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Indeterminate permissibility and choiceworthy options

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Abstract Various people have claimed that some cases involve indeterminate permissibility. However, it's unclear what guidance one can take away from this fact: are indeterminately permissible options choiceworthy and if so when? In this paper, I present a counterexample that undermines two existing responses to this question and I then present two alternative solutions that avoid this counterexample.

Keywords Indeterminacy · Decision making · Choiceworthiness

In recent years a number of people have argued that permissibility can sometimes be indeterminate. In the domain of morality, this view has been defended by Schoenfield (2015) and Dougherty (2014), among others. In the domain of rationality, by Rinard (2015) and Williams (2014).

To take just one example, Dougherty (2014) notes that it is morally permissible to save a friend rather than a small number of strangers but morally impermissible to save a friend rather than very many strangers. Given this, Dougherty thinks that there will be some number of strangers such that it will be indeterminately permissible to save a friend rather than this number of strangers.

Still, while such arguments have a certain plausibility, a challenge arises for views on which permissibility can sometimes be indeterminate: how can a judgement of indeterminate permissibility guide our choices?[1] This challenge arises

[1] The discussion to follow will have close parallels with discussions in the literature on decision making given incomplete preferences (cf. Bradley 2015).

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because it's unclear when and whether an indeterminately permissible option is choiceworthy. In this paper, I will argue that two prominent solutions to this challenge (from Williams 2014; Rinard 2015) both fail. I will then develop, and weigh, two alternative solutions.

1 Two solutions

One solution, seemingly implicit in Rinard (2015), is the following:

> CONSERVATIVE: An option is choiceworthy if it is determinately permissible and is non-choiceworthy if it is determinately impermissible. There is no fact of the matter as to whether an indeterminately permissible option is choiceworthy.

CONSERVATIVE might be motivated by the thought that there is an analytic connection between permissibility and choiceworthiness: to be choiceworthy just is to be permissible; to be non-choiceworthy just is to be impermissible. Consequently, in cases where permissibility is indeterminate, so too is choiceworthiness.

An alternative solution, due to Williams (2014, pp. 25–27; 2016), is the following:

> LIBERAL: If any choices are determinately permissible then all and only the determinately permissible choices are choiceworthy. If no choices are determinately permissible then all and only the indeterminately permissible choices are choiceworthy.

The first clause of LIBERAL might be justified by pointing to the seeming absurdity of choosing an option that is merely indeterminately permissible when there is an alternative option available that is outright permissible. Then the second clause of LIBERAL might be motivated by the mirror of this reasoning. In particular, this clause might be motivated by the seeming absurdity of choosing a determinately impermissible option when there are indeterminately permissible options available.

Still, while this argument for the second clause of LIBERAL provides a justification for why *only* the indeterminately permissible options are choiceworthy, it provides no reason to think that *all* of the indeterminately permissible options must be choiceworthy. Fortunately, Williams has presented an argument for this part of the clause (in outlining this argument, and throughout this paper more broadly, I will assume a supervaluationist view of indeterminacy). To get to this, we first need to introduce some terminology. Consider a swatch of paint, such that it is indeterminate whether this swatch is red. One way of spelling out what this claim means is to say that there are multiple different ways of making the concept "red" precise, such that some of these ways of *sharpening* the concept label the swatch as red and others label it as not red. Using this terminology, we can say that an option is indeterminately permissible if it is permissible according to some sharpenings and impermissible according to others.

Now turn back to LIBERAL. The second clause of LIBERAL might be motivated by the fact that the options satisfying this criterion seem to be unopen to neutral criticism. That is, all of the options labelled as choiceworthy by LIBERAL will be permissible according to at least one sharpening and so, it seems, such an option can be criticised only if we first cast aside this sharpening and instead focus merely on some other sharpenings. Consequently, it seems that satisfying LIBERAL would ensure that no-one who selected only choiceworthy options could be criticised from a neutral standpoint.

2 A counterexample

Both CONSERVATIVE and LIBERAL are compelling. However, a single case serves as a counterexample to both of these principles. I will start out by outlining this case in abstract terms. In this case, permissibility has two sharpenings and there are three options: O_1, O_2 and O_3. On the first sharpening the options are ranked as follows: $O_1 \succ O_2 \succ O_3$. On the second sharpening, they are ranked as follows: $O_2 = O_3 \succ O_1$.

