simpliciter* bypasses this problem because in the scenario described raising your hand is not a difference-making ground. Without you raising your hand, the remaining votes still would be complete grounds of the candidate's being elected.¹¹

¹¹ One could also understand the notion of a difference-making ground in a stronger sense such that raising your hand is only a difference-making ground of a candidate's election if the vote requires unanimity. Only then would raising your hand make a difference to the outcome no matter how everyone else voted. The notion of a difference-making ground we are using here is weaker. For your hand raising to be a difference-making ground in our sense, it only needs to make a difference to the outcome holding fixed all other facts. So in an election by hand raising that is decided by a single vote, each person's hand raising is a difference-making ground. Thanks to an anonymous referee for discussion.

TP is a plausible principle that explains why we often can do one thing by doing another, such as elect a candidate by raising our hand. Moreover, TP can be motivated in analogy with a parallel principle about causation: If the fact that c occurs is up to us and c is a difference-making cause of e , then that e occurs is up to us. ('Difference-making cause' here means that c 's causing e is not an instance of overdetermination or preemption.) For example, if it is up to you whether a stone is thrown at a window and the throw is a difference-making cause of the window shattering, then the window shattering is up to you. More precisely, you can then render false the proposition that the window shatters by rendering false the proposition that the stone is thrown. TP is the parallel principle about grounding and is equally plausible.

While TP is plausible independently of whether Humeanism about laws is true, the second part of our argument is motivated by a Humean metaphysics of laws:

Law-making (LM). Our actions are among the difference-making grounds of deterministic laws.

LM follows from the grounding-based formulation of Humean reductionism we introduced above, viz., that laws of nature are grounded in the Humean mosaic. If Humean reductionism about laws is true, then laws of nature are a special class of regularities.¹² For example, according to Lewis's BSA, laws of nature are contingent universal generalizations that are part of the best systematizations of the Humean mosaic. For simplicity, let us think of the deterministic law L as the generalization that whenever a state of type- S occurs, you will raise

¹² See Lewis (1983: 365–367). Some Humeans hold that certain non-regularities can also be laws. But even these Humeans think that dynamical laws, which are our concern here, are identical to regularities.

your hand a certain time later. *L* and the occurrence of a particular instance of type-*S*, say *S2*, then jointly entail that you will raise your hand at the relevant time.

Like all universal generalizations, *L*'s truth is grounded in its instances (see, e.g., Fine 2012).

The generalization 'whenever a state of type-*S* occurs, you will raise your hand a certain time later' is grounded in: (i) all instances of type-*S*; (ii) the hand raisings that follow them within the relevant time periods; and (iii) the fact that these are all instances of type-*S*.¹³ For example, suppose there are three instantiations of type-*S*: *S1*, *S2*, and *S3*, and each is followed, within the relevant time period, by a hand-raising, *H1*, *H2*, and *H3*. The complete grounds of *L*'s truth then are *S1*, *S2*, *S3*, *H1*, *H2*, *H3* plus the fact that *S1*, *S2*, and *S3* are the only instances of type-*S*. (To keep things simple, we will sometimes talk as if *S1*, *S2*, etc. are facts, though they actually are states and the corresponding facts are that *S1* occurs, that *S2* occurs, etc.) Any particular hand raising of yours, *H2* say, is then among the grounds of *L*. However, it remains to be shown that *H2* is a *difference-making* ground of *L*.

(Note that we are only concerned with the grounds of the fact that *L* is true. The additional fact that *L* is a law of nature has further grounds. According to Lewis's BSA, that *L* is a law is grounded in the fact that *L* is also part of the simplest and most informative systematizations of the Humean mosaic. However, our concern is whether Humeans can reject FOL, which says that if *L* is a law, then *L*'s truth is not up to us. Nonetheless, since it is natural to think that laws must be true, if *L*'s truth is up to us, its lawhood is also up to us.)

Your hand raising, *H2*, is not just a ground but a difference-making ground of *L*. Without *H2*, the remaining grounds are: *S1*, *S2*, *S3*, *H1*, *H3*, and the fact that these are all instances of type-*S*.

¹³ Contingentists about grounding deny that (iii) is part of the grounds of generalizations, but this view is non-standard.

These facts, however, are not complete grounds of L because they do not make L true: there is now an instance of type-S, viz., $S2$, that is not followed by a hand raising within the requisite time period, and so L is false. Hence, $H2$ is a difference-making ground of L because without it the remaining grounds are not complete grounds of L . We will clarify below how this reasoning applies to more realistic candidates for deterministic laws, but let us first address a possible worry.

