

REASONS AND OUGHTS

by

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Abstract

If what^a person ought to do can be understood in terms of what there is reason for the person to do, then what he or she ought to do, legally speaking (morally speaking, medically speaking, etc.), is not a matter of what some ideal agent ought to do. A proposition specifies a reason for a person to do something iff it is positively relevant to the prior objective probability of the hypothesis that it is maximally good for the person to do that thing. A person ought to do something iff (i) there is a reason for the person to do that thing and (ii) if the person does not do it, there is a reason to review the person's conduct critically. So understood, «ought» is not closed under entailment. Legally speaking (morally speaking, etc.), a person ought to do something iff the person ought to do that thing just in case the person's own priorities reflect legal (moral, etc.) priorities.

Resumé

Si ce qu'une personne devrait faire s'entend en termes de ce pour quoi il y a une raison pour ainsi faire, alors ce que cette personne devrait faire légalement (moralement, médicalement, etc.) n'est pas une question de ce qu'un être parfait devrait faire. Une proposition spécifie une raison pour une personne de faire une chose précisément dans le cas où elle est positivement pertinente à la probabilité objective de l'hypothèse qu'il est maximale bon pour cette personne d'agir ainsi. Une personne devrait faire une chose dans les cas où (i) il y a une raison pour qu'elle agisse ainsi et (ii) si elle ne le fait pas il y a une raison pour critiquer son comportement. Il est possible qu'une personne ne doive pas faire ce qui est logiquement nécessaire afin de faire ce qu'elle devrait faire. En termes légaux (moraux, etc.) une personne devrait faire une chose exactement dans le cas où elle devrait faire cette chose précisément à condition que ses propres priorités reflètent les priorités légales.

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Preface

This essay deals with two main problems, one nested within the other.

The first problem concerns the conditions under which it is true to say that, legally speaking, so-and-so ought to do such-and-such a thing. Joseph Raz^Z and John Finnis seem to have argued that the truth or falsity of propositions about what a person ought to do, legally speaking, depends on the truth or falsity of propositions about what some ideal agent ought to do. For Raz, the relevant ideal agent is the person who wants only to do what the law requires; and for Finnis, the ideal agent is the person who is perfectly reasonable. In what follows, I argue that these suggestions must be wrong because there are cases where what one ought to do, legally speaking, depends on certain interests or desires that one actually has, and which a person who was perfectly reasonable, or wanted only to do what the law required, would not have. For example, imagine that you are a millionaire realtor, from sheer perversity, and you want to evict some helpless widow from one of your properties because she has violated the terms of her lease. Then it may be that, legally speaking, you ought to follow certain procedures which will lead to her

eviction. But if you wanted only to do what the law required, or if you were perfectly reasonable and not perverse, you would not want to evict the helpless widow; and in that case it would not be true that you ought to follow certain procedures which would lead to her eviction. A more realistic example is discussed in Chapter One below. The argument is, of course, utterly elementary, but I am not aware that it has been offered before, despite the fact that it follows quite naturally from Hart's distinction between legal rules which impose duties, and legal rules which confer or regulate powers. In Chapter Three, I propose a different account of the conditions under which it is true to say of a person that legally speaking, he or she ought to do some particular thing.

The other main problem dealt with in this essay has to do with the relation between what a person has reason to do, and what a person ought to do. In Chapter Two, I have tried to specify precisely at least the form of the conditions under which it is true to say that such-and-such is a reason for so-and-so^o to do thus-and-thus. The main idea is that a reason is something which supports the hypothesis that a certain course of action would be good to follow. In Chapter Three I use the results of Chapter Two to specify the form of the truth conditions for propositions about what a person ought to do. The treatment is relatively formal, but, I am afraid, untidy, if not actually incorrect to boot: I present it in the hope of provoking others to produce more adequate accounts. The most interesting result, perhaps, is

that when «ought» is CONSTRUED as a sentential operator, it turns out not to be closed under entailment. Though initially disconcerting, this result is naturally related to ^{the} the result that probabilistic support does not obey Hempel's special consequence principle. The validity of this principle has been denied with regard to reasons for belief;¹ so it is perhaps worth pointing out that the present essay was from the start intended to give expression to the view that reasons for people to do things are analogous to reasons for people to believe things. The upshot of this is some degree of vindication for views expressed by Raz and Harman to the effect that practical reasoning should not be thought of in terms of deontic logic or the logic of imperatives.²

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CHAPTER I

LEGAL OUGHTS, POINTS OF VIEW, AND FOCAL MEANING

Sometimes one person may advise another by suggesting a course of action for the other to adopt. One way to make such a suggestion is to use the word «ought» as in 1.1 below:

1.1 You ought to apply to Cornell.

An academic adviser might sincerely utter 1.1 by way of suggesting to a student that the student apply to Cornell, given, say, that the student wants to do graduate work in food sciences.

A different way for one person to advise another is for the adviser to present some fact or facts which are understood to be pertinent to a particular choice confronting the person whom he is advising. Thus a stockbroker might advise his client by sincerely uttering 1.2:

1.2 In the coming year, energy stocks are not likely
to do as well as holdings in airline or insurance companies.

Even if a stockbroker sincerely utters 1.2 to his client, however, the stockbroker may truly claim that in uttering 1.2 he is not suggesting that his client adopt any particular course of action. By contrast, a parallel claim in the case of 1.1 above would have to be rejected.

An interesting intermediate case arises when advice is expressed in the form of sentence which contains «ought» as 1.1 does, but which is prefixed by a sentential modifier, such as «medically speaking» or «legally speaking».

Thus consider 1.3 and 1.4:

1.3 Medically speaking, you ought to have a blood transfusion.

1.4 Legally speaking, you ought to pay the tax due on income that you earned in the form of tips.

If one person sincerely utters 1.3 or 1.4 to another, does he thereby suggest that the other adopt some particular course of action, as he does if he sincerely utters 1.1?

At least this much should be said: it is possible to add the clause «but I don't believe that you ought to do so» to 1.3 and 1.4 without creating any air of paradox, but it is not possible to do the same with regard to 1.1. For 1.5 and 1.6 are unproblematic, but 1.7 is not.

1.5 Medically speaking, you ought to have a blood transfusion; but I don't believe that you ought to have a blood transfusion.

1.6 Legally speaking, you ought to pay the tax due on income that you earned in the form of tips; but I don't believe that you ought to pay the tax due on the income that you earned in the form of tips.

1.7 You ought to apply to Cornell; but I don't believe that you ought to apply to Cornell.

1.7, of course, is just an instantiation of Moore's paradox, but 1.5 and 1.6 are not subject to this difficulty. A person's uttering 1.5 or 1.6 to another however, could hardly be said to amount to his suggesting to the other that he

adopt either of the courses of action specified in 1.3 and 1.4. If, therefore, sentences such 1.3 and 1.4 can be used to suggest that a person adopt specific courses of action, the comparative ease with which such suggestions can be cancelled by a disclaimer of personal endorsement argues that the «suggestive powers» of sentences such as 1.3 and 1.4 are considerably weaker than the «suggestive powers» of sentences such as 1.1.

With certain traditional philosophical categories in mind, one might suppose that sentences such as 1.1 are used to make categorical suggestions about causes of action to be adopted. In this vein, what should we say about sentences such as 1.3 and 1.4 ? Taking the natural next step, we might go on to hold that sentences such as 1.3 or 1.4 are used to make certain kinds of hypothetical or conditional suggestions.

Perhaps this is a proposal that has only to be considered, however, in order to be doubted. For consider the sentential modifier «morally speaking». May not, must not 1.8 be used to make categorical suggestion, rather than just a conditional one?

1.8 Morally speaking, you ought to honour your
father and your mother.

Suppose that 1.8 can or should be used to make categorical suggestions. 1.8 might still best be understood as a kind of conditional or hypothetical proposition. For perhaps 1.8 is equivalent to a conditional whose antecedent is a neces-

sary truth. In that case 1.8 would entail 1.9, and 1.9 is just the sort of sentence that can be used to make a categorical suggestion.

1.9 You ought to honour your father and mother.

If this were right, then we could just as easily construct a paradox by adding «I don't believe that you ought to do so» to 1.8, as we could if we added that to 1.9. The contrast between the result of such an addition and the logical propriety of 1.5 and 1.6 would be explained if the relevant antecedent conditions associated with 1.3 and 1.4 were not necessary truths. In any case, despite the difficulties that may attend this kind of categorical/hypothetical proposal, I think that it is right and worth elaborating.

A special case of such a proposal, however, has been discussed by Joseph Raz at the end of Practical Reason and Norms, where the whole idea is quickly dismissed.¹ Raz puts forward rather a different proposal instead² - with rather astonishing consequences, for John Finnis has used Raz's idea to try to justify the installation of natural law theory at the very centre of analytical legal philosophy.³ But Raz's proposal is quite unsatisfactory, and Finnis' development of it is a mistake. That, at any rate, is what I shall now proceed to argue. Unless an argument to this effect can be constructed, there is little point in working out a defense of a conditional treatment of sentences such as 1.3 and especially 1.4.

In order not to prejudice matters by speaking any further of categorical or conditional suggestion, I shall

from now on distinguish between kinds of «oughts» instead of kinds of suggestions. I shall say that a sentence such as 1.1, with the same 'suggestive power' as 1.1, contains a simple «ought»; and that sentences such as 1.3 and 1.4, which include sentential modifiers like «medically speaking» or «legally speaking», contain^a special «ought»: - the legal «ought», since that is what Raz and Finnis deal with - and with two similar proposals about how to understand sentences containing this «ought».

Raz's basic idea is superficially not hard to understand. He supposes that simple «ought» sentences are to be interpreted in terms of existential sentences about reasons for doing things, where the quantifier ranges over propositions.⁴ Thus 1.1 above would be logically equivalent to 1.10.

1.10 There is a (proposition which is a) reason for you to apply to Cornell.

On this view, thus, the suggestion that you apply to Cornell can be made by asserting that there is reason for you to do so. (There are, of course, myriad difficulties here, but they need not concern us at the moment.)

Raz thinks that special «oughts» and the legal «ought» in particular, pose problems, because it may be that there is no reason for a person to do some particular thing, and yet it may also be true, for instance, that legally speaking he ought to do that very thing.⁵ Raz gives no concrete examples, but in an essay on Kelsen⁶ he mentions Kelsen's

famous example of the anarchist:

The anarchist emotionally rejects the law as a coercive order; he objects to the law; he wants a community free of coercion, a community without a coercive order. Anarchism is a political attitude, based on a wish. (...) Yet even an anarchist, if he were a professor of law, could describe positive law as a system of valid norms, without having to approve of this law. (7)

Even an anarchist may know what, legally speaking, he and others ought to do; that is what is shown by his ability to describe positive law as a system of valid norms; and yet he might fail to believe that he and others have any reason to do what they legally ought to. Furthermore, in his own case, his political attitude, his «wish», and his general priorities may be such that he has indeed no reason at all to do some of the things that legally speaking he ought to do. Nevertheless he may know that legally speaking it is true that he ought to do them.

Similarly, and more importantly, when a lawyer advises a client of his, he may know that he does not know whether the client is an anarchist or not; if the client is an anarchist, the client may have no reason to do what the lawyer believes that legally speaking the client ought to do; the lawyer may realize this; but then the lawyer cannot suppose that in advising the client about what the client ought legally speaking to do he is telling the client what the client has reason to do. For the legal advice may be correct, yet if the client is an anarchist, he may have no reason to

follow it.

Given Raz's idea that simple «oughts» are to be interpreted in terms of reasons for doing things, a general question arises as to how legal «oughts» can be linked up with reasons for doing things. Raz's proposal is that the connection has to be made in terms of the notion of the legal point of view. He offers two characterizations of the legal point of view.

The first characterization, presented in «Kelsen's Theory of the Basic Norm», depends on a certain idealization. We are asked to imagine the «hypothetical legal man», who is «a person accepting from a personal viewpoint all and only the legal norms.»⁸ The word «norms» in this characterization comes from Kelsen, and the point of not allowing the legal man to accept any norms but legal ones is presumably to exclude the possibility that the legal man himself might be, for example, an anarchist. The general upshot is that the legal man must not «emotionally reject» the law, he must not want to do anything that conflicts with the law, and he must have no beliefs, attitudes, or wishes which conflict with the law. His desires must be entirely limited by the law. To adopt the legal point of view is to take up the view of the legal man and, as it were, to mimic just the judgments he would make. On this account, the expression «legally speaking» is a device whose purpose to signify that one is taking up the point of view of the legal man.

As it stands, this account is unhelpful. Suppose that

in a given jurisdiction there is a valid legal norm prohibiting any person from keeping a common bawdy house. According to Raz, acceptance of this norm as valid will permit an inference having as its conclusion that every person within that jurisdiction ought not to keep a common bawdy house. This is equivalent to the proposition that every person in the jurisdiction has a reason not to keep a common bawdy house. But suppose that within the jurisdiction there are certain radical libertarians whose doctrines, attitudes, wishes and priorities are such that they have no reason not to keep common bawdy houses.

On Raz's view, it is not the case that these persons ought not to keep common bawdy houses. The legal man, however, cannot believe that this is the case since he accepts the norm prohibiting common bawdy houses in the jurisdiction in question, and hence the conclusion that every person in the jurisdiction ought not to keep a common bawdy house. Now the legal man is an idealization. It, therefore, seems not unreasonable to assure that his beliefs are consistent and closed under deductive consequence. But then it is elementary that the legal man must judge that in the jurisdiction in question there are no radical libertarians whose attitudes, etc., are such that they have no reason not to keep bawdy houses.

On every logical theory which is known to me and which deals with universally quantified sentences where the extension of the initial predicate is empty, this has disastrous

consequences for the judgments of the legal man.

(a) In the orthodox theory of quantification, and in the logic of common nouns developed by Gupta, all unmodalized universal sentences whose initial predicate is satisfied by nothing are vacuously true. Suppose that «All radical libertarians in the jurisdiction in question whose attitudes etc., etc., ... ought to keep common bawdy houses» is such a sentence. Then it is vacuously true. Since the sentence in question presumably means something like «all radical libertarians etc., have a reason to keep common bawdy houses», there are good grounds for regarding it as an unmodalized universal sentence. Hence there are good grounds for judging it to be true. But if the legal man subscribes to this view of the sentence, he must judge that all radical libertarians etc., ought to keep common bawdy houses, from which it follows that legally speaking, all radical libertarians within the jurisdiction ought to keep common bawdy houses - despite the existence of a legal norm prohibiting anyone in the jurisdiction from keeping a common bawdy house. This is not satisfactory.

(b) From some of Strawson's remarks about the universal quantifier, and I believe from Gibbard's theory of the indicative conditional, it follows that universally quantified propositions whose initial predicate is known to be satisfied by nothing are undefined with regard to semantic value.¹¹ Since the legal man believes that he knows that in the jurisdiction in question there are radical libertarians whose

attitudes etc., he must on this theory believe that the sentence «all radical libertarian whose attitudes etc., ... ought not to keep common bawdy houses» is undefined with regard to semantic value. Then he will not judge that any radical libertarian etc.,... ought not to keep a common bawdy house, for to judge that P is to judge that P is true, and ^{since} «true» is a definite semantic value, it follows that it will not be true that legally speaking, such radical libertarians ought not to keep common bawdy houses, despite the existence of a legal norm prohibiting anyone from keeping a common bawdy house. Again, this is unsatisfactory.

(c) On a theory of conditional that might be associated with Ernest Adams and Brian Skyrms, a conditional sentence might be said to be true just in case the corresponding conditional probability is close to 1.¹² Since a conditional probability is undefined when the probability of its antecedent is 0, the corresponding sentence might be said to be false in that case, because if the conditional probability is undefined, it is not «close to 1». On this theory 1.11 and 1.12 might be logically equivalent.

1.11 Any radical libertarian within this jurisdiction whose attitudes, etc., ought not to keep a common bawdy house.

1.12 For any x, the conditional probability that x ought not to keep a common bawdy house, given that x is a radical libertarian within this jurisdiction, etc., is a probability close to 1.

Now the legal man may well believe that for any x that there is zero probability that x is relevant sort of radical libertarian. Then for any instantiation for x , the conditional probability will be undefined, and so not close to 1. In that case the legal man will judge that 1.12 is false. But then it will be false that legally speaking any such radical libertarian ought not to keep a common bawdy house, despite the existence of legal norm prohibiting anyone from keeping a common bawdy house. Once more, the result is unsatisfactory.

(d) It may be suggested that when the legal man considers whether certain radical libertarians ought not to keep common bawdy houses, believing that there are no such radical libertarians, he is really considering what would be the case if there were such radical libertarians. On this view the legal man is concerned with 1.13.

1.13 If any radical libertarian having no reason not to keep a common bawdy house were within the jurisdiction in question, it would be the case that he ought not to keep a common bawdy house. According to Raz, 1.13 is equivalent to 1.14.

1.14 If any radical libertarian having no reason not to keep a common bawdy house were within the jurisdiction in question, he would have a reason not to keep a common bawdy house.

The trouble with 1.14 is that it is so strong, that it is difficult to see why the legal man should believe it. Let

there be some diehard radical libertarian outside the jurisdiction in question, prepared to welcome any legal sanction attached to the prohibition of bawdy houses within the jurisdiction as providing an opportunity for heroic civil disobedience. We may suppose that he knows precisely what these sanctions are. There seems to be no reason why the legal man should have any problem in believing that such a libertarian might exist. Believing that he might is not inconsistent with believing that every person within the jurisdiction has a reason not to keep a common bawdy house. But if he does believe that this sort of libertarian might exist, it is not clear why he should believe that if this sort of libertarian were to come within the jurisdiction in question, it would thereby come about that he had a reason not to keep a common bawdy house. Yet if he believes that this counterfactual is false, he must believe that 1.14 is false. And if he believes that 1.14 is false, on the present interpretation he believes that it is false that all radical libertarians within the jurisdiction ought not to keep common bawdy houses. Then once again it is false that legally speaking any such radical libertarian ought not to keep a common bawdy house despite the existence of a legal prohibition against anyone's keeping a common bawdy house. On this interpretation, admittedly, it is not obvious that the legal man must believe that the troublesome counterfactual is false. But neither is it obvious that he must believe that the counterfactual is true, and this is enough to show that the device

of the legal man as we are presently interpreting it, is of no help in explaining what it is for something to be legally speaking true.

No doubt there are other ways of dealing with a universally quantified sentence, the extension of whose initial predicate is empty.¹³ There are, however, certainly grounds for doubting whether any of these ways could be used to relieve the embattled legal man.

If we still want to make use of the legal man to characterize the legal point of view, we might take a simpler line altogether and say in the present case, for instance, that legally speaking, a radical libertarian ought not to keep a common bawdy house, if and only if the legal man himself has a reason not to keep a common bawdy house. Since the legal man accepts the norm prohibiting the keeping of common bawdy houses, he does indeed have a reason not to keep one. For Raz, this seems to be analytic. It follows that legally speaking, even a radical libertarian ought not to keep a common bawdy house. This, of course, seems to be just the appropriate conclusion. I shall shortly demonstrate, however, the inadequacies of even this simple revised version of the legal man theory. Before that, let us turn briefly to Raz's other characterization of the legal point of view, which I think is meant to be equivalent to our revised legal man characterization.

This second characterization of the legal point of view is given in Practical Reasons and Norms.¹⁴ According

to this characterization we are first to identify all the norms of a legal system. Each such norm will be expressible in a natural manner as proposition about what people to whom the norms apply ought to do, or are permitted to do or have an obligation to do. Let the «oughts» in these propositions be simple «oughts». Since the propositions contain simple oughts, they are to be understood as propositions about reasons for doing things, and we may regard some of the propositions as false. Now we take the set of all true propositions such that no proposition about what any person ought to do is deducible from any subset of them. We conjoin this set of propositions with the set of propositions expressing all and only the legal norms mentioned above. This new set of propositions may entail many propositions about what people ought to do in virtue of the fact that many of the propositions expressing norms will be conditionals with non-normative antecedents. Some of the entailed propositions may not be true, for some of the entailing sentences containing simple oughts may not be true. Nonetheless, if we take all and only the entailed propositions about what people ought to do and prefix «legally speaking» to them, we shall have precisely the set of true sentences about what, legally speaking, people ought to do.

I shall now present a counter-example to this hypothesis about legal «oughts». It will apply to both of the characterizations of the legal point of view just presented.

Imagine that you and I meet at a cocktail party in

Toronto in 1977. You are the owner of a Toronto firm which supplies steel materials to construction companies, and I am a lawyer. When you discover this fact about me, you begin to tell me about a contractual problem that you have recently faced. You had signed a contract with a construction company to supply steel for a large project in Toronto, and you had neglected to include in the contract an escalation clause which would enable you to pass on to your customer any rising costs that you might incur in supplying your customer during the period in which you were bound by the contract. As it turned out, your costs did rise and it became apparent that unless the terms of the contract were renegotiated, you would end up supplying steel to your customer ^{at a loss,} and ^{so you} asked that the terms of payment be altered so that you might make some profit on the deal. In return you promised that in future you would give him good prices on other projects. Your customer, you report, agreed to accommodate you in your difficulties. Hearing this, I recall that in 1976 the Ontario Court of Appeal had delivered a judgment on a case the facts of which exactly resemble yours - Gilbert Steel Ltd. v. University Construction Ltd. 1976 12 O.R. (2d) 19. In that case, University Construction having agreed to accommodate Gilbert Steel, later refused to pay anything beyond what was set out in the original contract. Gilbert Steel sued on the later agreement and lost. Wilson J.A. held that the later agreement was not an enforceable contract because Gilbert Steel had offered no new consideration to Univ-

ersity Construction in return for the higher price. Recalling this, and recalling also that a contract memorialized in a sealed document requires no consideration to be enforceable, I utter 1.15 to you, by way of offering you some advice:

1.15 Legally speaking, you ought to get that agreement put into a sealed document.

1.15, it seems to me, is a perfectly ordinary form of expression: it may be quite properly used to convey the fact that you have a legal reason to adopt a certain procedure, viz., if you don't adopt it, you won't legally be able to get the price for your steel that you and your customer have agreed on. The presumption, of course, is that you want to get that price, and that is why the advice is relevant.

Note, however, that if we merely consider what Raz calls the legal point of view, 1.15 will come out false. While you want to get paid for your steel, the legal man wants only to obey the legally valid norms. There is no norm requiring him to get any particular agreement put under seal; nor is there any legal norm which requires that if anyone wants the terms of payment of a previously signed contract to be altered according to a subsequent agreement between the parties, he must get the agreement put under seal. For someone may want this, and not take the required steps; and nonetheless, the law will not intervene or even concern itself. The legal rule which determines that such an agreement unsealed will not be an enforceable contract is not a rule

which imposes an obligation, or yields a mandatory reason for doing something. In particular, it gives the legal man - the man who wants only to do what is required by the legal norms - no reason to get any particular agreement put under seal. This includes the agreement in question. But if it is true of the legal man that he would have no reason to get the agreement in question put under seal, it follows on the account that we are considering, that it is not the case that legally speaking, you ought to get the agreement put under seal. This conclusion however, seems to be false.

Once again, there is no mandatory legal norm requiring that if anyone wants the terms of a previously signed contract to be altered according to a subsequent agreement, he must get the agreement put under seal. Since there is no such norm, it does not seem that it will be possible to deduce from the set of norms plus the set of true non-normative propositions the conclusion that you ought to get your agreement put under seal. But if this can't be deduced, then on the account that we are considering it will not be the case that legally speaking, you ought to get the agreement put under seal. Yet, as was said, this seems to be simply false.

I conclude that the legal point of view does not explain legal «oughts».

It might be objected that the «ought» in question is not a legal «ought» but a prudential one. This is incorrect. For suppose that in the course of telling me your story,

you mention the name of the owner of the construction company with whom you are involved, and it turns out that I know him to be a man of the strictest rectitude, but touchy on points of honour. I may then believe that he will certainly honour his agreement even if it is not legally enforceable against him, and also that he will regard the request for a sealed document as a slight on his character, and on that ground refuse to do business with you again. If I also know that he is potentially a good customer of yours, I may not believe that you ought to get your agreement put under seal then I may truly utter 1.16:

1.16 Legally speaking, you ought to get the agreement put into a sealed document; but I don't believe that you ought to get the agreement put into a sealed document.

The second «ought» in 1.16 is a prudential «ought»; the first «ought» is not. The conclusion stands.

The same counterexample will serve to eliminate John Finnis' favoured point of view as a possible explanation of the legal «ought». Finnis believes that it is not the point of view of Raz's legal man, but of the «practically reasonable man», which is important in analytical jurisprudence.¹⁵ For Finnis, the practically reasonable man is one who regards it as self-evident that life, knowledge (or truth), play, aesthetic experience, sociability (or friendship), practical reasonableness, and «'religion'» are the basic human goods.¹⁶ Analytically, practical reasonableness itself requires (i)

the formation of a coherent plan of life, (ii) the avoidance of arbitrary preferences amongst values, (iii) the avoidance of arbitrary preferences amongst persons, (iv) a balance between detachment from and commitment to one's personal projects, (v) limited consequentialism, (vi) respect for every basic value in every act, (vii) concern for the good of all; (viii) following one's conscience.¹⁷

Now it may be that our intuitions about the practically reasonable man are such that we should say that he would have reason to get the agreement we have been considering put under seal. Then, keeping fixed the suppositions about oughts and reasons, it would be the case that he ought to get the agreement put under seal; and we might conclude that since the practically reasonable man ought to do so, then legally speaking, you ought to do so; although we might have doubts about the relevance of the premises to the conclusion. The real trouble comes when we turn to question about what the contractor ought to do. Since knowledge or truth is a basic value, and since respect for every basic value is required in every act, and since the contractor has made an agreement with you to pay some higher price, respect for truth would seem to require that he honour his agreement and pay the higher price. The practically reasonable man, being what he is, would have reason to do this. Hence it would be the case that he ought to do this. But if we conclude from this that legally speaking, the contractor ought to pay the higher price he agreed to pay we shall be wrong.

In fact, precisely because legally speaking, it is not the case that the contractor ought to pay the higher price, it is the case that legally speaking, you ought to get the agreement put under seal. If it were the case that legally speaking the contractor ought to pay the higher price, there would be no legal reason for you to get the agreement put under seal. But there is such a reason, and that is that it is not the case that legally speaking, the contractor ought to pay the price agreed upon. I conclude that the point of view of the practically reasonable man does not satisfactorily explain the use of the legal «ought».

Someone might answer this by saying that it is not Finnis' aim to use the viewpoint of the practically reasonable man in order to provide an explanation of the legal «ought». This is probably true; but if so, then Finnis' justification for considering the viewpoint of the practically reasonable man at all is weaker than might appear.

Finnis offers a two-pronged inductive argument for the importance of the viewpoint of the practically reasonable man in analytical jurisprudence. The first prong consists of an induction from the recent history of legal philosophy. According to Finnis, Hart's legal theory is an improvement on Kelsen's at least in part because Hart realizes the significance of the fact that legal rules have an internal aspect and Kelsen doesn't realize this.¹⁸ But the internal aspect is just that aspect of the rules considered from the point of view of those people who regard the rules

as standards of conduct. The point of view at issue is pretty clearly a general and not a highly differentiated one. In similar fashion, Raz's views are supposed to be an improvement on Hart's, at least in part because Raz narrows the point of view that has to be considered in order to understand how legal systems provide people with reasons for action.¹⁹ From this narrow inductive basis, Finnis draws the conclusion that the point of view of the practically reasonable man will yield even a better account than Raz's, because the point of view of the practically reasonable man is even more differentiated than that of Raz's legal man.

Three arguments may be offered against this: (i) We have already seen that the point of view of the legal man fails specifically to contribute to the solution of the very problem it was designed to solve. For that reason it is not clear that there is any general inference to be drawn about points of view in legal philosophy from Raz's improvements on Hart - if there are any such improvements; (ii) Raz himself suggests that the concept of «justified normativity»-- which is what is to be explicated in terms of the legal point of view - is found in Kelsen but absent in Hart precisely because of Hart's emphasis on the social aspects of rules. This emphasis might well be said to be characterized by Hart's insistence on the importance of the viewpoint of those who regard the rules as standards. But if so, then the history of the point of view in legal philosophy is not one of uninterrupted progress, as Finnis seems to suggest;

(iii) Finally and most relevantly to our present concerns, if the problem addressed by Kelsen, Hart, Raz and Finnis is not the same one, there would seem to be little support for any idea of a refinement of technique somehow implicit in the reliance on a progressively more narrowly defined point of view. The problem that Raz wants to solve is the problem of the legal «ought». If that is not the problem Finnis wants to solve, then it is hard to see if Raz's use of the notion of a point of view has any bearing on Finnis' use of that notion to solve his own problems. We may conclude that although the viewpoint of the practically reasonable man may be interesting and fruitful for legal philosophy, recent history of the subject does not show it to be so.

I said earlier that Finnis offers a two-pronged inductive argument on behalf of the viewpoint of the practically reasonable man, and before leaving points of view behind, it may be useful to consider the other prong of his argument. Finnis has an interest in suggesting that his employment of the point of view of the practically reasonable man is related to an employment of such a notion by Plato and Aristotle.²⁰ This is because Finnis is anxious to rehabilitate a version of natural law theory, and he sees the core of natural law theory as constituted by positions held by Plato, Aristotle and Aquinas.²¹ If Plato and Aristotle could be regarded as supporting Finnis' views about the importance of a particular viewpoint, then Finnis would be able to argue for a kind of convergence between the natural law tradition and contempor-

ary analytical jurisprudence (though only, of course, on the assumption about recent legal philosophy that we have called into question above.)

The relevant references to Plato and Aristotle seem insufficient to support Finnis' views. (i) Finnis cites Republic 582a-e interpreting what he finds there to mean that «the lover of wisdom can understand the concerns of men of other character while the converse does not hold.» For Finnis, the «lover of wisdom» is to be identified with the practically reasonable man. The citation, however, is at least somewhat misleading, since the passage in question is devoted to showing that the pleasures of the philosopher include the pleasures of the timocratic, the oligarchic and the democratic man, but not vice versa. The argument is used to show that it is best to be a philosopher because it is pleasantest (587b), and not to show that there are methodological gains that come from describing the political systems from the point of view of the philosopher as described in the Republic. Finnis also cites remarks of Socrates to the effect that a judge who happens to be a wicked person will be excessively suspicious (Rep.III, 409a-d), in order to bolster the claim that «the concerns of the just and reasonable man provide a better empirical basis for the reflective account of human affairs.» But the passage at issue is concerned with the actions of such a judge in practice, and not with his ability to reflect upon human affairs in theory. Finnis' conclusion, favouring his own

position, seems excessively broad. In any case, both passages from The Republic form elements within a theory describing a just state; they are not concerned with the activity of theorizing itself. In trying to justify the appeal to a particular point of view, Finnis' own concern, by contrast, is methodological not substantive, having to do with the best way to produce a theory. Nothing in the passages in The Republic seems to bear on this matter.

(ii) Finnis also mentions (without quoting) Aristotle's famous remarks about the appropriate sort of student of practical subjects. Aristotle says that the student is to have had «an all-round education», he must «regulate his impulses and act in accordance with principle», and he must have been «well-trained in his habits» (Nicomachean Ethics, 1095a1,10, 1095b6). Now since this man is supposed to be a student who may learn from Aristotle's theories, it is odd to suggest that the theories are to be developed by elaborately detailing this man's point of view. Yet if this man is supposed to be Finnis' mature man of practical reason, it seems that that is how theories should be developed, since that is how Finnis himself proceeds. By contrast, Aristotle seems to have in mind that the views of this man are significant because they provide a check on theories, which may prevent them from wandering too far away from received opinion. The content of the theories is not to be determined by this man's point of view - otherwise he would have nothing to learn. This sort of reasoning is surely what lies behind Aristotle's

view that we must start with what is «known to us», and not what is «known absolutely» (Nicomachean Ethics, 1045b1-3). Presumably we shall proceed to what is known absolutely, and find out the nature of human goods. Significantly, this programme is unlike Aquinas' procedure in deriving the precepts of natural law, for Aquinas' procedure in deriving the precepts of natural law, for Aquinas is concerned with propositions which are self-evident («per se notae») in themselves («secundum se») but not necessarily self-evident of us («quoad nos», S.T. I-II, 9.94, a.2c). Grisez points out with regard to the first precept of natural law it is self-evident both in itself and to us.²³ Other precepts, however, may be self-evident only to the wise - to those that is, who understand the meanings of the terms in the propositions; and not necessarily to all those who would profit from Aristotelian instruction. These self-evident propositions of Aquinas are therefore, not the same as the ones mentioned by Aristotle, and it might well be claimed that, unlike Aristotle's propositions, these propositions should be classed precisely as «known absolutely» and not necessarily «known to us» even if «we» are Aristotelian students. If Aquinas' derivation of the first principle of natural law is characteristic of his method in producing a general theory according to the principles of Aristotelian science, then his method in practical philosophy diverges sharply from Aristotle's; and the claim that there is common natural law tradition with regard to the method of constructing theories

in practical philosophy seems to collapse. In particular, if for Aquinas there is a point of view connected with the construction of such theories, that point of view appears to be a tool employed to make vivid the sense in which things said to be «known absolutely» are really matters of knowledge. This point of view is not the point of view of the student of Aristotelian ethics. It is impossible that Finnis' favoured point of view should be a lineal descendant of both these points of view; and so no convergence of theories appears to be in the offing with regard to points of view.

In spite of all this, Finnis has a shield with which he might deflect criticism based on the legal 'ought' problem - a shield which is not available to Raz; Unlike Raz, Finnis can claim that since the word «legally» in the expression «legally speaking» is plainly connected with the word «law», it does not matter if some of our judgments about the use of the expression «legally speaking» are violated on an account which identifies the legal point of view with the viewpoint of the practically reasonable man. It does not matter because that account is meant to explicate only a special sense of the word «law». If «legally speaking» is understood in terms of this special sense of «law», then it may well be that in a special sense, legally speaking, the builder with whom you have made an agreement ought to pay the higher price for the steel that you supply to him - despite the fact that in another sense, it is unfortunately

not the case that legally speaking, he ought to do so. Hence an apparent conflict between theory and intuition can be resolved by appealing to a kind of equivocation.

Finnis has provided himself with this shield, not as a result of having foreseen the difficulty which we have raised here, but because his own account of the term «law» leads to far more blatant sorts of problems. This is worth considering in some detail. Finnis uses the term «law»

(...) with a focal meaning so as to refer primarily to rules made in accordance with regulative legal rules by a determinate and effective authority (itself identified and, standardly constituted as an institution by legal rules) for a 'complete' community, and buttressed by sanctions in accordance with the rule-guided stipulations of adjudicative institutions, this ensemble of rules and institutions being directed to reasonably resolving any of the community's coordination problems (and to ratifying, tolerating, regulating, or overriding coordination solutions from any other institutions or sources of norms) for the common good of that community, according to a manner and form itself adapted to that common good by features of specificity, minimization of arbitrariness, and maintenance of a quality of reciprocity between the subjects of the law both amongst themselves and in their relations with the lawful authorities. (23)

Some features of this rich and sophisticated definition need clarification. First, the two occurrences of the word «legal» in it are unessential: they may be understood as expressing a kind of de re predication, whose purpose is to indicate that rules which are laws may by rules about laws (Hart's «secondary rules» including a rule of recognition), so that rules which are legal rules may be in a certain sense

«self-referring». The occurrences of «legal» do not necessarily make the definition circular. Second, a «complete» community is one which is:

... an all-round association in which would be coordinated the initiatives of individuals, of families, and of the vast network of intermediate association. The point of this all-round association would be to secure the whole ensemble of material and other conditions, including forms of collaboration, that tend to favour, facilitate, and foster the realization by each individual of his or her personal development. (24)

Third, what Finnis calls «the common good of that community» is precisely what is specified in the sentence beginning with, «The point...», quoted immediately above.²⁵ Fourth, «coordination problems» are roughly the sorts of problems that are represented in terms of game-theoretic matrices in such works as Lewis' Convention, and Ullman-Margalit's The Emergence of Norms. Finally there is a great deal to be said about the expression «focal meaning» which prefaces the definition. Before examining «focal meaning», however, let us consider the sort of difficulty which is faced by this definition and which Finnis himself anticipates.

An historical example will do. In his well-known Roman Litigation, J.M. Kelly adduces much evidence to show that in Rome during at least until the Antonine period, the position of a would-be plaintiff was very weak, since the would-be plaintiff would have to rely entirely on his own financial and physical power to get a defendant into court

and hence to get a judgment against a defendant because the State itself used none of its power or resources to provide sanctions which might «buttress» the process of litigation. The same is true with regard to the execution of a judgment in the plaintiff's favour. Kelly concludes from this that the Roman legal system must have functioned «with utmost irregularity »

(...) since the tendency would be for potential plaintiffs who were weaker than their prospective adversaries to refrain from instituting a useless proceeding. Only those would emerge as plaintiffs who were stronger, or at least as strong as, the defendants; only those would appear as defendants who were weaker than, or at least no less weak, than the plaintiffs. (26)

(...) the irreducible fact remains that a powerful and intractable defendant who was not sensitive about his public reputation could and often did frustrate the just claim of a plaintiff by resisting summons or execution, and this situation must have continued to exist for so long as the State took no hand in physically assisting the wronged plaintiff (i.e. until the reign of Antoninus Pius, which began in 138 AD.) (26a)

Now it is highly doubtful that an ensemble of rules and institutions whose operations were so subject to distortion by the de facto distribution of social and economic determinants of physical power could be regarded as having been reasonably directed to solving the Roman State's coordination problems in such a way as to favour facilitate and foster the realization by each Roman citizen of his personal development. But then it would appear that by the terms of Finnis' definition, it should be highly doubtful whether there were any Roman laws at all - doubtful, that is, whether the Romans

had anything that we should call a legal system. Of course, as Finnis well knows, there neither is nor can be much doubt about whether or not the Romans had any laws: hence his claim that his definition of «law» represents not some mundane sense of «law», but rather a special sense.

This claim about a special sense is itself disputable. Finnis suggests a method for assessing the claim. The method is complicated, and in the rest of this chapter I shall argue *cap* that it leads to different results than Finnis supposes. The correct conclusion to be drawn is that the construction of artificial viewpoints like that of the practically reasonable man does not help us to come to a better understanding either of a special sense of the expression «legally speaking» or of a special sense of the word «law» because there are no such senses. This is not to deny that viewpoints may be useful for other purposes.

The special sense of law with which Finnis concerns himself is its focal meaning. The expression «focal meaning» as Finnis uses it derives ultimately from an article by G.E.L. Owen about Aristotle's logical development.²⁷ We have already seen that the connection with Aristotle is one which Finnis is anxious to exploit; what we shall now see is that he has good reason to ignore Owen's own views about focal meaning. (Owen is not cited by Finnis.)

Owen introduced the term «focal meaning» in the course of dealing with a possible discrepancy in the Aristotelian corpus. In the Eudemian Ethics I8, Aristotle argues that

«there is no one science either of being or of the good» (1217b34), apparently because «the good has many senses, as numerous as those of being» (1217b25). In Eudemian Ethics VII 2, however, Aristotle describes how the various senses of «medical» are «related to one which is the primary» (1236a16). In Metaphysics IV 2 he defends this on the ground that «that which is called medical has reference to medical (art) (either it is called medical from possessing medical (art), or from being naturally suited to it, or from being an exercise of medical (art))» (1003b1-4). Thus, in both the Metaphysics and in the Eudemian Ethics. Aristotle treats the question of what is called medical in the same way; but in the Metaphysics he uses his treatment to defend the existence of a science of being, while in the Eudemian Ethics he denies the existence of such a science, notwithstanding his treatment of «medical». That, very roughly, is the apparent discrepancy which concerned Owen.

For Owen the focal meaning of «medical» is the meaning it has when it is used in the expression «medical art»: this is its focal meaning because the meaning of «medical» in expressions such as «medical instrument» has to be explained by reference to medical art, and hence the explanation requires that the meaning of «medical» in «medical art» be understood first. The priority at stake here is called «logical priority» by Owen,²⁸ «priority in definition» by Ross;²⁹ and it is the prior sense of a word that provides a focus for the secondary senses. According to Owen, the apparent discrep-

ancy described above is resolved by the following hypothesis: in his early logical works, Aristotle had not developed any concept of focal meaning; when he wrote the Eudemian Ethics, he had developed such a concept but did not see its application to such general terms as «being» and «good», and when he wrote Metaphysics IV, he had realized the wider range of uses to which the concept could be put. Owen maintains that the Nicomachean Ethics must come between the Eudemian Ethics and Metaphysics III, because at 1096b26-29, Aristotle says that those different things which are thought to be good in their own right may be called good in a way which is not simply a matter of accidental homonymy, although with respect to goodness their definitions are different and distinct. Two suggestions are offered: either all goods derive from or contribute to one good, or else they are good by analogy. Owen explains the first suggestion in terms of his notion of focal meaning, but maintains that Aristotle opts for the second suggestion as the preferred account of the homonymy of «good». In both of these positions Owen was preceded by Gauthier and Jolif in their commentary on the Nicomachean Ethics (1096B26-29); although Gauthier and Jolif speak of «homonymes $\pi\rho\sigma\ \epsilon\nu$ » where Owen talks of focal meaning, they also refer to Metaphysics IV for illustration.³⁰ (Gauthier and Jolif, it should be noted, are cited by Finnis.)