Here O_3 is not choiceworthy. After all, O_3 is less good than O_2 on one sharpening and equally good on the other. As such, why choose O_3 when you could choose O_2 instead? This point can be made more precise. First, say that a option, O is *indeterminacy-dominated* if there is some alternative option, A, such that $A \succeq O$ according to all sharpenings and $A \succ O$ according to at least one sharpening. An indeterminacy-dominated option is not choiceworthy, for just the reason outlined above: why make such a choice when you could choose the dominating alternative instead? O_3 is indeterminacy-dominated by O_2 and so O_3 is not choiceworthy.

This case undermines both CONSERVATIVE and LIBERAL. Take CONSERVATIVE first: this principle entails that there is no fact of the matter about the choiceworthiness of O_3. After all, O_3 is indeterminately permissible: it is permissible according to the second sharpening but impermissible according to the first. In such circumstances, CONSERVATIVE entails that there are no facts of the matter about the choiceworthiness of the option. However, this judgement is false: O_3 is non-choiceworthy. Consequently, CONSERVATIVE is false.

Then take LIBERAL: this principle entails that O_3 is choiceworthy. After all, no option is determinately permissible in this case (as all options are suboptimal on at least one sharpening). Consequently, LIBERAL labels all and only the indeterminately permissible options as choiceworthy. Now we have just seen that O_3 is indeterminately permissible so it follows that LIBERAL entails the choiceworthiness of this option. However, this too is false and so LIBERAL too is false.[2] Consequently, this case undermines both CONSERVATIVE and LIBERAL

[2] Not only does this case serve as a counterexample to LIBERAL but it also undermines the justification for adopting this principle in the first place. After all, this case makes clear that we *can* sometimes neutrally criticise indeterminately permissible options: we can criticise them not from the perspective of certain sharpenings but rather from a global perspective that looks at patterns of dominance across all of the sharpenings.

3 A concrete example

This same objection can also be started in more concrete terms. To do so, consider a choice situation familiar from Williams (2014). Alice is to enter a cabinet. A person, After-Alice, will leave the cabinet shortly after, such that it is an indeterminate matter whether After-Alice is the same person as Alice. Now imagine that Alice has three options. If she chooses *Wealth*, After-Alice will be paid $20,000; if she chooses *Pittance*, After-Alice will be paid $1; if she chooses *Generous*, After-Alice will watch as Alice's brother Bob is given $100,000.

Now, imagine that Alice prefers that she herself has more money rather than less. However, her feelings about Bob having money are more ambivalent: (a) if Alice is watching then she values Bob getting money just as much as she values getting money herself (because in such circumstances she feels a strong sense of familial duty); but (b) Alice actually hates Bob and so as long as she doesn't have to witness the monetary transfer (and hence be made to feel familial duty) she would actually prefer that he be impoverished. Finally, Alice cares not at all how much money people other than herself and Bob have.

Here, there are two sharpenings: one on which After-Alice is Alice and one on which she isn't. On the first sharpening, Alice ranks the options as follows: $Generous \succ Wealth \succ Pittance$. On the other hand, on the second sharpening, Alice ranks the options as follows: $Wealth = Pittance \succ Generous$.

It would be absurd for Alice to choose *Pittance*. After all, on the sharpening where After-Alice is Alice this would be less desirable than choosing *Wealth* (it would leave her with $1 rather than $20,000) and on the sharpening where After-Alice is not Alice this option is no better than choosing *Wealth* (as Alice doesn't care how much money After-Alice receives on this sharpening). Consequently, *Pittance* is not choiceworthy for Alice.

However, no option in this case is determinately permissible (as all options are suboptimal on one sharpening) and all options are indeterminately permissible (because all are optimal on one sharpening). So CONSERVATIVE will say that there is no fact of the matter about the choiceworthiness of *Pittance*. And LIBERAL will declare that this option *is* choiceworthy. Both of these claims are false and so this case serves as a counterexample to both principles.

Consequently, if we are to accept that permissibility can sometimes be indeterminate, some other principle is needed to determine when options are choiceworthy.

4 Getting started

The discussion to this point gives us a necessary criterion for choiceworthiness: an option is choiceworthy only if it is not indeterminacy dominated. Likewise, it gives us a sufficient criterion for non-choiceworthiness: an option is non-choiceworthy if it is indeterminacy dominated. LIBERAL had problematic implications in the above case because it violated this necessary criterion; CONSERVATIVE had problems because it violated the sufficient criterion. In the light of this, it is clear that in order to avoid the above counterexample a principle of choiceworthiness must satisfy these criteria.