A possible worry about the above reasoning is the following: In considering all of the grounds of L , except without $H2$, we entertain the counterfactual supposition that $H2$ is absent (cf. Krämer and Roski 2017: 1200-1201). However, typically when we reason counterfactually, we hold the laws fixed. So, when we suppose the non-occurrence of $H2$, we need to hold L fixed. Yet, if we hold L fixed and suppose that $H2$ did not occur, then $S2$ also cannot have occurred. After all, L is deterministic, and so $S2$ together with L would entail the occurrence of $H2$. But then the scenario we imagine does contain complete grounds of L . It contains $S1$, $S3$, $H1$, $H3$, and the fact that these are all the instances of type-S. L has fewer instances in this scenario, but the remaining instances still are complete grounds of its truth.

In reply, we argue that this way of evaluating counterfactuals is not suitable in the current context. If our goal is to determine the difference-making grounds of the laws themselves, then we cannot hold the laws of nature fixed by fiat. Otherwise, nothing will count as a difference-making ground of the laws because it is built into our way of evaluating counterfactuals that the laws are true, and so have complete grounds, no matter what facts we suppose to not occur. The counterfactuals suitable to test facts about grounding need to be counter-nomic or even counter-metaphysical: when we counterfactually suppose the absence of some fact, we need to hold everything else as fixed as possible, even disregarding nomic and metaphysical connections (see

Schaffer 2015: §3.2). And in such a situation, where $H2$ is cleanly excised from spacetime while holding everything else, including $S2$, fixed, L no longer has complete ground. So, $H2$ is a difference-making ground of L .

We have now set the stage for our '*Humean compatibilist argument*':

Premise 1 (TP). If p is up to us and p is a difference-making ground of q , then q is up to us.

Premise 2 (LM). Our actions are among the difference-making grounds of deterministic laws.

Conclusion. If our actions are up to us, then deterministic laws are up to us.

TP (the Transfer Principle) and LM (Law-Making) together entail that if our actions are up to us, then the truth of deterministic laws that apply to our actions is up to us. LM says that our actions are among the difference-making grounds of such laws. And TP entails that if difference-making grounds of a fact are up to us, then this fact itself is up to us. It then follows that if our actions are up to us, deterministic laws that apply to our actions are up to us.

Two clarifications about the argument are in order. The first clarification is that up to now we have imagined, for simplicity (and as is common in the literature on the Consequence argument), that deterministic laws apply directly to our actions. More realistic deterministic laws will apply to our actions only indirectly by referencing microphysical quantities, such as mass and charge, whose instantiations then ground our actions. It is worth making explicit that the above argument still works given more realistic laws. Suppose a deterministic law L^* determines your action not directly but by determining a microphysical state of affairs, M , that grounds your action.

Reasoning parallel to the above reasoning about your hand raising then shows that M is a

difference-making ground of L^* . But we still need to show that if your action is up to you, a difference-making ground of the law is up to you. After all, premise 2 no longer holds because your action is now no longer itself a difference-making ground of the laws. It is merely grounded in M , which is in turn a difference-making ground of the laws.

The gap in the argument can be bridged as follows: It is plausible that if p is up to you, then at least one of the grounds of p is also up to you. Remember that we understand ‘up to us’ in terms of the ability to render a proposition false. If you can render the proposition that p false, then you must also be able to render at least one of its grounds false. After all, you cannot make p false without also making false at least one of the facts that jointly make it that p is true. So, we get an additional transfer principle:

Additional Transfer Principle (ATP) If p is up to us and if the facts $F1, F2, \dots, Fn$ are the complete grounds of p , then at least one of the facts $F1, F2, \dots, Fn$ is up to us.

ATP is equally plausible as TP. Let us say your hand raising is grounded, among other things, in lots of microphysical particles (viz., the ones making up your arm) being at a particular place at a particular time. If you can make it false that you raise your arm, you can thus also make it false that all of these particles are in these positions at the relevant time. We then still get our conclusion by appealing to ATP in addition to TP. If your action is up to you, then you can render false the proposition that all of the microphysical grounds of your action occur. Above we have called these complete grounds of our action ‘ M ’. So, M is up to you. And since M is a

difference-making ground of the laws, difference-making grounds of the laws are up to you. So, the conclusion still follows.¹⁴

Our second clarification is that our Humean compatibilist argument is in important respects weaker than Beebe's and Mele's arguments. Beebe's and Mele's arguments are intended to show that Humeanism entails the denial of FOL and that there is a legitimate sense of ability according to "which our abilities are not constrained by the laws of nature." (2002: 212) FOL, recall, is the proposition that: If it is a law of nature that p , then it is not up to us whether p is true. Our Humean compatibilism only shows that *if* our actions are up to us (in the sense that we can do otherwise), then FOL is false because deterministic laws are then up to us. This conditional and restricted form of our conclusion will become important later when we show that our brand of Humean compatibilism avoids some implausible implications of Beebe's and Mele's view (see §5).