Plainly, however, the concept of focal meaning thus understood will not suffice for Finnis' purpose. The reason is that on this account the definition of the word «law» as

it occurs in e.g. «the law of Ontario» or «Roman law» would have to include either the word «law» understood according to Finnis' definition, or else the definition itself. But there is no reason to think that this is necessary in order to understand the word «law» as it occurs e.g. in the expression «Roman law». For we can change Finnis' definition so that this is not necessary simply by dropping all reference to a 'complete' community, reasonableness, the common good, etc., so that «law» is understood to refer to

rules made in accordance with regulative rules, by a determinate and effective authority (itself identified and constituted as an institution by rules) for a particular community, and buttressed by sanctions in accordance with rule guided stipulation of adjudicative institutions, this ensemble of rules and institutions being directed to resolving what are regarded by the more powerful segments of the community as the community's coordination problems (and to ratifying, tolerating, regulating, or overriding coordination problems from any other institutions or sources of norms) determined by the priorities of the more powerful segments of the community, according to a manner and form itself adapted to those priorities.

(If anyone is worried about a possible circularity induced by the word «powerful», we may suppose that x is more powerful than y just in case x is effectively more able to prevent y from getting what he wants or has an interest in, than y is to prevent x from getting what he wants or has an interest in. This follows a suggestion of Lukes; of course, other suggestions are possible.³¹)

This new definition does not explicitly or implicitly include among its parts Finnis' definition, and yet it seems adequate to convey the meaning «law» as it occurs in «Roman law». It

follows, however, that the meaning of «law» in «Roman law» does not have its focus or origin in the meaning of «law» as given in Finnis' definition - at least insofar as the relevant notion of focal meaning is the one that is used by Owen, and that is evident in the remarks of Gauthier and Jolif on Nicomachean Ethics 1096b26-29. So focal meaning in this sense will not get Finnis out of his difficulties.

Finnis, however, also refers to what Gauthier and Jolif say about Aristotle's discussion of friendship in Nicomachean Ethics 1156b33-1157b4. Citing Eudemian Ethics 123a16-30, they claim that Aristotle takes «friendship», as applied to the friendship between good men, to be the source of another case of homonymy $\pi\rho\omicron\varsigma\ \epsilon\upsilon$, in connection with «friendship», when it is applied friendship for the sake of utility or of pleasure.³² Is this a case of focal meaning? According to Fortenbaugh (whom Finnis somewhat surprisingly cites) it is not.³³ The analysis of friendship in the Nicomachean Ethics, in Fortenbaugh's view, is given in terms of resemblance, and not focal meaning. The friendship between good men is said to be primary not as a matter of definitional or logical priority but because the friendship of good men resembles friendship for utility and friendship for pleasure more than either of the latter two resemble each other.³⁴ Fortenbaugh also claims Aristotle misleads us in the passage in the Eudemian Ethics where he compares the homonymy of «medical» to the homonymy of «friendship»: he misleads precisely because he «does not show how the definition of perfect or primary friendship is involved in the definition of other kinds of friendships.»³⁵ Agreeing with Owen, Fortenbaugh

maintains that resemblance is not an adequate basis for focal analysis. This makes Finnis' claim about focal meaning problematic. Furthermore, nothing would appear to be gained if we supposed that resemblances were an adequate basis for focal analysis. Following Fortenbaugh's method of explanation, the focus of a term would have to be provided by the application of the term to that thing which resembles every other thing to which the term applies, more than any of them resemble each of the other things to which the term applies. Thus to show the primacy of «law» in Finnis' sense, one would have to show that the law of Ontario, the law of Rome, the law of New York state, the law of South Africa, etc., all resemble what Finnis calls law, more than they all resemble any other set of rules to which the word «law» applies. On the face of it, this is not a very plausible proposal and in any case it is not one that Finnis would appear willing to defend, since it evidently involves extensive empirical commitments with regard to the elements of actual legal systems. Note that this is so despite the fact that these empirical commitments have nothing directly to do with the statistical frequency with which various elements of actual legal system are instantiated. Fortenbaugh does not suppose that the friendship of good men is central for Aristotle because it is statistically more frequent than other kinds of friendships, but he does suppose that it is the particular facts about other kinds of friendships which determine that they are less similar to each other than to the

friendship of good men. This similarity is simply a matter of overlapping features; and a classification based on it would appear to be logically unconnected with a classification based on distinctions between «the mature from the undeveloped..., the sophisticated from the primitive, the flourishing from the corrupt, the fine specimen from the deviant case.»³⁵ It is in terms of these distinctions that Finnis picks out what he regards as the central case of the application of the word «law»; but we have seen no reason to suppose that this has anything to do with Aristotelean notions of focal meaning or systematic ambiguity.

Are there other interpretations of focal meaning which might be used to save Finnis? In connection with Nicomachean Ethics 1096b26-29, Enrico Berti suggests that intelligence is said to be good at least in part because it is a means to happiness which is the ultimate good and further that the meaning of «good» as that word applies to happiness provides the focus for the meaning of «good» as it applies to intelligence.³⁷ On this view focal meaning may be attributed to a term on the basis of an appropriate means-end relationship.

It is not at all clear how this suggestion could be made to apply to the case of law. In Human Rights and the South African Legal Order, John Dugard describes «the main discriminatory features of South African industrial law» as including «the reservation of many-skilled (and well-paid) jobs for whites, and the restrictions placed on blacks in respect of collective bargaining, which have inevitably re-

sulted in wage discrimination and a lower standard of living.»³⁸ Discussion of laws having these effects occurs in the chapter entitled «The Law of Apartheid».³⁹ I take it as both obvious and unfortunate that the phrase «the law of apartheid» does refer to some laws, e.g. the Apprenticeship Act of 1944. What is unfortunate is, in part, the fact that the laws in question cannot be regarded as providing a means to instituting or constituting a set of laws in Finnis' sense. But if so, Finnis' definition of «law» does not yield the focal meaning of «law» as that word applies to many of the characteristic laws of the South African legal order. Less dramatic cases arise, too. As a result of the decision in Gilbert Steel v. University Construction, it was in all probability a rule of law in Ontario in 1977 (it is perhaps less probable now)⁴⁰ that an argument to alter the terms of payment set out in a previously formed contract was unenforceable unless new consideration is offered or the agreement is sealed. Again, however, it is difficult to see how this rule could be regarded as a means to instituting or constituting a set of laws in Finnis' sense. Furthermore for many people it is apparently not easy to believe that a system containing such a rule is one which is «directed towards reasonable resolving a community's coordination problems», even if the rule is a rule of law. Once more, then, it seems that Finnis' definition of «law» does not give the focal meaning of the word «law» as that word might be used in a perfectly humdrum case.

A further extension of the concept of focal meaning is due to Emile de Strycker.⁴¹ On the basis of the version of Aristotle's Protrepticus given by Iamblichus, de Strycker argues that if an expression can be used to describe both the actualization of a capacity and the mere possession of a capacity, then the meaning of the expression as it applies to the actualization provides the focus for the meaning of the expression as applied to the mere possession. «Sees well» is an example of such an expression: it can be said of a man who is sleeping and of a man who is actually in the course of discerning the features of some distant object. This view is supported by a number of remarks in the De Anima, especially perhaps at 415a20 where logical priority is explicitly mentioned.

Now the question arises, do the South African laws of apartheid, such as they are, possess the capacity to be laws in Finnis' sense? Correspondingly, does the rule about the unenforceability of an agreement modifying payment and not backed by fresh consideration possess that capacity? Some people might well hold that in both cases, the answers to these questions are definitely negative if indeed the questions make sense at all; and yet they might equally well hold that the word «law» is applicable in both cases in a perfectly ordinary sense. If so, the ordinary sense is one which does not have as its focus the sense of «law» that Finnis defines, at least if «focus» is understood as de Strycker understands it.

To my knowledge the commentator who comes closest to supporting Finnis in his view about meaning is A.C. Lloyd.⁴² Lloyd is concerned with argument which occurs in different guises at Eudemian Ethics I, 1218a1-9, Nicomachean Ethics I, 1096a19-23 34-34, Metaphysics III 999a6-14, Politics III 1275b5, De Anima 414b20-25. In each of these places there is an argument to the effect that wherever there is an ordered series of things, there will be nothing or very little which is common to all the members of the series, and in the same way, there will be no useful common account that can be given of all of them. Lloyd interprets this second conclusion to mean that the universal of an ordered series will not be univocally predicated of its members, and this suggestion or non-univocal predication seems to tie in with Finnis' claims about focal meaning. Moreover, Lloyd's reference to the Politics is significant, since there Aristotle distinguishes between prior and posterior constitutions, calling the latter «perversions» of the former. Finnis cites the passage in question, and what it contains is something indeed rather like Finnis' proposal that the primary kind of friendship is the one that is flourishing and not corrupt, fine and not deviant.⁴³ Nevertheless, I do not see that even Lloyd can save Finnis.

According to Lloyd, there are really two Aristotelian arguments about ordered series.⁴⁴ This first, which occurs in the Eudemian Ethics, the Nicomachean Ethics and the Metaphysics is employed ad hominem against Platonists to illus-

trate difficulties in the theory that there are separable Forms of being, unity or good - the point being that if there are difficulties with these Forms, the Theory of Forms as a whole must be of uncertain value, if any. The emphasis is on the separability of the Forms, and the argument is given most fully in the Eudemian Ethics. Consider the series of multiples, that is, whole numbers greater than one. If there were a separable Form belonging to all these numbers it would be the universal Multiple, and it would be prior to any of these numbers. But then it would be prior to the number two, which is the first of the whole numbers greater than one. Thus the first member of the series would not be the first member of the series. This argument has been criticized by Cherniss, Austin, Hardie and Woods for blatantly relying on an equivocation with respect to the senses of priority; but Lloyd maintains that in terms of the theory of Forms, the argument is valid.⁴⁵ Plainly, however, it concerns a difficulty in the idea of the existence of a separate and distinct Form so that it is a metaphysical argument and not an argument about equivocation or meaning. For this reason, this argument is of no use to Finnis.

In the Politics and the de Anima, however, Lloyd says that Aristotle puts forward a similar argument not ad hominem but in propria persona, to make a point about equivocal universals.⁴⁶ This time the example is the series of closed rectilineal figures. The first of these is the triangle, that is, the figure containing three straight lines,

the end-points of each of which each touch one endpoint of one other of the three lines. Now consider a rectangle. A rectangle is a figure containing three straight lines, the endpoints of each of which each touch one end point of one other of the three lines; and such that one of the lines, together with two others nei her intersecting nor coinciding with any of the original three, forms a triangle (i.e. a figure containing three straight lines such that, etc.) Now Lloyd's point is that triangle and rectangle are not coordinate species of a single genus because the predicate «containing three straight lines such that, etc.», underlined above, serves as the complete differentia of the class of triangles, as opposed to other closed rectilineal figures; yet it occurs within the definition of the rectangle.⁴⁷ As a result, «triangle» seems both to pick out a lowest species of rectineal figures, viz. the genus of rectilineal figures which contain triangles as proper parts. According to Lloyd, it is for this reason proper to suggest that «rectilineal figure» is equivocal in its application, since it applies differently to triangles and to rectangles. Similarly, «soul» is rightly regarded as equivocal because for instance, «nutritive soul» serves both to pick out a lowest species of soul and to name an intermediate genus of souls, e.g., the genus of souls which perform both nutritive and sensitive functions.

The account does very well for de Anima, with which Lloyd is mainly concerned. Lloyd's remarks to the contrary

notwithstanding, however, it does not apply to the Politics at all, for an interesting reason. As Alexander of Aphrodisias noted, one feature of the ordered series of souls, figures, numbers, etc., is that the prior terms of the series are less perfect than the later terms of the series. But in the Politics the prior terms in the ordered series are kingships, aristocracy, and 'polity'; and the posterior terms are tyranny, oligarchy, and democracy. Clearly, since Aristotle calls the latter perversions, he does not regard them as more perfect than the former. It follows that the sort of ordering under discussion in the Politics is not the same as the ordering dealt with in de Anima. Furthermore as far as genus and species are concerned, the posterior terms appear to be coordinate with the prior terms. Thus, for example, kingships, and tyranny are both defined as forms of monarchy, the one for the common advantage the other for the advantage of the monarch. The differentia of kingship does not occur as part of the differentia of tyranny so that the problem which gives rise to the equivocation of the generic term does not even arise. Indeed, the fact that kingship is more perfect than tyranny and is a better example of monarchy may be cited to show that «monarchy» is not equivocal, for Alexander argues that an ordinary generic definition gives the nature of its subject, which is to be found in the most perfect, or prior, examples.⁴⁸ Generic definition is only unsatisfactory in those cases of ordered series where the prior is less perfect than the posterior. Hence,

the generic term «monarchy» can be applied without ambiguity to both kingship and tyranny.

Aquinas at least, had no hesitation about using the word «politia» for all of Aristotle's six constitutions, as if they were species of a single genus. Moreover, there is no indication in his Commentary on the Politics that when, for instance, he defines kingship in his own words as «principatus unius (...) si intendat utilitatem propriam», the generic definition of «monarchy» as «principatus unius» is in any way improper or equivocal.⁴⁹ Nor does Aquinas balk when Aristotle retracts his remarks about the impropriety of a generic definition of «citizen» at Politics III 1275b13. For, in fact, Aristotle discusses the argument from ordered series only to ignore it.

Aristotle first says that a citizen is one «who shares in 'office without limitation'» (1275a30) meaning by this one who is both «judge and assembly-man» without specific term of office (1275a27); then comes the ordered series argument and an acknowledgement that the definition of the citizen is really a definition of the citizen of a democracy; but then Aristotle announces that there is a way to save his definition (1275b13). Dropping Athenian notions about appropriate terms of office ('limitations'), and generalizing characteristically Athenian notions of judge and assemblyman, he says that a citizen is one who «has a right to take part in deliberative and judicial office» (1275b19). Aquinas renders this quite faithfully: a citizen is «non ille qui

participat iudicio et concione, sed ille qui potest constitui in principatu consiliativo vel iudicativo.»⁵⁰ Neither in Aristotle nor Aquinas is there any suggestion that the revised definition of citizen will be «peculiar to no existing thing and will not correspond to the proper indivisible species» - which is what is said about the unsatisfactory generic definitions of «figure» and «soul» at de Anima II 3, 414b25-28.

It seems best to conclude, contra Lloyd, that the argument from ordered species which occurs in the Politics is the same metaphysical one about the Forms which occurs in the Metaphysics and the Ethics. Consequently, it has nothing to do with equivocation. Finnis' treatment of «law», however, seems to correspond to the treatment of «citizen» and «constitution» in the Politics, and not to the treatment of «soul» in the de Anima. If equivocation is not a problem for the generic terms in the Politics, it should not be a problem that affects the word «law». Now only if «law» is equivocal will Finnis be able to overcome the awkwardness created by the fact that on his account, our imaginary contractor ought legally speaking to honour his agreement, while the truth is that legally speaking, it is not the case that our contractor ought to honour his agreement. Since Finnis has given us no reason to believe that «law» is equivocal (whether fortuitiously or not) we have no reason to believe that Finnis' discussion of law has anything to contribute to the analysis of the legal «ought».

Finnis may still properly claim that what he describes

in his book would have to be accounted as a paradigm case of a legal system, and that the type of legal system in question must be «prior» to many if not all actually existing legal systems. But the priority here has nothing to do with logic or meaning, whether focal or otherwise, and I can find no authority in Aristotle or Aquinas for any claim to the contrary. Priority here is simply a matter of better and worse. As Aristotle in a Platonic mood remarks, «where there is a distinction of better and worse, the better is always prior» (Metaphysics III, 3 999a14).

In discussing a passage from Aquinas' Commentary on the First Book of Sentences, James F. Ross points out that Aquinas regarded terms predicated of the better and worse as equivocal according to an «analogy of proper proportionality.»⁵¹ Such^a term, predicated of a more perfect subject and of a less perfect subject in some Neoplatonic hierarchy, would signify the same thing, but the thing signified could be attributed to the two subjects in different modes, according to and proportionally with the degree of perfection naturally possessed by the subject.⁵² This account sounds as if it should suit Finnis' purpose, but unfortunately Ross concludes that for Aquinas, such terms are neutral with respect to their various modes of signification.⁵³ That is, there is no focal mode of signification for such terms. The upshot for Finnis is that he can use this account of equivocation to get round the problem of the legal «ought» in the case of the agreement about the price of steel, but only if he gives up the claim

that the point of view of the practical man is a useful device for explaining the sense of the word «law». For, on this account, the ordinary application of the word «law» will not be in any way derivative from the application specified by Finnis and hence the practically reasonable man will be a figure of little relevance in analytical jurisprudence. For Finnis, concession along these lines would be a matter of discarding the baby to preserve the bath-water.

The description of the best sort of legal system, if it can be given is undoubtedly a philosophical task of far greater importance than the analysis of the ordinary legal «ought»; and this greater task is the one that Finnis set himself. Yet even if this greater task has been accomplished by Finnis, the lesser task has not. Nor has it been accomplished by Raz. The common reliance of both Raz and Finnis on the idea of a point of view in no way inspires confidence in that notion. What is wanted, I believe, is a different approach to the legal «ought», and to special «oughts» in general. But that must be a matter for separate discussion.

CHAPTER 2

Reasons for Doing Things

I. Preliminary Considerations

In the preceeding chapter, we saw that problems arise for a certain kind of account of sentences such as 2.1 and 2.2 below:

2.1 Legally speaking, you ought not to keep a common bawdy house.

2.2 Legally speaking, you ought to get your agreement put into a sealed document.

The kind of account in question relies upon a notion of the legal point of view, explicated in terms of an idealized legal man, and the internal reasons he has for doing things, or the internal reasons which he believes other people have for doing things. The problems which arise for this kind of analysis seem sufficiently serious to justify an attempt to develop an alternative account of sentences such as 2.1 and 2.2, and it is to this task that I should like to turn. I believe that we can approach an understanding of sentences such as 2.1 and 2.2 if we make an attempt to think of them as conditional sentences, among whose consequents are sentences such as 2.3 and 2.4:

2.3 You ought not to keep a common bawdy house.

2.4 You ought to get your agreement put into a sealed document.

Now one unquestioned assumption of the last chapter was the hypothesis that sentences like 2.3 and 2.4 are to be interpreted in terms of sentences about reasons for doing things. Thus, according to Raz, 2.3 and 2.4 should be regarded as equivalent to 2.5 and 2.6, respectively:

2.5 There is a reason for you not to keep a common bawdy house.

2.5 There is a reason for you to put your agreement into a sealed document.

The difficulties of the last chapter arose because the reasons mentioned in sentences such 2.5 and 2.6 are supposed to be internal or motivating reasons - reasons, that is, which engage the actual preferences, desires, or attitudes of an agent (in 2.5 and 2.6, you). Since the preferences, etc., of real agents may not be appropriately engaged in cases where sentences such as 2.1 and 2.2 are true, the temptation arises to introduce non-actual idealized agents whose preferences might reasonably be imagined to be engaged in circumstances where the relevant sentences are true. What we have seen, however, is that the introduction of idealized agents fails to yield satisfactory results. One alternative here is to abandon idealized agents. But another, of course, is to give up the assumption that sentences containing simple «oughts» are to be understood in terms of sentences about internal reasons for people to do things. If this assumption were given up, then possibly the difficulties of the last chapter would be dissolved. In what follows, however, I shall not give up the

assumption, and before proceeding, it may be best to offer at least some brief comment on this issue.

I shall limit myself to three remarks.

A. Neither Raz nor Finnis contemplates abandoning the assumption, and it is their work which I have taken, whether wisely or not, as my jumping-off point. If the internal reasons account of «ought» is left aside, then it is not clear that any problem arises which calls for the introduction of idealized agents or points of view into an account of the legal «ought». Insofar as I regard the introduction of these things as a mistake, I am not entirely unprepared to lend a sympathetic ear to arguments against an internal reasons account of «ought». But since I have yet to hear an argument of this type that I find thoroughly convincing, I am inclined to stick with internal reasons in the hope of building upon, rather than dismantling entirely the work of Raz and Finnis.

B. There is a long and honourable tradition in moral philosophy which regards the moral beliefs of an agent as closely bound up with his or her preferences, desires, and affective or conative attitudes. It is not clear that this view must be correct, nor indeed how the view is to be precisely characterized. Whether it is true or not, however, it has a fair degree of plausibility; and the reason-centered account of «ought» which I shall ultimately present has the virtue of explaining this plausibility while remaining uncommitted on the question of whether the internalist view of morality is correct or not.

C. Perhaps the most obvious way of avoiding internal reasons in an account of «ought» would be, I suppose, to appeal to the semantical apparatus underlying some deontic logic or other. But there are objections to this.

Fitch and Segenberg have both proposed possible world semantics for legal duties, and since a sentence like 2.1 might be used to convey a fact about a legal duty, a semantics, given in terms of legally ideal worlds might be used to explain 2.1.¹ 2.2, however, poses greater problems. The context which in the previous chapter we imagined as giving rise to an appropriate utterance of 2.2 is not such that 2.2 would in that context be used to express a true proposition about a legal duty of yours, although it would express a true proposition. Moreover, there is a context compatible with that context, in which it would be appropriate to utter 2.7 below to the contractor who is buying steel from you.

2.7 Legally speaking, you ought to avoid getting your agreement put into a sealed document.

This is because, if the agreement between you and the contractor is put into a sealed document, then the agreement will be legally enforceable against him, in which case his legal position will be obviously worse (since he will now have to prove something like duress if he is to avoid paying you the newly agreed upon price for steel). But then, we discover that there are compatible contexts such that the truth of 2.8 below is consistent with the truth of 2.9:

2.8 Legally speaking, the supplier of steel ought to get

the agreement between himself and the contractor put into a sealed document.

- 2.9 Legally speaking, the contractor ought to avoid getting the agreement between himself and the supplier of steel put into a sealed document.

2.8 and 2.9 are obtained from 2.2 and 2.7 by making obviously acceptable substitutions. Now notice that if we interpret 2.8 as the sort of sentence which a standard deontic logic deals with, then 2.8 contains as a constituent 2.10:

- 2.10 The supplier of steel gets the agreement between himself and the contractor put into a sealed document.

To obtain a sentence equivalent to 2.8 on the view presently under consideration we prefix 2.10 with a deontic operator such as O_L , which we may read as «legally speaking, it ought to be the case that». 2.10, however, as we may understand it, logically entails 2.11:

- 2.11 It is not the case that the contractor avoids getting the contract between himself and the supplier of steel put into a sealed document.

Let us abbreviate 2.11 as $\sim S$. Since we are assuming that 2.8 may be true, and since the proposition expressed by 2.10 entails that $\sim S$, standard deontic logic permits us to infer $O_L(\sim S)$. But it is obvious that 2.9 may be rewritten as $O_L(S)$, and since we are assuming that 2.9 is consistent with 2.8, we have to regard 2.12 as consistent:

2.12 $O_L(S) \ \& \ O_L(\neg S)$

Unfortunately, in a standard deontic logic a sentence of the form of 2.12 is not consistent. It follows that the usual sort of possible worlds semantics for standard deontic logics will not help us with the legal «ought», and that is at least some reason for trying to develop an internal reasons account of «ought». Of course there are semantics for deontic logics which do not make sentences like 2.12 inconsistent. Van Fraassen's semantics in «Values and the Heart's Command» is of this type; and so is Chellas' semantics in An Introduction to Modal Logic.² Their respective truth conditions for sentences of the form « $O(A)$ » can be expressed as follows:

2.13 (van Fraassen) $O(A)$ is true iff there is some world w_i in which A is true; and for any imperative in force in the actual world and complied with in w_i , it is the case that for any world w_j in which $\neg A$ is true, some imperative in force in the actual world is not complied with in w_j .³

2.14 (Chellas) $O(A)$ is true iff the set of worlds in which A is true is an element in the set of subsets of the set of possible worlds (excluding the empty subset), such that in each world in each subset, some standard of obligation is met.⁴

I am not inclined to make use of such truth-conditions in giving an account of «ought» just because the primitive notions that figure in them - viz., imperative in force, standard of obligation -

are not eliminable in terms of the less complex notions, such as ideal world or best world, which suffice to yield truth conditions for deontic logics in which 2.12 is accounted necessarily false. In the first place, the idea of a reason for doing something seems more primitive than the idea of an imperative in force or a standard of obligation - at least in the sense that, if you had no grasp of what it would be for something to be a reason for you to do something, you would hardly be able to comprehend what it would be for an imperative addressed to you to be in force, or for a standard of obligation to apply to you. Hence even if «ought» can be explicated in terms of imperatives or standards, it seems better to offer an account in terms of reasons, if such an account can be given. In the second place, it seems intuitively wrong to treat the legal «oughts» of sentences 2.2 and 2.7 in terms of legal imperatives or legal standards of obligation, since either this falsely suggests that there are mandatory legal norms applying to you which somehow govern the issue of whether a certain contract should be memorialized with a seal or not; or else it seems that the words «imperative» or «obligation» must be interpreted technically, in a way that calls for explanation. But I, at least, don't know what the relevant explanations are.

In this chapter, then, I shall try to say what a reason for doing something is, so that in the next chapter I shall be able to use that notion to give an account of the simple «oughts» that occur in sentences like 2.3 and 2.4 above. Then it will be possible to explain special «oughts» in terms of conditionals and

and simple «oughts».

II. Reasons and Explanations (i)

What is a reason for someone to do something? Perhaps this question itself requires clarification. An illustration may help:

It is four-thirty on a Saturday afternoon in May in the year 1982. Felicia and I are in Westmount Square. A few days ago we received an invitation to a cousin's wedding to be held in June, and now Felicia is shopping for a new dress to wear. A moment ago we were in a dress store, Lily Simon, where Felicia tried on a short pinkish Kenzo, reasonably priced, which she liked but did not buy, thinking that she might return on Monday if, after a weekend's consideration, the dress still held some attraction for her. Across the promenade from Lily Simon is Charles Jourdan, a shoe store. On leaving Lily Simon, Felicia noticed that Charles Jourdan was having a sale. Now her eye has been caught by a pair of Jourdan pumps that are the colour of peach ice-cream. They have been reduced from a hundred and eighty-five dollars to fifty-nine dollars. They are very beautiful. Felicia has tried them on, and they are surprisingly comfortable, given the height of their heels. Indeed, the heels are a little too high to be fashionable nowadays (spring, 1982), but the colour of the shoes, the design at the toe, the shape of the heel, and the cut below the instep are so unobtrusively unusual that they will keep the shoes from looking dated at any time in the foreseeable future. If Felicia were to buy the pink Kenzo she could certainly wear these shoes with it

to the wedding. Or, since she has not bought a dress yet, she could make sure that whatever dress she bought matched the shoes, although this might be rather difficult. Of course, she has just bought white pumps and rose pumps; and fifty-nine dollars is not fifty-nine cents. But she has been wearing the white pumps to school; and on the evening before the wedding there will be a cocktail party, so that she will need two pairs of shoes anyhow. Will she buy the shoes? She has them on and she is looking at them in a low tilted mirror. She turns to me and says, «I think I'll take them.» Somewhat doltishly, I ask «Why?» She says, «They match the Kenzo dress.»

I take it that this last remark of Felicia's should be understood as specifying something which she believes is a reason for her to buy the Charles Jourdan pumps. If what she says is true, and constitutes an appropriate answer to my why-question, then it seems that the following sentence is at least possibly true:

2.15 Its being the case that the Charles Jourdan pumps match the Kenzo dress is a reason for Felicia to buy the Charles Jourdan pumps.

Presumably, since she answers my question as she does, Felicia believes that 2.15 is true at the moment of her answering. What would make her belief correct? If we knew that, we should know what it would be for the shoes' matching the dress to be at that moment a reason for Felicia to buy the shoes. More generally, we may consider sentences of the following form:

2.16 Its being the case that Q is a reason for b to ϕ .

I think that we should know generally what reasons for doing things are, if we know how to give truth conditions for sentences of the form of 2.16, where (a) « Q » is a finite sentential clause, (b) «for b to ϕ » is a infinitival clause in which the subject-term « b » designates a person, and « ϕ » is a verb phrase including modifiers, complements, etc., and (c) « ϕ -ing» (which does not occur in 2.16) is such that « b 's ϕ -ing» is a singular term which if it is not empty and it occurs in a transparent position, designates an event which is an act, of which b is the agent.

By concentrating on sentences of the form of 2.16, we thus limit the cases we consider to those concerning particular agents, whose reasons are reasons to carry out particular acts. Of course, there are sentences which are general with respect to reasons, agents, and acts: eg., «A promise is a reason for the promiser to do what he or she has promised.» I take it that sentences such as this are to be explained in terms of sentences of the form of 2.16 plus the apparatus of quantification. Throughout this essay I shall leave the reader to work out by himself the necessary quantificational developments.⁵

Here is a suggestion that I should like to develop in the rest of this chapter.

2.17 «Its being the case that Q is an (internal) reason for b to ϕ » is true iff

(i) « Q » is true, and

(ii) its being the case that Q could rightly be appealed

to in order to explain why ϕ -ing is a relatively good thing for b to do given b's priorities.

The intuitions behind the schema 2.17 are (a) that a reason for a person to do some particular thing must be such as to be capable of yielding some justification for his or her doing that thing, and (b) that a natural way to understand justification is to take it to be a form of explanation, viz., the explanation of the goodness of a thing. About «goodness» and «relative goodness» and «priorities» I shall have more to say later. For the moment I want to spend a brief moment on justification and explanation.

Reasons for doing things have often been associated with explanations, but more often with explanations of people's actually doing things than with explanations of the goodness of their doing them. Raz holds that propositions about reasons for doing things can't guide or evaluate people's behaviour only because such propositions can figure in the explanation of people's behaviour,⁶ and Davidson appears to maintain that for any proposition Q which picks out a reason for a person b's ϕ -ing, its being the case that Q justifies b's ϕ -ing only if its being the case that Q explains b's ϕ -ing.⁷ Views of this type may suggest that any account of Q's being a reason for b to ϕ must be such as ensure that if its-being-the-case-that-Q is a reason for b to ϕ , then Q's being a reason for b to ϕ should itself explain b's ϕ -ing. (Strictly speaking, «Q's being a reason» should be replaced by «its-being-the-case-that-Q's being a reason».) It is important to see that such a connection between reasons for doing things

and the doing of them must be illusory. For if this were not so, then certain intelligible propositions would be unintelligible.

At the end of the first act of Murder in the Cathedral, Thomas Becket says:

The last temptation is the greatest treason
To do the right deed for the wrong reason.

What seems to be suggested is this: it is possible for a person to do some particular thing, for there to be reasons P, Q, R, etc., for him to do that thing, and for his doing that thing to have its explanation, say, in P's-being-a-reason and not in R's-being-a-reason. Furthermore, presumably it is somehow inappropriate for P to be a reason for him to do what he does, although what he does is right because of R. Is this intelligible? Perhaps it can be shown to be so if we consider the sort of possible situation that Becket himself might have envisaged.

The elements of such a possible situation can be simply set out:

(a) A particular group of bishops have participated in the coronation of Henry the Young King wrongfully performed by the archbishop of York at the request of Henry II. -Let «H» abbreviate this.

(b) Becket has a prideful desire to win for himself a certain spiritual standing or status: he wants high marks in heaven. (Presumably Eliot's Becket fears that this might be true of himself.) -Let «W» abbreviate this.

(c) Becket maintains his suspension of the aforementioned bishops, taking for granted the foreseen earthly consequence that he will be killed for this. -Let « μb » abbreviate this.

(d) The bishops' having participated in the coronation is an internal reason for Becket to maintain their suspension, taking for granted the foreseen earthly consequences - that is, even taking for granted the foreseen earthly consequences. We may understand this to mean that as far as Becket's own priorities are concerned, whatever the goodness of a state of affairs in which « μb » is true, in explaining that goodness, it would be correct to appeal to the truth of «H» which is guaranteed by (a) above. Now, if we read « $R(Q, \phi b)$ » as «Its being the case that Q is a reason for b to ϕ » we can express the proposition in question by writing « $R(H, \mu b)$ ».

(d) Becket's wanting to get high marks in heaven is an internal reason for Becket to maintain the suspension of the bishops taking for granted the earthly consequences. Again, as far as Becket's priorities are concerned, the goodness of a state of affairs in which « μb » is true is at least partly to be explained by his wanting to get high marks in heaven. It would be good for Becket to bring it about that « μb » is true, because his doing so might be a means of getting high marks in heaven: the Tempter has told him

Seek the way of martyrdom, make yourself the lowest
On earth, to be high in heaven . . .

We can express the relevant proposition about the reason in question by writing $\langle R(W, \mu b) \rangle$. Presumably, $\langle W \rangle$ is such that it is inappropriate for $\langle R(W, \mu b) \rangle$ to be true: $\langle W \rangle$ designates the wrong reason.

- To summarize, so far the situation that we are considering can be represented as in 2.18:

- 2.18 (i) H
 (ii) W
 (iii) $R(H, \mu b)$
 (iv) $R(W, \mu b)$
 (v) μb

The question that arises in connection with 2.17 is whether it makes sense to say that it may happen that Becket maintains the suspension of the bishops for the reason designated by $\langle W \rangle$ and not for the reason designated by $\langle H \rangle$, where both $\langle W \rangle$ and $\langle H \rangle$ designate reasons for Becket to maintain the suspension of the bishops. In general, we may consider cases where $\langle Q_1 \rangle, \dots, \langle Q_n \rangle$ ($n > 1$) designate reasons for b to ϕ ; $\langle Q_1 \rangle, \dots, \langle Q_n \rangle$, etc., are each logically distinct from the others; and further it is true that $b \phi$'s. I suggest the following schema as at least an approximation to a necessary condition for it to be the case that $b \phi$'s for the reason that Q_i in circumstances where there is such a plurality of reasons:

- 2.19 Where there are reasons $Q_1, \dots, Q_n$ ($n > 1$), if $b \phi$'s for the reason that Q_i , then
 $\{ \sim R(Q_1, \phi b) \ \& \ \dots \ \& \ \sim R(Q_{i-1}, \phi b) \ \& \ \sim R(Q_{i+1}, \phi b) \ \& \ \dots \ \& \ \sim R(Q_n, \phi b) \ \& \ R(Q_i, \phi b) \} \vdash \phi b.$

In 2.19 « $\rightarrow$ » is the Stalnaker conditional, so that the formula means that even in the absence of the reasons Q_j , $j \neq i$, if Q_i were still a reason for b to ϕ , then b would have ϕ -ed. When this condition is not met, there are grounds for judging that a suitable explanation of b 's ϕ -ing is not provided by adverting just to the fact that $R(Q_i, \phi b)$, and hence it is improper to say that b ϕ -ed for the reason that Q_i . Applying this to Becket's case, we can see that what Becket might have feared was a state of affairs described by adding 2.20 to 2.18:

$$2.20 \quad (i) \quad \sim W \ \& \ R(H, \mu b). \rightarrow \sim \mu b$$

$$(ii) \quad \sim R(W, \mu b) \ \& \ R(H \ \mu b). \rightarrow \sim W$$

2.20 (i) says that if Becket had not wanted to get high marks in heaven, and yet the participation of the bishops in the coronation had still been a reason for him to keep the bishops suspended, then even so, in spite of this reason, Becket would not have maintained the suspension of the bishops. A state of affairs of this kind would occur if Becket's motivations were such that in light of the fact that H , Becket still felt some prompting to maintain the suspension, but in the absence of the powerful motivation provided by his prideful desire, natural diffidence kept him from embarking on a personally hazardous course. 2.20 (ii) just says that a state of affairs in which Becket's prideful desire was not a reason for him to keep the bishops suspended notwithstanding, that the bishops' participation was such a reason, would be a situation in which Becket did not have the prideful desire in question at all. Since we are concerned

with internal reasons, this seems unsurprising, for if Becket actually had a prideful desire, we would expect it to provide him with some internal reason to act to achieve his desire. Now from 2.20 together with observation that « $\sim R(W, \mu b) \ \& \ R(H, \mu b)$ » must be logically contingent, the logics of Stalmaker and Lewis allow us to derive 2.21 which contravenes the condition set out in 2.19:

$$2.21 \quad \sim \{ \sim R(W, \mu b) \ \& \ R(H, \mu b) \rightarrow \mu b \}.$$

2.21 says that it isn't the case that in the absence of the reason provided by prideful desire, if the bishops' participation were still a reason, Becket would in any case have maintained the suspension of the bishops. So in this imaginary situation, it would be wrong to say that Becket kept the bishops suspended for this following reason: they participated in the wrongful coronation of the Young King. In this situation, then, there is a reason for Becket to maintain the bishops' suspension, but it is not for this specific reason that he does so, and by itself the fact that there is this reason yields an improper explanation of Becket's conduct. But this shows what we wanted to show: that there are cases where «Q» designates an internal reason for b to ϕ , and yet Q's being such a reason does not explain b's ϕ -ing.

But now, in our imaginary situation does Becket keep the bishops suspended for this reason: he wanted high marks in heaven? If so, then by 2.19, 2.22 must be true:

$$2.22 \quad \sim R(H, \mu b) \ \& \ R(W, \mu b) \rightarrow \mu b.$$

If not, then the above argument may seem to assume what it was supposed to show - that there are reasons for people to do things

which don't explain what they do, for if 2.22 is false, then the situation we have constructed is one in which no reason for doing something explains what is done. If this result is to be avoided, 2.22 must be true. But 2.22 is very difficult to interpret because of its peculiar antecedent. The antecedent asks us, and Eliot's Becket, to imagine a situation where the bishops' participation in the wrongful coronation makes no positive difference, in Becket's eyes, to the goodness of Becket's keeping the bishops suspended; while Becket's desire for spiritual standing does make a positive difference. Yet if Becket supposes that keeping the bishops suspended will enhance his spiritual standing, and is on that account good, he must surely suppose that keeping them suspended is a thing that is in conscience a good thing to do. It is hard to see, however, how he could suppose this without supposing that the bishops' participation does figure positively from his own point of view in an account of the goodness of maintaining their suspension. For, it might be asked, why else would it be in conscience a good thing to keep them suspended? And it might be maintained that this question has to be dealt with if we are to understand the antecedent of 2.22; and we must understand the antecedent if we are to understand how 2.22 may be true. Yet no obvious answer to the question seems to present itself.

In consequence, I want now to suggest that the argument may be rescued if we consider a situation in which 2.23 is true:

- 2.23 (i) H
 (ii) W
 (iii) $R(H, \mu b)$
 (iv) $R(H \& W, \mu b)$
 (v) μb
 (vi) $\sim W \& R(H, \mu b) \rightarrow \sim \mu b$
 (vii) $\sim R(H \& W, \mu b) \& R(H, \mu b) \rightarrow \sim W$
 (viii) $\sim R(H, \mu b) \& R(H \& W, \mu b) \rightarrow Mb$

In 2.23, the right reason is designated by «H», and the 'wrong' reason by the conjunction «H&W»: since this conjunction entails that Becket has a prideful desire, it may appropriately be labelled «wrong». The reasoning for 2.23 (vii) is the same as for 2.20 (ii) and the upshot of 2.23 is that it is not the case that Becket acts for the reason specified by «H». If 2.23 (viii) is true, then 2.19 is satisfied and to that extent, at least, it is possible to say that Becket acts for the reason specified by «H&W». The question is whether the antecedent of 2.23 (viii) is any more readily intelligible than that of 2.22. I think that it is. If the antecedent of 2.23 (viii) is satisfied, then, by the second conjunct, the bishops' participation in the wrongful coronation has at least a place in a possible account of the goodness of keeping the bishops suspended. On the other hand, by the first conjunct, it does not have this place independently of Becket's desire for spiritual superiority. What this suggests is just that Becket's conscience is corrupt, and that the bishops' wrongful action figures in an account of the goodness of their continued

suspension because of his prideful desire; so that if the antecedent of 2.23 (viii) is satisfied, then if Becket hadn't had his prideful desire, the bishops' wrongful action wouldn't have been a reason for Becket to keep the bishops suspended. What Eliot's Becket may be thought to be considering is a situation where it is under the conditions just outlined that he maintains his suspension of the bishops. In that case, he would be acting for the wrong reason, there would be a reason for which he would not be acting, and that reason's being a reason would not explain his actions, despite its being an internal reason. This concludes the argument against the view that internal reasons for doing things must explain why those things are done.