Still, a whole range of principles will do so. Consequently, more will need to be said if we're to identify a full principle of choiceworthiness. In order to get to such a principle, then, I start with a puzzle case. Once again, in this case there are two sharpenings of rational permissibility and three available options, O_4, O_5, and O_6. Further, in this case: (a) on the first sharpening, $O_4 \succ O_5 \succ O_6$; and (b) on the second sharpening, $O_6 \succ O_5 \succ O_4$.

Here's the puzzle: will there be any cases with this form in which O_5 is choiceworthy? Here's an argument that there won't be: O_5 is impermissible on all sharpenings and so is determinately impermissible. Now it might be thought that the link between determinate impermissibility and choiceworthiness is settled: determinately impermissible options are non-choiceworthy. Consequently, we can conclude, O_5 is not choiceworthy.

On the other hand, here's an argument that O_5 will be choiceworthy given some ways of filling in the further details of this scenario: O_5 is the middle option on both sharpenings, while O_4 and O_6 are each the least desirable option on one sharpening (even if they're also each the most desirable option on another sharpening). Consequently, choosing O_5 might seem to involve a legitimate form of hedging: this option might be choiceworthy because it allows the agent to avoid choosing an option that is maximally dispreferred according to any sharpening.

Insofar as we have arguments to two contradictory conclusions, we now have a puzzle. What more can be said here? Well the first position, according to which O_5 is non-choiceworthy, is plausible if we take there to be a certain sort of analytic connection between permissibility and choiceworthiness. In particular, we might think that it is analytic that a determinately permissible option is choiceworthy and a determinately impermissible option non-choiceworthy. We might then think that this analytic connection fails to tell us what to think in cases of indeterminate permissibility, because our language conventions were not designed to cope with such cases.[3] Given this view, analytic considerations settle the choiceworthiness of determinately impermissible options and so we are pushed to accept the first solution to the puzzle.

On the other hand the second position, according to which O_5 will be choiceworthy for some ways of filling in the details of the case, will look plausible to those who think that choice given indeterminacy is analogous to choice given uncertainty. After all, according to a familiar result in the uncertainty literature (cf. Jackson 1991), it is sometime subjectively choiceworthy to hedge by choosing an option that one knows is not objectively choiceworthy (rather than choosing one of two risky options, each of which might be objectively choiceworthy or might be extremely undesirable from the objective perspective). Consequently, insofar as

[3] This point also provides a response to the analytic argument for CONSERVATIVE. In particular, it might be suggested that this argument for CONSERVATIVE asks too much of our language conventions, in expecting them to settle even cases of indeterminate permissibility.

uncertainty and indeterminacy are analogous, hedging in the case of indeterminacy will appear reasonable.

To my mind, both of these views have some intuitive force and I leave it to my reader to choose between them. Here, my intention is to remain neutral between these possibilities by developing two principles of choice, each of which will appeal to one side of this debate.

5 A first principle

Let's start with those who think that O_5 will never be choiceworthy. For such a person, the choiceworthiness of determinately permissible and determinately impermissible options is settled and it is only indeterminately permissible options that are open to debate. In the light of this, here's a plausible principle:

> MODEST: (1) Determinately permissible options are choiceworthy; (2) Determinately impermissible options are non-choiceworthy; and (3) Indeterminately permissible options are choiceworthy if and only if they are not indeterminacy dominated.

An immediate benefit of MODEST is that it resolves the counterexample case: MODEST will not label O_3 as choiceworthy, because O_3 is indeterminacy dominated by O_2. Further, it is clear that MODEST will never label a determinately impermissible option as choiceworthy, so for those who think that O_5 is inevitably impermissible this principle delivers the desired result.

On top of these points, MODEST has a number of further virtues. To pick just one: if any determinately permissible options are available, then MODEST labels all and only these options as choiceworthy. To see this, note that it follows immediately from (1) that *all* of these options will be labelled as choiceworthy. Then (3) entails that *only* these options will be labelled as choiceworthy. After all, any determinately permissible option, D, will indeterminacy dominate any indeterminately permissible option, I: D will be optimal on all sharpenings and so will be as desirable as I on the sharpenings where I is permissible too but will be better than I on those sharpenings where I is not permissible. Consequently, D will indeterminacy dominate I and so, by (3), I will not be choiceworthy. So if there are any determinately permissible options available then no indeterminately permissible options will be labelled as choiceworthy. Combining this result with (2), which entails that no determinately impermissible options are choiceworthy, it follows that if there are determinately permissible options then only these options will be labelled as choiceworthy. So MODEST can make sense of how determinate permissibility and indeterminate permissibility intuitively interact.