Our argument shows that the Consequence argument is dialectically ineffective given a Humean conception of laws. The Consequence argument assumes FOL as a premise to establish that if determinism is true, then our actions are not up to us. Our argument shows that compatibilists who accept a Humean metaphysics of laws have no reason to accept FOL if determinism is true. Compatibilists are antecedently committed to our actions being up to us. And the above argument shows that this commitment, given a Humean metaphysics of laws, directly entails that FOL is false if the laws are deterministic. So, compatibilists who are Humeans already have independent reasons not to accept FOL.

¹⁴ Thanks to an anonymous referee for helping us clarify this argument.

Another way of seeing why our argument for Humean compatibilism undermines the Consequence argument is as follows: TP entails that if a fact q is not up to you, then no fact that is a difference-making ground of q is up to you. After all, if a difference-making ground of q were up to you, TP would entail that q itself is up to you. So, by assuming FOL as a premise and thereby assuming that deterministic laws are not up to us, the Consequence argument ipso facto presupposes that no difference-making grounds of the laws are up to us. But given that Humeans are committed to LM, this assumption already entails (regardless of any of the other premises of the Consequence argument) that our actions are *not* up to us. Hence, by assuming FOL as a premise, the Consequence argument already presupposes what it is supposed to show.

By contrast, non-Humeans, even if they endorse TP, do not avoid the Consequence argument. Non-Humeans typically deny that laws of nature are generalizations that are grounded in particular matters of fact (see Shumener 2019: 788). And so even if your actions are up to you, difference-making grounds of deterministic laws of nature still will not be up to you. Armstrong, for instance, while not using grounding terminology, stresses that “[i]t seems natural to say that all Fs are Gs *because* being an F necessitates being a G.” (1983: 86; italics in the original). This suggests that according to Armstrong a law’s instances (e.g., microphysical descriptions of your actions) are grounded in the law (the instantiation of a second-order necessitation universal), rather than vice versa. Similarly, Maudlin (2007: 175), in stating his non-Humean account of laws of nature, emphasizes that “their existence does not ontologically depend on the Mosaic.” Hence, non-Humeans would reject the second premise of our Humean compatibilist argument (LM).

§5 Breaking the laws

But should Humeans about laws embrace Humean compatibilism? Beebe and Mele worry that their version of Humean compatibilism has the implausible consequence that we have outlandish abilities, such as being able to travel faster than light or jump over high buildings. If we can falsify the laws by doing otherwise than we are lawfully determined to do, why can we not also perform other law-violating actions? According to Beebe and Mele (2003: 212), “[t]his is a legitimate worry to have because the Humean View does indeed have those consequences.”¹⁵ In this section, we will argue that our version of Humean compatibilism avoids these consequences.

Our argument for Humean compatibilism does not entail that we have outlandish abilities. In fact, the argument by itself does not even show that we have the ability to do otherwise than we are lawfully determined to do. It only shows that *if* we have independent reasons for thinking that we are able to do otherwise, then the mere fact that doing so would falsify deterministic laws does not undermine this ability. Hence, parallel reasoning about, for example, travelling faster than light would only show that if we already had independent reasons that we have this ability, the fact that exercising it would violate a law would not undermine these reasons. However, neither Humean compatibilism nor our argument for it give us any positive reasons for thinking that we can travel faster than light or do other extraordinary things.

But even if Humean compatibilism does not entail outlandish abilities, it would still be a problem if it undermined the most natural explanation for why we lack such abilities. For example, it is

¹⁵ Beebe and Mele go on to argue that while their Humean compatibilist arguments entail that there is a legitimate sense of ability according to which we do have outlandish abilities, there might be a different sense of ability according to which agents can do otherwise yet do not have outlandish abilities. But Humean compatibilists would then still have to show that this second sense of ability is indeed supported by a Humean metaphysics of laws.

natural to think that nobody can travel faster than light precisely *because* it is a law that no object travels faster than light. Humeans who endorse Humean compatibilism, however, reject FOL and so leave it open whether we can render laws of nature false. How then can they maintain the plausible idea that laws of nature constrain our abilities? How can laws of nature both be up to us and constrain what we can do?

