DEONTIC PROBLEMS WITH PROHIBITION DILEMMAS

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1. Introduction

The possibility of prohibition dilemmas has recently come to the forefront of the discussion of moral conflicts. While the possibility of obligation dilemmas is still a matter of dispute among moral philosophers, it has been suggested that the possibility of prohibition dilemmas poses a less serious problem: even those who have enthusiastically rejected the possibility of obligation dilemmas have maintained that prohibition dilemmas are at least logically possible(1). This is a particularly interesting position to maintain concerning moral conflicts, since dilemmas of either sort present the very same problems for any normal system of deontic logic(2). The problem, briefly stated, is that the thesis that moral conflicts (of either sort) are possible is logically inconsistent with any normal system of deontic logic. As has been the case with attempts to accommodate the possibility of obligation dilemmas, accommodating prohibition dilemmas seems to require the rejection of one or more of the standard deontic axioms(3). The presump-

⁽¹⁾ See Peter Vallentyne, 'Prohibition Dilemmas and Deontic Logic', Logique et Analyse, 117-118, (1987), pp. 113-122. See also Patricia S. Greenspan, 'Moral Dilemmas and Guilt', Philosophical Studies, Vol. 43 (1983), pp. 117-125.

⁽²⁾ By a normal system of deontic logic we typically mean a normal extension of K. The deontic systems typically extend K by the addition of the following theorem, D. $OA \rightarrow PA$, and hence are referred to as normal KD-systems. By the smallest normal KD-system for O we mean the system D* based on PL and axiomatized by the rule, If $\vdash A \rightarrow B$ then $\vdash OA \rightarrow OB$, together with the axioms, $(OA \& OB) \rightarrow O(A \& B)$, OT, $\sim OF$. This characterization of normality, and the following axiomatization, follows Brian F. Chellas, *Modal Logic: An Introduction* (Cambridge University Press, 1980). We discuss normal systems and standard models in relation to moral conflicts further on: such normal systems are not KD systems.

⁽³⁾ The strategy of rejecting certain standard theorems to allow for the possibility of moral conflicts is widely employed. There are, however, disagreements concerning which theorems to reject. In order to allow for obligation dilemmas, several have claimed that the analogue of CP ought to be rejected. See, for instance, Bas C. van Fraassen, 'Values and the Heart's Command', *The Journal of Philosophy*, Vol. 70, No. 1, (1973), pp. 5-18, Ruth Barcan

tion has been that since moral conflicts are in fact possible, and since the possibility of moral conflicts is inconsistent with the standard deontic axioms, it must be the case that one or more of those axioms express substantive ethical claims rather than ethically neutral logical truths. As a result, it has been argued that those biased "axioms" ought not to form the basis of moral or, more generally, normative reasoning.

However, it will be argued in what follows that the strategy of rejecting this or that deontic axiom in order to accommodate prohibition dilemmas does not succeed. Certain types of prohibition dilemmas can be accommodated in that manner, however not the type which has so vexed moral theorists: the types of prohibition dilemmas permitted are either uncontroversial or they have highly unwelcome and, for the most part, unnoticed characteristics. It will be argued, finally, that only the complete skeptic concerning the standard deontic axioms can accommodate the type of prohibition dilemmas which have been found both interesting and plausible(4).

2. Problematic Types of Prohibition Dilemmas

Arguments in favor of the possibility of prohibition dilemmas usually proceed by way of illustration. Consider for instance the following example of a problematic type of prohibition dilemma:

Marcus, 'Moral Dilemmas and Consistency', The Journal of Philosophy, Vol. 77, No. 3, (1980) pp. 121-136, P.K. Schotch and R.E. Jennings, 'Non-Kripkean Deontic Logic' in R. Hilpinen (ed.), New Studies in Deontic Logic (D. Reidel Publishing Company, 1981) and B.A.O. Williams, 'Ethical Consistency', Proceedings of the Aristotelian Society suppl. (1965), pp. 103-124. On the other hand, some have rejected the analogue of PD, for instance, E.J. Lemmon, 'Deontic Logic and the Logic of Imperatives', Logique et Analyse, n.s. 29, (1965), pp. 39-71. For those discussing the possibility of prohibition dilemmas, some seem committed at least to the rejection of PD*, for instance, Patricia S. Greenspan, 'Moral Dilemmas and Guilt', Philosophical Studies, Vol. 43, (1983) pp. 117-125. However, some have argued for rejecting PD, for instance, Peter Vallentyne, 'Prohibition Dilemmas and Deontic Logic', Logique et Analyse, n.s. 117-118, (1987) pp. 113-122.