In the light of all of this, for those who resolve the puzzling case by dismissing O_5 as a choiceworthy option MODEST is a promising principle of choiceworthiness.

6 A second principle

What should we say if we accept that O_5 will sometimes be choiceworthy? If this is the case then the following is an initially-promising principle:[4]

> ORDINAL HEDGING: An option is choiceworthy if, and only if, it is not indeterminacy-dominated.

ORDINAL HEDGING has many virtues. For a start, if there are determinately permissible options available then this principle will label all and only these options as choiceworthy (for broadly the same reason that MODEST did so: no option can indeterminacy dominate a determinately permissible option and determinately permissible options will indeterminacy dominate indeterminately permissible options). Further, this principle will label O_5 as choiceworthy. After all, neither O_4 nor O_6 indeterminacy dominate this option because O_5 is better than O_4 on the second sharpening and is better than O_6 on the first sharpening. So O_5 is not indeterminacy dominated and so is choiceworthy according to ORDINAL HEDGING. Insofar as we want to make room for such hedging, this is a feature of ORDINAL HEDGING

However, this principle also faces a challenge.[5] Consider Bertha, who is entirely self-interested and who will enter the cabinet mentioned earlier in one week's time, such that After-Bertha will emerge and it's indeterminate whether After-Bertha will be Bertha. Bertha now has three options: (1) choosing *After* will lead After-Bertha to receive $1000 in a week's time; (2) choosing *Before* will lead Bertha to receive $100 immediately; and (3) choosing *Both* will lead both Bertha and After-Bertha to receive $50.01.

Now consider our two sharpenings. On the sharpening where After-Bertha is Bertha, the options will be ranked as follows: *After* $\succ$ *Both* $\succ$ *Before*. After all, on this sharpening, *After* gives Bertha $1000, *Both* gives her $100.02, and *Before* gives her $100. On the other hand, on the sharpening where After-Bertha is not Bertha, the options will be ranked as follows: *Before* $\succ$ *Both* $\succ$ *After*. After all, on this sharpening *Before* gives Bertha $100, *Both* gives her $50.01, and *After* gives her $0.

With this case in mind, turn back to ORDINAL HEDGING. This principle will label choosing *Both* as choiceworthy, as it isn't indeterminacy dominated by any alternative option (because it is better than *Before* on the sharpening on which After-Bertha is Bertha and is better than *After* on the sharpening on which After-Bertha is not Bertha). However, such hedging is problematic.[6] After all, compared to choosing *Before*, choosing *Both* is only a minuscule amount better on one sharpening ($0.02 better) but it is substantially worse on the other ($49.49 worse). The potential benefit gained from hedging here is not worth the potential cost.

[4] This principle is named for the fact that it allows for hedging but that this hedging depends only on how the various options are ranked on various sharpenings and doesn't account for the extent to which the options differ in value on different sharpenings. I return to this issue shortly.

[5] I owe this case to an anonymous reviewer for *Analysis*.

[6] Perhaps someone could choose to hold firm here and argue that this hedging is acceptable. For such a person, ORDINAL HEDGING will be a promising principle.

Consequently, one should not hedge by choosing *Both* and so ORDINAL HEDGING is problematic insofar as it labels this option as choiceworthy.

In the light of this, a natural response is to take a leaf from the literature on decision making given uncertainty and move to a value sum. In particular, let $V_S(O)$ be a function that assigns numerical values to the agent's options such that these values represent how desirable this option is on a sharpening, S.[7] We can then define an option value, for an option O, as follows:

$$OV(O) = \sum_{S \in \mathcal{S}} V_S(O)$$

In words: we determine an option's OV by summing the value of this option according to each sharpening.[8] With this formula in mind, we can now present the following principle of choiceworthiness:

> CARDINAL HEDGING: An option is choiceworthy if, and only if, it maximises OV (that is, if and only if it has an OV greater than or equal to that assigned to each other option).

CARDINAL HEDGING has a range of virtues. For a start, it will never label an indeterminacy-dominated option as choiceworthy. After all, if I is indeterminacy dominated by D then for all S, $V_S(D) \geq V_S(I)$ and for some S, $V_S(D) > V_S(I)$. It follows from this that $OV(D) > OV(I)$ and so follows that I is not choiceworthy.

CARDINAL HEDGING also delivers the desired result in the Bertha case, above. If we let the option values equal the monetary values that result from choosing each option then we end up with the following values for the available options (where $=$ refers to the state where After-Bertha is Bertha, and $\neq$ refers to the state where this is not the case):

[7] Those wishing to accept the principle to be outlined will need to tell us more about this value function. For example, such a person should tell us how this value function is calculated based on a value function that applies to outcomes (if it is calculated in such a manner), should tell us how this value function is revealed in choice, and should tell us what the connection is between the values assigned by this function and the utilities that play a role in standard decision theory.