What internal reasons for doing things explain, then, is not primarily the doing of those things, but the relative goodness of doing those things, given the priorities of the doers. That at any rate is the thesis I wish to propound. But, as yet, it remains murky. What we have so far is just the following schema:

2.24 $R(Q, \phi b)$ iff

(i) Q ; and

(ii) its being the case that Q could rightly be appealed to in order to explain why ϕ -ing would be a relatively good thing for b to do, given b 's priorities.

Obviously it is clause (ii) of 2.24 that requires elucidation, and most of the rest of this chapter will be devoted to providing it. But first, what about clause (i)? According to 2.24 (i), if « Q »

designates a reason for b to ϕ , it is true that Q . This is clear, but is it defensible?

III. Reasons and True Propositions

An inclination to say that 2.24 (i) is not defensible may spring from the thought that an agent may demonstrate his rationality in connection with what he does or what he is going to do, by appealing to a false proposition. For suppose you are in the company of a man, Bernard, who wants a gin and tonic. He is pouring tonic water into a glass containing two fingers of a clear liquid. He quite reasonably believes the liquid to be gin. But he has a bad head cold, and someone has tampered with the decanter. You ask, «Why are you adding tonic to that liquid?» Bernard answers, «Because 'that liquid' is gin.» As a matter of fact, the liquid is kerosene.⁸ Nonetheless, in the light of Bernard's reply, pouring the tonic in to the liquid seems to be at least a rational thing for Bernard to do even if it is misguided and somewhat wasteful. Further, from the content of his reply it is easy to see what makes it rational for him to add tonic to the liquid. From this, it might be concluded that for him to add the tonic to the liquid is rational in light of the proposition expressed by the sentence «'That liquid' is gin» - despite the fact that «'That liquid' is gin» is false. Finally, since for him to add the tonic to the liquid is rational in the light of the proposition expressed by the sentence «'That liquid' is gin», perhaps we should be permitted to say that «'That liquid' is gin» specifies a reason for Bernard to add the tonic to the

liquid, despite the fact that «'That liquid' is gin» is false. If all of this is correct, then clause (i) of 2.24 is plainly indefensible.

But this seems incorrect, if only because on the supposition that it is rational for Bernard to add the tonic to the liquid, there yet appears to be no sense in which it is true to say that it is rational for him to do so because 'that liquid' is gin. That A because B entails that B. That it is rational for the man to add the tonic to 'that liquid' because 'that liquid' is gin entails that 'That liquid' is gin. But the liquid in question is not gin. Hence it is false to say that it is rational for Bernard to do what he does because the liquid is gin - even though it is rational for him to do what he does. It follows, I think, that in the circumstances; although «Because 'that liquid' is gin» is a formally appropriate and salient answer to the question 'Why is the man adding tonic to that liquid?', it is not an acceptable answer. It is unacceptable because it entails the false proposition that 'That liquid' is gin. And because the falsity of that proposition makes the answer to the «why»-question unacceptable, I think we should say that «'That liquid' is gin» cannot in the circumstances designate a reason for the man to pour the tonic into the liquid. This seems to me a sufficient defense of 2.24 (i).

I said above, however, that Bernard's reply, 'Because «that liquid» is gin', suffices to specify something which makes it rational for him to add the tonic to the liquid. From his

reply we can identify something which is a reason for him to add the tonic. The reason is that Bernard believes that 'that liquid' is gin. That is, its being the case that he believes that 'that liquid' is gin is a reason for him to add tonic water to 'that liquid'. At least it seems plausible that this should be true. Of course, doubt is possible. 'That liquid' is, after all, kerosene, and it may seem unsatisfactory to say of a man who wants a gin and tonic that its being the case that he believes that the liquid in his glass is gin is a reason for him to add tonic water to the kerosene in his glass. One reply that might be made to this objection is that it prematurely assumes some principle of substitutivity such that, for a definite description occurring within the verb phrase $\langle \phi \rangle$ in $\langle R(Q, \phi b) \rangle$, if the a common noun c in the definite description is replaced by a common noun c^t and the reference of the definite description is unchanged, then where $\langle \phi' \rangle$ is the verb phrase which results from the substitution, $R(Q, \phi' b)$ is equivalent to $R(Q, \phi b)$. Another way of putting this would be to say that the objection assumes that 2.25 and 2.26 are equivalent:

2.25 The kerosene in the his glass is such that its being the case that Bernard believes it to be gin is a reason for him to add tonic to it.

2.26 The kerosene in his glass is such that its being the case that Bernard believes it to be gin is a reason for him to add tonic to the kerosene in his glass.

In 2.25 and in the first clause of 2.26, I take «the kerosene in his glass» to refer to a particular portion of the kind of liquid designated by the mass noun «kerosene». In both these occurrences, «the kerosene in his glass» has widest scope, so that 2.25 is to be construed as a claim de re; and 2.26 as a claim de re about Bernard's beliefs. The scope of «the kerosene in his glass» as it first occurs in 2.26, however, does not include the last infinitival clause of 2.26; and 2.26 must be a claim de dicto about what Bernard has reason to do. 2.26 is almost certainly false. If you were to ask Bernard «Why are you adding tonic to the kerosene in your glass?», then surely Bernard could not answer by saying «Because I believe the liquid in my glass to be gin,» unless he rejected the presupposition of the question, namely that the liquid in his glass is kerosene. But if he rejected the presupposition of the question, he would not regard himself as doing that for which the question demands his reason; he would not regard himself as adding tonic to the kerosene in his glass. Hence the answer «Because I believe the liquid in my glass to be gin» cannot be construed as giving what he might regard as a reason de dicto for him to add tonic to the kerosene in his glass. So 2.26 seems false. But 2.25 seems true. For there is an identifying description of the kerosene in his glass under which Bernard believes it to be gin, and given the description - viz., «'that liquid'» - he might answer the question of why he is adding tonic to the

liquid in his glass by saying «Because I believe 'that liquid' to be gin.» Thus, the de re claim that Bernard's belief is a reason appears to be defensible.

Still, it might be objected that even if Bernard were to give the answer «Because I believe 'that liquid' to be gin» he could not be interpreted as giving a reason he has for adding tonic to what is in fact kerosene, however it may be described. Bernard wants a gin and tonic; he doesn't want kerosene and tonic. Hence he has no reason to add tonic to kerosene. The force of this objection, I believe, derives from the fact that the goodness of Bernard's pouring tonic into kerosene, given his priorities, must be very slight indeed - so slight that there can be no reason for him to add the tonic to the liquid in his glass. Since there is no goodness in the act in question, given Bernard's priorities, there is no goodness to be explained, so that there is no call to appeal to Bernard's belief to explain the goodness. But if so, Bernard's belief cannot be a reason for him to do what he does.

My own feeling about this is that it is an exaggeration. It is certainly true that there is very little goodness in your pouring your tonic into a glass of kerosene if what you want is a gin and tonic. But if you do want a gin and tonic; and you have a normal, perhaps ever-so-mild disinclination to waste tonic; and you have no other immediately relevant desires, inclinations, wishes, evaluative dispositions, etc.; then you may consider which would be preferable: your pouring your tonic

into a glass of kerosene, given that you believe that what the glass contains is gin, or your pouring your tonic in to the same glass, given that you don't believe that what the glass contains is gin. It seems to me plausible to suggest that there are grounds for preferring the first state of affairs to the second. If you are in the first situation, your doing what you do is such that, if your beliefs are correct, you will succeed in carrying out some project of yours, however minor; while if you are in the second, your doing what you do offers no such promising prospects. Thus given that you believe that the liquid in your glass is gin, your adding tonic to the liquid has a property in virtue of which you may value it more than you would if you didn't believe that the liquid in your glass was gin. That is, in the circumstances, your adding tonic to the liquid is better than it might be, even if, given that your belief is mistaken, it is still not very good, in the light of your priorities. Furthermore the modest relative goodness of your adding the tonic is such that it would appear to be appropriate to appeal to your belief that the glass contains gin, in order to explain that goodness. But if so, your belief is a reason for you to add the tonic to the liquid in your glass, even if your belief is false and the liquid is kerosene. And as for you, so for Bernard, and for other agents who appeal to false propositions when asked their reasons for doing what they do.

Thus if «Q'» is a false sentence, and «Q» is the sentence «b believes that Q» and «Q» is true and b supposes that «R(Q', ϕ b)» is true, a true sentence may often

if not always, be got by substituting $\langle Q \rangle$ for $\langle Q' \rangle$, so that $\langle R(Q, \phi b) \rangle$ is true. Hence it seems unnecessary to suppose that false sentences may specify reasons for people to do things; and just as there is an entailment between the proposition that A because B and the proposition that B; so we may equally well suppose an entailment between the proposition that $R(Q, \phi b)$ and the proposition that Q. If so, then clause (i) of the definition 2.24 is defensible after all.

IV. Relative Goodness and Alternative (i)

We must now turn to the elucidation of clause (ii) of 2.24. The difficulty is to say precisely how we are to understand the vague notions of relative goodness and explanation which seem to do all the work in the definition. In what follows, I shall try to suggest one way in which 2.24 (ii) may be understood. Unfortunately, the suggestion is somewhat complicated and I am afraid that my exposition of it will seem dogmatic or arbitrary. In fact I should be extremely hesitant in claiming any degree of adequacy for the suggestion that I shall ultimately offer, which is put forward as a kind of test-model or experimental proto-type.

Part of the difficulty of 2.24 stems from the fact that the relative goodness of doing some particular thing may be understood in two quite different ways. In the first place the goodness of doing something may be assessed relative to conditions under which the thing might be done. Thus, in Bernard's case, pouring the tonic into the kerosene may be judged relatively good given

Bernard's belief about the contents of his glass, relatively bad in the counterfactual case where Bernard doesn't have the relevant belief. On this view, relative goodness is measured by comparing the actual with the counterfactual. This, however, is perhaps not the obvious way of interpreting relative goodness.

A more natural way is to consider the goodness of doing some particular thing such as ϕ -ing relative to the goodness of doing some other thing, ψ -ing, where ψ -ing is regarded as an alternative to ϕ -ing. This is obviously a different way of looking at relative goodness, since it is plain that in Bernard's case, when Bernard is on the point of adding the tonic to the kerosene, he cannot consider as alternatives (a) doing so in the belief that the liquid in his glass is gin, and (b) doing so in the absence of that belief. Although the former is relatively good by comparison with the latter, the latter is not an alternative to the former, because like it or not, when he is on the point of pouring the tonic, Bernard has the belief, so that adding the tonic to the kerosene in the absence of the belief is not open to him at that point. If at that point he does pour the tonic, he cannot but do it in the belief that the liquid in his glass is gin. This is not to say, of course, that Bernard has no alternative but to pour the tonic into the kerosene. For we may well suppose, for instance, that it is open to him to drink the tonic water straight out of the tonic water bottle instead of pouring it into the kerosene. If so, then we may weigh up the goodness of his pouring the tonic water into the kerosene relative

to the goodness of his drinking the tonic water straight from the bottle. In considering the reasons that people have for doing things, this sort of assessment of the relative goodness of alternatives seems to be more natural than the actual-counterfactual assessment of relative goodness, because this sort of assessment of alternatives connects people's reasons for doing things with the deliberative reasoning that they may go through in considering what they are going to do. In deliberating, a person is presumably taken up with a number of different things that he or she might do; and in trying to hit upon what he or she will do, the person is concerned with how these things measure up against each other in the light of his or her wants and desires; dispositions of evaluation; patterns of emotional reaction; personal loyalties; projects embodying the persons commitment - in short, in the light of the priorities of the person in question. If internal reasons are defined in terms of the relative goodness of alternatives, then reasons will be tied in with the sort of weighing of alternatives from which deliberation gets its name. Let us begin to try to clarify the notion of the relative goodness of alternatives by making the notion of an alternative more precise.

(a) The realizing of an alternative is an act of an agent.

One condition on what may count as an alternative we have already met. The task we are engaged in is to define $\langle R(Q, \phi b) \rangle$, where $\langle \phi\text{-ing} \rangle$ is a verb-phrase such that $\langle b\text{'s } \phi\text{-ing} \rangle$ is a singular term such that if it is not empty and it occurs in a transparent

position, then it designates an event which is an act, of which b is the agent. Then if it turns out that b does ϕ , b's ϕ -ing will be an event which is an act of which b is the agent. It seems reasonable to require that if ψ -ing is an alternative open to b, « ψ » must be such that it may occur in the context «R(Q, b)». From this we get the following condition on alternatives:

- 2.26 If ϕ -ing is an alternative open to b, then if it turns out that b ϕ -s, b's ϕ -ing will be an event which is an act of which b is the agent.

It follows from 2.26 that fainting is not an alternative open to people, because when a person faints, his fainting, though an event, is not an act of which he is the agent. I suppose, however, that bringing it about that you faint might well be an alternative open, say, to you on some occasions, since an event truly describable as «your bringing it about that you faint» would seem to be such that it might be an act of which you were indeed the agent. For you might bring it about that you faint by deliberately hyper-ventilating; and if you did that, it seems that you certainly would be the agent of your having brought it about that you fainted. This seems straightforward enough.

The intuition behind this proposal is just that insofar as reasons are connected with alternatives, this is because alternatives pose deliberative problems for agents: an agent is concerned with arriving at some judgement about which among alternative acts it would be good for him to be the agent of. If this is correct, then the proposed restriction on alternatives

seems fairly natural. Nevertheless, questions arise at least about
 (A) - conjunctive alternatives; (B) - disjunctive alternatives;
 (C) - negative alternatives; (D) - conditional alternatives.

(A) Conjunctive Alternatives

Mightn't there be now a reason for Felicia to play softball on Thursday night and see Bertolucci's 1900 on Friday night. If so, on the present account, playing softball on Thursday night and seeing Bertolucci's 1900 on Friday night must be an alternative open to Felicia. But if Felicia plays softball on Thursday night and sees Bertolucci's 1900 on Friday night, will there be an event which is Felicia's playing softball on Thursday night and seeing Bertolucci's 1900 on Friday night? If there will not be an event satisfying this description, then by 2.26 there can be no reason for Felicia to play softball on Thursday night and see Bertolucci's 1900 on Friday. And it might be said that there will not be an event satisfying this description: rather there will be two events, each satisfying part of the description.

Here I propose to make use of an idea of Judith Jarvis Thomson's, and say that where b 's ϕ -ing and b 's ψ -ing are events, there is an event which is the fusion of b 's ϕ -ing and b 's ψ -ing: the constituent elements, or parts, of this complex event are just the sum of the elements or parts of the two original events which are fused in this complex event.⁹ If we know what these parts are, we know what that event is. It is easy to say what condition must be met if anything is to be a part of the event of b 's ϕ -ing and ψ -ing. Let « $P(x, y)$ » stand for « x is a part of y »; let « $D(y, z)$ » stand for

«y and z have no part in common»; and let « $\lambda u(u = y \vee u = z)$ » designate the property that anything has just in case that thing is identical with y or identical with z. Then we have:

$$\begin{aligned}
 2.28 \quad & (x) \{P(x, \text{the fusion of } b\text{'s } \phi\text{-ing and } \psi\text{-ing}) \equiv : \\
 & [\lambda u(u = b\text{'s } \phi\text{-ing} \vee u = b\text{'s } \psi\text{-ing})x.v. \\
 & ((y)(z)(P(y, x) \ \& \ [\lambda u(u = b\text{'s } \phi\text{-ing} \vee u = b\text{'s } \psi\text{-ing})z \\
 & \supset \sim D(y, z)])\}
 \end{aligned}$$

That is, x is a part of b's ϕ -ing and ψ -ing just in case (i) x is identical with b's ϕ -ing or x is identical with b's ψ -ing; or (ii) if x has any part y, y has a part in common either with b's ϕ -ing or with b's ψ -ing. It follows that no part w of a part y of x can lie outside of both b's ϕ -ing and b's ψ -ing, for if there were such a part w of y, w would have no part in common with anything identical with b's ϕ -ing or b's ψ -ing; but as a part of y, w would be a part of x since the relation «is a part of» is transitive. Every part of x however, has a part in common with something identical b's ϕ -ing or b's ψ -ing; hence there is no such part w in any y which is a part of x. Then the mereological sum of all the x's is identical with the event which is b's ϕ -ing and ψ -ing. So we can allow the possibility of an event which is Felicia's playing soft-ball on Thursday night and seeing Bertolucci's 1900 on Friday night. And since if they occur, the two events of which this is a fusion will be acts of which Felicia is the agent, it seems reasonable to allow the fusion of them to be an act of which Felicia is the agent. If we allow this, then for all that has been said we are free to include among

Felicia's alternatives (a) playing softball on Thursday night and seeing Bertolucci's 1900 on Friday night, (b) seeing Bertolucci's 1900 on Thursday night and visiting my mother on Friday night, (c) staying home on Thursday night and playing bridge at Vishwas' on Friday night, etc.

(B) Disjunctive Alternatives.

In 1919, after the Amritsar massacre in India, Udham Singh, a survivor of the massacre, swore a sacred oath to avenge the incident with the blood of Sir Michael O'Dwyer, then governor of the Punjab. Taking the notion of blood vengeance very literally, we might suppose that his having sworn this oath was a reason for him to stab or shoot O'Dwyer, but was not a reason for him to strangle O'Dwyer. But if he stabbed or shot O'Dwyer, would there be an event which was his stabbing or shooting O'Dwyer? If not, we shall be forced to say that the disjunctive alternative of stabbing or shooting O'Dwyer, was not open to Singh, and hence that he could not have had a reason for stabbing or shooting him. But here again we can rely on the notion of a fusion of events. As a matter of fact, Singh shot O'Dwyer in 1940, and he never stabbed him. There was therefore an event that was Singh's shooting O'Dwyer, and there was no event that was Singh's stabbing O'Dwyer. It is open for us to say that the fusion of Singh's shooting O'Dwyer and Singh's stabbing O'Dwyer is in this case identical with Singh's shooting O'Dwyer, because identical with the sum of all the parts of Singh's shooting O'Dwyer. This is open to us because in 2.28 the singular terms «b's ϕ -ing»,

«b's ψ -ing» can be routinely transformed into definite descriptions, as, for instance, «Singh's shooting O'Dwyer» can be transformed into «The shooting of O'Dwyer by Singh»; and these descriptions we can treat in a Russellian way, as constructed out of predicates of events on the model of «is a ϕ -ing by b», as for instance «is a shooting of O'Dwyer by Singh». (Thomson gives a general method of defining such predicates in chapter xiii of Acts and Other Events, p. 199ff.) If we do this, then in the present case we discover that the only event which satisfies the predicate $\langle \lambda x (x = \text{the shooting of O'Dwyer by Singh} \vee x = \text{the stabbing of O'Dwyer by Singh}) \rangle$ is the event of Singh's shooting O'Dwyer, hence the fusion of the events which are (a) Singh's shooting O'Dwyer and (b) Singh's stabbing O'Dwyer is just the event of Singh's shooting of O'Dwyer. If Singh had stabbed O'Dwyer and not shot him, the fusion would have been identical with his stabbing O'Dwyer. And if he had both shot and stabbed him, the fusion would have contained both his shooting and his stabbing. Hence, however the disjunctive alternative of shooting or stabbing had been realized, there would have been an event which we could have identified as Singh's shooting or stabbing O'Dwyer, namely the fusion of his shooting O'Dwyer and his stabbing O'Dwyer. Either of these events alone is such that it would be appropriate to regard it as an act of which Singh may be denominated agent, and if both had occurred we may allow that both would have been appropriately regarded acts of which Singh was the agent. Hence once more it seems reasonable to allow that a fusion of acts is such that it may be described as an act, whose agent is the

agent of the acts . which comprise the fusion. There can, therefore, be alternatives which are disjunctive.

C. Negative alternatives.

Are there ever reasons for people not to do things? Imagine the following: you have sat down to write an examination. The chief invigilator calls for attention and makes a general announcement to the effect that candidates are not to attempt question five of the examination, since the question, as it appears on the examination embodies some confusion. The invigilator's having made this announcement may well be a reason for you not to attempt question five. Then not attempting question five ought to be reckoned an alternative for you; but if so, then if you do not attempt question five, there must be an event which is your not attempting question five, an event which is an act of which you are the agent. Such an act would I think normally be understood as a kind of act of omission or abstention. Thomson, however, has argued that there are no acts of omission of abstention, because there are no events with which such acts can be identified. If she is right about the non-existence of such acts, and I am right in thinking that alternatives must be understood in terms of acts, then not attempting question five is not an alternative open to you. And this is counter-intuitive. But I think she is wrong. Suppose that you do not attempt question five while you are writing the examination, and your not attempting question five is such that we should be prepared to say, preanalytically at any rate, that you are the agent of your not doing so. If you do not attempt

question five throughout the period of time allotted for the examination, then there must come a time within that period when it once and for all is a settled matter that attempting question five is not something you have done or will do during the examination period. Now, if your not attempting question five is a matter of your own agency, I want to say that it is you who cause the state of affairs which consists in its being settled that attempting question five is not among the things you have done or will do. But your causing this to be settled may be regarded as an event - Thomson herself devotes forty-three pages to showing how causings of events or states of affairs by people or things may rightly be regarded as events.¹⁰ And if you cause an event or a state of affairs, it seems entirely possible to include the event of your causing that event or state of affairs among the acts of which you are the agent. From this it easily follows that not attempting question five may be an alternative for you: it will be one in those circumstances where, if you do not attempt question five, your not attempting question five will be identical with an event which is your causing it to be settled that attempting question five is not among the things you do; and where this event itself is an act of which you are the agent. And as for what this event consists of, I imagine to be a fusion of events which are in turn themselves acts of yours, such as your deciding not to read question five, your putting a star beside it on the examination paper, your taking the full examination period to write the answers to other questions, etc.

Since a fusion of some such events as these must be what causes it to be settled that attempting question five is something that you have not done and will not do, then if the fusion is an act of which you are the agent, the fusion is what can be identified as the act which is your not attempting question five. The possibility of such fusions thus allows you the prospect of not attempting question five as a negative alternative open to you. Of course, the parts of such fusions need not themselves ever be characterized as acts of omission or abstention, and this may suggest the remark that as there are no irreducible acts of omission or abstention, so there are no irreducibly negative alternatives. This is an irrelevance. I have been concerned to show, not that there can be irreducibly negative alternatives, but simply that there can be negative alternatives. If the preceding argument is correct, then there can be negative alternatives, despite Thomson's justified worries about negative events in general.

(D) Conditional alternatives.

Suppose that ϕ -ing is such that if b ϕ -s, and b's ϕ -ing will be an event which is an act of which b is the agent: should we then allow that ϕ -ing if P is an alternative open to b where «P» designates some proposition. Consider Alan, who is at home recovering from a bad cold. He intends to take a walk to the post-office this afternoon. But perhaps it will rain this afternoon and, of course, getting wet in the rain would be bad for Alan now, although he

usually doesn't mind it. Mightn't someone maintain with regard to its being the case that getting wet in the rain would be bad for Alan now, that this is a reason for Alan to take his umbrella this afternoon if the sky looks threatening when he leaves? If this is possible, then it may be concluded that taking his umbrella this afternoon if the sky looks threatening when he leaves is an alternative open to Alan. Then, if Alan takes his umbrella this afternoon if the sky looks threatening when he leaves, Alan's taking the umbrella this afternoon if the sky looks threatening when he leaves should turn out to be an event. That is, it should turn out that this will be an event, if this conditional sentence is true: «Alan will take his umbrella this afternoon if the sky looks threatening when he leaves.» But if the sky doesn't look threatening when he leaves, it may still be true now that Alan will take his umbrella this afternoon if the sky looks threatening when he leaves - even if, because the sky doesn't look threatening when he leaves, he doesn't take his umbrella. This is because the truth of the conditional does not require the truth of its antecedent or of its consequent. (This is not to say, of course, that the conditional must be understood as the material conditional.) But if when Alan leaves the sky doesn't look threatening and as a result he doesn't take his umbrella this afternoon, what event will be the event which is Alan's taking his umbrella this afternoon if the sky looks threatening when he leaves? It seems to me that the answer to this question is that no particular event will satisfy this description: the case is like that of a definite

description which fails to individuate uniquely. Of course, if the sky does look threatening when Alan leaves, and if Alan takes his umbrella this afternoon if the sky looks threatening when he leaves, then Alan's taking his umbrella this afternoon if the sky looks threatening when he leaves can be identified with Alan's taking his umbrella this afternoon. And in general b 's ϕ -ing if P can be identified with b 's ϕ -ing, if $\langle P \rangle$ is true; while if $\langle P \rangle$ is not true, it seems that b 's ϕ -ing if P need not be identical with any particular event at all. But then, by 2.26, when b 's ϕ -ing if P is identical with no event at all even if b ϕ -s if P , then ϕ -ing if P is not an alternative open to b , and there will be no $\langle Q \rangle$ such that $\langle R(Q, P \rightarrow \phi b) \rangle$ is true, where $\langle \rightarrow \rangle$ is the conditional operator.

This is rather disturbing, however. Suppose that someone claims, with regard to its being the case that getting wet in the rain would be bad for Alan now, that this is a reason for Alan to take his umbrella this afternoon if the sky looks threatening when he leaves. Does 2.26 force us to consider the claimant committed to the view that the sky will look threatening when Alan leaves the house? If the claimant allows that the sky may not look threatening, he leaves open the possibility that there may be no alternative open to Alan characterizable as taking an umbrella if the sky looks threatening, and a fortiori no reason for him to choose such an alternative. Yet surely, if the claimant makes the claim, he must regard it as incompatible with this possibility.

I suggest that we can construe sentences that are apparently about «conditional alternatives» as sentences about conditional reasons. Then the claim presently under consideration can be construed as follows:

2.27 If the sky looks threatening when Alan leaves,
 then its being the case that getting wet in the rain
 would be bad for him now will be a reason for Alan
 to take his umbrella this afternoon.

And in general, sentences apparently of the form of 2.28 should be construed as having the form 2.29, where « ϕb » meets the condition laid down in 2.26:

2.28 $R(Q, P \rightarrow \phi b)$

2.29 $P \rightarrow R(Q, \phi b)$

Note that when «P» is true, then if $b \phi$'s, and b is the agent of b 's ϕ -ing, the event which is b 's ϕ -ing may be regarded as identical with the event we should be looking for, if we were looking for an event consisting of b 's ϕ -ing if P; so that when «P» is true, the act which Q gives b a reason to carry out according to 2.29, is the same as the act which Q would give b a reason to carry out according to 2.28, on the assumption that the truth of «P» made 2.28 intelligible. And when «P» is not true, 2.29 does not force us into a futile search for conditional events or conditional acts, whatever those might be. Indeed when I look over all the things that I know that I have done in my life, it seems to me that what I have actually done is most appropriately described in a thoroughly categorical way; and so it seems when I consider what

I know others have done as well. But if it is appropriate not to include such things as conditional acts in descriptions of what people do, it would be odd if it were necessary to include conditional alternatives in descriptions of what people have reason to do; for that would suggest that, although conditional alternatives were sometimes open to people, no one actually ever chose to realize a conditional alternative in acting. What could be the explanation of this odd fact? I conclude that it is simpler to eschew conditional alternatives, and from now on I shall ignore them.

Undoubtedly, many more questions might be raised about the condition on alternatives laid down in 2.26, but I think enough indication of its import has been given for us to pass on to other conditions on alternatives. From now on, let us call 2.26 «the act condition». I believe that the act condition is natural and defensible, but I have been more concerned to establish what it means than to demonstrate that it is right. The act condition is after all a line in what is intended merely to be a sketch. - Let us proceed to draw another line.

(b) Alternatives are open to an agent at a particular time.

An alternative is an alternative at a particular time. Suppose ϕ -ing is an alternative open to b at time t_i . It does not follow that ϕ -ing is an alternative open to b at an earlier time t_j or at a later time t_k . At four-thirty on Saturday afternoon, May 18, 1982, buying a pair of pink Charles Jourdan pumps within the next half-hour was an alternative open to Felicia.

But at four-thirty in the afternoon on May 18, 1958, buying a pair of pink Charles Jourdan pumps within the next half-hour was not an alternative open to Felicia, for she was then only two days old. And if at four-thirty in the afternoon on May 8, 1982, no pink Charles Jourdan pumps exist and none can be manufactured within half an hour then buying a pair of pink Charles Jourdan pumps within the next half-hour will not be an alternative open to Felicia. Admittedly, the argument here depends on the fact that the specification of the alternative here includes the indexical temporal expression «within the next half hour». But this is no ground for objection. I believe that at four-thirty on Saturday afternoon May 18, 1982, there were in fact reasons for Felicia to buy a pair of pink Charles Jourdan pumps within the next half-hour. If it is so much as possible that I am right about this, it surely follows that buying a pair of pink Charles Jourdan pumps within the next half hour was then an alternative open to Felicia. And just as surely, it is at least possible that I am right about there being a reason then for Felicia to buy the shoes within the next half hour. The indexical temporal element included in the characterization of the alternative thus appears to be entirely routine and in order. If so, however, then the suggested objection is no objection, and as I said, alternatives are alternatives at particular times.

Furthermore, suppose we replace the indexical temporal reference with a now-indexical temporal reference, so that the alternative open to Felicia at four-thirty Saturday afternoon May

18, 1982, is the alternative of buying a pair of pink Charles Jourdan pumps before five o'clock in the afternoon on Saturday May 18, 1982. This non-indexically specified alternative is not one which will be open to Felicia at four-thirty in the afternoon on May 18, 1986. As we normally understand these matters, there can be no question of Felicia's deliberating in 1986 about whether she is to buy shoes in 1982; one of the following will already have happened: either she bought the shoes in 1982 or she didn't. Either way the matter will have been settled long before 1986, so that deliberation about the matter in 1986 is ruled out. It follows that alternatives are alternatives at particular times.

I hope it is obvious that eliminating all temporal references from the specification of alternatives whether the references are indexical or not will not affect this conclusion. If in 1986 there are no pink Charles Jourdan pumps in existence, and it is settled that none will be made in Felicia's lifetime, then buying a pair of pink Charles Jourdan pumps will not be an alternative open to Felicia in 1986, though it was an alternative open to her in 1982.

If ϕ -ing is an alternative open to b at time t_i , under what conditions is this so? A necessary condition that suggests itself is this:

- 2.30 If ϕ -ing is an alternative open to b at t_i , then
 at t_i it is not settled that b will ϕ , and it is not
 settled that b will not ϕ .

On this view, the business of deliberation is to settle the unsettled via a

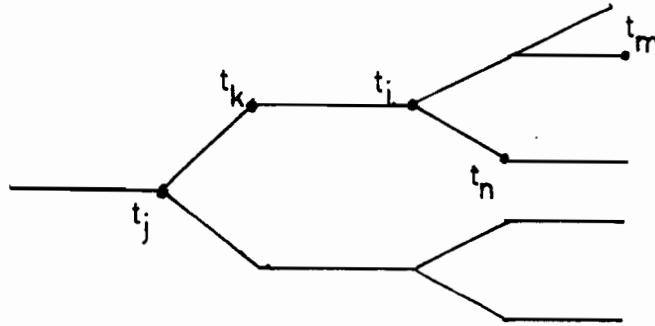
consideration of reasons favouring one alternative rather than others.

It may be useful to have some clearer grasp of what it is formally for it to be settled at t_i that b will ϕ . For this we can rely on the work of Thomason and of Thomason and Gupta, who have given an account of settledness in connection with tense logic in the context of branching time.¹¹ Intuitively, where «L» is read as «it is settled that» and «A» is any sentence, «LA» is true at moment t_i iff «A» itself is true at t_i and «A»'s truth at t_i is in no way dependent on what happens at moments later than t_i , so that no matter what does happen or may happen after t_i , the truth of «A» at t_i remains unaffected.

More precisely, for a propositional language L having truth functional connectives, the Stalmark conditional « $\rightarrow$ », the past and future tense operators «P» and «F» and the settledness operator «L», an interpretation for the language is given in terms of a model structure in which time branches, i.e., a temporally indeterministic model structure. Such a model structure is built from a non-empty set K of moments (considered as world-states), ordered by a relation $<$ of temporal priority. $<$ gives a tree-like rather than a linear ordering of the moments in K : $<$ is transitive, and for all $t_i, t_j, t_k \in K$, if $t_j < t_i$ and $t_k < t_i$, then $t_j < t_k$ or $t_k < t_j$, if $t_j \neq t_k$; that is, if t_j and t_k are moments prior to t_i , then t_j and t_k are on the same branch as t_i ; and if they are not the self-same moment, then one is prior to the other on the branch. This allows moments

t_m, t_n later than t_i to be such that $t_m \not\prec t_n$, $t_n \not\prec t_m$, and $t_m \neq t_n$, as may be the case if time branches either at t_i , as in Fig. 1, or between t_i on the one hand, and t_m and t_n on the other.

Fig. 1



The model structure allows moments $t_i, t_j \in K$ to be copresent: an equivalence relation of copresence $\approx$ is defined so that if $t_i \approx t_j$ then $t_i \not\prec t_j$ (copresent moments cannot occur on the same branch); and if $t_i \approx t_j$ and $t_m \approx t_n$, and $t_i \not\prec t_m$, then $t_n \not\prec t_j$. A history for the structure is a subset h of K such that (1) for all $t_i, t_j \in h$, if $t_i \neq t_j$, then $t_i < t_j$ or $t_j < t_i$, so that h is linear, though the structure in which it occurs is branching; and (2) for any subset g of K , if g is also linear, then $h = g$ if $h \subseteq g$. That is, if h is a history, then for any linear g , either h is not a subset of g at all, or else it is not a proper subset of g . Then h is a maximal linear pathway through the structure, a complete branch. Ht_i is the set of

all histories that pass through a moment t_i . These are histories that share a common trunk at least through t_i : at t_i these histories share a common past.

Because the language L contains the Stalnaker conditional, in the recursive truth definition the clause for the settledness operator « L » cannot be given in terms of histories in the model structure. What are required instead are what Thomason and Gupta call «future choice functions» and what I shall call «history functions». Given the set K of moments, for each moment t_i , a history function G picks out a unique history passing through t_i and for each moment t_i and each history h in Ht_i , there is some history function G which picks out h at t_i . Then, $h = Gt_i$. In picking out a history L at a moment t_i , a function G specifies what would be actual in the future if (i) t_i were a moment in the actual history; and (ii) the actual history were picked out by G at t_i . The difference between a history and a history function is that if t_i and t_i' are copresent moments, there can be no single history which passes through both of them, since they are on different branches and histories are linear; but there will be a history function defined for both of them. It would appear from the exposition of Thomason and Gupta, though they do not say this, that for any copresent t_i , t_i' , and any history function G , Gt_i , is the most similar history overall to the history Gt_i' , of all the histories in the set Ht_i , of histories passing through t_i . A history function, then, is a «richer history». if t_i is actual but t_i' is non-actual

a history function G will tell you not only what will happen after t_i on Gt_i , assuming that Gt_i is the actual history of the world, but also what would happen after t_i , on Gt_i , if t_i were a moment in the actual history of the world. This is important because the truth at actual t_i of a conditional $\langle Q \rightarrow U \rangle$ may depend on what is true at non-actual t_i , - if, for instance, $\langle Q \rangle$ is not true at t_i , although it is true at copresent non-actual t_i , $\langle U \rangle$ is a sentence about the future, and t_i is a moment in a set of histories H^*t_i , whose common past through t_i is more similar than any other to the past which occurred up through the actual moment t_i .

If G is a history function and there is a moment t_j such that $t_j \in Gt_i$ and $t_i < t_j$, so that t_j is a future moment relative to t_i according to Gt_i , then $Gt_j = Gt_i$. Thus the histories that G chooses at later moments must be coherent with G 's choices at earlier moments so that the law, $FA \supset PFA$, is preserved. (The law says: $\langle \text{If it will be the case that } A, \text{ then it was going to be the case that } A \rangle$.) Moreover, in order to preserve the law $A \supset PFA$, the clauses of the recursive truth definition must not require consideration of pairs consisting of a moment t_i and a history function G , where G is not normal at t_i . G is normal at t_i iff for all $t_j < t_i$, $Gt_j = Gt_i$. Then if G is normal at t_i , G treats t_i as an actual future moment from the point of view of moments which are temporally prior to t_i . The clause for the conditional operator $\langle \rightarrow \rangle$ will sometimes take us to a moment t_i , copresent with t_i and to that history in the set H^*t_i , of

histories passing through t_i , which is most similar overall to the history Gt_i . The most similar history overall in H^*t_i , will be Gt_i ; and if Gt_i and Gt_i share a common past moment t_j , then G and t_i will not be a normal pair, since if the pair G, t_i itself is normal, t_i but not t_i , is actual from the point of view of t_j according to G . Then let the normalization of G to t_i , be the function G' such that $G't_k = Gt_i$, for all $t_k < t_i$; and $G't_k = Gt_k$ for all $t_k \not< t_i$. In that case, $G't_i$ will pick out the same history as Gt_i , since $t_i \not< t_i$, and the inductive clause for the conditional operator can make use of the normal pair G', t_i , which is the normalization of the pair G, t_i .

Settledness is defined in terms of history functions which agree with each other in a certain way. G and G' agree with each other on moments antiposterior to t_i , iff for all moments t_j, t_k , such that t_j and t_k are either copresent with t_i or else temporarily prior to moments copresent with t_i (if there are such), then $t_j \in Gt_k$ iff $t_j \in G't_k$. Since history functions are assumed to be normal, G and G' agree in this way just in case, at t_i , G and G' pick out the same past through t_i ; and, for t_i , copresent with t_i , G and G' pick out the same past through t_i ; and for t_i , copresent, etc.; and so on, for all moments t_k copresent with t_i .

Now, if $\langle A \rangle$ is any sentence and $\langle L \rangle$ is the settledness operator «it is settled that», we have the following definition:

- 2.31 $\langle LA \rangle$ is true at moment t_i on history Gt_i iff for each history function J normal at t_i and agreeing with G on moments antiposterior to t_i , $\langle A \rangle$ is true at t_i on history Jt_i .

Now suppose that at t_i , history function G picks out the actual history of the world. Then:

- 2.32 «LA» is true at moment t_i on the actual history of the world iff for each history function J normal at t_i and agreeing with G on moments antiposterior to t_i , «A» is true at t_i on history Jt_i .

Our special interest is in the settledness and unsettledness of future tense sentences, since if ϕ -ing is said to be an alternative for agent b at t_i , then at t_i it is not settled that b will ϕ and it is not settled that b will not ϕ . This is because, when an agent is deliberating about what to do, the alternatives he is deliberating about are in the future relative to the time of deliberation. Where «F» is the future tense operator «it will be the case that», we have the following definition:

- 2.33 «FA» is true at t_i on Gt_i iff for some $t_j \in Gt_i$ such that $t_i < t_j$, «A» is true at t_j on $Gt_j \in Gt_i$, by the definition of «history function»).

If at t_i , G picks out the actual history of the world, then

- 2.34 «FA» is true at t_i on the actual history of the world, iff for some t_j such that $t_i < t_j$ «A» is true at t_j on the actual history of the world.

We are interested in the conditions under which at t_i in the actual history of the world both « $\sim LF \phi b$ », « $\sim L \sim F \phi b$ » are true. Suppose that G picks out the actual history of the world at t_i . « $\sim LF \phi b$ » is true on the actual world iff there is some history function J agreeing with G on moments antiposterior

to t_i such that at Jt_i « $F \phi b$ » is false; so that there is at least one history passing through t_i , such that, on that history « $\sim F \phi b$ » is true. « $\sim L \sim F \phi b$ » is true in the actual world iff there is some history function J' agreeing with G on moments antiposterior to t_i such that at Jt_i « $\sim F \phi b$ » is false; so that there is at least one history passing through t_i such that on that history « $F \phi b$ » is true. In other words, among the possible futures that branch out from the common past that goes up through t_i , there are some futures in which $b \phi$ -s and some in which it isn't the case the $b \phi$ -s. And that is all that it really means to say that at t_i it is not settled that b will ϕ and it is not settled that b will not ϕ .