(4) For a view which is completely skeptical of the deontic axioms see Geoffrey Sayre-McCord, 'Deontic Logic and the Priority of Moral Theory', *Nous*, Vol. 20, No. 2, (1986) pp. 179-197. It should be noted that in this paper Sayre-McCord is concerned primarily with obligation dilemmas rather than prohibition dilemmas.

Case (1)

"... Suppose that a certain club has a rule that forbids male members to be in a sitting position in the presence of a woman member at the club bar. One year a progressive member proposes not only that the rule be dropped (because it is sexist), but also that it be replaced by a rule forbidding male members to be in any position other than a sitting position in the presence of a woman at the club bar... A majority of the club members favor this proposal, and so at the next club meeting a formal proposal is put forward and passed. Unfortunately, due to an oversight the passed proposal calls only for the addition of the rule forbidding male members to be in a position other than sitting in the presence of a woman. The original rule is not revoked. Thus, not only is it forbidden to be in a sitting position in the presence of a woman. it is forbidden to be in any other position. Thus, when a woman is in the club bar, a prohibition dilemma arises. The situation is... that no action- feasible or not- can satisfy the club rules. This is because every action will either put the agent in a sitting position or it won't, and both are forbidden..."(5)

Clearly, case (1) does not illustrate a *moral* prohibition dilemma. But this constitutes no serious objection, since deontic logic is typically understood as providing the logical basis of normative discourse broadly conceived. And, aside from this, the example is easily modified, so prohibition dilemmas of the type illustrated in case (1) cannot be dismissed on that score. It is a more important fact about case (1) that the conflicting prohibitions in the illustration seem most naturally rendered in standard deontic logic as ¬PA & ¬P¬A, which is explicitly inconsistent with the deontic principle,

PD*. PA ∨ P¬A

In fact, the types of prohibition dilemmas in which the descriptions of the forbidden actions are themselves less than logically inconsistent present no problem at all for standard deontic logic. Consider, for instance, the following case,

⁽⁵⁾ See Peter Vallentyne, 'Prohibition Dilemmas and Deontic Logic', Logique et Analyse, 117-118, (1987), pp. 113-122.

Case (2)

"... Suppose that, relative to the rules of a certain club, breaking a promise is absolutely forbidden, i. e. under no circumstances is it permissible to break a promise. Suppose that this morning I promised my wife that I would phone her at exactly 5:00 pm, but that (due to a lapse of memory) I later promised a friend that I would phone him at exactly 5:00 pm. Here I am, just before 5:00 pm, and I have only one phone in front of me. I can phone my wife or I can phone my friend, but I can't phone both at exactly 5:00 pm. Since promise-breaking is absolutely forbidden, and I have promised to phone both of them at exactly 5:00 pm, every action open to me is forbidden. I am in a prohibition dilemma..." (6)

Case (2) is unproblematic from the point of view of standard deontic logic since the most natural way to render the relevant prohibitions is as follows,

C(2).
$$\neg PA \& \neg PB$$
.

But clearly C(2) is consistent with PD* above. (7) It seems, moreover, that the representation of any type of prohibition dilemma in which the conflicting prohibitions forbid actions whose descriptions are less than logically inconsistent will be analogous to C(2)(8). As a result, it seems that most types of prohibition dilemmas are unproblematic from the point of view of standard deontic logic. In what follows we will concern ourselves with the

- (6) See Peter Vallentyne, 'Prohibition Dilemmas and Deontic Logic' op. cit. It should be noted that Vallentyne considers each of the two cases presented equally problematic.
- (7) It is a curious fact that most illustrations of moral conflicts are of the type presented in case (2) above. In some instances it has been argued that from case (2) conflicts we can always derive case (1) conflicts. See, for instance, Geoffrey Sayre-McCord, 'Deontic Logic and The Priority of Moral Theory', op. cit. But this 'derivation' is not possible without modifying standard deontic logic in fairly controversial ways.
- (8) Perhaps it might be urged that the argument that case (2) is unproblematic is too easy. Consider that PA \vee PA is not inconsistent with PA & PB only if the following does not hold: given the circumstances, C1, C2, ..., Cn, PB(PA) implies PA(PB). But there is no problem here. In order for the relevant implication to go through, SDL would have to include some closure principle which is much stronger than RPM: stronger even than closure under physical necessity. But SDL contains no such principle, and given the familiar problems associated with the weak closure RPM, any strengthening of the principle would seem unwarranted.