In reply, we will argue that, *given a Humean metaphysics*, there is no tension between the laws constraining what we can do and the laws being up to us. Whether there is such a tension depends on one's account of how the laws constrain: What about the laws makes it that they put limits on what we can do? On some accounts, there indeed is a tension between the laws constraining our abilities and the laws being up to us. Consider the following picture: The laws constrain our abilities because they are inherently necessary and so rule out sequences of events, including actions, that are incompatible with them. Call this 'the governing picture' of how laws constrain. If the governing picture is correct and the laws' power to constrain derives from their inherent necessity, then this power would be undermined by the laws being up to us. After all, if we can make the laws false, then they are not necessary after all and so could not constrain our actions due to this necessity.

But Humeans reject the governing picture because they deny that laws of nature have any inherent necessity. For example, according to Lewis's best systems account, laws are different from other regularities merely in that they are part of the simplest and most informative systematizations of the Humean mosaic. The power of Humean laws to constrain our actions, hence, cannot derive from any inherent necessity—they simply have none. Instead, it must come from the fact that, due to being part of the best systems, laws have a special informativeness that other regularities lack. But this fact is not undermined by the laws being up to us. That a

regularity is up to us does not undermine the fact that it is in fact part of the simplest and most informative systematization of what actually happens. So, the laws being up to us is fully compatible with a Humean account of how the laws constrain our abilities. It then is not a liability for Humeans who want to be compatibilists to reject FOL.

We think that there still is a problem in the vicinity, but this problem concerns Humeanism *per se* rather than Humean compatibilism. The problem is that it is unclear whether Humeans have a plausible account of how laws constrain what we can do in the first place: If the laws of nature are post hoc in the sense that they are derivative from the complete distribution of particular matters of facts on which our actions supervene, how can they possibly constrain our actions? Or, to put it slightly differently: If the laws are mere regularities that describe what actually happens, how can they be relevant for what we are able to do? How can the mere fact that they are part of the best systems bestow them such power?¹⁶ We take this to be a serious worry for Humeanism.¹⁷

But Humeans confront this problem regardless of whether they endorse Humean compatibilism. Humean compatibilism, as we understand it, is the conditional claim that if Humeanism is true,

¹⁶ Perry (2004) forcefully presses this kind of worry. This worry is parallel to the worry of how Humean laws, if they metaphysically depend on the Humean mosaic, can help explain facts about the Humean mosaic (see, e.g. Maudlin 2007: 172). But the two worries are distinct and may require distinct solutions. For example, some Humeans argue that laws explain in virtue of unifying facts about the Humean mosaic, which seems compatible with them also metaphysically depending on these very facts (see Bhogal 2020). However, it seems much less obvious that Humean laws could constrain what we can do in virtue of unifying facts about the Humean mosaic.

¹⁷ You might think that Humeans have a straightforward account of how laws constrain abilities via their account of nomological necessity. Lewis defines nomological possibility and necessity, relative to the actual world, in terms of those worlds in which the same laws are true. We might then say that the laws constrain our abilities because we can only do things that are nomologically possible. This account, however, leaves entirely unexplained what it is about the nature of laws that makes them restrict what we can do. We could similarly say that the number of elephants in the actual world constraints our actions by defining a range of possible worlds (*viz.*, those with the same number of elephants as the actual world) and say that we can only do things that happen in one of these worlds. Aside from its manifest absurdity, this account also would not tell us anything about what it is about elephants that bestows them with such special relevance for what we can do.

then agents in a deterministic world can do otherwise than they are lawfully determined to do because of the distinctive nature of Humean laws. We have defended this claim by showing that Humeans who want to be compatibilists can reject FOL. And we have argued that rejecting FOL does, given a Humean metaphysics of laws, not conflict with the plausible idea that laws constrain our actions. Now, it might be that the Humean account of how laws constrain is independently problematic. It might even be that the fact that this account is compatible with the falsity of FOL is a symptom that it is problematic. All of this would make it less likely that Humeanism is true in the first place. But it does not provide any reasons for those who are already committed to Humeans against endorsing Humean compatibilism. After all, Humeans confront these problems regardless of whether they are Humean compatibilists. So, they might as well endorse Humean compatibilism and thereby gain distinctive resources for defending compatibilism.

In sum, we have shown that Humeans who want to be compatibilists have resources that non-Humeans lack. Moreover, employing these resources to reject the Consequence argument creates no additional worries for Humeans. So, Humean compatibilism is an attractive option for Humeans about laws and, given the relative popularity of Humeanism, an important position in the free will debate.