One question, however, should be cleared up, which has to do with the rather peculiar phrase «true on the actual history of the world» - a phrase forced upon us by the relativization of the definitions of « L » and « F » to history functions. What we should like, I think, is to be able to say when it is true simpliciter that something is or is not settled, rather than when it is «true on the actual history of the world». Fortunately, we are able to do this already. The technique of supervaluations allows us to say that a sentence « A » is a true simpliciter at t_i iff « A » is true on Jt_i at t_i for every possible history function J . Now it can be shown that if « $\sim LF \phi b$ » is true on Jt_i at t_i for some history function, it is true on Jt_i at t_i for every history function J - and similarly, of course, for « $\sim L \sim F \phi b$ ». (Those willing to take this on faith may skim, or even skip the next

paragraph.)

For suppose the contrary. Then (a) on some history function G , « $\sim LF \phi b$ » is true on Gt_i at t_i ; and (b) on some other history function J , « $\sim LF \phi b$ » is true on Jt_i at t_i . If (b) is true, then « $LF \phi b$ » is true on Jt_i at t_i . That is, for every history function J' such that J' agrees with J on moments antiposterior to t_i , « $F \phi b$ » is true on $J't_i$ at t_i . Let I be such a history function. Then « $F \phi b$ » is true on It_i at t_i . If (a) is true, then « $LF \phi b$ » is false on Gt_i at t_i . Then there is some G' , such that G' agrees with G on moments antiposterior to t_i , and « $F \phi b$ » is false on $G't_i$ at t_i . But this is impossible. Thomason and Gupta have shown how, for any two history functions G' and J' , it is possible to construct another history function J'' such that J'' agrees with J' on moments antiposterior to t_i , and J'' agrees with G' on moments posterior to t_i . (t_j is posterior to t_i iff there is a moment t_k copresent with t_j such that $t_i < t_k$, or $t_i = t_k$; and J'' agrees with G' on moments posterior to t_i iff at all such moments t_k , $J''t_k = G't_k$. (For a demonstration that the Thomason/Gupta method of constructing J'' works, see Appendix One.)

Then let J'' be a history function which agrees with I on moments antiposterior to t_i , and with G' on moments posterior to t_i . Since by the definition of «posterior», t_i is posterior to itself, then if J'' agrees with G' on moments posterior to t_i , it follows that $J''t_i = G't_i$. Since « $F \phi b$ » is false on $G't_i$ at t_i , « $F \phi b$ » is also false on $J''t_i$ at t_i , since these are the same history and the same moment. But J''

agrees with I on moments antiposterior to t_i ; I agrees with J on the same moments; and since agreement is an equivalence relation, J" agrees with J on moments antiposterior to t_i . Thus there is a history function J" which agrees with J on moments antiposterior to t_i , and $\langle F \phi b \rangle$ is false on J" t_i at t_i ; and hence by the definition of $\langle L \rangle$ $\langle \sim LF \phi b \rangle$ is true on Jt_i at t_i , contradicting our assumption that $\langle LF \phi b \rangle$ is true on Jt_i at t_i . Thus, by reduction we have it that if $\langle \sim LF \phi b \rangle$ is true at t_i on Gt_i for any G, it is true on Jt_i at t_i for every J. Hence we are free to drop the relativization to «the actual history of the world» in explaining the conditions under which $\langle \sim LF \phi b \rangle$ is true.

Finally it may be worth noting that the truth at t_i of $\langle \sim LF \phi b \ \& \ \sim L \sim F \phi b \rangle$ guarantees that there is at least one history Gt_i such that $\langle \sim F \phi b \rangle$ is true on it at t_i , and one history $G't_i$ such that $\langle F \phi b \rangle$ is true on it at t_i . Hence it is not the case that for every history function J $\langle \sim F \phi b \rangle$ is true on Jt_i at t_i ; and similarly for $\langle F \phi b \rangle$. Given that $\langle A \rangle$ is true at t_i simpliciter iff $\langle A \rangle$ is true at t_i for every history function; neither $\langle F \phi b \rangle$ nor $\langle \sim F \phi b \rangle$ is true simpliciter. On a supervaluation $\langle A \rangle$ is false simpliciter iff $\langle \sim A \rangle$ is true simpliciter. It follows that if $\langle \sim LF \phi b \ \& \ \sim L \sim F \phi b \rangle$ is true at t_i then neither $\langle F \phi b \rangle$ nor $\langle \sim F \phi b \rangle$ have determinate truth values at t_i , where determinate truth values are taken to be those assigned independently of

relativization to histories picked out by history functions. This provides another way of stating the unsettledness condition that must be met if ϕ -ing is to be regarded as an alternative open to b at t_i . Nonetheless we shall stick with the following translation of 2.30:

2.30* If ϕ -ing is an alternative open to b at time t_i ,
 then at t_i , $\sim LF \phi b$ & $\sim L \sim F \phi b$.

The meaning of the consequent of 2.30* has now been precisely specified.

(c) Alternatives are mutually exclusive.

Let us move on to a different and more stringent condition on alternatives suggested by the following scenario. - It is four-thirty in the afternoon, Saturday, May 18. Felicia is in the Charles Jourdan boutique. It is not settled that she will buy a pair of pink Charles Jourdan pumps within the next half hour and it is not settled that she will not do so. Equally, it is not settled that sometime within the next half hour she will leave the store without having bought anything; and it is not settled that she will not do so. Finally it is not settled that she will hum a little tune sometime within the next half hour; and it is not settled that she will not do so. Suppose there is a reason for Felicia to buy a pair of pink Charles Jourdan pumps within the next half hour. On our hypothesis, such a reason could be appealed to in order to explain why it is relatively good for Felicia to buy a pair

of pink Charles Jourdan pumps within the next half hour. But - to do that instead of what? It seems quite natural to suggest for instance, Instead of leaving the store without having bought anything within the next half-hour. Yet it would seem quite odd to suggest, Instead of humming a little tune sometime within the next half hour. This suggestion would be odd because it appears to point toward a deliberative problem that might arise for Felicia about whether to buy or to hum within the relevant time period. But it is hard, though certainly not impossible, to imagine why such a problem should arise, since in normal circumstances, within a given half hour, it is perfectly possible to do both: buying a pair of shoes at some point during half an hour does not normally exclude humming a little tune at some point during that half-hour. So normally, no problem should arise. But if no deliberative problem about humming does arise, there would seem to be no need to include it among the alternatives whose relative goodness reasons are supposed to mark. Obviously, the matter of leaving the store without buying anything within the next half hour may be of a very different sort from humming in Felicia's eyes. About this it is easy to see how a deliberative problem might arise: there is a strong hint of incompatibility between buying a pair of pink Charles Jourdan pumps within the next half hour and leaving the store sometime within the next half hour without having bought anything. Of course, this incompatibility is not a matter of logic, for it is certainly possible, say, for Felicia to leave the store

sometime within the next half hour without having bought anything, and go to some other store, and buy a pair of pink Charles Jourdan pumps within the very same half-hour. The suggestion that there is a deliberative problem, however, seems to arise on the assumption that this just won't happen: in fact, buying and leaving-without-buying are incompatible. Accordingly, I am inclined to lay down a condition which requires that if ϕ -ing and ψ -ing are alternative for b at t_i , ϕ -ing and ψ -ing must be de facto incompatible with each other:

- 2.35 If ϕ_1 -ing, ϕ_2 -ing, . . . , ϕ_n -ing are alternatives open to b at t_i , then at t_i , $L\{(F \phi_1 b \supset \sim F \phi_2 b \& \dots \& \sim F \phi_n b) \& (F \phi_2 b \supset \sim F \phi_1 b \& \sim F \phi_3 b \& \dots \& \sim F \phi_n b) \& (F \phi_n b \supset \sim F \phi_1 b \& \dots \& \sim F \phi_{n-1} b)\}$

In 2.35 « $\supset$ » is the truth functional connective of material implication. This raises a question. Suppose it turns out that for particular $\phi_1, \phi_2, \dots, \phi_n$, b does not $\phi_1, \dots, \phi_n$ after t_i : does it follow that the consequent of 2.35 is vacuously satisfied for $\phi_1, \dots, \phi_n$? For instance, suppose that at one second past four-thirty in the afternoon May 18, 1982, Felicia faints in the Charles Jourdan boutique, though it was not settled at four-thirty that she would so no, but was merely probable; and suppose she does not regain consciousness until after five o'clock. Fainting at four-thirty plus one second in the afternoon on May 18, 1982, was not among Felicia's alternatives, since as we have noted, even if it had been the case that Felicia would faint as we are

imagining her to have done, her fainting would not be an event which was an act of which she was the agent. But in the history which we are now imagining to be the actual history, her fainting makes the following material conditionals vacuously true at four-thirty in the afternoon May 18, 1982:

2.36 {Felicia will buy a pair of pink Charles Jourdan pumps with the next half hour ($=F\beta f$)} $\supset$ {Felicia will not leave the store without buying anything within the next half hour ($=F \sim \lambda f$) and Felicia will not hum a little tune within the next half hour ($=F \sim \eta f$)}.

2.37 $F\lambda f \supset F \sim \beta f \ \& \ F \sim \eta f$.

2.33 $F\eta f \supset F \sim \beta f \ \& \ F \sim \lambda f$.

Assume now that the act condition and the unsettledness condition are met by buying, etc., leaving etc., and humming etc. Does the truth of 2.36, 2.37 and 2.38 imply that for all that we have said, among Felicia's alternatives at four-thirty in the afternoon on May 18, 1982, humming etc., might have been an alternative to buying, etc? Fortunately, the answer is no. If the unsettledness condition is satisfied with respect to Felicia's buying, and 2.35 is satisfied with respect to Felicia's buying, leaving and humming, it follows in the Thomason-Gupta logic of settledness and conditionals that at four-thirty in the afternoon on May 18, 1982, whether or not Felicia did buy a pair of pink Charles Jourdan pumps within the next half-hour, nevertheless it was settled that if she had been going to do so, she would not have been going to hum a little tune within

the next half hour. But we have already allowed that Felicia might have been going to hum a little tune, even if she were going to buy the shoes. Following Stalnaker we may assume that a might have conditional expresses the epistemic possibility of the truth of a corresponding would have conditional or we may assume that a «might-have» conditional expresses the unsettledness of the negation of a corresponding «would-have» conditional.¹² Either way, our admission that Felicia might have been going to hum should entail that we can consistently imagine that if Felicia were going to buy the shoes, she would have been going to hum anyway. Yet this is what we cannot consistently imagine, if the unsettledness condition is met and 2.35 is satisfied with respect to buying, leaving, and humming. It follows that at least one of these must not be an alternative; and it would take little ingenuity to show that humming is not an alternative. In general if with respect to ϕ_1 -ing, . . . , ϕ_n -ing, the unsettledness condition is met and 2.35 is satisfied, then 2.39 is necessarily a condition on alternatives.

2.39 If, ϕ_1 -ing, ϕ_2 -ing, . . . , ϕ_n -ing are alternatives open to b at t_i , then at t_i $L \{ (F\phi_1 b \rightarrow F\sim\phi_2 b \& \dots \& F\sim\phi_n b) \& F\phi_2 b \rightarrow F\sim\phi_1 b \& F\sim\phi_3 b \& \dots \& F\sim\phi_n b) \& \dots \& (F\phi_n b \rightarrow F\sim\phi_1 b \& \dots \& F\sim\phi_{n-1} b) \}$

This is because on the Thomason-Gupta semantics, the future tense operator «F» in the scope of «L» commutes with negation and distributes over conjunction, and the following inference is valid.

- 2.40 (i) $\sim L \sim F \phi_1 b$
 (ii) $L \{F \phi_1 b \supset F(\sim \phi_2 b \& \dots \& \sim \phi_n b)\}$
 $\therefore$ (iii) $L\{F \phi_1 b \rightarrow F(\sim \phi_2 b \& \dots \& \sim \phi_n b)\}$

In 2.40 $\langle \rightarrow \rangle$ is the Stalnaker conditional, whose behaviour models at least the behaviour of the English subjunctive conditional, and possibly that of the indicative conditional as well.¹³ Inferences of the type displayed in 2.40 are not discussed by Thomason and Gupta, so some readers may want to see a proof of the validity of the inference pattern 2.40. The proof will be given in the next paragraph. More trusting readers may be content to accept on faith that given the unsettledness condition and 2.35 then if ϕ_1 -ing, . . . , ϕ_n -ing are alternatives open to b at t_i then at t_i it must be settled that if b were going to ϕ_1 , b would not be going to ϕ_2 , . . . , ϕ_n ; and that if b were going to ϕ_2 , b would not be going to ϕ_1 , ϕ_3 , . . . , ϕ_n ; . . . ; and that if b were going to ϕ_n , b would not be going to ϕ_1 , . . . , ϕ_{n-1} . Such readers may omit the next paragraph.

Suppose that 2.40 is invalid. Then for some moment t_i and some history function G' on Gt_i at t_i , 2.35 (i) and (ii) are true, and 2.40 (iii) is false. If 2.40 (iii) is false at t_i on Gt_i then $\langle \sim L\{F\phi_1 b \rightarrow (F\sim\phi_2 b \& \dots \& F\sim\phi_n b)\} \rangle$ is true at t_i on Gt_i . It follows from 2.31 that there is some history function G' normal at t_i and agreeing with G on moments antiposterior to t_i , such that $\langle F\phi_1 b \rightarrow (F\sim\phi_2 b \& \dots \& F\sim\phi_n b) \rangle$ is false at t_i on $G't_i$. Now the truth (falsity of a conditional at t_i on Gt_i requires that the consequent of the conditional be true (false)

at some time on some particular history where the antecedent is true. Which time and which history are determined by a pair of functions, called Stalnaker-functions by Thomason and Gupta, one of which selects a set of histories sharing that common past through some moment copresent with t_i which is more similar than any other to the past which is «actual» at t_i ; while the other function, as it were, subsequently selects that history, within the set thus determined, which is most similar overall to the history $G't_i$. Of course, the Thomason Gupta account, like the Stalnaker account which preceded it, does not lay down how «similarity» is to be understood; instead, constraints are placed on the two Stalnaker-functions so that, in their operations, they will guarantee first that the some obvious properties of any relation of similarity are not violated and, secondly, that the truth conditions for conditionals are given in terms of a notion of similarity between histories such that at a given moment, similarity between pasts is given more weight than similarity overall. Applied to the conditional « $F \phi_1 b \rightarrow (F \sim \phi_2 b \ \& \ . \ . \ . \ \& \ F \sim \phi_n b)$ » the constraint relative to the validity of 2.40 is the following:

- 2.41 If there is a history function G^* normal at t_i , such that $F \phi_1 b$ is true at t_i on G^*t_i , then the past most similar to the past-regarded-as-actual at t_i on $G't_i$, is the past that passes through t_i itself, i.e., the past that is identical with the «actual» past at t_i on $G't_i$.

That there is such a history function G^* agreeing with G and G' on moments antiposterior to t_i is guaranteed by 2.40 (i), 2.31, the standard interpretation of negation and the transitivity of agreement. (For G and G' , see the beginning of this paragraph.)

At t_i on G^*t_i , $\langle F \phi_1 b \rangle$ is true. Note that at t_i on $G't_i$, however $\langle F \phi_1 b \rangle$ must be false, since G' agrees with G on moments antiposterior to t_i , and if $\langle F \phi_1 b \rangle$ were true, then the truth of $\langle F \phi_1 b \supset (F \sim \phi_2 b \& \dots \& F \sim \phi_n b) \rangle$ on $G't_i$ at t_i , guaranteed by 2.40 (ii), would make $\langle (F \sim \phi_2 b \& \dots \& F \sim \phi_n b) \rangle$ true on $G't_i$ at t_i ; but if $\langle F \phi_1 b \rangle$ were true on $G't_i$ at t_i , the second Stalnaker function would select $G't_i$ itself as the history passing through t_i which is most similar to $G't_i$ - for no history could be more similar to $G't_i$ than $G't_i$. But then $\langle F \phi_1 b \supset (F \sim \phi_2 b \& \dots \& F \sim \phi_n b) \rangle$ would be true at t_i on $G't_i$, contrary to our assumption about $G't_i$ that it makes that conditional false at t_i . It follows that if $\langle F \phi_1 b \supset (F \sim \phi_2 b \& \dots \& F \sim \phi_n b) \rangle$ is false at t_i on $G't_i$, the second Stalnaker function must select some distinct history Jt_i as the most similar history to $G't_i$ on which $\langle F \phi_1 b \rangle$ is true and $\langle (F \sim \phi_2 b \& \dots \& F \sim \phi_n b) \rangle$ is false; and further that J must not agree with G' or with G on moments antiposterior to t_i . Otherwise the argument that we applied to $G't_i$ will apply to Jt_i . But now an impossibility results. From the result mentioned on p. 96 above we know that for the two history functions G' and J it is possible to construct a third J' which agrees with G' on all moments antiposterior to t_i and with J on all moments posterior to t_i . (Once more t_k is posterior to t_j just in case there is some

moment copresent t_j which temporally precedes t_k , or t_k is copresent with t_j ; and J' agrees with J on moments posterior to t_i just in case for all moments t_j posterior to t_i , $J't_j = Jt_j$. (For the construction of J' see Appendix One). Now at t_i on Jt_i , $\langle F \phi_1 b \rangle$ is true and $\langle (F \sim \phi_2 b \ \& \ . \ . \ . \ \& \ F \sim \phi_n b) \rangle$ is false. J' agrees with J on moments posterior to t_i , and since t_i is copresent with itself, t_i is posterior to itself, given the definition of «posterior». Then $Jt_i = J't_i$, so that $\langle F \phi_1 b \rangle$ is true and $\langle (F \sim \phi_2 b \ \& \ . \ . \ . \ \& \ F \sim \phi_n b) \rangle$ is false on $J't_i$ at t_i . But J' agrees with G' and hence with G on moments antiposterior to t_i , and t_i is antiposterior to itself; hence $\langle F \phi_1 b \rangle$ is true on $J't_i$ at t_i , $\langle (F \sim \phi_2 b \ \& \ . \ . \ . \ \& \ F \sim \phi_n b) \rangle$ must therefore true on $J't_i$ at t_i by modus ponens; yet we have just seen that $\langle (F \sim \phi_2 b \ \& \ . \ . \ . \ \& \ F \sim \phi_n b) \rangle$ is false on $J't_i$ at t_i . And so we have a contradiction. It follows that there can be no G' normal at t_i and agreeing with G on moments antiposterior to t_i on which the conditional $\langle F \phi_1 b \rightarrow (F \sim \phi_2 b \ \& \ . \ . \ . \ \& \ F \sim \phi_n b) \rangle$ is false at t_i ; and thus at every G' normal at t_i agreeing with G on moments antiposterior to t_i that conditional is true. Then for any G at all if 2.40 (i) and (ii) are true, 2.40 (iii) must be true by the definition of «L» in 2.31 above; so that the inference pattern in 2.40 is valid after all. Q. E. D.

Although the constraint on alternatives formulated in 2.35 is expressed in terms of the material conditional, in conjunction with the unsettledness condition we have seen that it yields the result that alternatives must subjunctively exclude each other, so to speak; and I shall therefore call 2.35 the «subjunctive exclu-

- (d) Alternatives have 'time-horizons' built into them, either explicitly or implicitly.

Suppose that there is now a plate in front of me on which there are fifteen dry crackers and that I am a contestant in a contest which will last for the next thirty seconds. Looking ahead over the next thirty seconds, I can appreciate that there are two alternatives before me - (a) eating all the crackers on the plate and (b) whistling Oh Canada. At least, this would appear to be a natural way of expressing the matter. But given the terms of 2.35, it seems quite unreasonable to suppose that eating all the crackers on the plate and whistling Oh Canada are now alternatives for me. This, of course, is because it seems unreasonable to suppose that if I should eat all the crackers on the plate, I would in the future never whistle Oh Canada; or that if in the future I should ever whistle Oh Canada, I would never eat all the crackers on the plate. Yet these unlikely conditionals are entailed by 2.35, if eating the crackers and whistling Oh Canada are alternatives, because the domains of the future tense operators in 2.35 are not limited by metric specifications attached to the operators. In using non-metric tense operators I have followed Thomason who comments on his own practice thus:

I have used unadorned past and future tenses in my formal languages because I do not believe that metric tense logics correspond very well to natural language. Although there are many temporal locutions in natural language which

involve metric considerations, I feel these most often are best represented by pragmatic restrictions which confine the domain of the simple tense operators to parts of a larger model structure.¹⁴

In the present example, the domain may be appropriately confined to those moments in histories passing through the present moment which fall within the time horizon specified by the phrase «within the next fifteen seconds»; for certainly, it is true that given my present abilities, if I should in the next thirty seconds whistle Oh Canada, I would not in the same thirty seconds eat all the crackers on the plate, and if in the next thirty seconds I should (surprisingly manage to) eat all the crackers on the plate, I would not in the same thirty seconds whistle Oh Canada. And so it may be said that with respect to the time-horizon specified by the phrase «within the next thirty seconds», the gerunds «eating all the crackers on the plate» and «whistling Oh Canada» are capable of specifying alternatives - at least to the extent that what they specify may satisfy the subjunctive exclusiveness condition 2.35 given that the time horizon is implicitly identified as that time whatever it is which is thirty seconds from now.

The same sort of point may be made about the unsettledness condition 2.30*. Suppose that it is now half past noon, and Mohan comes to my office and invites me to go to lunch. Going to lunch is now something that I may consider whether I have reason to do, if only so that I can make some sensible reply to Mohan.

Then presumably going to lunch is now among my alternatives.

Yet according to the unsettledness condition, if going to lunch is now among my alternatives, it is not now settled that I shall go to lunch. But because the simple word «shall» in «I shall go to lunch» may be associated with the unrestricted future tense operator «F», we might conclude that on the present view, if I now conclude that I have a reason to go to lunch, I must have accepted the assumption that it is unsettled that I shall ever go to lunch in the future at all. But it does not seem reasonable that I should be forced to accept such an assumption in order to be able to draw the conclusion that I now have a reason to go to lunch: surely I may, with a certain optimism, assume that it is as settled as anything that at some point in the future I shall have lunch again, just as I have had on so many occasions in the past - even if I shall not have lunch today or tomorrow or the next day. It is more reasonable for us to regard the unsettledness condition as satisfied by the assumption that (i) it is not settled that I shall go to lunch within the next half-hour or so, and (ii) it is not settled that I shall not do so. The phrase «within the next half-hour or so» thus specifies a period within which my going to lunch might be relevant to Mohan's request that I go to lunch with him. This fact provides an implicit time horizon - some time roughly a half-hour from now - which bounds the range of my reflections when I try to identify those mutually exclusive courses of action, the adoption of any of which by me is as yet an unsettled issue - the sort of unsettled issue that might be resolved by a consideration

of the reasons for me to adopt one course of action rather than another.

In the discussion on p.⁹⁸ above of Felicia's reasons, at four-thirty in the afternoon on Saturday May 18, 1982, for buying the Charles Jourdan pumps or leaving the store without buying anything, the descriptions given of the alternatives open to her each contained a phrase identifying the relevant time horizon, viz., the phrase «within the next half hour». This phrase locates the horizon at five o'clock in the afternoon on Saturday May 18, 1982, so that at four-thirty both the unsettledness condition and the exclusiveness condition apply, within the limit set by the horizon, to Felicia's buying the shoes and to her leaving the store without buying anything. The conditions apply in such a way that if any event is referred to by either of the gerunds «Felicia's buying the shoes» and «her leaving the store without buying anything», the event is one which occurs before five o'clock on Saturday afternoon May 18, 1982. Thus, in the discussion on p.⁹⁸ 98, the time horizon was explicitly identified in the specification of both alternative.

A specification of alternatives may, however, contain explicit time references which do not identify time-horizons, and where this is so the notion of a time-horizon will seem to have only an artificial application. For example, imagine that Felicia and I have set aside ten dollars to spend at the movies this week-end. We are in Ste. Adele where there is only one theatre and tickets cost five dollars each. It is now Saturday and Wargames is currently playing, but on Sundays the attraction always changes, and tomorrow

Octopussy will be playing. Seeing Wargames today and seeing Octopussy tomorrow, then, are our present alternatives. But the word «today» in the gerund «seeing Wargames today» does not specify a time-horizon for these alternatives, because ex hypothesi seeing Octopussy tomorrow is an alternative and hence by the unsettledness condition, it is not now settled that we shall not see Octopussy tomorrow - yet it is certainly now settled that we shall not see Octopussy tomorrow before today is over. If the termination of today were the time horizon for the alternatives in question, then the unsettledness condition would be satisfied only if it were unsettled whether or not we should see Octopussy tomorrow before today was over. Since this is impossible, «today» does not identify a time-horizon for the alternatives here.

Indeed the words «today» and «tomorrow» in the specification of the alternatives obviate the need for any appeal to the notion of a time-horizon. The reason for this is not hard to understand. The need for the notion of a time horizon arises because the future tense operator «F» defined in 2.33 is unrestricted. The effect of 2.33 is that «F» behaves like a metric future tense operator combined with an existential quantifier with unrestricted domain over times (V. 2.33: « . . . iff for some time t_j . . . ») the negation signs preceding occurrences of «F» in the statements of the unsettledness condition 2.30* and the exclusiveness condition 2.35 require that all moments must be considered to determine whether the conditions are satisfied. This may make the conditions too strong. A time-horizon does the work of diminishing the domain of

the existential quantifier which fixes the determination of «F» thus weakening the conditions. But time indicators like «today» and «tomorrow» in «seeing Wargames today» and «seeing Octopussy tomorrow» function rather like singular terms, providing as it were instantiations of the quantified variables (ranging over times) which interpret unrestricted «F». The upshot is that the problem of the unrestricted «F» is resolved without the need for diminishing the domain over which the variables range, since the variables themselves virtually drop out of consideration. Nonetheless, in such cases, it is not as if the notion of a time-horizon has only incoherent applications. The conclusion to be drawn is rather that in cases like the present one, any time horizon might be chosen, provided only that the moments which fall within it include all those which happen to be explicitly specified in the statement of the alternatives. In this way, it will be guaranteed that the existential quantifier associated with «F» will range over at least all the right moments. And for definiteness, we may require that the earliest time which meets this condition be chosen as the time-horizon. So the statement on p. 107 with which this subsection began need not be abandoned.

Finally, before leaving time-horizons behind, the reader should note that for all expressions giving temporal indications associated with alternatives, whether those expressions specify time-horizons or act as singular terms denoting particular times, the expression must be regarded as falling within the scope of the modal operator «L». It is plain that not all such expressions

can be paired with rigid designators denoting clock times. Consider the time-horizon that might be associated with the expression «before I die», viz. the moment of my death. In distinct histories passing through the present moment, the moment of my death may be identical with distinct clock times. I do not see that this poses a problem for anything that I have said up till now, but perhaps it is something for readers to keep in mind when thinking about the time-horizons built into alternatives.

- (e) Alternatives are propositions and sets of alternatives are partitions of sets of histories.

It is now fairly easy to sum up.

Suppose that at moment t_i (a world-state, not a clock time) the question arises whether there is some «Q» such that it is true that $R(Q, \phi_1 b)$ - some «Q» such that its being the case that Q is a reason for b to ϕ_1 . Then ϕ_1 -ing must be an alternative open to b at t_i . If so, then

- (i) the infinitival verb phrase «to ϕ_1 » will either contain an indication of the time at which, within which, or during which the event that is b's ϕ_1 -ing will occur, if it occurs - or else «to ϕ_1 » will not contain such a temporal indication; if it does, the temporal indication may specify a time-horizon which limits the domain of future moments that necessarily fall within the scope of the problem defined by the question whether there is reason for b to ϕ_1 ; and, if the temporal indication does not determine a time-horizon, or if there

is no temporal indication, then a time-horizon may be assumed to be determined by the context in which the question arises whether there is a reason for b to ϕ_1 .

- (ii) If b should ϕ_1^t after t_i , then b 's ϕ_1^t -ing will be an event which is an act of which b is the agent (where $\langle \phi_1^t \rangle$ is just $\langle \phi_1 \rangle$ is understood to be qualified, whether explicitly or not, with respect to a particular time horizon);
- (iii) at t_i , $\sim L F \phi_1^t b$ & $\sim L \sim F \phi_1^t b$ (where $\langle \phi_1^t \rangle$ is understood as in (b));
- (iv) at t_i , with respect to the time-horizon t already fixed, if ϕ_2^t -ing, . . . , ϕ_n^t -ing, are such that they meet the conditions laid down in (ii) and (iii), then $L\{(F\phi_1^t b \supset \sim F\phi_2^t b \& \dots \& \sim F\phi_n^t b) \& (F\phi_2^t b \supset \sim F\phi_1^t b \& \sim F\phi_3^t b \& \dots \& \sim F\phi_n^t b) \& \dots \& (F\phi_n^t b \supset \sim F\phi_1^t b \& \dots \& \sim F\phi_{n-1}^t b)\}$.
(Having introduced the superscript «t» for time horizons, I shall henceforth ignore it without, I trust, causing confusion.)

Now if ϕ_1 -ing is an alternative open to b at t_i , we can say that insofar as this is so, what it is that is open to b at t_i is just a set of histories passing through t_i - the maximal set of histories passing through t_i such that on each Gt_i in the set the conditions (ii), (iii) and (iv) above are satisfied, and on which it is true

at t_i that $F \phi_i b$. If the actual history is a member of the set, then ϕ_i -ing is an alternative which, tenselessly speaking, happens to be actually realized. Since a set of histories can be said to define a proposition, an alternative open to a person at a moment can be identified with a proposition.

I have been using $\langle \alpha \rangle$ to denote an arbitrary set of alternatives, and expressions such as $\langle \phi$ -ing $\rangle$ to denote arbitrary alternatives. If we like, we can identify the meaning of a term like $\langle \alpha \rangle$ with a function which takes as its arguments a person and a moment and has as its value for a given person and moment a set of histories passing through that moment, such that each history satisfies the conditions on alternatives with respect to the person and moment in question and with respect to some alternative. Similarly we can identify the meaning of a term like $\langle \phi$ -ing $\rangle$, as we have been using it, with a function which takes as its arguments a person and a time and has as its value for a given person and moment, a subset of a set of histories passing through that moment, such that on each history in the subset:

(a) the conditions on alternatives are satisfied with respect to the person and moment in question and with respect to some alternative, and (b) it is true at the moment in question, that the person in question will ϕ . Then we can further conclude that for any distinct moments t_i, t_j , ϕ -ing is an alternative in α at t_i iff ϕ -ing is an alternative in α at t_j , if α is a set of alternatives at t_j .

If ϕ_1 -ing and ϕ_2 -ing are alternatives open to b at t_i ,

then in virtue of the exclusiveness condition 2.35, recapitulated in (iv) above, they partition a set of histories passing through t_i . This is because the proposition associated with b 's alternative at t_i of ϕ_1 -ing will contain only histories on which it is true that $F \phi_1 b$; and the exclusiveness condition will then guarantee that no such history is one on which it is true that $F \phi_2 b$; and vice versa. Thus the propositions identified with the alternatives for b at t_i of ϕ_1 -ing and ϕ_2 -ing will be disjoint - a partition of a set of histories passing through t_i . In general, then, a set of alternatives is a partition of a set of histories.

I believe that when the goodness of an alternative open to b at t_i is to be assessed, it is to be assessed relative to a maximal set of alternatives open to b at t_i . A maximal set of alternatives open to b at t_i , for a given time horizon, is a partition of the maximal set of histories passing through t_i on which, between t_i and the time horizon, there is some event which is an act of which b is the agent - a partition such that in each history in each member of the partition, the unsettledness and the exclusiveness conditions are satisfied, and each member of the partition is a single alternative.

The exclusiveness condition guarantees that the histories in a maximal set of alternatives at t_i will form a partition, but it may be wondered whether a maximal set of alternatives at t_i itself is to be identified with the maximal set of histories described in the paragraph above, or with a partition of this set. Intuitively, and for reasons to be explained in the following

paragraph, it seems wiser to identify a maximal set of alternatives with a partition of a maximal set of histories, rather than with the maximal set of histories itself. In that case, the meaning of a term like $\langle\alpha\rangle$ will be a function which has as its value partitions of sets of histories; and the meaning of a term like $\langle\phi\text{-ing}\rangle$ as we have been using it will be a function which has as its values elements of such partitions.

There is, however, an important complication involved here. Given a single set of histories on which the act condition and the unsettledness condition are satisfied, the exclusiveness condition may partition the set in different ways. Consider the set of histories through the moment which was four-thirty in the afternoon Saturday, May 18, 1982, in the actual history, together with a time horizon half an hour later; and suppose that the following were the only members of a maximal set of alternatives open to Felicia at four-thirty:

- (i) buying a pair of pink Charles Jourdan pumps;
- (ii) buying a pair of blue Charles Jourdan pumps;
- (iii) buying a pair of green Charles Jourdan pumps.

Let this set of alternatives be α . There is no purely logical reason why the histories in α should not admit of a partitioning so that the following form a maximal set of alternatives open to Felicia at four-thirty:

- (i) buying a pair of pink Charles Jourdan pumps;
- (ii) adopting a mixed strategy yielding intermediate probabilities of buying the blue Charles Jourdan

- pumps and buying of green Charles Jourdan pumps; applying it; and then accordingly buying blue Charles Jourdan pumps;
- (iii) adopting a mixed strategy, as above; applying it; and then accordingly buying green Charles Jourdan pumps;
- (iv) omitting to adopt a mixed strategy; and buying blue Charles Jourdan pumps;
- (v) omitting to adopt a mixed strategy; and buying green Charles Jourdan pumps.

Call this maximal set of alternatives α' . There are more alternatives in α' than in α , but there need be no histories in α' other than those in α .

Furthermore imagine the goodness of alternatives is to be assessed, relative to the maximal sets of which the alternatives are members, according to their expected utility. Then the same alternative may be best in one set and not in another, as the following table shows for α and α' :

2.42	Alternative	Probability	Expected Utility
	(i) in α	.6	10
	(ii) in α	.3	3
	(iii) in α	.1	2
	(i) in α'	.6	10
	(ii) in α'	.054545	12

(because of educational
side effects)

(iii)	in α'	.009	12
			(because of educational side effects)
(iv)	in α'	.245454	1
(v)	In α'	.091	1

Although (i) is the best alternative in α , because it has the highest expected utility of all the alternatives in α , it is not the best alternative in α' since two other alternatives have expected utilities higher than it.

If the goodness of alternatives is to be assessed relative to the maximal sets of which they are members, what is to be done when an alternative is a member of more than one maximal set? What I suggest is that maximal sets of alternatives form a parameter along which something like a supervaluation may be introduced. That is, we may revise our old schema 2.24 in the following way, to provide a two-stage account of reasons for doing things:

2.43 -u. (A) where t_i is a moment, and α a maximal set

of alternatives open to be at t_i ,

$R_{\text{now}} \alpha (Q, \phi \text{ } b)$ iff $(\exists t_i) (t_i = \text{now and}$

(i) at t_i , ϕ -ing is a member of α ;

(ii) at t_i , Q ; and

(iii) at t_i its being the case that Q could

rightly be appealed to, in order to explain why ϕ -ing would be a good thing for b to do, relative to the elements of α , and given b 's priorities); and

(B) $R_{\text{now}}(Q, \phi b)$ iff

for all maximal sets α_i of alternatives open to b

now, $R_{\text{now } \alpha_i}(Q, \phi b)$

2.43 -u is not quite «supervaluational» since, as it stands, it makes « $\sim R_{\text{now}}(Q, \phi b)$ » true just in case the right hand side of (B) is false. But so far as I can see - which is not very far - that seems alright. The subscript « t_i » which is used in 2.43-u makes it clear that 2.43-u is meant to deal only with present - tense sentences about reasons for doing things; and the mention of t_i , sans histoire, in 2.43-u A (i), makes it necessary that Q be a settled truth at t_i if its being the case that Q is a reason for b to ϕ . This, too, seems alright. The complications created by the two-stage proposal of 2.43-u may seem objectionable. But at the moment I can think of no other way to deal with the problem created by the multiplicity of maximal sets of alternatives open to an agent at a time in which a particular alternative may be an element. Of course, a mirror image of 2.43-u can be constructed as follows:

2.43-e (A) as in 2.43-u.

(B) $R_{\text{now}}(Q, \phi b)$ iff

for any maximal set α_i of alternatives open

to b now, $R_{\text{now } \alpha_i}(Q, \phi b)$

The difference between 2.43-u and 2.43-e is just that the former quantifies existentially. 2.43-e does not strike me as any less complicated than 2.43-u, although some people may find its

comparative weakness more intuitive than the stronger thesis embodied in 2.43-u. Since I suspect that the stronger 2.43-u avoids complications in generalizing a notion of what it is for one reason to outweigh another, I am inclined to prefer it to 2.43-e. (For «outweighing», see this chapter, section V, p.189 below.)

A different sort of suggestion might be to eliminate quantification over maximal sets entirely by requiring that the goodness of an alternative be assessed relative only to the finest partitioning of the set of histories which satisfy the act condition, the unsettledness condition, and the exclusiveness condition, given the relevant time-horizon, and such that the alternative in question is a member of that partition. But the effect of this would be to make each single history in the set a single element of the partition, except for the possibly very great clump of histories which are members of the particular alternative under consideration. This suggestion seems unintuitive and unbalanced.

A more appealing proposal to avoid having recourse to all maximal sets of alternatives would be to rely on the context in which a question is raised about whether it is true that $R_{\text{now}}(Q, \phi b)$ in order to determine the set of alternatives relative to which the goodness of b's ϕ -ing is to be assessed. A person or group of persons contemplating the truth or falsity now of « $R_{\text{now}}(Q, \phi b)$ » may be presumed to make certain presuppositions about the contents of the set of alternatives available to b now. When the question arises for b or b's counsellors or critics about whether « $R_{\text{now}}(Q, \phi b)$ » is true now, presumably there is a set of alternatives

presupposed as being under consideration. In such circumstances, perhaps the maximal set of alternatives under consideration in a given context should be the set relative to which the goodness of ϕ -ing should be measured in that context. But there are difficulties here. First, what is under consideration in a given context may include courses of action which are not alternatives in our sense, because it is settled that b will not carry out these courses of action. Such courses would be merely falsely presupposed to be alternatives. This opens the door to the possibility that $R_{\text{now}}(Q, \phi, b)$ might be true when it is already determined that whatever else happens b will not ϕ , and it seems to me that in such cases the idea that b has a reason to ϕ loses some of its purchase. One might avoid this awkwardness by insisting that the set of alternatives under consideration should be understood to contain only elements which are not falsely presupposed to be alternatives. But then the intuitive appeal of sticking to what is under consideration or presupposed in a context is somewhat lost. More significantly, it certainly seems that the maximal set of alternatives under consideration might be a proper subset of the maximal set of alternatives. Then, at t_i (=now) given two distinct contexts C & C' - provided by conversations taking place in different rooms, say - presuppositions about the set of available alternatives might vary, yielding α , a maximal set, and α' a proper subset of α , as distinct sets of alternatives under consideration. Then it might be that in C , it is judged that its being the case that Q is not reason for b to ϕ , and in C' , it is judged that Q is

a reason for b to ϕ - and these judgements might both be correct, since $\langle \sim R_{\text{now } \alpha} (Q, \phi b) \rangle$ is not the negation of $\langle R_{\text{now } \alpha} (Q, \phi b) \rangle$. I am inclined, however, to say that if α' is merely a proper subset of maximal α , and it is true that $\sim R_{\text{now } \alpha} (Q, \phi b)$ then there is no room for the truth at t_1 of the judgement that its being the case that Q is a reason for b to ϕ . But that is just to say that I believe that there is an objection to assessing statements about reasons or the goodness of alternatives relative to less-than-maximal subsets of alternatives. If this is right, then the goodness of an alternative should not be assessed relative to maximal sets of alternatives under consideration of which it is a member, since a maximal set of alternatives under consideration may not be a maximal set of alternatives tout court. Nothing in what follows, however, requires that this interpretation of sets of alternatives be positively eschewed.

One final point should be made about 2.43-u. Although some methods of assessing relative goodness may be sensitive to different partitionings of the set of histories which satisfy our conditions, not all such methods need be so sensitive - and for insensitive methods of assessment the truth of $\langle R_{\text{now}} (Q, \phi b) \rangle$ will be the same as the truth of $\langle R_{\text{now } \alpha} (Q, \phi b) \rangle$ for any α . Then the two stages of 2.43-u collapse into one.

I want to say no more about alternatives in vacuo. At this point, I shall assume that the notions of an alternative and of a set of alternatives are clear enough to proceed with.