possibility of the controversial type of prohibition dilemmas illustrated in case (1). It will be argued that the rejection of this or that standard deontic axiom will not make possible the type of prohibition dilemma illustrated in case (1).

3. Prohibition Dilemmas and Normal Deontic Systems

There are two traditional ways of axiomatizing standard deontic logic. On one account, the concept of permissibility is taken as primitive, on the other, the concept of obligation is primitive. Since our concern is with prohibition dilemmas, we take permissibility as the primitive concept. The smallest normal system of deontic logic D* is axiomatized by the following rule(9),

RPM.
$$\frac{A \to B}{PA \to PB}$$

together with the following axiom-schemas,

CP.
$$P(A \lor B) \rightarrow PA \lor PB$$

NP. $\neg PF$
PD. PT

and the following definitions,

Df.F
$$FA \leftrightarrow \neg PA$$

Df.O $OA \leftrightarrow \neg P \neg A$

According to the rule RPM, permissibility is closed under implication. That is, a proposition is permissible if it is implied by a permissible proposition(10). The axiom CP requires, in effect, that each world have a unique

⁽⁹⁾ This axiomatization follows Brian F. Chellas, *Modal Logic: An Introduction* (Cambridge University Press, 1980). See also his 'Conditional Obligation' in Soren Stenlund (ed.), *Logical Theory and Semantic Analysis* (D. Reidel Publishing Company, Dordrecht-Holland, 1974). On Chellas' axiomatization, however, the concept of obligation is primitive.

⁽¹⁰⁾ Actually, it is an action or state of affairs that is described by the proposition that is either permissible or not. However, it is at least strange to speak of 'entailments' between actions or states of affairs. Talk of entailment is typically reserved for discussion of the

moral standard. The axiom NP assures that every world has some obligations: there are no worlds, that is, where everything is permissible. According to PD, no moral standard at any world is empty or null: there are no worlds where nothing is permissible. The theorem which explicitly precludes prohibition dilemmas, as noted above, is the following,

In order to allow for the possibility of the type of prohibition dilemmas illustrated in case (1), it seems natural to suggest that we reject PD*. However, in standard deontic logic, PD* is provably equivalent to PD on the basis of CP and RPM. So, in order to reject PD* we must, minimally, reject either PD or CP. The problem is in fact worse, since all of the following equivalences hold in standard deontic logic, D*,

E1.
$$\vdash$$
 (PA \lor P \neg A) \leftrightarrow \neg (OA & O \neg A)

E2.
$$\vdash$$
 (PA \lor P \neg A) \Leftrightarrow (OA \rightarrow PA)

E3.
$$\vdash$$
 (PA \lor P \neg A) $\Leftrightarrow \neg$ OF

E4.
$$\vdash$$
 (PA \lor P \neg A) \Leftrightarrow PT

E5.
$$\vdash \neg PF \Leftrightarrow OT$$

E1-E3 state respectively that the statement that prohibition dilemmas are not possible is equivalent to the claim, (1) that obligation dilemmas are impossible, (2) that obligation entails permissibility, and (3) that nothing impossible is obligatory. E4 was discussed above, but E5 states that the claim that nothing impossible is permissible is equivalent to the claim that what is necessary is obligatory.