References

- Armstrong, D. (1983) *What is a Law of Nature?* Cambridge: Cambridge University Press
- Beebe, H. (2000) "The Non-Governing Conception of Laws of Nature," *Philosophy and Phenomenological Research* **61**: 571-593.
- Beebe, H. & Mele, A. (2002) "Humean Compatibilism," *Mind* **111**: 201-223.
- Beebe, H. (2003) "Local Miracle Compatibilism," *Noûs* **37**: 258-277.

- Beebe, H. (2011) "Necessary Connections and the Problem of Induction," *Noûs* **45**: 504–527.
- Bhogal, H. (2020) "Nomothetic Explanation and Humeanism about Laws of Nature," *Oxford Studies in Metaphysics, Volume 12*.
- Bird, A. (2007) *Nature's Metaphysics: Laws and Properties*. Oxford: Oxford University Press.
- Cohen, J. & Callender, C. (2009) "A better best system account of lawhood," *Philosophical Studies* **145**: 1–34.
- Dorst, C. (2019) "Towards a Best Predictive System Account of Laws of Nature," *The British Journal for the Philosophy of Science* **70**: 877–900.
- Esfeld, M. (2021) "Super-Humeanism and free will," *Synthese* **198**: 6245–6258.
- Fine, K. (2012) "Guide to Ground," in: F. Correia and B. Schnieder (eds.) *Metaphysical Grounding*. Cambridge: Cambridge University Press, 37–80.
- Fischer, J. M (1994) *The Metaphysics of Free Will*. Oxford: Blackwell.
- Hall, N. (manuscript) "Humean Reductionism about Laws of Nature,"
<http://philpapers.org/go.pl?id=HALHRA&proxyId=&u=http%3A%2F%2Fphilpapers.org%2Farchive%2FHALHRA.pdf> accessed 7 September 2020.
- Hicks, M. T. (2018) "Dynamic Humeanism," *British Journal for the Philosophy of Science* **69**: 983–1007.
- Ismael, J. (2016) *How Physics Makes Us Free*. Oxford: Oxford University Press.
- Jaag, S., Loew, C. (2020) "Making Best Systems Best for Us," *Synthese* **197**: 2525–2550.
- Krämer, S. & Roski, S. (2017) "Difference-making grounds," *Philosophical Studies* **174**: 1191–1215.
- Lewis, D. (1973) *Counterfactuals*. Oxford: Oxford University Press.
- Lewis, D. (1981) "Are We Free to Break the Laws?," *Theoria* **47**: 113–121.
- Lewis, D. (1983) "New Work for a Theory of Universals," *Australasian Journal of Philosophy* **61**: 343–377.
- Lewis, D. (1986) "Causation," in: *Philosophical Papers, vol. 2*. Oxford: Oxford University Press, 159–213.
- Lewis, D. K. (1997) "Finkish Dispositions," *Philosophical Quarterly* **47**: 143–58.
- Loewer, B. (2007) "Laws and Natural Properties," *Philosophical Topics* **35**: 313–328.
- Maudlin, T. (2007) *The Metaphysics within Physics*. Oxford: Oxford University Press.
- Miller, E. (2015) "Humean Scientific Explanation," *Philosophical Studies* **172**: 1311–1332.
- Perry, J. (2004) "Compatibilist Options," in: J. K. Campbell, M. O'Rourke, and D. Shier (eds.) *Freedom and Determinism*. MIT Press, 231–254.

- Paul, L.A., and Hall, N. (2013) *Causation: A User's Guide*. Oxford: Oxford University Press.
- Schaffer, J. (2015) "Grounding in the Image of Causation," *Philosophical Studies* **173**: 49–100.
- Shumener, E. (2019) "Laws of Nature, Explanation, and Semantic Circularity," *British Journal for the Philosophy of Science* **70**: 787–815.
- Swartz, N. (2003). *The Concept of a Physical Law* (2nd edition). Cambridge: Cambridge University Press.
- Taylor, R. (1962) "Fatalism," *Philosophical Review* **71**: 56–66.
- van Inwagen, P. (1983) *An Essay on Free Will*, Oxford: Oxford University Press.
- van Inwagen, P. (2004) "Freedom to Break the Laws," *Midwest Studies in Philosophy* **28**: 334–350.
- Vihvelin, K. (1990) "Freedom, Necessity, and Laws of Nature as Relations between Universals," *Australasian Journal of Philosophy* **68**: 371–381.
- Vihvelin, K. (2013) *Causes, Laws and Free Will: Why Determinism Doesn't Matter*. Oxford: Oxford University Press.
- Vihvelin, K. (2020) "Killing Time Again," *The Monist* **103**: 312–327.