IV. Relative Goodness and Alternatives (ii)

According to 2.43-u, if its being the case that Q is a reason for b to ϕ in α , then « Q »'s being true could be appealed to in order to explain why ϕ -ing would be a good thing for b to do, given the other alternatives in α . Now ϕ -ing might be a good thing for b to do, given the other alternatives in α , without it being the best thing for b to do, relative to the other alternatives. This would be the case, I suppose, if α contained, say, twenty-two alternatives, and ϕ -ing was a close second to the best alternative in α . Moreover, it seems that its being the case that Q may be a reason for b to ϕ , without its being the case that ϕ -ing is actually a good thing to do, relative to the other alternatives in α . Given the priorities that we may presume to attribute to Aeneas and the alternatives open to him in Aeneid IV, we can be fairly certain that his passion for Dido was a reason for him to remain in Carthage. But equally, we can be fairly certain that remaining in Carthage did not rank anywhere near sailing for Italy, amongst the alternatives open to Aeneas: remaining in Carthage cannot be judged to have been a relatively good thing for Aeneas to do. And yet, I should claim that its being the case that Aeneas loved Dido was a reason for him to remain in Carthage. This suggests a revision of 2.43-u (A).

2.44 Where t_i is a moment, and α a maximal set of alternatives open to b at t_i ,

$R_{\text{now } \alpha}(Q, \phi b)$ iff $(\exists t_i) (t_i = \text{now and}$

(i) ϕ -ing is a member of α ;

- (ii) at t_i , Q; and
- (iii) at t_i , its being the case that Q antecedently provides support for the hypothesis that ϕ -ing is a good thing for b to do, relative to the other elements in α , and given b's priorities).

In the next section of this essay, I shall try to say how we should understand the expression «antecedently provides support for».

In the meantime, the reference in 2.44 to the hypothesis that ϕ -ing is relatively good should suffice to make it clear that as things stand, when «Q»'s being true is a reason for b to ϕ , it need not be true that ϕ -ing really is a good thing for b to do, for that hypothesis may be false; nor need it even be likely, all things considered, that ϕ -ing is a good thing for b to do. All that is required is that the proposition designated by «Q» provide some degree of support for the hypothesis that ϕ -ing is a good thing for b to do.

This revision opens the door to a more important revision of 2.43 (A). I propose that 2.45 and not 2.44 should replace 2.43 (A).

2.45 Where t_i is a moment and α a maximal set of alternatives open to b at t_i ,

$R_{\text{now}, \alpha}(Q, \phi b)$ iff $(\exists t_i) (t_i = \text{now, and}$

- (i) ϕ -ing is a member of α ;
- (ii) at t_i , Q; and
- (iii) at t_i , its being the case that Q antecedently provides support for the hypothesis that ϕ -ing

is something that is at least as good for b to do, as any other alternative in α is, given b's priorities).

The hypothesis supported, then, if $\llbracket R_{\text{now}\alpha}(Q, \phi b) \rrbracket$ is true is that there is no alternative in α which is better than ϕ -ing is. Parallel argument to the one just given with respect to 2.44 allows, of course, that $\llbracket R_{\text{now}\alpha}(Q, \phi b) \rrbracket$ may be true when in fact there are alternatives in α which are better than ϕ -ing - in such cases what is required is just that the proposition that Q supports the hypothesis that this is not so. 2.45 is stronger than 2.44 in that in (iii), it focusses not merely on goodness in α , but on maximal goodness with respect to α . But because it concerns nothing more than support for a hypothesis, 2.45 does not require that the proposition that $R_{\text{now}\alpha}(Q, \phi b)$ entails the proposition that ϕ -ing is at least as good as any other alternative in α , or equivalently, that ϕ -ing is maximally good with respect to α . The extra strength of 2.45 is not objectionable on that account.

Here is a short argument to show that reliance on the notion of maximal goodness in α is acceptable in clause (iii) of 2.45. If the proposition that Q does not support the hypothesis that ϕ -ing is something that is at least as good for b to do as any other alternative in α , then either it supports the negation of that hypothesis, or it supports neither the hypothesis nor its negation. If it supports the negation of the hypothesis, it supports precisely the hypothesis that some alternative other than

ϕ -ing is better for b to do than ϕ -ing is, with respect to α . If it supports neither the hypothesis nor its negation, then it is neither positively nor negatively relevant to the question of whether ϕ -ing is as good a thing for b to do as anything else in α , or whether there is something in α which is better for b to do. But these are just the cases in which $\langle Q \rangle$'s being true is not a reason for b to ϕ . Then the cases in which $\langle Q \rangle$'s being true is a reason for b to ϕ , are not these cases. The only cases left are those in which Q supports the hypothesis that ϕ -ing is something that is at least as good for b to do as anything else in α is. So the notion of maximal goodness in α is an acceptable element in 2.45. This is a short argument, but, I believe, a reasonable one; and I shall proceed on the assumption that it is correct. - For it has the advantage of making the rest of this section rather routine.

What we want now is just a way of representing the conditions under which, given both b and α , ϕ -ing really is now a maximally good thing for b to do, relative to α . When we know what these conditions are, we shall know what the hypothesis is that the proposition that Q is supposed to support, when it is true that $R_{\text{now } \alpha}(Q, \phi b)$.

We already know that a set α of alternatives open to b at t_i is a partition of a set of histories passing through t_i . The obvious suggestion is to consider that subset of the histories in α which contains the best histories in α , in order to see whether on those histories it is true at t_i that b will ϕ . If among the

best histories in α , there are those on which it is true that b will ϕ , then we may conclude that ϕ -ing is at least as good a thing for b to do as anything else in α is. To pick out sets of the best worlds we may rely on a kind of function that assigns to the set of histories in the set α of alternatives at a moment t_i , that subset of the best histories in α at t_i . Let us call such functions axiological functions (or a-functions). Now let A be such a function, and let $\langle M_{\text{now } \alpha} (F \phi b) \rangle$ stand for the sentence, «Given the alternatives in α now open to b and given b 's priorities, it is maximally good that b should ϕ .» (The «should» in the preceding sentence is a future subjunctive in a subordinate clause, and not a synonym of «ought».) Then we have:

$$2.46 \quad M_{\text{now } \alpha} (F \phi b) \text{ iff } \phi\text{-ing is an alternative in } \alpha \text{ and} \\ (\exists t_i) (t_i = \text{now, and if } A(t_i, \alpha) \text{ is nonempty, there} \\ \text{is some history } Gt_i \in A(t_i, \alpha) \text{ such that on } Gt_i \text{ at} \\ t_i \text{ } F \phi b.).$$

If 2.46 is acceptable, then a-functions give us a way of talking about maximally good alternatives.

But what are a-functions? To repeat: an a-function takes a set of histories passing through a moment t_i , and yields a subset of the original set which contains just the histories from the original set that are in some way best, given an agent's priorities. The assumption, of course, is that at a given moment some future histories are better than others from the point of view of a given agent. If this were not so, there would

seem to be no point in the agent's deliberating about which sort of future was to be realized. Given that the agent's priorities determine that for him or her, it would be better that some sort of futures be realized rather than others, there will be a relation «is at least as good as» which orders the histories according to their «goodness-values» as determined by the agent. I shall say as little as possible about how the goodness values of histories actually are determined by agents, or what the properties are of the relation «is at least as good as». I suppose that there may be a variety of types of «goodness relations», each of which may order histories differently from any of the others - personal orderings, moral orderings, legal orderings, medical orderings, etc. On an ordering determined by Felicia's personal priorities, a history on which Felicia buys a pair of pink Charles Jourdan pumps is better than a history on which Felicia doesn't buy them given the upcoming wedding we must attend; but it is more than possible that a moral ordering of histories defined by the relation «is morally at least as good as» would not reflect this particular «better than» relationship. Because I want the account of reasons for doing things to be as general as possible, I shall keep to a minimum assumptions about «is at least as good as» relations. Now, an ordering given in terms of the relation «is at least as good as», defined over histories maybe the same as an ordering defined by an α -function A just in case, for all $Gt_i, G't_i$ in α , Gt_i is at least as good as $G't_i$ iff $Gt_i \in A(t_i, \{Gt_i, G't_i\})$.¹⁵

One might immediately propose that special reasons for

doing things - moral reasons, legal reasons, medical reasons, etc.,
 - should be accounted for considering support for hypotheses
 about maximal goodness, defined in terms of special a-functions
 - A^{moral} , A^{legal} , A^{medical} , etc. Then we could let $\langle M_{\text{now } \alpha}^{\text{moral}} F \phi b \rangle$
 mean «Given the alternatives in α it is now morally maximally good
 that b should ϕ » and define this as follows:

2.47 $M_{\text{now } \alpha}^{\text{moral}} F \phi b$ iff ϕ -ing is an alternative in α and
 $(\exists t_i) (t_i = \text{now, and if } A^{\text{moral}}(t_i, \alpha) \text{ is nonempty,}$
 $\text{there is some history } Gt_i \in A^{\text{moral}}(t_i, \alpha), \text{ such}$
 $\text{that on } Gt_i \text{ at } t_i, F \phi b).$

Then the special a-functions - A^{moral} , etc. - would reflect idealized
 points of view. For reasons related to those presented in Chapter
 One of this essay, I do not think that this suggestion can be quite
 correct. At the end of the next chapter, I shall suggest a different
 way of dealing with special reasons. For the moment we are concerned
 only with internal reasons, and hence only with goodness relations
 that define personal orderings, and the functions with which those
 relations are equivalent.

I assume that all such relations - «preferability relations»,
 we may call them - are transitive and reflexive. I do not assume
 that all preferability relations are «connected» or in Sen's
 terminology «complete».¹⁶ It seems to me to be logically possible
 that for some set α of alternatives, the set of histories associated with
 α may include members Gt_i and $G't_i$, such that Gt_i is not better
 than $G't_i$, $G't_i$ is not better than Gt_i , and yet Gt_i and $G't_i$ may
 not be equally good either. That is, on a particular ordering of

histories, there may be histories Gt_i and $G't_i$ which are unrelated to each other by the relation which determines the ordering. In such a case, the relation is insufficient to ground any comparative assessment of the histories in question - the rationale of comparison has simply run out. Speaking about unconnectedness as it may affect personal preferences Sen suggests that sometimes a person may have «no clue about what to choose»¹⁷, and Williams makes a positive virtue of a sort of moral view which has the property of leaving certain situations «beyond its limits», so that serious questions about preferability relations among these situations are not answered, nor even so much as countenanced by the view.¹⁸ It seems better, then, not to assume that preferability relations are always connected or complete. A consequence of rejecting this assumption, however, is that on a given preferability ordering for a set α of alternatives at t_i , there may be no nonempty set $A(t_i, \alpha)$ of best histories in α because some of the histories Gt_i in α may be such that for any of the other histories $G't_i$, $G''t_i$ in α , there may be no answer to the question whether $G't_i$, $G''t_i$ are better than, worse than, or equally as good as Gt_i . Then for no history Gt_i passing through t_i on which some member of α is true will it be the case that Gt_i can be determined to be at least as good as every other history passing through t_i on which some member of α is true. If so, then by 2.46 « $M_{\text{now } \alpha} (F \phi b)$ » is vacuously true at t_i for every alternative in α . When this is known to be the case, it will turn out that for any true Q and any alternative ψ in α ,

« $R_{\text{now}} \alpha (Q, \psi b)$ » will be false at t_i . In such cases, we may say that it is precisely the vacuity of propositions about goodness that leaves agents without a clue about what to choose.

Another assumption about preferability orderings which I do not make is that they can be represented on cardinal scales. Cardinal goodness-values would require very strong assumptions. Nonetheless, I do not rule them out either; and this is a reason making α -functions range over sets of alternatives and not just over sets of histories associated with them. For, as we have seen, one way of ranking alternatives is, of course, to take weighted averages based on both the goodness values of histories on which the alternatives are true and also the probabilities of those histories, to obtain some expected value for each alternative. Then the best histories vis à vis the problem of ranking alternative will not necessarily be the histories with the best cardinal goodness values yielded directly by the initial preferability ordering; instead the best histories will be those which make true the alternatives with the best expected goodness values. If only the set of histories associated with a set of alternative were given, and not the set of alternatives itself, it would perhaps be counterintuitive to assign the expected utilities directly to each history, because the rationale for the assignment would not be easily recoverable from the unstructured set alone. But, of course, this assignment is necessary if the expected values attaching to each alternative are to be distributed

over histories in such a way as to make true, via an a-function, the right sentences of the form $\langle M_{\text{now}} \alpha (F \phi b) \rangle$. The upshot is that for generality's sake, some a-functions may be assumed to be sensitive to expected values, while others need not be. The account of reasons for doing things presented here is intended to be neutral in the debate between ordinalists and cardinalists. Ordinalists might want to make use of probabilities in a similar way since, on the face of it, $\langle M_{\text{now}} \alpha (F \phi b) \rangle$ may be true now even if, given that $F \phi b$, it is highly probable that a very bad history will turn out to be the actual one. This is because $\langle M_{\text{now}} \alpha (F \phi b) \rangle$ even be true now if only one history on which $F \phi b$ is true is a best history, while most such histories are in fact very bad. Given an ordering of a finite number of histories, for each position i in the ordering, and each alternative ϕ , an ordinalist might calculate the probability that ϕ -ing will result in the actualization of a history in position i : Then each alternative will have a sequence of probabilities associated with it. Now let the sequences of probabilities be ordered, presumably in such a way that those sequences giving high probabilities to good positions will come out high up in the ordering, etc. In this way, the alternatives themselves will be ordered by the ordering of the sequences of probabilities. Then order the histories so that each history has the same rank as the alternative realized in it, and let this ordering of histories determine the a-function required by 2.41.

For a set of alternatives at a time, a-functions take us

from a set of histories associated with the alternatives to a set of best histories associated with the alternatives. If every set α of alternatives is a maximal set, the set of histories to be ordered is not expandable, since the set of alternatives includes all the really possible histories. But if the alternatives in a set α at t_i are determined by what is under consideration in a given context, the initial set of histories might indeed be expanded as new alternatives for the time in question come to be incorporated in the context where reasons for doing something are being considered. Wherever such expansion can occur, I shall assume that a-functions must satisfy at least two rationality properties. Let ϕ be a set of alternatives at t_i , and α^* another set of alternatives at t_i such that $\alpha \subset \alpha^*$. Then:

$$2.48 \quad (\forall Gt_i) (Gt_i \in \{t_i, \alpha\} \supset : Gt_i \in A(t_i, \alpha^*) \\ \supset Gt_i \in A(t_i, \alpha))$$

and

$$2.49 \quad (\forall Gt_i) (\forall G't_i) (Gt_i \in A(t_i, \alpha) \& G't_i \in A(t_i, \alpha) \supset : \\ Gt_i \in A(t_i, \alpha^*) \equiv G't_i \in A(t_i, \alpha^*)) \quad 19$$

2.48 says that if a history is among the best histories associated with an expanded set of alternatives, then it must be among the best histories associated with a smaller set of alternatives, if it is among the histories associated with the smaller set. 2.48 reflects a stability property of the preferability orderings holding among histories and underlying a-functions. That property is that a change in the number of histories under review will not affect the relative rankings of those histories which are under

review continuously throughout the change. A simple analogy is this: If at a restaurant offering for dessert nothing but¹ peach melba, crème caramel, and mille feuilles, the peach melba is ranked better than the crème caramel, and the mille feuilles on a fixed ranking, then if no other circumstance is changed at all except that the restaurant sometimes offers only peach melba and crème caramel, peach melba must rank better than crème caramel at those times too. For how can the offer of mille feuilles affect the relative positions of the peach melba and the crème caramel, given that only a single preferability ranking is supposed to be operating throughout?

2.49 says that if two histories are among the set given a less than maximal set of alternatives, then if one of the histories is among the best histories associated with an expanded set of alternatives, the other history must also be among the best associated with the expanded set. Again, if another restaurant offers peach melba, crème caramel, and mille feuille, and if peach melba and crème caramel are tied for best dessert on a fixed ranking given these alternatives, then if the restaurant also offers black forest cake, it must be that, if peach melba is still regarded as one of the best desserts, then so must crème caramel be. For how could the offer of black forest cake affect the relative merits of peach melba and crème caramel given that only a single preferability ranking is supposed to be operating continuously? 2.48 and 2.49 seem safe enough as assumptions about a-functions although it perhaps is worth pointing out that they

are unnecessary if all sets α of alternatives are maximal sets.

We now come up against an assumption which is well known in philosophical logic though more in connection with discussions of conditionals than in matters having to do with goodness or preferability. This is the Limit Assumption. It is easy to see that if a set α of alternatives at t_i is such that α contains an infinite set of histories which are better and better without end, the $A(t_i, \alpha)$ will be empty. This is because the condition on membership in $A(t_i, \alpha)$ for a history Gt_i in α is that Gt_i be at least as good as any other history $G't_i$ passing through t_i . But if the histories in α are better and better without end, then for each history Gt_i there will be a $G't_i$ better than Gt_i so that no history will satisfy the condition on membership in $A(t_i, \alpha)$. Without some best history to fix a limit on the goodness of histories in α , an a -function A will be unable to select any set of best histories in α . Then for any ϕ in α , $\langle M_{\text{now } \alpha} (F \phi b) \rangle$ must be false, and it may turn out that relative to α , all statements about reasons for doing things will have a similar status.

There is, of course, a way of avoiding the Limit Assumption, but before examining that option, we had better consider what is at stake. Imagine that you are Lancelot and that you have entered upon the Quest of the Holy Grail. In a kind of waking trance you have seen the Fisher King, the bleeding Lance, indeed the Grail itself all come and pass by; but afflicted by a mysterious torpor, you were unable to move or speak. Now you recount this experience to a holy hermit. He tells you that

your inability even to make the slightest move toward the Grail is a result of your deep corruption. You have two alternatives: either to continue in sin, or to submit yourself to some penitential discipline. The rigour of the spiritual and physical regimen which you may impose upon yourself is not something that can be measured in discrete increments, and for every degree of rigour that you can imagine, it seems that there is a greater degree of rigour, greater perhaps ever so minimally which, given your impurity, it would be better for you to accept - strictly within some upper bound of course, for you must not in despair or or spiritual pride or self-indulgent righteousness mutilate yourself or do anything that could be construed as taking own life. If this or something like this is conceivable, then the alternative in which you submit to a spiritual regimen of penitence has associated with it an infinitive set of histories that are spiritually better and better without end, so that the Limit Assumption is violated. But then oddly enough, given that your only two alternatives are either that you continue in sin, or that you impose some penitential discipline on yourself, the argument of the previous paragraph shows that no a-function will be sufficient to determine that your imposing some penitential discipline on yourself is a maximally good alternative, even if every history in which you do so not only is as good but better than any history in which you continue in sin.

This result is so unsatisfactory that it fairly drives us to abandon a-functions as a tool for specifying best alternatives. What should we take up instead? In the light of the literature on

conditionals, the obvious choice is a Lewis-style system of spheres. For each set α of alternatives at t_i , suppose that the histories in α are arranged in a system of spheres. (The histories are possible world-histories and so the astronomical metaphor is not entirely inappropriate.) The spheres in a system associated with a particular α are to be nested, so that if S and T are spheres in the system, either S is included in T or T is included in S. For each system of spheres, every union of histories in a set of spheres in the system is itself a sphere in the system, and for each system every nonempty intersection of a set of spheres in the system is itself a sphere in the system. Whenever S is a sphere in a system, for any histories Gt_i inside of S, $G't_i$ outside of S, Gt_i is better than $G't_i$. Thus the smaller the sphere in a system, the better are the worst histories contained in it, so that as we move closer toward the centre of the system, we come upon better and better histories. (Let us assume here that probabilities have already been taken into account.) Now we redefine « $M_{\text{now } \alpha}$ » relative to G_i :

- 2.50 $M_{\text{now } \alpha} (F \phi b)$ iff ϕ -ing is an alternative in X & $(\exists t_i) (t_i = \text{now} \ \& \ (\forall S) (S \text{ is a non-empty sphere in the system } \$ \text{ associated with } \alpha \text{ at } t_i. \supset (\exists Gt_i) (Gt_i \in S \ \& \ \text{on } Gt_i \text{ at } t_i, F \phi b)))$.

Intuitively 2.50 says that an alternative is maximally good if no matter how small a sphere you take, no matter how good the sets of histories you consider, there is always some history where that alternative is realized. Plainly 2.50 allows doing penance to be a best alternative for Lancelot even if the Limit Assumption is violated.

To allow for sets α of alternatives at t_i where preferability is incomplete over α at t_i we can let the system of spheres associated with α at t_i contain only empty spheres so that $\langle M_{\text{now } \alpha} (F \phi b) \rangle$ will be vacuously true for every alternative in α , as before. The difference between this and the approach embodied in 2.46 does not appear to amount to a significant loss, if it amounts to any loss at all.²⁰ Analogues of 2.48 and 2.49 can be formulated if we allow that the expansion α^* of a set α of alternatives at t_i can precipitate the expansion of the system $\$$ of spheres associated with α into a system $\$^*$ achieved by locating the new histories in $\$$ and constructing where necessary a new sphere between the orbits of equivalence classes of histories.

Then:

$$\begin{aligned} 2.51 \quad & (\forall Gt_i) (\forall G't_i) (Gt_i \in \alpha \& G't_i \in \alpha \supset : (\exists S) \\ & (S \subset \$^* \& Gt_i \in S \& G't_i \in S) \supset (\exists S) \\ & (S \subset \$ \& Gt_i \in S \& G't_i \in S)) \end{aligned}$$

and

$$\begin{aligned} 2.52 \quad & (\forall Gt_i) (\forall G't_i) ((\forall S) (S \subset \$ \supset Gt_i \in S \equiv G't_i \in S), \\ & \supset (\forall S) (S \subset \$^* \supset Gt_i \in S \equiv G't_i \in S)) \end{aligned}$$

2.51 says that given any Gt_i and $G't_i$ in a set of histories associated with a set α of alternatives at t_i , if Gt_i is better than $G't_i$ in an expanded set of histories, then Gt_i is better than $G't_i$ in an expanded set of histories, then Gt_i is better than $G't_i$ in the original set; and 2.52 says that histories which are equally good in an original set remain equally good in an expanded set. We don't seem to have incurred any loss in switching from a function to systems of spheres, except perhaps aesthetically, apart from the Limit Assumption, and the loss of the Limit Assumption may look like a benefit. Perhaps then we should hitch our wagon to the spheres.

There is unfortunately a difficulty involved in abandoning the Limit Assumption which has been discussed by Pollock, Herzberger and Stalnaker in connection with conditionals.²¹ In the present context it can be appreciated if we consider the problem of Lancelot's choice again. We have tried to imagine that if Lancelot became a penitent, then for any degree of rigour to which he might subject himself in doing penance, there would be another degree, perhaps ever so minimally greater, which he might better impose upon himself. It is logically true that if Lancelot does penance at all, he must do so with some degree of rigour or other. Suppose that doing penance is a maximally good alternative for Lancelot, so that as we consider better and better histories, we never come upon spheres in which there are no histories in which Lancelot does penance. Now let us begin to consider the infinite series of pairs of alternatives that Lancelot might substitute for

the single alternative on which he simply does penance; viz. pairs consisting of (a) an alternative according to which Lancelot imposes upon himself a regime of penitence rigorous to degree α and (b) an alternative on which he imposes upon himself a regime rigorous to some higher degree. Plainly for any degree α that Lancelot takes, it will not be the case that doing penance with degree of rigour α will be a maximally good alternative for him, for there will always be a higher degree that is better, and so for any such pair of alternatives there will only be one maximally good member of the pair - the member on which Lancelot does penance with some degree of rigour greater than that specified in the other member. But then for any degree of rigour such that Lancelot actually does penance with that degree of rigour, there will be a maximally good alternative open to Lancelot which fails to realize, and for any alternative open to him that he does actually realize, that alternative will not be maximally good. No matter what Lancelot does, he must do something worse than what it is open to him to do. It may well be wondered if this is an intelligible conclusion to reach. If not, the Limit Assumption together with a-functions might be retained.

Yet if the Limit Assumption is retained, what are we to say about Lancelot? Adopting some of Stalnaker's remarks in defense of the Limit Assumption we might focus on the types of context in which questions can be raised about the relative goodness of Lancelot's continuing in sin as compared with his doing penance.²² We might maintain that in a context where no definite way of doing

penance is accepted as appropriate, but instead better and better ways have to be considered without end, any question about the relative merits of continuing in sin on the one hand and doing penance simpliciter on the other can have no definite answer, so that such questions themselves must be ruled unacceptable. If we are willing to entertain the conjecture that in most contexts where problems like Lancelot's are at stake, there will be at hand fairly determinate assumptions about what penance may appropriately consist in, then the cost of retaining the Limit Assumption may not appear very high. Nonetheless, I think it is too high, for it does not merely not rule out doing penance simpliciter as an alternative in those contexts where better and better ways of doing penance are assumed to exist without end - it rules out the very contexts themselves. In Lancelot's case, if every history in which Lancelot does penance in some measure is better than any history in which Lancelot continues in sin, the Limit assumption guarantees not only that doing penance is the only maximally good alternative for Lancelot, but also that there is some determinate measure of penance which is for Lancelot the only maximally good alternative. It seems to me possible that there are genuine ethical views that may be adopted by real agents which are incompatible with this sort of thinking. On such views, it must be possible in one and the same context to maintain both that Lancelot's best course is to do penance and also that given what Lancelot has done, it is not the case there is a measure of repentance such that when he has repented in that measure, it will

be true to say greater penitence would not be better for him. Abandoning the Limit Assumption makes way for practical views according to which a bad action may not only make the world worse than it might have been, but may in addition entangle the agent of the action in an infinity of practical consequences for himself - consequences, that is, relating to what it would be best for him to do now, given that he has already done something bad. If there are moralities or personal codes of conduct for which this possibility is significant, and which require a rejection of the Limit Assumption, they have the following remarkable property, obliquely noted by David Lewis: any possible story they can tell about how it would be best for things to be must be an incomplete story.²³ That is, for such views, the full story of the Good is necessarily inexpressible. Since this is an ancient and venerable opinion it seems safest not simply to presume it to be false. Accordingly, on this ground I reject the Limit Assumption for the semantics of $\langle M_{\text{now } \alpha} \rangle$ and prefer 2.50 to 2.46 as a statement of truth conditions.

As far as the logic of $\langle M_{\text{now } \alpha} \rangle$ is concerned, it is the same whether we depend on a-functions - cum - Limit Assumption or on systems of spheres. For $\langle M_{\text{now } \alpha} \rangle$ is just a relativized version of the permissibility operator $\langle P \rangle$ of the standard deontic logic commonly known as D. Corresponding to the operator $\langle O \rangle$ of D we can define $\langle O_{\text{now } \alpha} \rangle$ in the following way:

2.53 $O_{\text{now } \alpha} (F \phi b)$ iff ϕ -ing is an alternative in α
 & $(\exists t_i) (t_i = \text{now} \ \& \ (\exists S) (S \text{ is a nonempty sphere}$
 in the system $\$$ associated with α at t_i & $(\forall Gt_i)$
 $(Gt_i \in S \supset \text{on } Gt_i \text{ at } t_i, \text{ it is true that } F \phi b))$.

We can understand « $O_{\text{now } \alpha} (F \phi b)$ » to mean «Given the alternatives in α now open to b and given b 's priorities, is is uniquely maximally good that b should ϕ », or equivalently, «Given the alternatives in α open to b and given b 's priorities, ϕ -ing is now the only maximally good thing for b to do.» I do not read the operators « $M_{\text{now } \alpha}$ » and « $O_{\text{now } \alpha}$ » as involving the notions of permission and obligation, because (a) these notions seem to me to presuppose features of complex quasi-institutional practices whose understanding requires a prior understanding of the notion of a reason for doing something - a prior understanding I am assuming we do not have; and (b) the features in question are not such that they can be read off the kinds of models which are used to represent the truth-conditions of sentences containing the operators.

The relativized version of the characteristic axiom of D is: $O_{\text{now } \alpha} (F \phi b) \supset M_{\text{now } \alpha} (F \phi b)$; or equivalently, «If, given the alternatives in α , it is now uniquely maximally good with respect to b 's priorities that b should ϕ , then at t_i , given the same alternatives, it is maximally good that b should ϕ .» This is valid intuitively, and according to the definitions 2.48 and 2.45. There are, of course, many serious differences between, on the one hand, the allowable inferences involving sentences containing the relativized operators, and on the other hand, the

standard deontic logic D. If we were to speak of «relativized D», we should have to bear in mind that relativized D is a very crippled thing indeed.

The trouble with our relativization is that it reduces to virtually nothing the possibility of carrying out inferences within the scope of the operator « $M_{\text{now } \alpha}$ ». Suppose that on that Saturday afternoon we have so often had occasion to contemplate, buying the Charles Jourdan pumps was a maximally good alternative for Felicia. It was settled then that if Felicia bought the pumps, she would pay the salesman. One would like, perhaps, to be able to infer that if it was maximally good for Felicia at that time to buy the Jourdan pumps, then in the circumstances it was maximally good for her to pay the salesman. But given the definition of « $M_{\text{now } \alpha}$ » this inference cannot be drawn. For the set α of alternatives which included the alternative represented by the gerund «buying the Jourdan pumps» may not have included the alternative represented by the gerund «paying the salesman»; indeed unless the alternative represented by these gerunds were equivalent in the circumstances, the set α could not have included them both, for if they were non-equivalent, then by the exclusiveness condition, it must have been settled that if one of them were realized, the other would not be. And suppose the set α had included the alternative represented by the gerund «buying a pair of Maud Frizon pumps», and that it was equally settled that if Felicia bought the Frizon pumps, she would pay the salesman. On this supposition, paying the salesman would not have been

equivalent in the circumstances to buying the Jourdans, so that α could not have included paying the salesman as an alternative, for it would not have been settled that if Felicia bought the Jourdan pumps, she would not pay the salesman. By hypothesis, the opposite is true - that is, if she purchased, she would pay. All of this suggests that in order to accommodate a desirable inference, we should somehow generalize the notion of a maximally good alternative at t_i . This can be done in the following way.

Let $\langle F \psi b \rangle$ be some future tense sentence having a single possibly complex predicate specifying something an agent might do, and having as subject the same agent designated in each alternative in a set α at t_i . Now read $\langle M^*_{\text{now } \alpha} \rangle$ just as we read $\langle M_{\text{now } \alpha} \rangle$ but define it as in the schema 2.54:

$$\begin{aligned} 2.54 \quad M^*_{\text{now } \alpha} (F \psi b) \text{ iff should } b\text{'s } \psi\text{-ing occur, it would} \\ \text{be an act of } b\text{'s \& for some } \phi, M_{\text{now } \alpha} (F \phi b) \& \\ L (F \phi b \supset F \psi b). \end{aligned}$$

Then ψ -ing is a maximally good thing to do relative to a set α of alternatives at t_i , just in case ψ -ing is a necessary condition of realizing some maximally good alternative in α . It immediately follows that for any given moment t_i , $M_{\text{now } \alpha} (F \phi b) \supset M^*_{\text{now } \alpha} (F \phi b)$. $\langle M^*_{\text{now } \alpha} \rangle$ is such a natural generalization of $\langle M_{\text{now } \alpha} \rangle$ that I will henceforth use $\langle M_{\text{now } \alpha} \rangle$ as if it meant what $\langle M^*_{\text{now } \alpha} \rangle$ means. In a similar way, of course, $\langle O^*_{\text{now } \alpha} \rangle$ can be defined.

Still, very many «ordinary» inferences will be beyond the scope of relativized D. For instance let $\langle F \beta f \rangle$ be «Felicia will

buy the Jourdan pumps», and let « $F \kappa f$ » be «Felicia will climb the Eiffel Tower», and consider

$$2.55 \quad \frac{\vdash F \beta f \quad (F \beta f \vee F \kappa f)}{\vdash F \beta f \vee F \kappa f}$$

$$M_{\text{now } \alpha} (F \beta f) \quad M_{\text{now } \alpha} (F \beta f \vee F \kappa f)$$

This somewhat counterintuitive argument is blocked by the fact that, as constructed, the disjunction « $F \beta f \vee F \kappa f$ » does not contain a unique predicate specifying something an agent might do so that its conclusion is ill-formed instead of valid. But in a language enriched with λ -abstracts it is possible to construct logically complex predicates like «buys the Jourdan pumps or climbs the Eiffel Tower», and with such a language, it would be possible to produce in 'relativized D' parallels to many dreary inferences of the kind exemplified in 2.50. Even so, D relativized to sets of alternatives must be regarded as a severely crippled mutation of deontic logic. Let « $F[\lambda x (\sigma x \vee \sim \sigma x)]d$ » be the sentence «David will either sneeze or not sneeze» and consider the following inference:

$$2.56 \quad \frac{\vdash F \beta f \quad F[\lambda x (\sigma x \vee \sim \sigma x)]d}{\vdash F \beta f \vee F[\lambda x (\sigma x \vee \sim \sigma x)]d}$$

$$M_{\text{now } \alpha} (F \beta f) \quad M_{\text{now } \alpha} (F[\lambda x (\sigma x \vee \sim \sigma x)]d)$$

This inference is blocked by the fact that the subject of the predicate « $\lambda x (\sigma x \vee \sim \sigma x)$ » is not identical with the agent to whom the various alternatives in α are open. But none of this is very important, for it seems clear that « $M_{\text{now } \alpha}$ » could be made into an orthodox D-type operator by replacing 2.49 with 2.52, so long as tensed sentences within its scope are interpreted as temporally very specific, to preserve interdefinability with « $O_{\text{now } \alpha}$ ».

$$2.57 \quad M_{\text{now } \alpha}^+ (P) \text{ iff for some } \phi \text{ in } \alpha, M_{\text{now } \alpha} (F \phi b) \\ \& L(F \phi b \supset P)$$

Conservative readers may want to understand « $M_{\text{now } \alpha}$ » as if it meant « $M_{\text{now } \alpha}^+$ ». Then the consequent of 2.56 (ii) might be interpreted as meaning, «With respect to the set α of alternatives now open to Felicia, it is maximally good given Felicia's priorities, that David either sneeze or not sneeze.» I suppose this is intelligible. Even so, in what follows I shall not make use of the notion defined in 2.57.

Throughout this section I have been trying to make precise a notion of a maximally good alternative so that we should be able to understand what is said when it is said that a reason for an agent to do some particular thing is a true proposition which supports the hypothesis that doing that thing is at least as good as doing anything else, given the alternatives which are open to the agent and the agent's priorities. To identify maximally good alternatives, I suggested that it is necessary to consider the histories whose futures severally make true the various alternatives. The assumption behind this is that some histories are preferable to others. I want to close this section by stating categorically that the relative preferability of a history Gt_i through a moment t_i is not necessarily to be determined by considering only that portion of Gt_i subsequent to the moment t_j ($> t_i$) of the realization of whichever alternative is to be realized on Gt_i . If preferability were necessarily determined in this way, then only strictly temporal consequences of doing one thing or another would weigh

in the assessment of which things it would be maximally good to do. This would be an intolerable limitation on any account of reasons for doing things. By contrast, the approach adopted here is quite compatible with the view that no portions of a history subsequent to the realization on that history of an alternative are relevant to the evaluation of the alternative. Then for each alternative ϕ in a set α open to b at t_i , histories branching at t_i on which $\langle \phi \ b \rangle$ is true at t_i , and which differed only at moments later than those at which $\langle \phi \ b \rangle$ itself is true might be lumped together in an equivalence class and treated like a single history. If in addition the concurrent circumstances of an alternative ψ made no difference given the relevant preferability ordering to the assessment of the alternative, then all the histories on which ψ was realized would form an equivalence class, so that only a single history would be needed to determine the status of ψ , and consequences would not have to be considered at all.

In particular, the present approach is compatible with what Sen has called evaluator-relative moralities. This is of some importance, since the actual preferability orderings of real agents may mirror such «moralities». An evaluator relative morality M will be a morality which fixes for each evaluator an ordering of histories according to moral preferability - but for a fixed set of histories the ordering may not be the same for each evaluator. Let $\langle A \rangle$ be a predicate specifying some particular thing an agent may do at some particular time and place;

let «j» and «k» be agents who are also evaluators; let « $\prec_{Me}$ » represent the relation «is better than from evaluator e's point of view, according to M»; let h_1 and h_2 be histories (or equivalence classes of histories) which are exactly alike with respect to non-general present-tense truths up until a brief interval on each, during which, on h_1 «Aj» is true, and on h_2 «Ak» is true, and which return to being exactly alike with respect to non-general present tense truths after these intervals are over, so that j's A-ing has no temporal consequences which differ from those of k's A-ing; and finally let h_3 and h_4 be similarly matched sets of histories (or equivalence classes of histories) except that on h_3 «Aj» is false, and on h_4 «Ak» is false. Then the evaluator-relative morality M allows for agent relative values if it determines a preferability ordering such that 2.58 might be satisfied on it.

$$2.58 ((h_1 \prec_{Mj} h_3) \& \sim(h_2 \prec_{Mj} h_4)) \vee (\sim(h_1 \prec_{Mj} h_3) \& (h_2 \prec_{Mj} h_4))$$

The first disjunct of 2.58 allows that according to M, j must judge that a situation in which she A-s is better than one in which she doesn't, although she may judge k's A-ing to be no better, or even worse, than k's not A-ing; and the second disjunct allows that the M may require j to judge the reverse of this. 2.58 accommodates a morality according to which it is significant who does a certain thing, even if the causal consequences would be the same no matter who did it. Sen calls this kind

of relatively of values «doer relativity», for obvious reasons. A morality M may also be evaluator-relative if its preferability orderings permit 2.59 to be satisfied.

$$2.59 ((h_1 <_{Mj} h_3) \& \sim (h_1 <_{Mk} h_3)) \vee (\sim (h_1 <_{Mj} h_3) \& (h_1 <_{Mk} h_3))$$

According to the first disjunct of 2.59 M may make j judge her A-ing better than her not A-ing while requiring k to judge otherwise with regard to j 's conduct; according to the second disjunct M may require the reverse. If M is a morality which puts a premium on people's making independent decisions or judgements, then possibly instances of 2.59 will be true. The kind of relativity of values involved here Sen calls «viewer relativity» again for obvious reasons.

Finally a morality may be evaluator relative if its orderings make instances of 2.60 true:

$$2.60 ((h_1 <_{Mj} h_3) \& \sim (h_2 <_{Mk} h_4)) \vee (\sim (h_1 <_{Mj} h_3) \& h_2 <_{Mk} h_4))$$

2.60 has M allowing j and k to differ in their judgements of situations in which each of them does the very same thing. If for example j has promised to A and k has not, then j may have to judge a situation in which she A-s better than a situation in which she does not, but k need not make the same judgement about his A-ing in that situation. «Self-evaluator relativity» is the name Sen gives to this kind of agent relativity.

With these relativities in hand we can dispose of a

general objection to approaching the issue of reasons for doing things in terms of a some notion of best alternatives. The objection is raised by Williams in the context of a general assault on all forms of what he calls «consequentialism»; it seems a good idea to fortify the present project against the possibility of such attacks.

Williams describes the case of a man - let us call him «Bernard» - who believes that situations are better in which more people rather than fewer keep their promises. But in a particular case, Bernard also believes the following:

. . . that X would do the right thing only if he kept his promise; that keeping his promise would involve (or consist in) doing A, that several other people would as a matter of fact keep their promises (and for the right reasons) if and only if X did not do A.