The equivalences E1-E5 present serious problems for anyone who wishes to maintain both that the correct logic of obligation is a normal system and that prohibition dilemmas are possible. This is more clearly shown by considering a standard model for deontic logic. A standard model is an ordered triple,

relation between statements or propositions as we do above. The problem of what might be called the 'derivative entailments' of actions or states of affairs is an important and controversial one, but it will not be discussed in this paper. For further discussion of this problem see Hector-Neri Castaneda, 'Acts, the Logic of Obligation and Deontic Calculi', *Philosophical Studies*, Vol. 1 (1967) pp. 13-26.

$$M = \langle W, R, P \rangle$$

where,

$$W \neq \phi$$

 $R \subseteq W \times W$
 $P_n \subseteq W \text{ for each } n \leq 0$

Intuitively, W is a non-empty set of possible worlds; R is a binary relation defined on W which assigns to each world a set of deontic alternatives such that $\alpha R\beta$ means β is a deontic alternative to α ; P assigns sets of possible worlds to atomic sentences, i. e. just those worlds at which each sentence is true. The truth-conditions for deontic sentences is as follows,

(1)
$$(M, \alpha) \models OA \Leftrightarrow \text{ for every } \beta \text{ in } M \text{ such that } \alpha R\beta, (M, \beta) \models A$$

(2) $(M, \alpha) \models PA \Leftrightarrow \text{ for some } \beta \text{ in } M \text{ such that } \alpha R\beta, (M, \beta) \models A$

The only restriction placed on the accessibility relation R in standard models is that the relation be serial. Formally,

Ser. For every α , there is some β such that $\alpha R\beta$

Informally, Ser states that every world has some moral standard: there are no moral "dead ends". In order to allow for prohibition dilemmas in a normal system of deontic logic, however, the restriction Ser must be dropped. It clearly follows from this that at some worlds, in some models, it will be case that ¬PA & ¬P¬A. But, it follows trivially by (1) that at just those worlds where prohibition dilemmas occur, everything is obligatory. This is certainly an unwelcome result, and does not seem to be characteristic of case (1) above. Does it follow from the fact that my club has enjoined incompatible prohibitions that I have an obligation to kill my neighbour's cat? Perhaps more troublesome in light of E1-E5 is the fact that allowing for the possibility of prohibition dilemmas requires the rejection of each of the following theorems.

If OD* must be rejected, then prohibition dilemmas are no less controversial than obligation dilemmas. Denying OP amounts to claiming that obligation does not entail permissibility, which seems almost unimpeachable. OD and PD express the weakest versions of the ought-can principle. Rejecting OD or PD amounts to claiming that even the *logically* impossible can be obligatory.

The cost, then, of allowing prohibition dilemmas in normal systems of deontic logic is extraordinarily high. And it seems to follow that either prohibition dilemmas are not possible or that the correct logic of obligation is not a normal system. In what follows we consider non-normal systems of deontic logic. It will be argued that even non-normal systems of deontic logic do not make possible the type of dilemma presented in case (1).

4. Prohibition Dilemmas and Non-Normal Systems

At least part of the difficulty of accommodating the possibility of prohibition dilemmas in normal systems of deontic logic is that the equivalences E1-E5 hold in all normal systems. There are, however, weaker non-normal systems of deontic logic in which not all of E1-E5 hold. And, independent of the dispute concerning the possibility of prohibition dilemmas, there is some reason to believe that the correct logic of obligation is to be found among the weaker systems. The presence of E1-E5 in normal systems of deontic logic prevents us from making morally and philosophically interesting distinctions in that logic. For instance, given E1 there is no way to distinguish, semantically, between the principle precluding obligation dilemmas and the principle precluding prohibition dilemmas, in spite of the intuitive difference between these principles. More troublesome is that, given E3, the distinction between the 'ought-can' principle and the principle precluding prohibition dilemmas collapses. Similarly, given E2, there is no semantic distinction between the claim that obligation entails permissibility and the claim that prohibition dilemmas are not possible: but certainly these claims differ in meaning. Since these intuitively different claims are indistinguishable in normal systems of deontic logic, the analysis of obligation or prohibition in terms of normal systems and standard models seems at least

questionable(11).

Let's consider the non-normal deontic system, D-, which is axiomatized by the rule, RPM, and includes only the axiom-schemes, NP, PD, Df. F and Df. O. The axioms rejected from D* are CP and PD*. Recall that in order to reject PD* we must reject, minimally, either CP or PD. It is easy to see that D- allows for certain types of prohibition dilemmas. The problem with the type of prohibition dilemmas which are now possible, however, is more clearly seen when we consider the 'minimal models' appropriate for D-(12).