[8] As currently characterised, the OV sum gives equal weighting to the values assigned by each sharpening (rather than treating some sharpenings as more important than others). Such an approach might be motivated by an appeal to neutrality—that is, to the assumption that no sharpening should be privileged over others when considering choice under indeterminacy. Still, this assumption might be questioned. To see this, consider two versions of the case from Sect. 3. In both versions of the case, we may stipulate, it is indeterminate whether After-Alice is Alice. However, in the first After-Alice is extremely similar to Alice while in the second After-Alice is less similar to Alice. There's at least some intuitive force to the claim that the sharpening on which After-Alice is Alice should be weighted more heavily in the first case than in the second (I owe this example to a reviewer for the journal). The OV sum as stated is unable to accommodate this possibility.

Fortunately, the approach to be discussed here has no deep commitment to the assumption of neutrality. After all, letting W be a weighting function that assigns weightings to sharpenings, the OV sum could be replaced with the following sum: $OV'(O) = \sum_{S \in \mathcal{S}} W(S)V_S(O)$. Insofar as W can assign different weightings to different sharpenings, the OV' sum need not treat all sharpenings in the same manner. So those who think that some sharpenings should be weighted more heavily than others can still accept the broad account to be offered here, after replacing the appeal to OV with an appeal to OV'. I thank a reviewer for the journal for raising this issue.

$$
\begin{aligned}
OV(\text{Before}) &= V_{=}(\text{Before}) + \mathrm{V}_{\neq}(\text{Before}) \\
&= 100 + 100 \\
&= 200 \\
OV(\text{Both}) &= V_{=}(\text{Both}) + \mathrm{V}_{\neq}(\text{Both}) \\
&= 100.02 + 50.01 \\
&= 150.03 \\
OV(\text{After}) &= V_{=}(\text{After}) + \mathrm{V}_{\neq}(\text{After}) \\
&= 1000 + 0 \\
&= 1000
\end{aligned}
$$

Now *Both* does not maximise OV and so CARDINAL HEDGING will not label this option as choiceworthy. So CARDINAL HEDGING provides a more compelling way of spelling out the view on which we should allow for hedging in cases of indeterminacy.

I conclude that we should reject LIBERAL and CONSERVATIVE and then, depending on our views of the puzzle case above, we have strong grounds to accept either MODEST or CARDINAL HEDGING in their place.

7 Conservative again

To this point, I have argued that LIBERAL and CONSERVATIVE are both inadequate principles of choiceworthiness. However, there's a sense in which the view that I have outlined in this paper is more sympathetic to the former principle than it is to the latter. In particular, this view sides with LIBERAL in taking it that there are facts of the matter about choiceworthiness for options that are indeterminately permissible: LIBERAL and the views that I have outlined differ merely in terms of what these facts are taken to be. On the other hand, CONSERVATIVE takes a totally distinct approach, by denying that there are further facts to be found at all. This raises a question: what could the proponent of CONSERVATIVE say in response to the discussion to this point, to try to hold on to her stance?

Here's one possibility: the proponent of CONSERVATIVE could continue to hold that there are no facts of the matter about the choiceworthiness of an indeterminately permissible option but could acknowledge that certain indeterminately permissible options will be more psychologically compelling to us than others. On this view, the discussion in this paper largely sidestepped normative matters entirely. Instead, this discussion served to provide insight into the descriptive issue of what characteristics an indeterminately permissible option needs to have in order to seem more or less reasonable to us. So, for example, even though there are no facts of the matter about their choiceworthiness, on this view this paper has revealed that we will find an indeterminately permissible option more compelling if it is not indeterminacy dominated than we will if it is indeterminacy dominated.

I leave it to the reader to judge whether this is a reasonable response to the preceding discussion. Nevertheless, this suggestion at least makes room for CONSERVATIVE to survive the above objections.

8 Conclusions

Setting aside the brief discussion of CONSERVATIVE, the core conclusion of this paper is that we should accept a necessary criterion for an indeterminately permissible option to be choiceworthy: for such an option to be choiceworthy, it must not be indeterminacy dominated. I then argued for a secondary claim, which I accept more tenuously. In particular, according to this claim, we should accept either MODEST or CARDINAL HEDGING as a principle of choiceworthiness under conditions of indeterminacy.

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