The question arises whether we can represent Bernard's beliefs within the framework we have adopted. I think we can. Let M be Bernard's morality. Let « $\langle h^*j, h^{**}j \rangle$ » be a variable ranging over pairs of histories which are exactly alike except that on h^{**} , some agent j who is a promise keeper on h^* breaks a promise, so that in all such pairs more people keep their promises on h^* than on h^{**} . Then M will make 2.61 true.

$$2.61 \quad (\forall j) (\forall \langle h^*j, h^{**}j \rangle) (h^*j <_{Mj} h^{**}j)$$

That is, according to M , every agent must regard a situation in which he breaks a promise as worse than on in which he keeps a

promise. Then out of these situations, every one in which he keeps a promise is one in which more people keep promises than break them. Further, let M make 2.62 true:

$$2.62 \quad (\forall j) (\forall k) (k \neq j \supset (\forall \langle h^*k, h^{**}k \rangle) (\sim (h^*k <_{Mj} h^{**}k) \\ \& \sim (h^{**}k <_{Mj} h^*k))).$$

Thus, M requires each agent to be indifferent between situations in which other agents keep promises and those in which they keep them: according to M , each man's promise-keeping is his own business. Since Bernard accepts he accepts the superiority of situations in which more agents keep their promises than fewer because he accepts 2.61 but he also accepts that agents should take no special account of situations in which other agents break promises, hence he will conclude that if X is to do as M requires, X must keep his promise and A . For according to Bernard, X will have to reason as follows:

«Unfortunately 2.61 does not tell me directly which course is better for me - to keep my promise, or to break it. For it compares only pairs of situations which differ only in that in one I keep my promise, and in the other I break it. But in the case at hand, there is another difference between histories to consider as well, since every history open to me in which I keep my promise is a history in which others are promise breakers, and every history in which I break my promise is one in which they are promise keepers. The immediate question is how am I to compare histories with respect to my promise-breaking when the histories differ in

this other respect? 2.62 suggests the general form of an answer to my question. Let t_1 be any history on which I break my promise and others keep theirs; let h_2 be exactly like h_1 except that on h_2 others break their promises; and let h_3 be a history exactly like h_2 except that on h_3 I keep my promise. Then, where " $\approx_{M\chi}$ " is "equivalent to, from my point of view, according to M ", 2.62 yields $h_1 \approx_{M\chi} h_2$, and 2.61 yields $h_3 <_{M\chi} h_2$. But then with respect to the ordering $<_{M\chi}$, since h_1 is equivalent to h_2 , it follows that $h_3 <_{M\chi} h_1$. That is according to M , any history on which I break a promise and others keep their promises must be worse from my point of view than my history on which I keep a promise and others break theirs. It is true that in the present case, as a matter of fact there appears to be no actually possible history of the type of h_2 . But so what? The point is that, from where I stand, histories which differ only in the promise-keeping of others form an equivalence class, and 2.61 and 2.62 together force me to conclude that a history on which I keep my promise is better than any member of an equivalence class in which I don't. A history of the type of h_1 is logically a member of such an equivalence class even if when the class is restricted to histories that are actually possible, there are no actually possible histories like h_2 in the class. It still remains true that for histories of the type described $h_3 <_{M\chi} h_1$. And so the better course for me must be to keep my promise.»

It is plain that orderings of the sort required by an evaluator relative morality M can be accommodated by sets of systems of spheres. The present approach to maximally good

alternatives does not therefore fall foul of Williams' objection to consequentialism, and if it is used to interpret statements about a real moral agent's reasons for doing things, the morality of the agent which underlies those statements need not be regarded as limited by the deficiencies associated with consequentialist moralities. That is all I shall say about maximally good alternatives taken in isolation - it is now time to turn directly to propositions about reasons for doing things, in which propositions about maximally good alternatives figure prominently.

V. Reasons and Explanation (ii)

We now have the following:

2.63 $R_{\text{now}} \alpha (Q, \phi b)$ iff $(\exists t_i) (t_i = \text{now}, \text{ and}$

(i) at t_i , Q ; and

(ii) at t_i , its being the case that Q antecedently provides support for the hypothesis that

$M_{\text{now}} \alpha (F \phi b)$).

2.63 is a variant of something which sounds more like our original proposal:

2.64 $R_{\text{now}} \alpha (Q, \phi b)$ iff $(\exists t_i) (t_i = \text{now}, \text{ and}$

(i) at t_i , it is true that Q ; and

(ii) at t_i , its being the case that Q could rightly be appealed to in order to explain why $M_{\text{now}} \alpha$

$(F \phi b)$, if it be the case that $M_{\text{now}} \alpha (F \phi b)$).

In some measure, 2.63 (ii) provides an explication of 2.64 (ii).

But it seems worthwhile to try to propose something more clear-cut

than either 2.63 or 2.64. The suggestion I shall make is a simple one: let us understand the notions of explanatory power and of support for a hypothesis in terms of positive relevance to the degree of belief which it is rational to assign to a hypothesis. And let us interpret this as positive probabilistic relevance. This suggestion has the advantage of locating the account of reasons for doing things squarely in a general and relatively familiar setting. We shall assume, then, that there is a class of functions which assign numbers to propositions, where the numbers represent degrees of rational belief in accordance with the axioms of the probability calculus.

Richard Jeffrey has proposed that the probabilistic relevance of the proposition that B to the proposition that A be measured as follows:

$$2.65. \text{ rel } (A/B) = \text{prob } (A/B) - \text{prob } (A/\sim B)$$

where « $\text{prob } (A/B)$ » designates the probability to be assigned to the proposition that A, on the condition that it is known that B.²⁵ Obviously $\text{rel } (A/B)$ is positive just in case 2.66 is true.

$$2.66 \text{ prob } (A/B) > \text{prob } (A/\sim B)$$

That is the proposition that B is positively relevant to the proposition that A, just in case the probability to be assigned to the proposition that A is greater if it comes to be known that B, than if it comes to be known that $\sim B$. Furthermore, as Jeffrey shows, if $\text{rel } (A/B)$ is positive, then for any increase in the

probability that β there is a proportional increase in the probability to be assigned to the proposition that A. This surely captures something that is present in intuitive notions of support.

And so we might want to replace 2.63 with 2.67:

$$\begin{aligned}
 2.67 \quad R_{\text{now}} \alpha (Q, \phi \ b) \text{ iff } (\exists t_i) (t_i = \text{now, and} \\
 \quad (i) \text{ at } t_i, Q, \text{ and} \\
 \quad (ii) \text{ at } t_i, \text{prob } (M_{\text{now}} \alpha (F \phi \ b)/Q) > \text{prob} \\
 \quad (M_{\text{now}} \alpha (F \phi \ b)/\sim Q).
 \end{aligned}$$

Roughly, 2.67 says that its-being-the-case-that-Q is an internal reason for b to ϕ , iff it is true that Q and the proposition that Q is positively probabilistically relevant to the proposition that it is currently maximally good, given b's priorities, that b should ϕ . And roughly, I think that 2.67 provides an adequate account of the notion of a reason for doing something. Furthermore, although 2.67 employs the somewhat technical notion of probability, 2.67 has, nevertheless, a simple intuitive interpretation, provided a certain widely held assumption is granted as acceptable. The assumption is that conversational implicatures aside, the assertability of a simple indicative conditional sentence in a natural language goes by the conditional probability of the consequent on the antecedent. Then to test whether the condition laid down in 2.67 (ii) holds, take the conditionals, «If Q, then $M_{\text{now}} \alpha (F \phi \ b)$ », and «If $\sim Q$, then $M_{\text{now}} \alpha (F \phi \ b)$ » - if the first is more assertable than the second, then conclude that the condition 2.67 (ii) does hold.

For example, suppose that Alan is about to go on vacation,

and that he is planning to be out of town for six weeks. Alan lives alone, and he has many plants. If he does not take the trouble to arrange for someone to water them and take care of them while he is away, the plants will die. He does not want them to die. With just this information as background, consider the two conditionals in 2.68:

2.68 (i) If Alan does not want the plants to die, then given his options and his priorities, it is maximally good that he should take the trouble to arrange for someone to water them and take care of them while he is away.

(ii) If Alan wants the plants to die, then given his options and his priorities, it is maximally good that he should take the trouble to arrange for someone to water them and take care of them while he is away.

If the first conditional is more assertable than the second - as it seems to be - then Alan's not wanting the plants to die is a reason for him to take the trouble to arrange for someone to water them and take care of them while he is away - for we may conclude that condition 2.67 (ii) is satisfied, and the background information included the fact that Alan does not want the plants to die. This seems to be a reasonable result.

It is perhaps worth pausing a moment over the expression «his priorities» as it occurs in 2.68 (ii). In the example as presented, 2.68 (ii) is a conditional with a false antecedent.

Now the expression «his options» in 2.68 (ii) corresponds to the occurrence of a term like « α » as a subscript of «M», and the present tense of the consequent in 2.68 (ii) corresponds to the occurrence of «now» as a subscript of «M». In interpreting «now», we have been identifying it not with clock-times, but with moments conceived as world-states. On the actual history of the world, the moment t_i picked out by «now» is not one at which Alan wants the plants to die. The moment at which he wants the plants to die is a moment t_j which is co-present with t_i . It follows that the designation of « α » at t_j is not identical with the designation of « α » at t_i , since in the first case it is a partition of histories passing through t_j , and in the second it is a partition of histories passing through t_i . In conditionals then, « α » is like a definite description of narrow scope; and I suggest that the expression «his options» as it occurs in 2.68 (ii) be similarly construed. The expression «his priorities» corresponds to a system of spheres ordering histories, in terms of which some alternative is judged «maximally good». But systems of spheres are associated with values of « α » at particular moments (world-states). Then the ordering of histories which corresponds to the expression «his priorities» in 2.68 (ii) is an ordering of histories passing through t_j . It follows that «his priorities» in 2.68 (ii) should also be construed like a definite description of narrow scope, and that the referent of «his priorities» in 2.68 (ii) is different from the referent of «his priorities» in 2.68 (i). This corresponds to the way we naturally understand 2.68 (ii), for we surely

do not assume that Alan's priorities are independent of whether or not he wants the plants to die. If «his priorities» had wide scope in 2.68 (ii) we should have to believe that the priorities Alan actually has would be undisturbed by his wanting the plants to die, or else that what precedes «it is maximally good . . . », 2.68 (ii) is somehow contradictory. If we say, «Alan does not want the plants to die», we seem to imply that his actual priorities are not consistent with his wanting the plants to die. Yet if 2.68 (ii) seems less assertable than 2.68 (i), that is not because of some purely logical incoherence, but because, given that the plants will die if Alan doesn't make the appropriate arrangements, then if he wants the plants to die anyway, it seems that as he currently assesses the matter, it should not turn out to be maximally good for him to go to the trouble of making the arrangements necessary to keep them alive. As the example has been presented, the contrary judgement just seems less plausible. The intuitive test that can be used to establish whether 2.67 (ii) is satisfied, is therefore not to be impugned by confusions about the scope of the expression «his priorities».

The account of reasons for doing things given in 2.67 is logically simple and relatively natural. Unfortunately, 2.67 may well be wrong. If propositions which do not express logical truths can be assigned probabilities of 1 or 0 - as is often assumed - then two outstanding difficulties arise.

First, suppose that in a particular case, prob ($M_{\text{now}} \alpha$ ($F \phi b$)) is held to be equal to 1. That is, suppose that it is held

to be known, or to be as certain as anything can be, that given b's options and priorities, ϕ -ing is among the best alternatives open to b. Then $\text{prob} (\sim M_{\text{now } \alpha} (F \phi b))$ must be equal to 0. Now for any «P» and «Q», the proposition that P is said to be probabilistically independent of the proposition that Q if either of them has probability equal to 0. Where probabilistic independence occurs, $\text{prob} (P/Q) = \text{prob} (P)$. Applying this to the present case, we have:

$$\begin{aligned} 2.69 \quad \text{prob} (\sim M_{\text{now } \alpha} (F \phi b)/Q) &= \text{prob} (\sim M_{\text{now } \alpha} (F \phi b)/\sim Q) \\ &= \text{prob} (\sim M_{\text{now } \alpha} (F \phi b)) = 0. \end{aligned}$$

but by the probability calculus and 2.69 we have;

$$\begin{aligned} 2.70 \quad \text{prob} (M_{\text{now } \alpha} (F \phi b)/Q) &= 1 - \text{prob} (\sim M_{\text{now } \alpha} (F \phi b)/Q) \\ &= 1 - 0 = 1. \end{aligned}$$

and;

$$\begin{aligned} 2.71 \quad \text{prob} (M_{\text{now } \alpha} (F \phi b)/\sim Q) &= 1 - \text{prob} (\sim M_{\text{now } \alpha} (F \phi b)/\sim Q) \\ &= 1 - 0 = 1. \end{aligned}$$

But then by 2.70 and 2.71, when $\text{prob} (M_{\text{now } \alpha} (F \phi b)) = 1$, condition 2.67 (ii) cannot be satisfied for any Q; so that if it is known that ϕ -ing is a maximally good thing for b to do, by 2.67, there can be no reason for b to ϕ . And this is unsatisfactory.

Even worse, if someone seriously asserts that he knows that $R_{\text{now } \alpha} (Q, \phi b)$, his assertion may be taken to imply that for him $\text{prob} (R_{\text{now } \alpha} (Q, \phi b)) = 1$. But according to 2.67 (i), the proposition that $R_{\text{now } \alpha} (Q, \phi b)$ entails the proposition that Q, so that by the probability calculus $\text{prob} (Q) = 1$, and hence

$\text{prob}(\sim Q) = 0$. But if so then the second term of the inequality in 2.67 (ii) is undefined since the term is identical with a fraction whose denominator is 0, so that the condition is not satisfied. From this we might conclude that for any «Q», « ϕ » and «b», it can never be known or seriously asserted that $R_{\text{now}} \alpha (Q, \phi, b)$.

Fortunately these results can be avoided if the probabilities in 2.67 are understood to reflect not degree of rational belief as currently assessed, but rather the strength of what Skyrms calls prior objective probability.²⁶ Suppose that you are interested in the truth of the proposition that $R_{\text{now}} \alpha (Q, \phi, b)$, but that on your current probability function, prob_c , either $\text{prob}_c(Q) = 1$ or $\text{prob}_c(M_{\text{now}} \alpha (F \phi b)) = 1$ or both. Then turn to some earlier probability function, prob_e , which reflected your assignments of probabilities to propositions at some earlier time and is such that $\text{prob}_e(Q) < 1$ and $\text{prob}_e(M_{\text{now}} \alpha (F \phi b)) < 1$. - Although you are now certain either that Q or that $M_{\text{now}} \alpha$, you surely were not always so certain. Now the function prob_e will yield values for the conditional probabilities, $\text{prob}_e(M_{\text{now}} \alpha (F \phi b)/Q)$ and $\text{prob}_e(M_{\text{now}} \alpha (F \phi b)/\sim Q)$, which could be used directly in a replacement for 2.67 (ii).

These values, however, may not reflect what you now regard as objective conditional probabilities, since you may have learned - become certain of - many things about the world since the time t_j when prob_e was your probability-function. Let us suppose - as surely we may - that the propositions of which you have

become certain since t_j can be represented by a finite number of sentences which do not include probability equations or inequalities; and let «C» be the conjunction of all such sentences, exclusive of those logically incompatible with «Q», « $\sim Q$ », « $M_{\text{now } \alpha}$ », « $\sim M_{\text{now } \alpha}$ », and « $\sim M_{\text{now } \alpha} (F \phi b)$ ». The function prob_e will yield values for the conditional probabilities, $\text{prob}_e (M_{\text{now } \alpha} (F \phi b) / F \phi b)$ and $\text{prob}_e (M_{\text{now } \alpha} (F \phi b) / \sim Q \ \& \ C)$, which may very well be different from $\text{prob}_e (M_{\text{now } \alpha} (F \phi b) / \sim Q)$ and $\text{prob}_e M_{\text{now } \alpha} (F \phi b) / Q$. Having learned that C, it is appropriate to change your probability function from prob_e to pr_e by conditionalizing on C, with the result that $\text{pr}_e (M_{\text{now } \alpha} (F \phi b) / Q) = \text{prob}_e (M_{\text{now } \alpha} (F \phi b) / Q \ \& \ C)$ and $\text{pr}_e (M_{\text{now } \alpha} (F \phi b) / \sim Q) = \text{prob}_e (M_{\text{now } \alpha} (F \phi b) / \sim Q \ \& \ C)$. pr_e is different from your earlier probability function, but it is not your current probability function either, because it suppresses some of your current information. What it represents is the best information about what you now take to be the real world, in the light of which you might still have accepted either the proposition that $\sim Q$ or the proposition that $\sim M_{\text{now } \alpha} (F \phi b)$. In this sense pr_e has a claim to represent your view of the objective conditional probabilities in question when you consider whether $R_{\text{now } \alpha} (Q, \phi b)$. Hence we speak of «prior objective probabilities.»

The claim to objectivity, however, is not absolute. Since the time t_j when prob_e was your untutored probability function, in addition to having learned with certainty that C, you may have revised your assessments of the probabilities of the propositions that R, that S, that T, etc., without assigning any of them the

values 1 or 0. Again, let us suppose that the set of propositions with respect to which you have done so, can be represented by a finite set of sentences. Now take the set of such sentences and their negations and form the logical partition of all consistent conjunctions $\langle C^k \rangle$ of the members of this set, such that each conjunction in the partition is compatible with $\langle \sim Q \rangle$, $\langle Q \rangle$, $\langle M_{\text{now } \alpha} (F \phi b) \rangle$, and $\langle \sim M_{\text{now } \alpha} (F \phi b) \rangle$. Furthermore, let each $\langle C^k \rangle$ be a conjunct in a two-membered conjunction $\langle C^k \rangle$, whose other member is $\langle C \rangle$. (For future reference, note that each $\langle C^k \rangle$ is equivalent to a conjunction of $\langle C^k \rangle$ and any tautology.) The untutored function prob_e will assign values to the conditional probabilities $\text{prob}_e (M_{\text{now } \alpha} (F \phi b) / Q \ \& \ C^k)$ and $\text{prob}_e (M_{\text{now } \alpha} (F \phi b) / \sim Q \ \& \ C^k)$, for all $\langle C^k \rangle$. For each $\langle C^k \rangle$, let pr_e^k be the «objective» probability function formed by conditionalizing on the proposition that C^k , with the result that $\text{pr}_e^k (M_{\text{now } \alpha} (F \phi b) / Q) = \text{prob}_e (M_{\text{now } \alpha} (F \phi b) / Q \ \& \ C^k)$, etc. Since you are uncertain about which of the $\langle C^k \rangle$'s is actually true, you are uncertain about which of the «objective» functions pr_e^k really is objective - that is, really answers to what is actually the case. What you have to do, then, is to make a best estimate of the real objective conditional probabilities, and this you do by taking a weighted sum of the conditional probabilities of each pr_e^k , where for each pr_e^k the weight assigned to it is the current probability prob_c that the pr_e^k in question really is objective - which probability is the same as the current probability that C^k . That is, $\text{prob}_c (\text{pr}_e^k) = \text{prob}_c (C^k)$. The formula for the

best estimate of the objective probability that $M_{\text{now } \alpha} (F \phi b)$ given that Q will then be $\langle \sum_k \text{prob}_c (pr_e^k \times pr_e^k (M_{\text{now } \alpha} (F \phi b)/Q)) \rangle$. Now 2.67 can be reformulated as follows:

2.72 $R_{\text{now } \alpha} (Q, \phi b)$ iff $(\exists t_i) (t_i = \text{now and}$

(i) at t_i , Q : and

(ii) at t_i , $\sum_k \text{prob}_c (pr_e^k) \times pr_e^k (M_{\text{now } \alpha} (F \phi b)/Q) \geq \sum_k \text{prob}_c (pr_e^k) \times pr_e^k (M_{\text{now } \alpha} (F \phi b)) / \approx Q$.

Although 2.72 (ii) looks rather formidable, we know, thanks to Skyrms, that there is a simple intuitive test that can be applied to see if the condition which it expresses holds in a particular case. First, note that $\text{prob}_c (M_{\text{now } \alpha} (F \phi b))$ must equal the value of the term on the lefthand side of the inequality in 2.72 (ii). This is because each pr_e^k takes into account the probabilistic weights of all propositions other than those which entail that Q or that $M_{\text{now } \alpha} (F \phi b)$. Now when it is claimed that $R_{\text{now } \alpha} (Q, \phi b)$, we may take this to give us a license to conditionalize on $\langle Q \rangle$ to discover the value of $\sum_k \text{prob}_c (pr_e^k + Q) \times pr_e^{k+Q} \times M_{\text{now } \alpha} (F \phi b)$. But the set of pr_e^{k+Q} 's is a partition of all the possible cases, according to prob_c , in which $\langle M_{\text{now } \alpha} (F \phi b) \rangle$ could be true, and we know by the construction of the pr_e^{k+Q} that instead of writing $\langle \sum_k \text{prob}_c (pr_e^{k+Q} (M_{\text{now } \alpha} (F \phi b)) \rangle$, we can write $\langle \sum_k \text{prob}_c (C^k \& Q) \times \text{prob}_c (M_{\text{now } \alpha} (F \phi b)/C^k \& Q) \rangle$. By the definition of conditional probability this gives us $\sum_k \text{prob}_c (C^k \& Q \& M_{\text{now } \alpha} (F \phi b))$. But repeated applications of the axiom of additivity will tell us that according to the probability calculus the value of this sum must be $\text{prob}_c (M_{\text{now } \alpha} (F \phi b))$. Now for non-conditionals, degree of assertability goes by current probability.²⁷ So the assertability

of $\langle M_{\text{now } \alpha} (F \phi b) \rangle$ goes by $\text{prob}_c (M_{\text{now } \alpha} (F \phi b))$, which is the same as the value of the left hand term of 2.72 (ii).

What Skyrms has persuasively argued is that the assertability of counterfactual conditionals goes by best estimate of prior objective probability.²⁸ If so, then the value of the right-hand term of 2.72 (ii) gives the assertability of the counterfactual conditional, $\langle \text{If it had been the case that } \sim Q, \text{ it would have been the case that } M_{\text{now } \alpha} (F \phi b) \rangle$. An intuitive test for the satisfaction of 2.72 (ii), then, is this: take the proposition that $M_{\text{now } \alpha} (F \phi b)$ and the proposition that if it had been the case that $\sim Q$, it would have been the case that $M_{\text{now } \alpha} (F \phi b)$ - if the first of these is more assertable than the second, 2.72 (ii) is satisfied. - We stick closer to the form of 2.72 (ii) for the purposes of a test, if we assume that when prob_c is the result of conditionalizing on $\langle B \rangle$, $\text{prob}_c (A)$ determines the assertability of the proposition that, granted that B, A. Then the test for 2.72 (ii) seems quite natural. Applied to the case of Alan and his plants, the test asks us to consider the two propositions:

2.73 (i) Granted that Alan does not want his plants to die, then given his options and his priorities it is maximally good that he should take the trouble to arrange for someone to water them and take care of them while he is away.

(ii) If Alan had wanted his plants to die, then given his options and priorities, it would have been maximally good that he should take the trouble to arrange for someone to water them and

take care of them while he was away.

If 2.73 (i) is more assertable than 2.73 (ii), then by 2.72, as by 2.67, Alan's not wanting the plants to die is a reason for him to go to the trouble, etc. I believe that 2.72 yields the right result for this case.

2.72 also yields the result - which may be somewhat surprising - that if its being the case that Q is a necessary condition of b's ϕ -ing, then its being the case that Q is not a reason for b to ϕ . For example, Alan's being alive is a necessary condition of his going to the trouble of getting someone to care for his plants while he is away. But I do not think we want to say that his being alive is a reason for him to go to the trouble of getting someone to care for his plants while he is away. Yet doesn't the intuitive interpretation of the right-hand term of 2.72 (ii) yield an extremely unassertable counterfactual?

2.74 If Alan had not been alive, then given his options and priorities, it would have been maximally good that he should go to the trouble of getting someone to care for his plants while he is away.

Here we must remember that our notion of maximal goodness is tied to our possibly occasionally unintuitive interpretation of the operator «M_{now}». The argument for the assertability of 2.74 is quite simple:

Let t_i be a counterfactual moment at which Alan is not alive. It seems certain that at t_i it must be settled that Alan will not go to the trouble of getting someone to care for his plants

while he is away. Indeed it seems certain that if ϕ -ing is such that, should Alan ϕ , his ϕ -ing would be an act of which he is the agent, then if Alan is not alive, it is settled that he will not ϕ . But for any set of alternatives α open to Alan at t_i , if ϕ -ing is a member of α for Alan at t_i , it must not be settled that he will not ϕ . It follows that any set α of alternatives open to Alan at t_i must be empty. Yet if at t_i α is empty, then all the spheres in the system associated with α at t_i must be empty. Then by the definition of $\langle M_{\text{now } \alpha} \rangle$, it seems certain that it is vacuously true at t_i that $M_{\text{now } \alpha}$ (F Alan goes to the trouble of getting someone to care for his plants while he is away). And it seems that the condition upon which we judge this to be certain is the condition which holds if Alan is not alive. That is, if Alan had not been alive, it would have been vacuously true that given his options and his priorities it would be maximally good that he should go to the trouble of getting someone to care for his plants while he was away. This seems maximally assertable, given the interpretation of $\langle M_{\text{now } \alpha} \rangle$. If so, then 2.74 is maximally assertable. Given the results of the assertability test, and our assumptions about probability and assertability, it follows that the inequality required by 2.72 (ii) cannot hold, and Alan's being alive is not a reason for him to go to the trouble of getting someone to care for his plants while he is away. I do not find this a disturbing consequence.

A related consequence which may be more disturbing, however, is this: no tautology can be a reason for anyone to do anything.

Suppose that you have agreed to put a check beside what John has written if what he has written is true, and an «X» beside what John has written, if what he has written is false. He gives you a piece of paper on which he has written, «If 'r' is the first letter in 'rain', then 'r' is the first letter in 'rain'.» Couldn't you rightly maintain, with respect to its being the case that if 'r' is the first letter in 'rain' then 'r' is the first letter in 'rain'», that this is a reason for you to put a check beside what John has written? Call the proposition that if 'r' is the first letter in 'rain', then 'r' is the first letter in 'rain', «R». Its being the case that R cannot be a reason for anything, because on every prob_e out of which a pr_e^k can be constructed, the axioms of the probability calculus determine that the probability that ~R must be 0, since the proposition that R is a tautology. So there is no prob_e which will yield the sort of pr_e^k in terms of which 2.72 (ii) is defined. Hence the condition imposed by 2.72 (ii) can never be satisfied when «R» expresses a tautology.

I know of no sure way to deal with this difficulty. Perhaps the most promising approach would be to adapt Stalnaker's suggestion about the semantics for such constructions as «b believes that ~N», where «N» expresses some necessary truth.²⁹ Can a person believe the denial of a necessary truth? Intuitively it seems that he can. But if to believe something is to believe that the world is a certain way, no one can believe the denial of a necessary truth, since such a denial cannot express any way that any world might be. Stalnaker proposes that in cases where the ascription

of the belief «that $\sim N$ » seems appropriate, we should try to associate the expression « $\sim N$ » not with the necessarily false proposition that it usually expresses, but with a false contingent proposition that would be true just in case the world was the way it was believed to be by the person whose belief is appropriately described as the belief that $\sim N$. If such a strategy can be carried out for belief contexts, perhaps it could be carried out in probability contexts, too, with the result that expressions designating tautologies could be substituted for «Q» in true sentences of the form « $R_{\text{now } \alpha} (Q, \phi \text{ } b)$ ». But undoubtedly it remains an open question whether such an approach could be made convincing for cases such as the one where John writes «R» on the paper which you must mark. And so the problem of tautologous reasons remains unsolved.

I should point out, however, that not everyone regards it as a problem. Raz, for instance, goes out of his way to claim that his definition of 'complete reason' excludes analytic statements from inclusion «as parts» in statements of complete reasons.³⁰ Now Raz seems to use the expression «is a reason for» in such a way that for any «Q», ϕ , and b , its being the case that Q is a reason for b to ϕ iff there is some complex «P» such that its being the case that P is a complete reason for b to ϕ , and «Q» 'belongs to' «P». It would apparently follow from this together with Raz's above-mentioned claim that if «Q» is analytic, then its being the case that Q cannot be a reason for b to ϕ . The striking thing about Raz's claim is that it does not appear to be borne out by his definition of «complete reason». The definition, which makes

use of an undefined notion of a reason for doing something, is as follows:

The fact that p is a complete reason to ϕ for a person x if, and only if, either (a) necessarily, for any person y who understands the statement that p and the statement that $x \phi$'s, if y believes that p , he believes that there is a reason for x to ϕ , regardless of what other beliefs y has, or (b) $R(\phi)p, x$ entails $R(\phi)q, y$ (sic) which is a complete reason. However, the fact that p is not a complete reason if the statement that p trivially satisfies the definition only because it entails that some person knows that s , and s satisfies the definition.³¹

With regard to reasons, Raz uses the expression «the fact that» where I have used «its being the case that». In the recursive clause (b) « $R(\phi) p, x$ » means «the fact that p is a reason for x to ϕ ». In (b) the change of variables from « x » to « y » is quite mysterious, and probably a typographical error. But if the « y » is emended to « x », Raz's definition of «complete reason» has the obvious consequence that for any « p » such that « $R(\phi) p, x$ » is true, the fact that p is a complete reason to ϕ for x . That is, every reason turns out to be a complete reason. To see this, take any « p » such that « $R(\phi) p, x$ » is true. For any such « p » the proposition that $R(\phi) p, x$ will trivially entail the proposition that $R(\phi) p, x$. Now making the sorts of assumptions about necessary connections between beliefs which Raz seems to have in mind, we

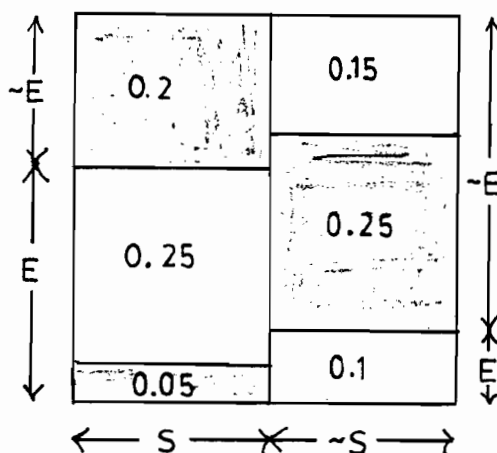
may conclude that for any person y who understands the statement that $R(\phi) p, x$ and the statement that $x \phi$'s, if y believes that $R(\phi) p, x$, he believes that there is a reason for x to ϕ , regardless of what other beliefs y has. For, all that is required for y to have this belief is that y believe the propositional existential generalization of his belief that $R(\phi) p, x$. So « p » is such that the proposition that $R(\phi) p, x$, if true, entails something - namely itself - which is a complete reason to ϕ for x . Then, by part (b) of Raz's definition, p itself is a complete reason to ϕ for x . Presumably (b) should be emended so that it reads « $R(\phi) p, x$ entails $R(\phi) q, x$, where q is a complete reason».

Another peculiar consequence of Raz's definition of 'complete reason' is that it ties the existence of ordinary reason for doing things to a thesis about necessary connections between beliefs. For anyone who maintains, for instance, that logical equivalence is the weakest logical relation under which operators like « y believes that» can be closed; the only propositions which are guaranteed to pick out complete reasons to ϕ for x will be those which are logically equivalent to the proposition that there is a reason for x to ϕ . But then what propositions can pick out ordinary reasons, if as Raz claims, the statement of an ordinary reason must be part of the statement of a complete reason? This question brings us face to face with the problem of tautologous reasons. Suppose that in Raz's terminology « p » expresses a complete reason to ϕ for x . The proposition that p is necessarily logically equivalent to the proposition that $p \ \& \ (q \vee \sim q)$, for

any «q». Then if «p» expresses a complete reason, why doesn't «p & (q v ~ q)»? Note that the proposition that p & (q v ~ q) is not excluded from picking out a complete reason by the proviso at the end of Raz's definition, which eliminates propositions which satisfy the definition trivially because they entail that some person knows that s, where the proposition that s satisfies the definition. Since by hypothesis the proposition that p picks out a complete reason, it does not come within the scope of the proviso, and since the proposition that p & (q v ~ q) is logically equivalent to the proposition that p, the former cannot have any entailments that the latter does not have. Then since the latter does not have the entailments necessary for it to come within the scope of the proviso, neither does the former. And so it looks as if the statement of a complete reason can have as part of it the statement of a tautology. But Raz also seems to imply that if a statement of a complete reason includes as a proper part the statement that q, (for any «q»), then the statement that q is the statement of a reason. On Raz's account, then, despite his explicit disclaimer, perhaps there can be tautologous reasons for doing things. Given the doubtful coherence of his claims, however, it is difficult to know what significance to attach to this. One conclusion that might be drawn is that it is futile to make complex general assertions about the nature of reasons for doing things, without having some clear and specifiable idea of what such assertions mean. The present account may well be objectionable because it bars tautologous reasons: but it has at least the

merit of doing so in a thoroughly downright way.

It may be useful at this point to consider a simple if somewhat artificial numerical example to show how the formula of 2.72 (ii) works. Here is an adaptation of one made up by Nancy Cartwright and recently discussed by van Fraassen in connection with the pragmatics of explanation.³² If Tom is a middle-aged man, concerned about his health, it is reasonable to suppose that, given his priorities, the goodness of his being on the alert for heart disease may be a function of whether he exercises, or smokes, or both. Let «S» be «Tom smokes»; «E» be «Tom exercises», and « $M_{\text{now}} \propto (F \delta t)$ » be «Given his options and priorities, it is maximally good that he should be on the alert for heart disease.» Suppose that in the diagram below, the whole square represents prob_e , which was our probability function when we didn't know whether Tom smoked; and the rectangle which is the left-hand half of the whole square represents prob_c , which is our current probability function, now that we have learned no more than that Tom smokes:



In the diagram, histories which are possible according to prob_e are represented by (invisible) points, and propositions by regions, with the area of each region proportional to its probability according to prob_e . Shaded areas represent the proportion of possible histories in which it is true that $M_{\text{now}} \alpha (F \delta t)$, and the numbers represent the probabilities according to prob_e , so that in the uppermost left-hand rectangle, $\text{prob}_e (S \& \sim E \& M_{\text{now}} \alpha (F \delta t)) = .2$. Naturally, the numbers sum to 1. Conditional probabilities are represented by ratios between the areas of regions associated with propositions, so that $\text{prob}_e (E/S) = \text{prob}_e (E \& S) / \text{prob}_e (S) = .3/.5 = .6$. Here are the relevant probabilities according to prob_e and prob_c :

$$\text{prob}_e (E) = .4$$

$$\text{prob}_e (\sim E) = .6$$

$$\text{prob}_e (E/S) = .6$$

$$\text{prob}_e (\sim E/S) = .6$$

$$\text{prob}_e (M_{\text{now}} \alpha (F \delta t) / S) = .5$$

$$\text{prob}_e (M_{\text{now}} \alpha (F \delta t) / \sim S) = .5$$

$$\text{prob}_e (M_{\text{now}} \alpha (F \delta t) / S \& E) = 1/6$$

$$\text{prob}_e (M_{\text{now}} \alpha (F \delta t) / S \& \sim E) = 1$$

$$\text{prob}_e (M_{\text{now}} \alpha (F \delta t) / \sim S \& E) = 0$$

$$\text{prob}_e (M_{\text{now}} \alpha (F \delta t) / \sim S \& \sim E) = .625$$

$$\text{prob}_c (M_{\text{now}} \alpha (F \delta t) / S) = 1/2$$

$$\text{prob}_c (E) = .6$$

$$\text{prob}_c (\sim E) = .4$$

Now we are interested in whether its being the case that Tom smokes is a reason for him to be on the alert for heart disease. Since we have learned with certainty no proposition compatible with «S», «~S», «M_{now} α (F δ t)», and «~M_{now} α (F δ t)», the conjunction «C», which we use to define the various «objective» probability functions pr_e^k , is empty - that is, equivalent to a tautology. The only proposition compatible with «S», «~S», «M_{now} α (F δ t)» and «~M_{now} α (F δ t)» whose probabilities have changed are the propositions that E and that ~E. The two pr_e^k 's then are pr_e^E and $pr_e^{\sim E}$. Now:

$$pr_e^E (M_{now} \alpha (F \delta t) / S) = prob_e (M_{now} \alpha (F \delta t) / S \& E) = 1/6$$

$$pr_e^{\sim E} (M_{now} \alpha (F \delta t) / S) = prob_e (M_{now} \alpha (F \delta t) / S \& \sim E) = 1$$

$$pr_e^E (M_{now} \alpha (F \delta t) / \sim S) = prob_e (M_{now} \alpha (F \delta t) / \sim S \& E) = 0$$

$$pr_e^{\sim E} (M_{now} \alpha (F \delta t) / \sim S) = prob_e (M_{now} \alpha (F \delta t) / \sim S \& \sim E) = .625$$

$$prob_c (pr_e^E) = prob_c (E) = .6$$

$$prob_c (pr_e^{\sim E}) = prob_c (\sim E) = .4$$

Since we know that S, it is true that S; so «R_{now} α (S, δ t)»

is true iff:

$$\{ (prob_c (pr_e^E) \times pr_e^E (M_{now} \alpha (F \delta t) / S)) + (prob_c (pr_e^{\sim E}) \times pr_e^{\sim E} (M_{now} \alpha (F \delta t) / S)) \} > \{ (prob_c (pr_e^E) \times pr_e^E (M_{now} \alpha (F \delta t) / \sim S)) + (prob_c (pr_e^{\sim E}) \times pr_e^{\sim E} (M_{now} \alpha (F \delta t) / \sim S)) \}.$$

Substituting in this inequality we get

$$((.6 \times 1/6) + (.4 \times 1)) > ((.6 \times 0) + (.4 \times .625)),$$

or

$$.5 > .25.$$

which is

$$.5 > .833.$$

Since this is false, if Tom did not smoke, his not smoking would not have been a reason for him to be on the alert for heart disease. This is because if we keep our now rather dismal-looking assumptions about Tom's exercising fixed, then given that he did not smoke, the maximal goodness of his being on the alert would have been more and not less likely, if Tom had smoked.

Of course, it is possible that there should be two reasons for doing the very same thing. Suppose that we learn with certainty both that Tom smokes and that he doesn't exercise, and nothing more; and that there is no change in the probability of any proposition compatible with «S», «~S», «E», «~E», «M_{now} α (F δ t)», and «~M_{now} α F δ t». Then any «C^k» must be equivalent to a tautology, since the rules for constructing «C^k» yield no independent members. Then we may set prob_c " (pr_e^k) at 1. Furthermore we know that $\frac{1}{k} \text{prob}_c " (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F \delta t) / (S) = \frac{1}{k} \text{prob}_c " (\text{pr}_c^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F \delta t) / \sim E) = \text{prob}_c " (M_{\text{now } \alpha} (F \delta t))$; and since we know both that S and that ~E, the diagram tells us that this value equals 1. Moreover, since any C^k contains only tautological members, we know that pr_e^k (M_{now} α (F δ t) / ~S) = prob_e (M_{now} α (F δ t) / ~S) = .5, and that pr_e^k (M_{now} α (F δ t) / E) = prob_e (M_{now} α (F δ t) / E) = .125. The relevant inequalities, therefore, are for S

$$(1 \times 1) > (1 \times .5)$$

and for ~E

$$(1 \times 1) > (1 \times .125).$$

Since this is true, Tom's smoking turns out to be a reason for him to be on the alert for heart disease. This is not because his smoking all by itself increases the probability that it is maximally good for him to be on the alert. It is rather because when we learned that Tom smokes, we also became more certain that he exercises. If we keep our present assumptions about his exercising fixed, we may say then that the maximal goodness of his being on the alert would have been less likely, if Tom didn't smoke. Perhaps this way of expressing the matter will make clear the importance of counterfactual considerations and their connection with prior objective conditional probabilities in assessing the truth of statements about reasons for doing things.

Again suppose we had learned that Tom does not smoke. Would his not smoking have been a reason for him to be on the alert for heart disease? The relevant pr_e^k 's would have been the same but their probabilities on $prob_c'$, got by conditionalizing on « $\sim S$ », would have been

$$prob_c' (pr_e^E) = prob_c' (E) = prob_e (E/\sim S) = .2$$

$$prob_c' (pr_e^{\sim E}) = prob_c' (\sim E) = prob_e (\sim E/\sim S) = .8$$

The relevant inequality would have been

$$\{(prob_c' (pr_e^E) \times pr_e^E (M_{now} \alpha (F \delta t)/\sim S) + (prob_c' (pr_e^{\sim E} (M_{now} \alpha (F \delta t)/\sim S))\} > \{(prob_c' (pr_e^E) \times pr_e^E (M_{now} \alpha (F \delta t)/S)) + (prob_c' (pr_e^{\sim E}) \times pr_e^{\sim E} (M_{now} \alpha (F \delta t)/S))\}$$

or

$$((.2 \times 0) + (.8 \times .625)) > ((.2 \times .167) + (.8 \times 1)).$$

Since both of these are true we may conclude that given that Tom smokes and doesn't exercise, his smoking is a reason for him to be on the alert for heart disease, and his not exercising is a reason for him to be on the alert for heart disease. If we adapt Jeffrey's measure of relevance (2.65 above) in the obvious way to objective probabilities we get:

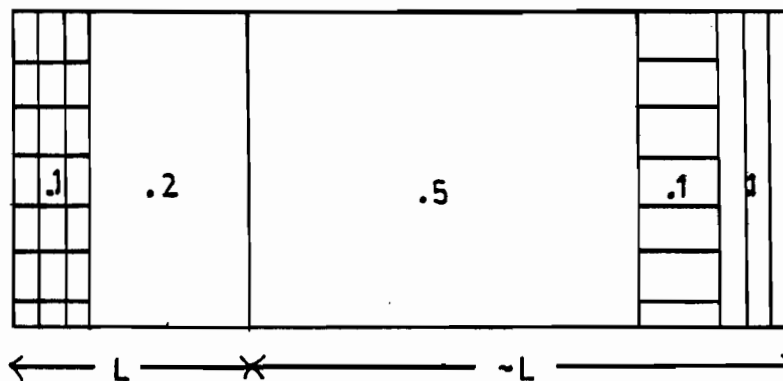
$$2.75 \text{ O rel } (M_{\text{now}} \alpha (F \phi b)/Q) = \sum_k \text{prob}_c^k (pr_e^k) \times pr_e^k \\ (M_{\text{now}} (F \quad b)/Q) - \sum_k \text{prob}_c^k (pr_e^k) \times pr_e^k (M_{\text{now}} \alpha \\ (F \phi b)/\sim Q)$$

This gives us the result that given that Tom smokes and does not exercise, his not exercising is more relevant, as a reason, to the goodness of his being on the alert for heart, than is his smoking. Part of the explanation for this emerges when we notice the prior objective probabilities according to which, if Tom exercised he probably wouldn't smoke, but if he didn't smoke, he probably still wouldn't exercise.