A minimal model for D- is an ordered triple,

$$M^* = \langle W, N, P \rangle$$

where,

$$W \neq \phi$$

 $N:W \rightarrow P(P(W))$
 $P:N \rightarrow P(W)$

Intuitively, W is a non-empty set of possible worlds; N is a function assigning to each world a set of moral standards; P is a function assigning a truth-value to each atomic sentence at each world. The truth-conditions for deontic sentences are as follows,

(3)
$$(M^*, \alpha) \models OA \Leftrightarrow \llbracket A \rrbracket^{M^*} \in N_{\alpha}$$

(4) $(M^*, \alpha) \models PA \Leftrightarrow W - \llbracket A \rrbracket^{M^*} \notin N_{\alpha}$

(3) states that A is obligatory at the world α just in case the truth-set of A is an element of the neighbourhood (moral standard) of α . (4) states that A is permissible at α just in case the denial of the proposition expressed by

⁽¹¹⁾ These problems with normal systems and standard models in regard to deontic logic are also noted by R.E. Jennings and P.K. Schotch in 'Some Remarks on (Weakly) Weak Modal Logics', Notre Dame Journal of Formal Logic, Vol. 22, No. 4, (1981), and in their, 'Non-Kripkean Deontic Logic' in Risto Hilpinen (ed.), New Studies in Deontic Logic (D. Reidel Publishing Company, 1981) pp. 149-162. See also Brian F. Chellas, Modal Logic: An Introduction to Modal Logic (Cambridge University Press, 1980).

⁽¹²⁾ The notion (and notation) of a 'minimal model' follows Brian F. Chellas, *Modal Logic:* An Introduction (Cambridge University Press, 1980).

A is not an element of the neighbourhood of α .

A minimal model for D- will have the following restrictions of N for every world α and proposition X and Y in M^* :

- (rpm) If $X \cap Y \in N_{\alpha}$, then $X \in N_{\alpha}$ and $Y \in N_{\alpha}$
- (np) $W \in N_{\alpha}$
- $(pd) N_{\alpha} \neq \phi$

It is straightforward to show that PD* and CP are not valid in the class of minimal models M^* . For CP, consider the model in which $\phi \notin N_{\alpha}$, but where W- $[\![A]\!] \in N_{\alpha}$ and W- $[\![\neg A]\!] \in N_{\alpha}$. At α it will be true that P(A $\vee \neg A$), but it will be false at α that PA $\vee P \neg A$, since M^* is not a filter. It is clear that PD* is also falsified by this model. In fact, at every world and every model in which PD* is false, CP is false. But, as was noted above, CP is what assures us that each world has a unique moral standard, and of course PD* is the axiom which precludes the possibility of prohibition dilemmas. Every world, then, in which prohibition dilemmas obtain is a world in which there is more than one moral standard. But, prohibition dilemmas which are the result of employing more than one moral standard are uncontroversial. Consider, for instance, a world where the following two principles hold,

- p1. An act is forbidden iff. it does not maximize overall security.
- p2. An act is forbidden iff, it does not maximize overall freedom.

Clearly there will be cases where (p1) recommends an action which is forbidden by (p2). But this is not very surprising, since different principles will sometimes recommend different actions in the same circumstances. And an individual who subscribes to both (p1) and (p2) will not be in a prohibition dilemma when he finds himself in such circumstances. The individual will know only that, from the point of view of (p1) he ought not to do A, and from the point of view of (p2), he ought not to do ¬A. But he will not know what he ought not to do from the point of view of all of the principles he endorses. Perhaps he will not know how to compare security with freedom, perhaps he could not know, but it does not follow from this that he ought to fail to do both. He simply will not know what is forbidden, all-things-considered, in such a case.

Since the type of prohibition dilemmas which result from the rejection of PD* and CP are due to a moral agent's subscription to distinct grounds of

prohibition, the formal representation of those prohibitions ought to reflect this fact. This is easily accomplished by indexing prohibitions to their grounds. In the case above, employing (p1) and (p2), the "conflicting" prohibitions ought to be rendered as, $\neg P_1A \& \neg P_2 \neg A$. Not only are these types of dilemmas uncontroversial, their representation is not inconsistent with PD* which contains a univocal prohibition operator. It is also the case that E1-E2 still hold in D-. So, even allowing for these apparently innocuous types of prohibition dilemmas is very costly: one must also reject OD* and OP.