That there can be two reasons for a person to do one and the same thing is hardly surprising. What is perhaps considerably more surprising is that one and the same reason can be a reason for a person to do one thing, and a reason for him to do another thing, where the two things are alternatives. But on reflection, I think, there is no difficulty about this. Imagine that I am concerned about my cholesterol intake. I'm dining at a restaurant where the menu is in a foreign language. Nine main courses are offered, and I am going to order one and only one of them. My companion informs me that the seventh and ninth main

courses listed are swordfish and red snapper - fishes which I have never tasted. She also informs me that their common level of cholesterol is lower than that of any of the other offerings. Call this proposition «L». It seems that its being the case that L may be a reason for me to order the swordfish, and a reason for me to order the red snapper - though, of course, since we may take as settled that if I order the swordfish, I shall not order the red snapper, and vice versa, its being the case that L is not a reason for me to order both.

Fig. 2



Let « $\underline{d}$ » be «I order the swordfish» and « $\underline{p}$ » be «I order the red snapper». Any area in Fig. 2 containing vertical stripes is one in which « $M_{\text{now } \alpha} (F \cap d)$ » is true, and any area containing horizontal stripes is one in which « $M_{\text{now } \alpha} (F \cap p)$ » is true. The most inclusive rectangle is prob_e , and the rectangle in which «L» is true is prob_c . Again we assume that any « C^k » is equivalent to a tautology. Then we have

$$\begin{aligned}
\sum_k \text{prob}_c (pr_e^k) \times pr_e^k (M_{\text{now}} \alpha (F \sigma d)/L) &= \sum_k \text{prob}_c (pr_e^k) \\
(pr_e^k) \times pr_e^k (M_{\text{now}} \alpha (F \rho d)/L) &= 1 \times \text{prob}_e (M_{\text{now}} \alpha \\
(F \sigma d)/L) &= 1 \times \text{prob}_e (M_{\text{now}} \alpha (F \rho d)/L) = \\
\frac{.1}{.1 + .2} &= \frac{.1}{.3} = .333
\end{aligned}$$

and

$$\begin{aligned}
\sum_k \text{prob}_c (pr_e^k) \times pr_e^k (M_{\text{now}} \alpha (F \sigma d)/\sim L) &= \sum_k \text{prob}_c (pr_e^k) \\
(M_{\text{now}} \alpha (F \rho d)/\sim L) &= \text{prob}_e (M_{\text{now}} \alpha (F \sigma d)/\sim L) = \text{prob}_e (M_{\text{now}} \alpha \\
(F \rho d)/\sim L) &= \frac{.1}{.5 + .1 + .1} = \frac{.1}{.7} = .143
\end{aligned}$$

Since .333 > .143, the relevant inequalities thus turn out to be true, and so its being the case that L is a reason for me to order the swordfish and a reason for me to order the red snapper; and it is no more relevant a reason for my doing the one than it is for my doing the other. The trick in Fig. 2, of course, is that the rectangle in which both horizontal and vertical stripes appear, represents those cases in which both « $M_{\text{now}} \alpha (F \sigma d)$ » and « $M_{\text{now}} \alpha (F \rho d)$ » are true. For these sentences are not logically incompatible: every history on which both are true is one on which σ -ing and ρ -ing are each at least as good as doing anything else. If it is true of each that doing it is at least as good as doing anything else, then σ -ing is at least as good as ρ -ing and ρ -ing is at least as good as σ -ing. so that σ -ing and ρ -ing are equally good. Thus Fig. 2 represents a probability distribution according to which if I learn that L, I learn that σ -ing is as good as ρ -ing. This does not seem to be a logical impossibility.

Its coherence is certainly not impugned by the fact that if I σ , then I don't ρ , and vice versa. The fact that in Fig. 2 $\langle M_{\text{now } \alpha} (F \sigma d) \rangle$ and $\langle M_{\text{now } \alpha} (F \rho d) \rangle$ are true on all the same histories takes the sting out of the claim that something may be a reason for a person to do one thing and a reason for him to do another thing, where doing the one is an alternative to doing the other. If Fig. 2 represented all the information relevant to my choice of a main course, and I were to realize one of the two alternatives favoured by its being the case that L, I should have no need to fear that, given that L, I was thus condemning myself to live out a worse history than I might have lived out, had I realized the other alternative. Although its being the case that L is a reason for me to do each of two different things, still, its being the case that L does not point me in two different directions: in the example as presented, if I am to act on the basis that L alone as the only relevant factor, I am not forced to gamble in choosing between σ -ing and ρ -ing.

I shall say that

2.76 A set S of true propositions gives rise to a conflict for b with respect to α at t_i iff

at t_i ,

for some ϕ_1, ϕ_2 such that $L(F \phi_1 b \supset \sim F \phi_2 b)$

and some $Q_1, Q_2 \in S$

(i) $R_{\text{now } \alpha} (Q_1, \phi_1 b)$ and $R_{\text{now } \alpha} (Q_2, \phi_2 b)$; and

(ii) $\sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F \phi_1 b)) \neq \sum_k \text{prob}_c$

$(\text{pr}_e^k) \times \text{pr}_e^k ((M_{\text{now } \alpha} (F \phi_1 b) \& M_{\text{now } \alpha} (F \phi_2 b))/Q_1)$,

and

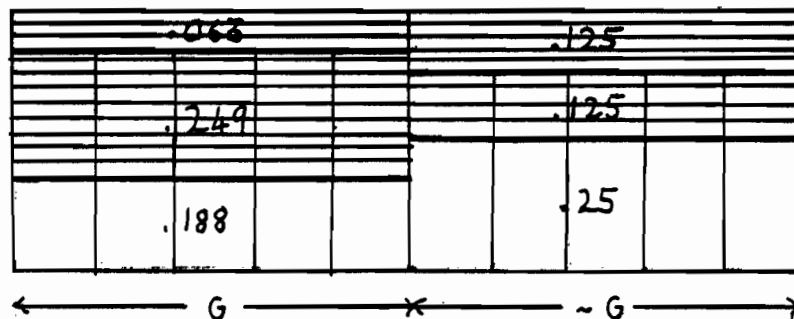
$$\begin{aligned}
 \text{(iii)} \quad & \sum_k \text{prob}_c(\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now}} \alpha (F \phi_2 b)/Q_2) \neq \\
 & \sum_k \text{prob}_c(\text{pr}_e^k) \times \text{pr}_e^k ((M_{\text{now}} \alpha (F \phi_1 b) \& M_{\text{now}} \alpha \\
 & (F \phi_2 b))/Q_2
 \end{aligned}$$

Satisfaction of 2.76 (ii) and (iii) guarantees that according to current probability distribution prob_c, there are histories in which ϕ_1 -ing is better than ϕ_2 -ing, and there are histories in which ϕ_2 -ing is better than ϕ_1 -ing. Then, if b does what either the proposition that Q_1 or the proposition that Q_2 gives him reason to do, he inevitably runs the risk of condemning himself to live out a worse history than he might have done, had he acted differently.

Now the question arises whether a set with only a single proposition as a member may give rise to the sort of conflict defined in 2.76. It seems to me that this is possible. Consider Aeneas deciding at the end of Aeneid XII whether to kill Turnus or to let him live, and imagine that it is true that a man's being killed in war cannot but be a cause of grief to his father. Call this proposition «G». Suppose that Aeneas had never been certain that G, until the immediacy of Turnus' pleading with Aeneas for his life, had forced Aeneas to become aware that G must indeed be true. («But if/There is a thought of a dear parent's grief/That now can touch you . . .»). Previously, we may frivously imagine, Aeneas had entertained the possibility that a father might react with unmixed pride to his son's having been killed honourably in a just war.) Now its being the case

that G may be a reason for Aeneas to let Turnus live, for in killing Turnus Aeneas could not but cause grief to Turnus' aged and venerable parent, Daunus. But it may also be a reason for Aeneas to kill Turnus, for Turnus has killed Pallas, the son of Evander, an aged king to whom Aeneas is particularly bound. The situation is represented in Fig. 3.

Fig. 3



The most inclusive rectangle represents prob_e , and the rectangle in which «G» is true represents prob_c . Let «K n» be «Aeneas kills Turnus» and «T n» be «Aeneas lets Turnus live»; then the areas marked with vertical stripes are those in which « $M_{\text{now } \alpha}$ (F k n)» is true, and the areas marked with horizontal stripes are those in which « $M_{\text{now } \alpha}$ (F T n)» is true; and in the cross-hatched areas, both are true. We assume that α includes only K-ing and T-ing as alternatives. For any pair of alternatives it must be that neither one is better than the other, or both are equally good; hence the whole rectangle in this case is striped

since the disjunction $\langle M_{\text{now } \alpha} (F \kappa n) \vee M_{\text{now } \alpha} (F \tau n) \rangle$ must be true. Once more we assume that $\langle C^k \rangle$ is equivalent to a tautology. To see that its being the case that G is a reason for n to κ , we consider the numerical inequality:

$$\frac{.249 + .188}{.5} > \frac{.25 + 1.25}{.5},$$

or, equivalently,

$$.874 > .75$$

which is obviously true. To see that its being the case that G is a reason for n to τ , we consider the numerical inequality

$$\frac{.063 + .249}{.5} > \frac{.125 + .125}{.5},$$

or, equivalently,

$$.624 > .5,$$

which is also obviously true. Hence 2.71 (i), the first condition in the definition of a conflict, is satisfied. For 2.72 (ii) we have

$$\begin{aligned} \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F \kappa n)/G) &= \\ 1 \times \text{prob}_e (M_{\text{now } \alpha} (F \kappa n)/G) &= \\ \text{prob}_c (M_{\text{now } \alpha} (F \kappa n)) &= \frac{.249 + .188}{.5} = \frac{.437}{.5} = .874 \neq \\ .498 &= \frac{.249}{.5} = \text{prob}_c ((M_{\text{now } \alpha} (F \kappa n) \& M_{\text{now } \alpha} (F \tau n))) = \\ 1 \times \text{prob}_e (((M_{\text{now } \alpha} (F \kappa n) \& M_{\text{now } \alpha} (F \tau n))/G) &= \\ \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (((M_{\text{now } \alpha} (F \kappa n) \& M_{\text{now } \alpha} & \\ (F \tau n))/G). \end{aligned}$$

Similarly for 2.72 (iii) we have

$$\begin{aligned}
& \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now}} \alpha (F \tau n)/G) = \\
& 1 \times \text{prob}_e (M_{\text{now}} \alpha (F \tau n)/G) = \\
& \text{prob}_c (M_{\text{now}} \alpha (F \tau n)/G) = \\
& \text{prob}_c M_{\text{now}} \alpha (F \tau n) = \frac{.063 + .249}{.5} = \frac{.312}{.5} = .624 \neq \\
& .498 = \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k ((M_{\text{now}} \alpha (F \kappa n) \& M_{\text{now}} \alpha \\
& (F \tau n))/G).
\end{aligned}$$

So the proposition that G does give rise to a conflict in the sense of 2.76. Admittedly it does so, only by expanding the likelihood that for Aeneas, killing Turnus and letting him live are equally good alternatives. However, it still leaves him in a situation where it is more likely that one alternative is better than another, than it is that both alternatives are equally good. (In the left-hand half of Fig. 2, the areas containing one kind of stripe only exceed in size the area containing both kinds.) So the proposition that G does point Aeneas in opposing directions. Nor can Aeneas appeal to relevance to help him decide what to do. For making the appropriate substitutions in 2.75, we get

$$\text{orel } (M_{\text{now}} \alpha (F \kappa n)/G) = .874 - .75 = .124$$

and

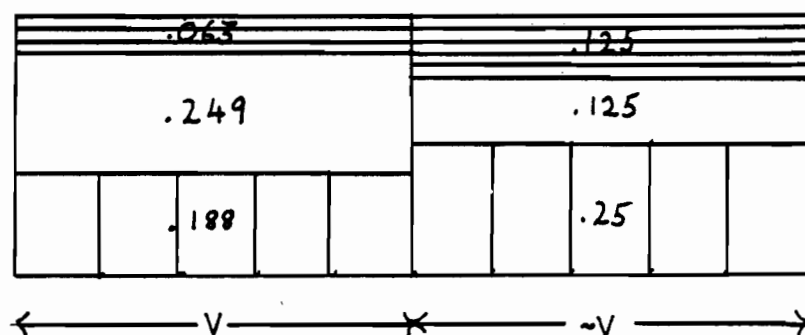
$$\text{orel } (M_{\text{now}} \alpha (F \tau n)/G) = .624 - .5 = .124$$

Thus the proposition that G is equally positively relevant to both the goodness of Aeneas' killing Turnus, and the goodness of Aeneas' letting him live.

- At this point someone may object that these peculiar results are all the effect of the logical compatibility of $\langle M_{\text{now } \alpha} (F \kappa n) \rangle$ and $\langle M_{\text{now } \alpha} (F \tau n) \rangle$. This is not so. The same problem might arise if reasons were defined using the operator $\langle O_{\text{now } \alpha} \rangle$ in place of the operator $\langle M_{\text{now } \alpha} \rangle$. $\langle O_{\text{now } \alpha} \rangle$ is to be read as 'given α , it is uniquely maximally good that' ^{32a}, and if ϕ_1 -ing and ϕ_2 -ing are alternatives in α , the truth of $\langle O_{\text{now } \alpha} (F \phi_1 b) \rangle$ is de facto incompatible with $\langle O_{\text{now } \alpha} (F \phi_2 b) \rangle$. Now given a set α open to b at t_i in which ϕ_1 -ing and ϕ_2 -ing are the only members, the disjunction $\langle F \phi_1 b \vee F \phi_2 b \rangle$ must be true on every history in α . But it need not be the case that $\langle O_{\text{now } \alpha} (F \phi_1 b) \vee O_{\text{now } \alpha} (F \phi_2 b) \rangle$ is true on that history in α which is the actual history, for there may be histories $Gt_i, G't_i$ in α in every non-empty sphere S in the system $\$$ associated with α at t_i , such that on Gt_i $\langle F \phi_1 b \rangle$ is true at t_i , and on $G't_i$, $\langle F \phi_2 b \rangle$ is true at t_i , so that for neither sentence will there be a sphere containing histories on all of which that sentence is true and hence neither alternative will be uniquely maximally good. Now consider Aeneas again, and imagine that it is true that given Aeneas' alternatives of killing Turnus and letting him live, Aeneas' mother approves of one and disapproves of the other, though it is not known which alternative is the object of which attitude. Call this proposition $\langle V \rangle$. Suppose also that Aeneas always strives to do what his mother approves of his doing. Now it's being the case that V may decrease the likelihood of κ -ing and τ -ing being equally good things for Aeneas to do. In the absence of other information, however,

the-proposition-that-V may favour neither κ -ing nor τ -ing in particular, so that if the proposition-that-V is positively relevant to the prior objective probability that $O_{\text{now } \alpha} (F \kappa n)$, it may be equally positively relevant to the prior objective probability that $O_{\text{now } \alpha} (F \tau n)$. Thus we might have a kind of mirror image of Fig. 3:

Fig. 4



The most inclusive rectangle is prob_e , and the rectangle in which «V» is true is prob_c . Horizontal and vertical stripes are as before. The situation represented in Fig. 4 is one in which it is being the case that V diminishes the likelihood that both alternatives are equally good, and for each of them equally, it increases the likelihood that it is better than the other. If anything, the conflict here is clearer than that associated with Fig. 3. Of course, the set consisting of V does not give rise to the sort of conflict defined in 2.76. But now let « $R_{\text{now } \alpha}^0$ » be explained in the same way as « $R_{\text{now } \alpha}$ » is in 2.72, except that occurrences of « $M_{\text{now } \alpha}$ » in 2.72 are to be replaced by occurrences

of $\langle O_{\text{now } \alpha} \rangle$. Then in order to define a new sort of conflict replace $\langle R_{\text{now } \alpha} \rangle$ in 2.76 (i); and simply drop 2.76 (ii) and 2.76 (iii). Fig. 4 shows that a set consisting of a single true proposition may give rise to the newly defined sort of conflict for b with respect to α at t_i . And so the particular awkwardness at hand will not be avoided if we define the notion of a reason for doing something in terms of $\langle O_{\text{now } \alpha} \rangle$ instead of $\langle M_{\text{now } \alpha} \rangle$. As a result, I am inclined to stick with 2.72, despite the peculiarities of Aeneas' entanglements with parental grief's being a reason for him to do each of two incompatible things. Moreover, as the reader may easily assure himself, for a set α containing more than the two alternatives ϕ_1 -ing, ϕ_2 -ing, for a single Q , it may be that $R_{\text{now } \alpha}(Q, \phi_1 b)$ and $R_{\text{now } \alpha}(Q, \phi_2 b)$, and its being the case that Q is positively relevant both to the hypothesis that ϕ_1 -ing is better than ϕ_2 -ing, and to the hypothesis that ϕ_2 -ing is better than ϕ_1 -ing. Thus, consider a case where the alternatives open to Aeneas are (a) killing Turnus without consultation, (b) unilaterally decreeing that Turnus be allowed to live; and (c) forming a committee to determine Turnus' fate; and suppose it is discovered just that Venus, disdaining committees, prefers that Aeneas choose one in particular out of (a) and (b) rather than the other, and it remains unknown which of these she prefers him specifically to choose. The resulting conflict is exactly like the one defined in terms of $\langle R^0_{\text{now } \alpha} \rangle$.

When we learn that a man's being killed in war is necessarily a cause of grief for his father, we learn of something that is a reason for Aeneas to kill Turnus and a reason for him to let Turnus

live. As we have imagined it, the reason is equally relevant to both of Aeneas' alternatives, in a technical sense of relevance. It does not follow that if, in reflecting on his options, Aeneas is faced with the bare fact of inevitable parental grief as in Fig. 3, he can have no ground for making a decision. For Fig. 3 plainly shows that the prior objective probability of the goodness of killing Turnus, conditional on the inevitability of parental grief is greater than the prior objective probability of the goodness of sparing him, conditional on the same certainty. It seems quite natural to say, then, that the inevitability of parental grief is, for Aeneas, a weightier reason for killing than for sparing. Somewhat precipitately I propose the following:

2.77 Given Q_1, Q_2 in S (where possibly $Q_1 = Q_2$); and

given ϕ_1, ϕ_2 , such that $R_{\text{now } \alpha} (Q_1, \phi_1 b)$ and

$R_{\text{now } \alpha} (Q_2, \phi_2 b)$:

with respect to α , Q_1 as a reason for b to ϕ_1

outweighs Q_2 as a reason for b to ϕ_2 iff

$$\sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F \phi_1 b) / Q_1 \& Q_2) > \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F \phi_2 b) / Q_1 \& Q_2).$$

By the probability calculus and the construction of the pr_e^k 's, the inequality on the right-hand side of 2.77 is satisfied iff $\text{prob}_c (M_{\text{now } \alpha} (F \phi_1 b)) > \text{prob}_c (M_{\text{now } \alpha} (F \phi_2 b))$. That is, when in a case of conflicting reasons for ϕ_1 -ing and ϕ_2 -ing, the reason for ϕ_1 -ing outweighs the reason for ϕ_2 -ing. ϕ_1 -ing must currently be more probably maximally good than ϕ_2 -ing is. This may appear to

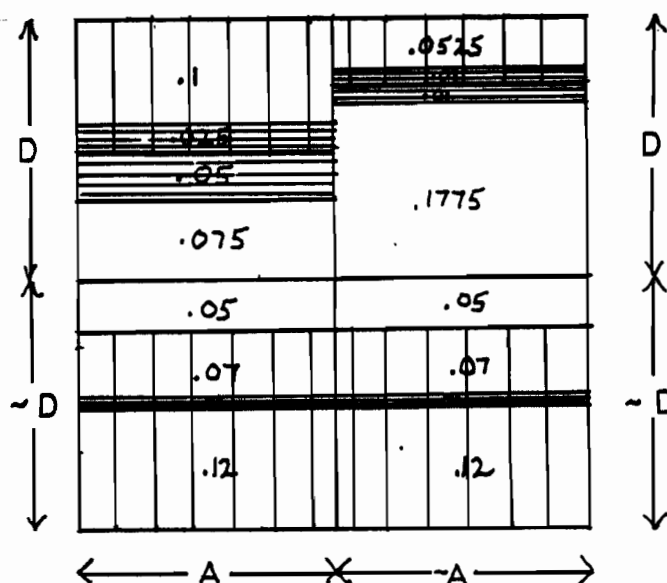
make the definition of outweighing trivial; but it seems to me that the alternatives here are either triviality or falsehood, and of these I prefer the former. Now, for «outweighing» not relative to a particular set α of alternatives, we have only to quantify over all maximal sets α_i in the usual way. A measure of relative weight with respect to particular α can be derived from 2.77 by replacing the «>» in the probability formula by a minus sign. As we have just seen, there may be a positive difference in the relative weight of reasons when they are equal in relevance. When the strength of reasons is discussed, one may suspect that sometimes the concern is with relative weight, sometimes with relevance.

We can see how at least some of this works if we look at a more standard case of conflict, where the set of true propositions out of which the conflict arises contains two distinct reasons:

Fifteen minutes ago I had two sealed envelopes before me, and a fair coin. One envelope contained my written promise to my brother Alan to repay within the next week a long-standing debt which I owe him and about which I have recently been brooding. - Let « ρd » be «Within the next week I repay Alan the money he lent me long ago». - The other envelope contained my written promise to my friend Davidson to go halves with him on a windsurfer that he wants to buy this week. - Let « βd » be «I help Davidson to buy a windsurfer this week». ρ -ing and β -ing are alternatives for me, but not my only alternatives. In a capricious frame of mind I resolved to determine for each envelope,

whether I should mail it, by tossing my fair coin. This I have now done for each envelope, with the result that it is settled I will mail both my promise to Alan and my promise to Davidson. Assume that I know that it is guaranteed that once I have mailed the promises to them, each will receive the appropriate promise in time to accept it, and that each will accept the promise. Let «A» be «Alan will receive and accept my promise» and «D» be «Davidson will receive and accept my promise». The probability distribution is as in Fig. 5:

Fig. 5



The most inclusive square represents prob_e , when the results of my coin-tosses are unknown; and the upper left-hand quadrant represents prob_c , according to which it is known that A (Alan will receive and accept my promise) and that D (Davidson will receive and accept my promise.) The vertically striped areas are those in which « $M_{\text{now}} \alpha (F \cap d)$ » is true (paying Alan is good), and the horizontally striped

areas are those in which « $M_{\text{now } \alpha} (F \beta d)$ » is true (buying a wind-surfer is good). The areas containing both vertical and horizontal stripes are those in which each of the alternatives is equally good; and those containing only one kind of stripe are the ones in which one alternative is better than the other.

Fig. 5 shows a situation where its-being-the-case-that-Alan-will-receive-and-accept-my-promise is a reason for me to pay him back within the next week; and where its-being-the-case-that-Davidson-will-receive-and-accept-my-promise is a reason for me to go halves with him on a windsurfer this week. For the first, $R_{\text{now } \alpha} (A, \rho d)$, we take pr_e^D to be the unique correct prior objective probability distribution pr_e^k , with value 1 according to prob_c . Since

$$\begin{aligned} 1 \times \text{pr}_e^D (M_{\text{now } \alpha} (F \rho d)/A) &= \text{prob}_e (M_{\text{now } \alpha} (F \rho d)/ \\ A \& D) &= \frac{.1 + .025}{.25} = \frac{.125}{.25} = .5 > .25 = \frac{.625}{.25} \\ &= \frac{.0525 + .01}{.25} = \text{prob}_e (M_{\text{now } \alpha} (F \rho d)/\sim A \& D) = \\ 1 \times \text{pr}_e^D (M_{\text{now } \alpha} (F \rho d)/A), \end{aligned}$$

it is true that $R_{\text{now } \alpha} (A, \rho d)$.

For $R_{\text{now } \alpha} (D, \beta d)$, we take the unique pr_e^k to be pr_e^A with $\text{prob}_c (\text{pr}_e^A) = 1$. Since

$$\begin{aligned} \text{pr}_e^A (M_{\text{now } \alpha} (F \beta d)/D) &= \text{prob}_e (M_{\text{now } \alpha} (F \beta d)/D \& A) = \\ \frac{.025 + .05}{.25} &= \frac{.075}{.25} = .3 > .04 = \frac{.01}{.25} = \text{prob}_e (M_{\text{now } \alpha} \\ (F \beta d)/\sim D \& A) &= \text{pr}_e^A (M_{\text{now } \alpha} (F \beta d)/\sim D), \end{aligned}$$

it is true that $R_{\text{now}} \propto (D, \beta d)$.

Oddly enough, if it weren't the case that I was going to mail my promise to Davidson, my promise to Alan wouldn't be a reason for me to repay him. - But don't forget that I have been brooding on my debt anyway. That my promise to Alan does in fact come into play is explained by the fact that it does something to counter my promise to Davidson: if I were to have promised Davidson in the absence of a promise to Alan, then the probable goodness of my repaying Alan would have been even more diminished than it currently is, my prior brooding notwithstanding. That is why, in the circumstances, my promise to Alan is relevant.

Even more peculiarly perhaps, my promise to Alan also provides me with a reason to do what I promised Davidson - as the reader may verify by comparing the sizes of the horizontally striped areas in the two upper quadrants of the whole square in Fig. 5. An explanation of this might be that my keeping my promise to Davidson in the face of my promise to Alan would be a more impressive exhibition of my friendship for Davidson, than it would be if no promise to Alan had been made; and my priorities might well include impressing Davidson with the depth of my friendship.

Because in the upper left-hand quadrant the area in which there is only one kind of stripe is greater than the area that includes both kinds of stripe, it is more likely that one of repaying or buying is better than the other, than it is that repaying and buying are equally good.

From all of this it follows according to 2.76 that the set $\{A, D\}$ gives rise to a conflict in connection with my repaying or my buying, and that the set $\{A\}$ also gives rise to such a conflict. The conflicts are resolved, however, by the application of 2.72, which tells us that (i) its being the case that A, as a reason for me to ρ , outweighs its being the case that D, as a reason for me to β , since $\text{prob}_c (M_{\text{now } \alpha} (F \phi d)) > \text{prob}_c (M_{\text{now } \underline{\alpha}} (F \underline{\phi} d))$; and (ii) on the same ground, its being the case that A as a reason for me to B, outweighs its being the case that A, as a reason for me to $\underline{\beta}$. Perhaps it is also worth noting the following:

$$O \text{ rel } (M_{\text{now } \underline{\alpha}} (F \underline{\rho} d)/A) = \frac{.1 + .025}{.25} - \frac{.0525 + .01}{.25} = .5 - .25 = .25$$

$$O \text{ rel } (M_{\text{now } \underline{\alpha}} (F \underline{\beta} d)/A) = \frac{.025}{.25} - \frac{.055 + .055}{.25} = .3 - .04 = .26$$

$$O \text{ rel } (M_{\text{now } \underline{\alpha}} (F \underline{\beta} d)/D) = \frac{.025 + .05}{.25} - \frac{.005 + .005}{.25} = .3 - .04 = .26$$

That is, although A outweighs D relative to ρ and β respectively, nonetheless A and D are both more relevant to the goodness of my β -ing than A is to the goodness of my ρ -ing. This, we may infer, is the significance of my prior brooding.

When Q_1 and Q_2 are distinct propositions and conflict in the sense of 2.76, and Q_1 outweighs Q_2 in the sense of 2.77, we may say that Q_1 overrides Q_2 . Interestingly enough, Raz provides a different account of overriding.³³ Adapted to our terminology,

according to Raz when Q_1 and Q_2 are distinct conflicting reasons, for ϕ_1 -ing and ϕ_2 -ing, respectively, Q_1 overrides Q_2 iff it is true that $R_{\text{now } \alpha} (Q_1 \& Q_2, \phi_1 \text{ b}) \& \sim R_{\text{now } \alpha} (Q_1 \& Q_2, \phi_2 \text{ b})$.

Let us apply this to the situation depicted in Fig. 5. To see whether $R_{\text{now } \alpha} (A \& D, \rho \text{ d})$, we must let pr_e^k be equivalent to a tautology and look at

$$\begin{aligned} 1 \times \text{pr}_e^- (M_{\text{now } \alpha} (F \rho \text{ d}) / A \& D) &= \text{prob}_e (M_{\text{now } \alpha} (F \rho \text{ d}) / A \& D) = \\ \frac{.1 + .025}{.25} &= \frac{.125}{.25} = .5 > .616 = \frac{.2 + .2 + .0625}{.75} = \\ \text{prob}_e (M_{\text{now } \alpha} (F \rho \text{ d}) / \sim(A \& D)) &= 1 \times \text{pr}_e^- (M_{\text{now } \alpha} (F \rho \text{ d}) / \\ \sim(A \& D)). \end{aligned}$$

Because this is false, it is not true that $R_{\text{now } \alpha} (A \& D, \rho \text{ d})$, so that A cannot override D. Now let us look at $R_{\text{now } \alpha} (A \& D, \beta \text{ d})$ and the inequality

$$\begin{aligned} 1 \times \text{pr}_e^- (M_{\text{now } \alpha} (F \beta \text{ d}) / A \& D) &= \text{prob}_e (M_{\text{now } \alpha} (F \beta \text{ d}) / A \& D) = \\ \frac{.025 + .05}{.25} &= .3 > .053 = \frac{.01 + .01 + .01 + .01}{.75} = \text{prob}_e \\ (M_{\text{now } \alpha} (F \beta \text{ d}) / \sim(A \& D)) \end{aligned}$$

Since this is true it turns out that on Raz's account of overriding, I have to conclude that Davidson's accepting my promise, as a reason for me to go halves on a windsurfer, overrides Alan's accepting my promise, as a reason for me to repay my debt - and this despite the fact that, even at the outset, before I toss the coin, I am aware that, no matter what the outcome, it is probably better for me to repay Alan than to go halves on the

windsurfer. I find this result unacceptable.

Of course the unacceptable result does not show that Raz's account of overriding is wrong: it may only show that taken in conjunction with the faulty explanation of the notion of a reason for doing something given by me in 2.72, the account yields counter-intuitive consequences. But it is difficult to say whether Raz's account yields counter-intuitive consequences when taken independently of the present explanation of the notion of a reason for doing something. Certainly, Raz does not tell us that whenever Q_1 , as a reason for b to ϕ_1 overrides Q_2 as a reason for b to ϕ_2 , it is probably better for b to ϕ_1 than to ϕ_2 . And it is not at all obvious that we can deduce this proposition from anything that he does tell us. Because I think the proposition is correct and because it follows from 2.72, 2.76 and 2.77, I am inclined to prefer my account of overriding to his. This may only show, however, that I have constructed my account to satisfy my prejudices.

One point, perhaps, is worth making in this connection. Recall the intuitive test which I suggested might be used to interpret the probabilistic inequalities associated with propositions about reasons. For any such inequality the value of the right-hand term in 2.72 (ii) is to be estimated by considering the assertability of a counterfactual conditional whose antecedent is the negation of the proposition proposed as a reason. In the case of reasons which are expressed as conjunctions, the test may diverge from the results of the probability calculations strictly

applied. This is because the negation of the conjunction is a disjunction, and it has been pointed out - by Adams and Ellis, amongst others,³⁴ - that the assertability of a conditional sentence S , whether counterfactual or not, having a disjunctive antecedent, always goes by the least assertable conditional in the set of conditionals whose consequents are the same as S 's, and whose antecedents are single members of the disjunctive antecedent of S . But the corresponding relation does not hold between a conditional probability p whose antecedent is a disjunction, and the set of conditional probabilities whose consequent is the same as p 's and whose antecedents are the various disjuncts of the antecedent of p . Now it might be thought that the counter-intuitive results of applying Raz's account of overriding to the situation depicted in Fig. 5 are no more than the effect of this unfortunate divergence of probability theory from the natural habits of thought evinced in our judgements about the assertability of conditionals with disjunctive antecedents. It is not hard to test this hypothesis, given our assumption that non-disjunctive antecedents do not create divergences. In place of the two inequalities we just considered we consider two others, with the same left-hand terms, but whose right-hand terms are respectively (a) the minimum of $1 \times \text{pr}_e^-(M_{\text{now } \alpha} (F \rho d)/\sim D)$ and $1 \times \text{pr}_e^-(M_{\text{now } \alpha} (F \rho d)/\sim A)$, and (b) the minimum of $1 \times \text{pr}_e^-(M_{\text{now } \alpha} (F \beta d)/\sim D)$ and $1 \times \text{pr}_e^-(M_{\text{now } \alpha} (F \beta d)/\sim A)$. The first of these minima is .525, the second is .04. Then the new inequalities are $.5 > .525$ and $.3 > .04$, so that once again it

turns out false that $R_{\text{now}} \propto (A \& D / \rho d)$ and true that $R_{\text{now}} \propto (A \& D / \beta d)$, and again on Raz's account I have an overriding reason to go halves with Davidson on a wind-surfer. The reliance placed on conditional probabilities in 2.72 may be misguided because of the divergences that Adams, Ellis, and others have pointed out, but this does not appear to be relevant to Raz's problem.

Raz points out, correctly I believe, that in cases of conflict between reasons Q_1 and Q_2 , it may be that neither does Q_1 override Q_2 nor Q_2 , Q_1 . It is obvious that this is a logical possibility according to the account of one reason's outweighing another given in 2.77: all that is required is a certain equality between probabilities. In such cases, reasons may not suffice to resolve the conflicts they create.

I want to close this long chapter on reasons by making a point about what may be called the logic of propositions about reasons. Consider again Aeneas who learns that a son's death in war cannot fail to hurt a father. Aeneas, we said had only two alternatives - to kill Turnus, or to let him live. In Fig. 3 we supposed, in effect, that this was known with certainty: if these are the only alternatives, then it is necessarily the case that $M_{\text{now}} \propto (F \wedge n) \vee M_{\text{now}} \propto (F \wedge \neg n)$; and indeed in Fig. 3 this disjunction has probability 1 on both prob_e and prob_c . Now note that the proposition that $\wedge n$ entails the proposition that $\wedge n \vee \neg \wedge n$. That is, it is necessarily true that if Aeneas kills Turnus, then Aeneas kills Turnus or Aeneas lets Turnus live. Given

the ordinary axiom for lambda abstraction the proposition that $\kappa n \vee \tau n$ entails the proposition that $\llbracket \lambda x (\kappa x \vee \tau x) \rrbracket n$. That is, it is necessarily true that if Aeneas kills Turnus or Aeneas lets him live, then Aeneas kills Turnus or lets Turnus live. Since entailment is transitive and the future tense operator is closed under entailment it is a theorem that $F \kappa n \supset F \llbracket \lambda x (\kappa x \vee \tau x) \rrbracket n$. If Aeneas will kill Turnus, then Aeneas will kill Turnus or let Turnus live. Because this is a theorem, it is settled that it is true and so we have it that $L(F \kappa n \supset F \llbracket \lambda x (\kappa x \vee \tau x) \rrbracket n)$. Given that killing Turnus and letting him live are alternatives for Aeneas, Aeneas' killing Turnus should it occur would be an act of his, and Aeneas' letting Turnus live-would be an act of his. But in such cases, Aeneas' killing Turnus or letting Turnus live, should it occur, would be an act of his, identified with the fusion of the events of his killing Turnus or his letting him live (see page 80, Section IV of this Chapter). Now, however, by the definition of $\langle M_{\text{now } \alpha}^* \rangle$ in 2.54 which is our $\langle M_{\text{now } \alpha} \rangle$, and by what we have just seen, the following is a theorem:

$$2.78 \quad M_{\text{now } \alpha} (F \kappa n) \supset M_{\text{now } \alpha} (F \llbracket \lambda x (\kappa x \vee \tau x) \rrbracket n).$$

Similarly the following is a theorem:

$$2.79 \quad M_{\text{now } \alpha} (F \tau n) \supset M_{\text{now } \alpha} (F \llbracket \lambda x (\kappa x \vee \tau x) \rrbracket n).$$

But since the disjunction of the antecedents of 2.78 and 2.79 is true on every history admitted by the probability distributions

depicted in Fig. 3, then the probability that $M_{\text{now } \alpha} (F[\lambda \times (\kappa \times \vee \tau \times)]n)$ is 1, on both prob_c and prob_e . It follows that the following inequality must be false:

$$\begin{aligned} \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F[\lambda \times (\kappa \times \vee \tau \times)]n/G) &= \\ 1 \times \text{prob}_e (M_{\text{now } \alpha} (F[\lambda \times (\kappa \times \vee \tau \times)]n/G) = 1 &> \\ 1 = 1 \times \text{prob}_e (M_{\text{now } \alpha} (F[\lambda \times (\kappa \times \vee \tau \times)]n/\sim G) = & \\ \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \alpha} (F[\lambda \times (\kappa \times \vee \tau \times)]n/\sim G). & \end{aligned}$$

Of course this inequality is false. Then $\llbracket R_{\text{now } \alpha} (G, [\lambda \times (\kappa \times \vee \tau \times)]n) \rrbracket$ is false. Yet we know that $\llbracket R_{\text{now } \alpha} (G, \kappa n) \rrbracket$ is true. It follows that the following is not a truth-preserving rule of inference

$$\frac{2.80 \quad \phi_1 b \supset \phi_2 b}{R_{\text{now } \alpha} (Q, \phi_1 b \supset R_{\text{now } \alpha} (Q, \phi_2 b))}$$

That is, from the fact that necessarily if $b \phi_1$ -s then $b \phi_2$ -s, and the fact that its being the case that Q is a reason for b to ϕ_1 , it does not follow that its being the case that Q is a reason for b to ϕ_2 . In the present example this seems to correspond with our intuitive judgements. We have assumed that it is inevitable that Aeneas will either kill Turnus or let him live. If these are his only alternatives then it is trivially true that given his alternatives, it is maximally good that he either kill him or let him live. But equally, given that his only alternatives are either to kill Turnus or to let him live, the following conditional seems trivially assertable,

2.81 If it were not the case that a man's death in battle could not but be a cause of grief to his father, it would have been maximally good for Aeneas, given his priorities and his alternatives, either to kill Turnus or to let him live.

Thus, in the circumstances the fact that a man's death in battle must cause grief to his favour does not intuitively seem to be positively relevant to the hypothesis that it is maximally good for Aeneas either to kill-Turnus-or-let-him-live, and so it would appear to be false that it is a reason for Aeneas either-to-kill-Turnus-or-let-him-live; despite the fact that it is a reason for him to kill Turnus.

Now, if we think of taking first the expression « $R_{\text{now } \alpha}$ » and then sentences Q_1, Q_2, Q_3 , designating propositions to form a class of sentential operators of the type « $R_{\text{now } \alpha} (Q_i, \dots)$ » where the space to the right of the comma is filled by another sentence, what this shows is that the class of operators so formed does not obey a rule of modal consequence. These operators are not closed under deducibility or entailment. Since even the operators of what Chellas quite naturally calls minimal deontic logics are closed under entailment, and obey a rule of modal consequence,³⁵ it follows that the logic of the reason-operators is not any kind of deontic logic. Now the purpose of this very long chapter has been to clarify, or better, give a precise approximation of just what sort of thing is being claimed when someone claims that such-and-such is an internal or motivating reason for so-and-so to

do such-and-such. The idea was that with such a clarification in hand, we could proceed to use the notion of a reason for someone to do something to give an account of simple «oughts». This last result suggests that the logic of simple «oughts» may turn out not to be any kind of deontic logic either. In fact, this suggestion will be borne out by the next chapter - but it will take some time to show this.