It seems clear that controversial types of prohibition dilemmas are not made possible by rejecting CP. Moreover, it does not seem that the prohibition dilemma illustrated in case (1) is the type permitted in D-. The only alternative to rejecting PD* and CP in attempting to accommodate prohibition dilemmas requires, at least, the rejection of PD* and PD. Though the problems associated with rejecting just PD* and PD were already noted in the discussion of the system D* above, there is a way (albeit, somewhat ad hoc) to avoid at least *those* problems in certain non-normal deontic systems. Consider the system D* which contains the same theorems as D* except for PD*, PD and Df. O. In place of the axiom of obligation, Df. O, we have the following,

Df.O' OA
$$\leftrightarrow$$
 [PA & \neg P \neg A]

A minimal model for D# will be an ordered triple,

$$M+=\langle W, N, P \rangle$$

where W, N and P are as in M^* , but where N has only the restrictions (rpm) and the following, for every world α and proposition X and Y in M+,

(cp) If
$$X \in N_{\alpha}$$
 and $Y \in N_{\alpha}$, then $X \cap Y \in N_{\alpha}$

The truth-conditions for obligation sentences in M+ are also different from those in M^* . Specifically, we replace (3) with the following,

(3')
$$(M+, \alpha) \models OA \Leftrightarrow [A]^{M+} \in N_{\alpha} \& N_{\alpha} \neq \phi$$

According to (3'), an act A is obligatory at α if and only if A is true at

all deontic alternatives to α , and A is not trivially true at those worlds(13). Consider, now, the worlds at which prohibition dilemmas obtain. They will be just those worlds, α , of course, at which it is true that $\neg PA \& \neg P \neg A$. So, by (3) we know that W- $[A] \notin N_{\alpha}$ and W- $[\neg A]$ $\notin N_{\alpha}$, i. e. $[A] \notin N_{\alpha}$ and $[\neg A] \notin N_{\alpha}$. But then prohibition dilemmas occur at worlds α where $N_{\alpha} = \phi$. At such worlds nothing is permissible, but, given the new truth-conditions, it is thankfully not the case that everything is obligatory. So, the problems we found with D* are avoided. However, it is the case there that nothing is obligatory, and this seems to be equally unwelcome. Why should it be the case that because my club enjoins conflicting prohibitions I no longer have any obligations? Suppose that I had to borrow money in order to join the club. It just seems false to say that since my club has passed incompatible prohibitions I no longer have an obligation to repay the loan. Matters are even worse: I no longer have an obligation to refrain from murdering whoever passed the incompatible rules, and so on. It could be replied, of course, that the prohibition dilemma does not affect one's obligations in the manner suggested because they are prohibitions relative to the club rules, and not absolute prohibitions. But this is iust to say that the prohibition dilemma is correctly rendered in D-, and the difficulties with D- prohibition dilemmas were found unacceptable.

There is, however, some advantage to the system D*. Neither E1-E3 nor E5 hold in D*, so in admitting prohibition dilemmas one need not reject OD*, OP or OD. Nonetheless, the unwelcome features of prohibition dilemmas in D* do not seem to be characteristic of the type of prohibition dilemma illustrated in case (1), and it certainly does not appear that anyone would argue (or has argued) that the D* type of prohibition dilemma is possible.

5. Conclusion

Case (1) does at least appear to illustrate a conceivable type of prohibition dilemma. However, it has been shown above that modifying standard deontic logic by rejecting this or that theorem does not make possible the case (1) type of prohibition dilemma. The remaining alternatives for those

⁽¹³⁾ Models which are equivalent to M+ models are suggested by Peter Vallentyne in 'Prohibition Dilemmas and Deontic Logic', *Logique et Analyse*, 117-118 (1987), pp. 113-122.

who wish to maintain the possibility of case (1) dilemmas are either to reject standard deontic logic wholesale, or to maintain that case (1) dilemmas have features which seriously detract from their plausibility. Taking the former tact results in serious difficulties, since analogous problems occur in dyadic deontic logics and also in tensed deontic logics. Taking the latter tact commits one to a highly implausible view concerning the logic of prohibition and obligation. In either case, it seems that the burden of proof is on those who wish to maintain that prohibition dilemmas are possible.

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