CHAPTER III

Oughts: Simple and SpecialI. Simple.

Our quarry, of course, is the special «ought» and in particular the legal «ought»; but first we must bag the simple «ought» - that is, the «ought» with no markings, either overt or covert, which signify a concern that is legal, moral, medical, aesthetic, architectural, gastronomic, athletic, etc.

In trying to explain what it means to say of a person that he or she simply ought to do some particular thing or other, one natural approach starts out by appealing to the notion of a reason for doing something. The major drawback of this approach is that, pre-theoretically at least, the idea of a reason for doing something is scarcely any clearer than the meaning of the word «ought» itself. I have suggested, however, that a relatively precise account can be given for sentences about internal reasons for doing things. In rough form, its being the case that Q is a reason for a person b to ϕ (where « ϕ » is a verb-phrase expressing a predicate which is true of b just in case b 's ϕ -ing is an act of b 's) iff it is true that Q and the proposition that Q is

positively relevant to the prior objective probability that ϕ -ing is at least as good a thing for b to do, given b 's own priorities, as anything else that is open to b to do. Although in actual practice it may be very difficult to tell in individual cases whether these conditions are satisfied, this suggestion has at least the merit of indicating some natural limitations on what may count as a reason for doing something. This somewhat mitigates the charge that an account of «ought» in terms of reasons can only be amorphous or vague; and in consequence it may repay our effort if we try to see how such an explanation might work.

Accounts of «ought» in terms of reasons have been adumbrated previously by Baier and Harman, but the simplest, clearest and most sustained effort to explicate «ought» using the idea of reasons has been that of Raz.¹ According to Raz, to say that a person b ought to ϕ is just to say that there is a reason for b to ϕ .² On the assumption that we can accept some form of propositional quantification, and that we understand sentences of the form « $R_{\text{now } \alpha} (Q, \phi b)$ » in the way that I have suggested, Raz's proposal has a fairly definite content. Writing « $\Theta_{\text{now } \alpha} (F \phi b)$ » for «Given b 's priorities and the alternatives in α , b ought to ϕ », we get:

$$3.1 \quad \Theta_{\text{now } \alpha} (F \phi b) \text{ iff } (\exists Q) (R_{\text{now } \alpha} (Q, \phi b)).$$

The subscripted «now» serves merely as a reminder that we are interested in present tense sentences only. (I take it that in sentences of the form « b ought to have ϕ -ed», the auxiliary «have» in the infinitive performs the unusual function of marking the main

verb «ought» as past-tense). To get a notion of ought which is not relativized to particular sets of alternatives, we may accept:

$$3.2 \quad \Theta_{\text{now}} (F \phi b) \text{ iff, for all maximal sets } \alpha_i \\ \Theta_{\text{now } \alpha_i} (F \phi b).$$

As Raz claims, the proposal embodied in 3.1 has the attractive feature that it allows for «conflicts of oughts».³ That is, as we shall see, sentences of the form of 3.3, with particular α fixed turn out not to be necessarily contradictory:

$$3.3 \quad \Theta_{\text{now } \alpha} (F \phi b) \ \& \ \Theta_{\text{now } \alpha} (\text{not} - F \phi b)$$

I have written «not - F ϕ b» in 3.3 rather than the standars « $\sim F \phi b$ », because if «ought» is explained in terms of reasons for doing things, it is necessary to require that when a person ought not to do something, the event of his not doing that thing must be such that if it occurs, it is itself an act of the person's. Otherwise, given our account of reasons, not doing the thing in question is not something for which the person can have a reason. In our discussion of omissions (see Chapter 2, Sect. III C, p. 80 ff), we identified b's omitting to ϕ with b's causing-it-to-be-the-case-that-it-is-settled-that-he-does-not- ϕ , where, if this occurs, it is identical with an act of b's. In 3.3 «not- ϕ » should be taken to be the predicate «causes it to be the case that $L(\sim P \phi b \ \& \ \sim \phi b \ \& \ \sim F \phi b)$ », with the act proviso understood, and the domain of the tense operators fixed in the time horizon and the present moment. Let «not-F ϕ b» be equivalent to «F not- ϕ b». While «not-F ϕ b» is not equivalent to « $\sim F \phi b$ », it must not be

thought that 3.3 is not necessarily contradictory because the «not» in «not- $F \phi b$ » is somehow weaker than «real» negation. Suppose that «not- $F \phi b$ » is true. Then b will cause it to be the case that $L(\sim P \phi b \ \& \ \sim \phi b \ \& \ \sim F \phi b)$; hence it will be the case that $L(\sim P \phi b \ \& \ \sim \phi b \ \& \ \sim F \phi b)$. Since what will be settled, will be true, it is now true that $F(\sim P \phi b \ \& \ \sim \phi b \ \& \ \sim F \phi b)$. Now the domain of the tense operators we are using is between the present moment and the time horizon. Because it is true that $F(\sim P \phi b \ \& \ \sim \phi b \ \& \ \sim F \phi b)$, there is some future moment t_j within this domain at which it is true that $(\sim P \phi b \ \& \ \sim \phi b \ \& \ \sim F \phi b)$. By the first conjunct in this conjunction, at t_j , there is no moment earlier than t_j within the domain at which « ϕb » is true, and so there is no moment later than now and earlier than t_j at which « ϕb » is true; by the second conjunct « ϕb » is not true at t_j and by the third conjunct, there is no moment later than t_j within the domain at which « ϕb » is true. Hence there is no moment later than now and within the domain at which « ϕb » is true, so it is false that $F \phi b$. That is, the proposition that not- $F \phi b$ entails the proposition that $\sim F \phi b$, so that the «not» of «not- $F \phi b$ » is not weaker than standard negation. If « $O_{\text{now } \alpha}$ » were an operator in a deontic logic, 3.3 would entail 3.4:

$$3.4 \quad O_{\text{now } \alpha} (F \phi b) \ \& \ O_{\text{now } \alpha} (\sim F \phi b)$$

Furthermore, in many such logics the proposition that $O_{\text{now } \alpha} (\sim F \phi b)$ would entail the proposition that $\sim O_{\text{now } \alpha} (F \phi b)$, so that 3.4 would entail 3.5:

$$3.5 \quad O_{\text{now } \alpha} (F \phi b) \ \& \ \sim O_{\text{now } \alpha} (F \phi b)$$

But 3.5 is plainly a contradiction.

Given Raz's account of ought as formulated in 3.1, we are in a position to deny both of these entailments. On that account 3.3 is equivalent to 3.6:

$$3.6 \quad (\exists Q) (R_{\text{now } \alpha} (Q, \phi b)) \ \& \ (\exists Q) (R_{\text{now } \alpha} (Q, \text{not-}\phi b))$$

That 3.6 is logically consistent can be seen by glancing back to the story of Aeneas and Turnus, and the situation depicted in Fig. 3 of Chapter II, (page 183)¹⁸³: all that is required is that for every mention of letting Turnus live, we substitute the expression «omitting to kill Turnus», and for every occurrence of «T n» we substitute an occurrence of «not-K n», remembering that «F not-K n» will be equivalent to «not-F K n». By existentially generalizing twice over the proposition that G (a man's being killed in war cannot but be a cause of grief to his father), we get:

$$3.7 \quad (\exists Q) (R_{\text{now } \alpha} (Q, K n)) \ \& \ (\exists Q) (R_{\text{now } \alpha} (Q, \text{not-K } n))$$

or, by 3.1:

$$3.8 \quad \theta_{\text{now } \alpha} (F K n) \ \& \ \theta_{\text{now } \alpha} (\text{not-F } K n)$$

That is, given Aeneas' priorities and alternatives, he ought to kill Turnus and, given those same priorities and alternatives, he ought to omit killing him.

Can this sort of proposition ever be true? Of course, if the proposition means what Raz suggests it means, we have just shown that there are circumstances in which it could be true. The point of the question, however, is to bring out the fact that if propositions like this, interpreted as containing simple «oughts», can really never be true, then the account of simple «oughts» that

we are considering must be inadequate. This is because it allows that «conflicts of oughts» may be possible, when in fact they are not. I want to say as little about this matter as decently possible. Something, however, must be said.

It is sometimes argued that «conflicts of oughts» are logically impossible because a true or adequate moral theory would not allow the deduction of propositions exemplifying such conflicts.⁴ I can only express my surprise at the irrelevance of this argument. First, the use of the word «ought» does not invariably involve presuppositions of morality. If Felicia believes that I ought to shave before I have breakfast, and I believe that I ought to eat breakfast before I shave, surely neither of us need suppose that the conflict between us is a moral conflict. Perhaps neither of the propositions that we believe is deducible from a true or adequate moral theory - that hardly seems to guarantee, however, that both propositions are false. But if either may be true, then why not both? «Suppose that in a particular case, simple «oughts» conflict: then it will be possible to deduce that a single individual ought both to do and to omit doing the same thing; and since it is impossible both to do and to omit to do the very same thing, it would follow that the individual ought to do what is impossible; but it is not true of anyone that he or she ought to do what is impossible.»

I grant the last proposition, but the credibility of the preceding ones presupposes that we have at hand a method of determining what propositions are deducible from propositions containing simple «oughts». Now I believe that given our account

of reasons, Raz has supplied such a method, but if I am right it can never be deduced from a «conflict of oughts» that anyone ought to do the impossible. Consider the conflict exemplified in 3.8. If the alleged deduction were possible then we should have 3.9:

$$3.9 \quad \theta_{\text{now } \alpha} (F \lambda x (\kappa x \& \text{not-}\kappa x)n).$$

By 3.1 we should get 3.10

$$3.10 \quad (\exists Q) R_{\text{now } \alpha} (Q, [\lambda x (\kappa x \& \text{not-}\kappa x)n])$$

By 2.72 this would yield:

$$3.11 \quad (\exists Q) (\exists t_i) (t_i = \text{now and} \\ (i) \text{ at } t_i, Q; \text{ and} \\ (ii) \text{ at } t_i, \sum_k \text{prob}_c (pr_e^k) \times pr_e^k (M_{\text{now } \alpha} (F \lambda x (\kappa x \& \text{not-}\kappa x)n)/Q) > \sum_k \text{prob}_c (pr_e^k) \times pr_e^k \\ (M_{\text{now } \alpha} (F \lambda x (\kappa x \& \text{not-}\kappa x)n)/\sim Q)$$

But 3.11 (ii) can never be true. For consider the expression « $M_{\text{now } \alpha} (F \lambda x (\kappa x \& \text{not-}\kappa x)n)$ ». The proposition expressed by this sentence is necessarily false. For suppose it is true. Then in every non-empty sphere S in the system $\$$ associated with α at t_i , there is a history Gt_i on which it is true at t_i that $F \lambda x (\kappa x \& \text{not-}\kappa x)n$. Then there is a moment t_j on Gt_i later than t_i at which it is true that $\lambda x (\kappa x \& \text{not-}\kappa x)n$. By the usual axiom for λ -abstraction, it follows that at t_j it is true that $\kappa n \& \text{not-}\kappa n$. But we have seen that the proposition that $\text{not-}\kappa n$ entails the proposition that $\sim \kappa n$, and so we have it that at t_j , $\kappa n \& \sim \kappa n$. But this is impossible. So it is provably false that $M_{\text{now } \alpha} (F \lambda x (\kappa x \& \text{not-}\kappa x)n)$. But then there can be no histories in the

probability distribution depicted in Fig. 3 of Chapter II on which it is true that $M_{\text{now } \alpha} (F \phi x (k x \& \text{not-}k x)n)$. Then the probability assigned to the proposition must be 0, and similarly for the weighted sums of the conditional probabilities in 3.11 (ii). Then since $\langle 0 \geq 0 \rangle$ if false, the condition laid down in 3.11 (ii) cannot be satisfied and the alleged deduction of a logically unacceptable consequence of a «conflict of oughts» cannot be carried out.

Now it might be replied that the account of simple «oughts» that has been given here must therefore be wrong, because from a conflict of simple «oughts», logically unacceptable consequences can be deduced. This, however, is precisely the point in dispute. I maintain that it can be the case both that Aeneas ought to kill Turnus and that he ought to refrain from killing Turnus; but I believe that it cannot be the case that Aeneas ought both to kill and to refrain from killing Turnus.

A different objection might be that in the case of Aeneas and Turnus there is no real conflict, because, just as in our scenario, the proposition that G is a weightier reason for Aeneas to kill Turnus than to omit to kill him, so it is only prima facie the case that Aeneas ought to omit to kill him - the only thing that Aeneas actually ought to do, or ought to do all things con-sidered, is to kill him. This approach has been taken by some deontic logicians in order to defend standard deontic logics. Assuming that so called «prima facie ought statements» express prima facie obligations and that prima facie obligations are what are expressed by «prima facie ought-statements», and similarly for «actual ought-statements» and actual obligations, Azizah al-Hibri

writes:

Prima facie obligations are not obligations and, hence, any statement concerning them does not belong to deontic logic. What we are defending (. . .) can now be clearly stated as the set of proposed axioms for a logic of obligations, or more emphatically, a logic of actual obligations. It is not our intention to argue that prima-facie ought-statements do not conflict. That they do is obvious. But that is no ground for rejecting (A1) (the axiom $\vdash \sim(O A \ \& \ O \sim A)$). If (A1) is to be rejected, a case of conflicting actual ought-statements must be produced.⁵

In fact it is possible to accommodate a denial of «conflicts of actual oughts» within the very framework we have adopted. Let $\langle \theta_{\text{now } \alpha}^a (F \phi \ b) \rangle$ be «Given b's priorities and alternatives, b actually ought to ϕ » and take 3.12 as a definition:

$$\begin{aligned} 3.12 \quad \theta_{\text{now } \alpha}^a (F \phi \ b) \text{ iff } & (\exists Q_i) (R_{\text{now } \alpha} (Q_i \ \phi \ b) \ \& \ (\forall Q_j) \\ & \times (R_{\text{now } \alpha} (Q_j, \text{not-}F \phi \ b). \supset . \text{ with respect to } \phi, \\ & Q_i \text{ as a reason for } b \text{ to } \phi; \text{ outweighs } Q_j \text{ as a reason} \\ & \text{for } b \text{ to not-}\phi.)) \end{aligned}$$

According to 3.12, if every reason Q_j for b to not- ϕ is overridden, or the weightiest reason Q_j for b to not- ϕ fails to override any reason Q_i for b to ϕ , it will not be the case that b actually

ought to not- ϕ . Suppose that the weightiest reason for b to ϕ fails to outweigh the weightiest reason for b to not- ϕ , and that the weightiest reason for b to not- ϕ fails to outweigh the weightiest reason for b to ϕ : in that case, it will not be true either that b actually ought to ϕ or that b actually ought to not- ϕ . The corresponding prima facie ought-statement can still be made to come out true for we can define « $\Theta_{\text{now } \alpha}^p (F \phi b)$ » («Prima facie, given b's priorities and alternatives b ought to ϕ .») as follows:

$$3.13 \quad \Theta_{\text{now } \alpha}^p (F \phi b) \text{ iff } (\Theta_{\text{now } \alpha} (F \phi b) \ \& \ \sim \Theta_{\text{now } \alpha}^a (F \phi b))$$

Then we may have «conflicts of prima facie oughts» and «conflicts of prima facie oughts with actual oughts» but no «conflicts of actual oughts», for by using 3.12 and the definition of outweighing given in 2.77, it is elementary to show that the supposition that « $\Theta_{\text{now } \alpha}^a (F \phi b) \ \& \ \Theta_{\text{now } \alpha}^a (\text{not-}F \phi b)$ » is true leads to a contradiction. I am not sure that the proliferation of categories here gets us much forrarder, but perhaps it will soothe those whose nerves are troubled by thoughts of conflict.

It is perhaps worth remarking that the accommodation thus worked out does not square with one feature that figures in al-Hibri's rejection of «conflicts between actual oughts». al-Hibri claims that prima facie obligations are not obligations, and this suggests that prima facie simple «oughts» should be regarded as different in kind from simple «oughts». Of course if what is meant is just that prima facie obligations are not actual obligations, there is no difficulty. If something stronger is meant however, there is a problem; for given 3.12 and 3.13 we find that $\Theta_{\text{now } \alpha}^a (F \phi b)$

iff $(\theta_{\text{now } \alpha} (F \phi b) \ \& \ \sim \theta_{\text{now } \alpha}^P (F \phi b))$. Comparing this to 3.13 one is inclined to say that prima facie «simple oughts» and actual «simple oughts», far from being different in kind, are just two species of the same genus. Then prima facie simple «oughts» are simple «oughts» just as much as actual simple «oughts» are simple «oughts» al-Hibri and with her, Baier and Sir David Ross, would appear to exhibit what in a different context has been called a prejudice in favour of the actual.⁶

Might there be conflicts between actual simple «oughts»? It is just as easy in the present framework to make room for them as to reject them. Let $\langle \theta_{\text{now } \alpha}^A (F \phi b) \rangle$ be read just as $\langle \theta_{\text{now } \alpha}^a (F \phi b) \rangle$ was, but take 3.14 as its definition:

$$\begin{aligned} 3.14 \quad \theta_{\text{now } \alpha}^A (F \phi b) \text{ iff } & (\exists Q_i) (R_{\text{now } \alpha} (Q_i, \phi b) \ \& \\ & (\forall Q_j) (R_{\text{now } \alpha} (Q_j, \text{not-}F \phi b) \supset \text{with respect} \\ & \text{to } \alpha, Q_j, \text{ as a reason for } b \text{ to not-}\phi, \text{ does not} \\ & \text{outweigh } Q_i \text{ as a reason for } b \text{ to } \phi)). \end{aligned}$$

Correspondingly read $\langle \theta_{\text{now } \alpha}^P (F \phi b) \rangle$ in the same way as $\langle \theta_{\text{now } \alpha}^P (F \phi b) \rangle$ but define it thus:

$$3.15 \quad \theta_{\text{now } \alpha}^P (F \phi b) \text{ iff } (\theta_{\text{now } \alpha} (F \phi b) \ \& \ \sim \theta_{\text{now } \alpha}^A (F \phi b)).$$

By 3.14 and 2.77 $\langle \theta_{\text{now } \alpha}^A (F \phi b) \ \& \ \theta_{\text{now } \alpha}^A (\text{not-}F \phi b) \rangle$ will be true just in case there are reasons for b to ϕ and for b to not- ϕ , and $\text{prob}_c M_{\text{now } \alpha} (F \phi b) = \text{prob}_c M_{\text{now } \alpha} (\text{not-}F \phi b)$.

Since this is obviously logically possible, then if 3.14 provides an adequate account of actual simple «oughts», conflicts of actual

simple «oughts» must be possible.

Well, are they possible? Even if we thought all oughts were tied up to morality, we might want to admit conflicts. Writing about ancient Greek popular morality, Sir Kenneth Dover remarked:

If a philosopher builds logical contradictions into a theory, he will lose his reputation as a philosopher; equally if a man persists in an attempt to live by principles of such a kind that their practical applications are constantly and conspicuously irreconcilable, he is likely to lose his friends and may lose his reason. But it would be quite untrue to say that we cannot hold contradictory moral beliefs or apply contradictory principles. We all can, and we all do . . .⁷

As a philosopher, I should want to draw the line at contradictory moral beliefs, but I am inclined to concede a certain credibility to the appeal of «contradictory principles» where these are understood not to be expressed as contradictory propositions, but to be so constructed that their practical applications are irreconcilable in the same way as are the courses of action - killing Turnus, refraining from doing so - which according to 3.8, Aeneas ought to adopt. (If anyone remains over-impressed with the sleight-of-hand facilitated by the prima facie/actual distinction,

let him revise Fig. 3 of Chapter II so that (a) the area containing vertical stripes in the most inclusive rectangle with base «G» is equal in size to the area containing horizontal stripes in the same rectangle, and (b) neither area entirely overlaps the other.)

Sir Kenneth's remarks about belief are suggestive. For the real question, in my view, is whether we may directly represent a person as believing a proposition of the form of 3.8; or whether, in order to express the content of an ostensible belief that 3.8 is true, we have to adopt some Stalnakerish strategy of the sort described in Chapter II in connection with tautologous reasons, so that we can get round the fact the sentence numbered 3.8 expresses no proposition at all, because it is contradictory and therefore true on no possible history. It seems undeniable that there are cases where a man might at least ostensibly believe some proposition of the form of 3.8. The following example is taken almost verbatim from one given by van Fraassen:⁸

A man is subject to incompatible demands due to his several allegiances to heaven and earth (sons and lovers, party and fatherland, choose what you will). He appears before the tribunal of heaven and, pointing to his several allegiances, requests that heavenly requirements be mitigated or waived, defending his request by the statement that he cannot be expected to do the impossible. Whereupon a heavenly advocate points out, with irrefutable logic, that the agent is not being

asked to do the impossible, but to do what heaven requires. Stressing the importance of the agent's heavenly affiliations, the advocate argues persuasively that the agent ought to do what heaven requires, whatever else he does. Abashed, the agent concedes the unjustifiability of his request. When the agent lays a similar request before an earthly tribunal, the result is the same: the earthly advocate, emphasizing the strength of the agent's sublunar ties, persuades the agent that he ought to satisfy the demands of earth. Of course, neither of the two advocates sees that there is any «conflict of oughts»; each would refuse to concede that the agent ought to meet the requirements of the other side. The agent, however, feels himself bound to both sides, and that is why, for him, there is a conflict.

Precisely this sort of situation is suggested by a remark of Dover's in a discussion of «conflict of obligations». A problem was raised by the recognized obligation of a man to help his family, friends and benefactors when they were indicted for offenses against the community: «Conflict between personal obligation and patriotic duty was obviously a genuine issue (. . .)
Whichever way an individual resolved the conflict for

himself, he was likely to be blamed in one quarter and praised in another (emphasis mine).>>

It is easy to imagine that a man who recognized the benefits for himself of moving freely in a variety of circles might as a result come to feel that the social demands current in each of those circles were such as to support a claim that he ought to satisfy them. It seems to me then, that we can imagine a man believing, whether truly or falsely, that he was caught in the middle of a conflict of simple «oughts». Now the question is how we are to represent his beliefs: If a sentence such as our 3.8 ($\langle \theta_{\text{now}} \alpha (K n) \ \& \ \theta_{\text{now}} \alpha (\text{not-}K n) \rangle$) expresses a proposition which is true iff there is a conflict, we can represent the man as believing just such a proposition; if, however, all such sentences express propositions which are necessarily not true, then we shall have to be more inventive and to represent his beliefs in some indirect Stalnakerish way that has yet to be determined. The simpler and more conservative hypothesis seems to me to be that neither indirection nor inventiveness is required, and that a direct representation is possible; and in the absence of special argument, I shall take this to be the preferred hypothesis. Hence an account of simple «oughts» which allows sentences like 3.8 to be true has a distinct merit. Since Raz's account has the relevant feature, it has the merit in question.

Unfortunately, however, Raz is not right in claiming that to say that a person b ought to ϕ is just to say that there is a

reason for b to ϕ . Whatever its merits, 3.1 is just wrong.

This becomes clear as soon as we consider 'light-weight' reasons for doing things. To make use of an example from Simmons, imagine that I am in the market for a new car.⁹ In a dealer's showroom, while examining a particular model, I find myself much taken with the design of the glove compartment, which is strikingly ingenious, unexpectedly convenient, and unique to the model I am looking at. This fact, I say to myself, is a reason for me to buy a car just like the model in front of me; although I acknowledge that it is a weak reason. Indeed I am well aware it is overridden by the fact that the model in question costs more than I can afford to pay without going heavily into debt. For taking Raz's own view of overriding first, suppose that (i) the complex fact that the model in question (a) has a uniquely ingenious glove compartment and (b) is out of the price range I am interested in - this complex fact is not a reason for me to buy the model in question, even though one of the constituents of the complex fact is such a reason; moreover, (ii) the complex fact is actually a reason for me to refrain from buying the car. On Raz's own account of overriding, (i) and (ii) are true just in case the attraction that the glove compartment exerts on me is overridden, as a reason for buying the car by the fact that the car costs more than I am able to pay. On our competing account of overriding, all that is required for the same result is that the probability of its being maximally good for me to refrain from buying the car is greater than the probability of its being maximally good to buy

the car. Given that I cannot really afford the car, it is not hard to imagine that this condition is satisfied.

Nonetheless, the appeal of the glove compartment does not cease to be a reason just because it is overridden; it is still a reason. Then despite the fact that the car is too expensive, and that I know this, there is a reason for me to buy the car. It follows, on Raz's account, that I ought to buy the car. I take it, however, that given the case as described, this conclusion must be unacceptable.

There is some evidence that Raz himself is uncomfortable with conclusions like this. For he maintains that although 3.16 and 3.17 below imply all and only the same things, they have different pragmatic implicatures:

3.16 There is a reason for me to buy the car.

3.17 I ought to buy the car.

It seems certain that Raz's «pragmatic implicatures» are to be identified with Grice's «conversational implicatures». If this is right then what Raz holds specifically is that an utterance of 3.17 conversationally implicates that the speaker, who must be in this case myself, knows of no overriding reason not to buy the car. An utterance of 3.16, however, is supposed by Raz not to carry this implicature. If Raz were right about the conversational implicature of an utterance of 3.17, then in the present example we should be inclined to judge that it is true but misleading of me to say that I ought to buy the car since if I say it I violate a maxim of conversation. Presumably the maxim in question is Grice's first maxim of Quantity - «Make your conversational contribution

as informative as is required for the current purposes of the conversational exchange.»¹⁰ It is a fair assumption that the purpose of asserting propositions about reasons for a person to do something, or propositions about what a person ought to do, is to direct attention to what is taken to be a maximally good course of action for the person. If the sum of my conversational contribution consists of the utterances of propositions about reasons or «oughts» in connection with only one course of action, then on the assumption that my purpose is to direct attention to a maximally good course of action, the first maxim of Quantity gives rise to the implicature that, as far as my information goes, the course of action that I have mentioned is maximally good. If my information includes the fact that probably some other course of action is maximally good, as it would if I knew of an overriding reason to adopt an unmentioned course of action, then in not mentioning this other course of action, I have not been as informative as required by the conversational purpose at hand, and hence I have violated the first maxim of Quantity. On this account, it might be suggested if I saw that I ought to buy the car, what I say is true but misleading.

I do not believe, however, that this is a judgement that we are inclined or even willing to make: on the contrary, if I cannot afford to pay for the car, it seems to be false to say that I ought to buy it, and not merely misleading. This intuition is partly supported by the consideration that if I, in full knowledge of the situation, engage in an interior monologue about buying the car and acknowledge in foro interno that there is a reason for me to buy the car, nothing untoward appears to be in the offing;

but if I then infer that I ought to buy the car, it seems that I have made a mistaken inference. It is not that I have violated some maxim of conversation which must be observed if a cooperative exchange of information is to take place: ex.hypothesi, no exchange of information is taking place at all, since I am merely thinking to myself. Since we may freely assume that there is no knowledge of the situation at hand which is available to me as mental utterer of 3.16 and yet not available to me as mental hearer of 3.17 there is no real possibility that I should get the wrong message as a result of being misled by any conversational implicature of my own utterance of 3.17. But then, given that there is no possibility of my getting the wrong message, it should be alright for me to infer that I ought to buy the car despite the conversational implicatures of the form of expression involved. Yet in the case before us, it does not seem right for me to draw that inference at all.

Again, the conversational implicatures of an utterance may be explicitly cancelled by the speaker.¹¹ Thus, because speakers may be provisionally assumed to respect the first maxim of Quantity, the utterance of a disjunction «A v B» is supposed to implicate conversationally that the utterer does not know on what truth-functional ground the disjunction is true. For we may reason as follows:

The utterer has said that A v B; there is no reason to suppose that he is not observing the first maxim of Quantity; he could not be doing

this unless he thought that he did not know on what truth-functional ground «A v B» is true - for if he thought otherwise he could make his conversational contribution more informative by specifying the ground; he knows (and knows that I know he knows) that I can see that given a cooperative exchange is taking place, I cannot but suppose that indeed he does not know on what truth-functional ground «A v B» is true; and so he has implicated that he does not know on what truth-functional ground «A v B» is true

But this conversational implicature may be explicitly cancelled, as when a speaker utters a sentence of the form of 3.18:

3.18 A or B; and I know on what truth-functional ground this is so but I'm not telling.

Now compare the cancellability of the conversational implicatures which Raz claims attach to utterances of sentences whose main verb is «ought». Let us vary the glove-compartment example somewhat. Suppose that it is you who are in the market for a car. I know this, and I know what you can afford to pay. One day I happen to be in a car-dealer's show room, where I see a car with an unusual and ingeniously convenient glove-compartment, but without any other attractive features. I am confident that the glove-compartment, and the glove-compartment alone, will appeal to you; and I also discover that the price of the car

puts it beyond your reach unless you go seriously into debt. As a result, I conclude that the glove-compartment provides a weak reason for you to buy the car, but that there is an overriding reason for you not to buy the car. At this point, you know nothing of the car. Later on, in conversation with you about the car I have seen, a wave of perversity sweeps over me and I utter the following sentence:

3.19 You ought to buy the car; and I know of a reason for you not to buy the car which overrides any reason there may be for you to buy the car, but I won't tell you what the reason is.

3.19 is, of course, meant to parallel 3.18. The clause before the semi-colon might be supposed to be such that whoever asserts it characteristically conversationally implicates that he does not know something; the initial clause following the semi-colon is a denial of what is supposed to be thus characteristically conversationally implicated, and the subsequent clause may be taken to indicate that the speaker is not participating cooperatively in an exchange. In a crucial respect, however, 3.19 fails to parallel 3.18, because in the common understanding of the conversationalists, what follows the semi-colon, surely at the very least, tends to cast doubt on the truth of what precedes the semi-colon, whereas this is not at all the case in 3.18. If this is correct, it is not really possible to cancel the alleged conversational implicatures connected with utterances containing «ought», viz. that the speaker does not know of existing overriding reasons;

and hence those implicatures are not really conversational implicatures at all. It follows that Raz's account of «ought» in terms of reasons plus conversational implicatures needs to be amended.

Observe that the pattern of argument which I have offered against Raz is directed toward the conclusion that it is, strictly speaking, false to say that I ought to buy the car, or that you ought to buy the car in the circumstances that have been described above. If this is so, however, it follows not only that conversational or pragmatic implicatures cannot be used to supplement the idea that one ought to do just what one has any reason to do; but also that an appeal to conventional implicatures cannot support this idea either. Conventional implicatures are not pragmatic implicatures, because they arise from the conventional meanings of words and not from general features which characterize the discourse in which the words are used.^{11a} It would be much more plausible to take the alleged implicature that the speaker knows of no overriding reason not to do what he or she says someone ought to do, and relate it to the conventional meaning of «ought» than to the pragmatic features of utterances of sentences containing «ought». But according to Grice, the falsity of what is conventionally implicated by what is said does not entail the falsity of what is said, strictly speaking. The arguments just given illustrate cases where the relevant truth condition for a sentence containing «ought» is satisfied, according to Raz; and yet where the sentence itself is false,

strictly speaking. No appeal to implicatures, whether conversational or conventional, can alter this fact. It follows that our 3.1 is inadequate.

One way to amend it would be to build what is discredited as an implicature into the very meaning of «ought»:

$$\begin{aligned}
 3.20 \quad \theta_{\text{now } \alpha} (F \phi_i b) \text{ iff } (\exists Q_i) (R_{\text{now } \alpha} (Q_i \phi_i b) \& \\
 \text{the speaker (thinker) is not aware that } (\exists Q_j) \\
 (R_{\text{now } \alpha} (Q_j, \phi_j b) \& L(F \phi_i b \supset \sim F \phi_j b) \& Q_j, \\
 \text{as a reason for } b \text{ to } \phi_j, \text{ outweighs } Q_i \text{ as a reason} \\
 \text{for } b \text{ to } \phi_i)).
 \end{aligned}$$

The reference to «the speaker (thinker)» in 3.20 has the effect of making « $\theta_{\text{now } \alpha}$ » indexical in a new way, and the indexicality makes the truth of sentences like « $\theta_{\text{now } \alpha} (F \kappa n)$ » speaker-relative (thinker-relative). The resulting relativity of «ought», however, depends only on the speaker's knowledge and is compatible with a fully «realist» interpretation of those orderings of histories in the sets α , which underlie the propositions about reasons in terms of which sentences containing «ought» are to be understood. In short, on the present hypothesis, the indexicality of «ought» sentences does not entail that moral absolutism or moral objectivism must be false. Whether the indexicality is otherwise objectionable, we need not stop to consider, since the proposed amendment to Raz's account as we have understood it, must in any case be judged defective on grounds not connected with indexicality.

The problem is that Raz's original theory, even as modified, multiplies «conflicts of oughts» beyond what may be reasonably judged to be necessary. This, of course, is what the glove compartment example in its second guise shows with regard to Raz's original proposal. Raz's original theory entails that in the glove compartment example, it is true that you ought to buy the car, because the ingenuity of the glove compartment presents you with a reason to do so; and it is also true that you ought not to buy the car, because its price gives you a reason not to do so. The problem with this is that since one of these reasons overrides the other, it seems to be simply untrue that you ought to buy the car, so that the conflict of oughts in this example appears spurious.

The revised account given in 3.20 suffers from a similar difficulty. Recall the case where given a menu in a foreign language, I know only that it lists both swordfish and red snapper as main courses. Of course, it is settled that I am going to order only one main course. I am concerned about cholesterol, and learn that L, i.e. that the common level of cholesterol which these fishes share is lower than that of any of the other offerings on the menu. Fig. 1 recapitulates the probability distributions:

Fig. 1

Again, « σd » is «I order the swordfish» and « ρd » is «I order the red snapper». Any area in Fig. 1 containing vertical stripes is one in which « $M_{\text{now } \alpha} (F \sigma d)$ » is true; any area containing horizontal stripes is one in which « $M_{\text{now } \alpha} (F \rho d)$ » is true; and any area containing both kinds of stripes is one in which both of these sentences are true. The most inclusive rectangle is prob_e , and the rectangle in which «L» is true is prob_c . Calculating in the usual way I discover that $R_{\text{now } \alpha} (L, \sigma d)$ and $R_{\text{now } \alpha} (L, \rho d)$. Hence it is true that $(\exists Q_i) (R_{\text{now } \alpha} (Q_i, \sigma d))$. According to Fig. 1, the only reason for me to do anything at all of which I am aware is its being the case that L. Since in Fig. 1 $\text{prob}_c (M_{\text{now } \alpha} (F \sigma d)) = \text{prob}_c (M_{\text{now } \alpha} (F \rho d))$, I know by 2.77 that L, as a reason for me to order the red snapper does not outweigh L as a reason for me to order the swordfish. It follows that as thinker, I am not aware that:

$$\frac{(\exists Q_j) (R_{\text{now } \alpha} (Q_j, \rho d) \ \& \ L(F \sigma d \supset \neg F \rho d) \ \& \ Q_j)}{\text{as a reason for me to order the red snapper, outweighs L, as a reason for me to order the swordfish).}$$

Now on the basis of 3.20, I conclude as thinker that $\Theta_{\text{now } \alpha} (F \sigma d)$ - that is, I ought to order the swordfish. By a similar chain of reasoning, I conclude that $\Theta_{\text{now } \alpha} (F \rho d)$ - I ought to order the red snapper. Since ordering both is out of the question, I am faced with a conflict of oughts.

Common sense, I believe, rebels at this conclusion. What is intuitively the case is that given my concern about Cholesterol,

I ought to order either the swordfish or the red snapper. If I order the swordfish and do not order the red snapper, I shall do no less than what I ought to do, given my concern with cholesterol. It is not the case that if I order the swordfish, there is still something left over that I ought to do, namely, order the red-snapper. And similarly if I order only the red snapper, there is not something that I ought to do which I fail to do, namely, order the swordfish. Despite the fact that there is a reason for me to order the swordfish which is pretty clearly not outweighed, and also a reason for me to order the red snapper, which is equally clearly not outweighed, it is simply not true that I ought to order the swordfish and that in addition, I ought to order the red snapper. For if it were true, then in ordering only one of them, I should fail to do something I ought to do. But in ordering only one, I leave nothing undone that I ought to do. Thus the revised form of Raz's theory is unacceptable, and the general reason for this is that wherever, in a given context, the set of non-outweighed reasons yields a set of incompatible courses of action, any of which alone an agent may by assumption indifferently choose to adopt, the theory will determine with respect to each such course of action that the agent ought to choose to adopt it; so that if he does choose any one course of action alone it will follow that he will fail to do what he ought to do; and this will render questionable the assumption that the agent could indifferently have chosen to adopt any one of the courses of action alone.

Is there another revision of Raz's proposal as embodied in 3.1 that would eliminate this problem? One might propose 3.21:

3.21 $\Theta_{\text{now } \alpha} (F \phi_i b)$ iff $(\exists Q_i) (R_{\text{now } \alpha} (Q_i, \phi_i b) \ \& \text{ the speaker (thinker) is aware that } (\forall Q_j) (R_{\text{now } \alpha} (Q_j, \phi_j b) \ \& \ L(F \phi_i b \supset \sim F \phi_j b) \ . \supset Q_i \text{ as a reason for } b \text{ to } \phi_i \text{ outweighs } Q_j \text{ as a reason for } b \text{ to } \phi_j))$.

This would certainly take care of the previous example, since in that case I could not have been aware that:

$(\forall Q_j) (R_{\text{now } \alpha} (Q_j, \rho d) \ \& \ L(F \sigma d \supset \sim F \rho d) \ . \supset L \text{ as a reason for me to order the swordfish outweigh } Q_j \text{ as a reason for me to order the red snapper})$.

Instantiating «L» for « Q_j », the antecedent of the resulting material conditional is true and the consequent false; and «L» is the only possible instantiation for « Q_j ». Hence, I could not conclude that $\Theta_{\text{now } \alpha} (F \sigma d)$ - that I ought to order the swordfish. By parity of reasoning I could not conclude that $\Theta_{\text{now } \alpha} (F \rho d)$ - that I ought to order the red snapper. And so the spurious conflict of oughts would be eliminated.

Unfortunately 3.21 eliminates every conflict of oughts.

For suppose that s is any speaker or thinker and that for arbitrary $\phi_i \phi_j$ s is aware that $L(F \phi_i b \supset \sim F \phi_j b)$; and suppose that $\Theta_{\text{now } \alpha} (F \phi_i b) \ \& \ \Theta_{\text{now } \alpha} (F \phi_j b)$. Then it is elementary to show that there are propositions Q_m, Q_n such that s is aware that Q_m as a reason for b to ϕ_i outweighs Q_n as a reason for b to ϕ_j , and that

Q_n as a reason for b to ϕ_j outweighs Q_m as a reason for b to ϕ_i . But s cannot be aware that P , without its really being the case that P . Hence it is really the case that Q_m outweighs Q_n , and Q_n outweighs Q_m . Then $\text{prob}_c (M_{\text{now } \alpha} (F \phi_i b)) > \text{prob}_c (M_{\text{now } \alpha} (F \phi_j b))$ and $\text{prob}_c (M_{\text{now } \alpha} (F \phi_i b)) \nless \text{prob}_c (M_{\text{now } \alpha} (F \phi_j b))$. Since this is a contradiction, then, for any arbitrary speaker (thinker) s , and any arbitrary ϕ_i, ϕ_j such that $L(F \phi_i b \supset \sim F \phi_j b)$, it is impossible that $\langle \theta_{\text{now } \alpha} (F \phi_i b) \& \theta_{\text{now } \alpha} (F \phi_j b) \rangle$ should be true. Which is just to say that conflicts of oughts are impossible. Since we have suggested that this hypothesis should be rejected, 3.21 must be judged unacceptable.

A rather interesting, intermediate sort of proposal can be got by removing «the speaker (thinker) is aware that» from 3.21 and replacing it with «the speaker (thinker) believes that». The resulting account still succeeds at eliminating the spurious dilemma posed by the choice between the swordfish and the red snapper, and it ceases to be true that a contradiction can be derived from every sentence of the form $\langle \theta_{\text{now } \alpha} (F \phi_i b) \& \theta_{\text{now } \alpha} (F \phi_j b) \rangle$ if $\langle L(F \phi_i b \supset \sim F \phi_j b) \rangle$ is true. The reader may easily convince himself, however, that if a speaker (thinker) believes the consequences of his beliefs, then if he correctly believes a proposition of the form $\langle \theta_{\text{now } \alpha} (F \phi_i b) \& \theta_{\text{now } \alpha} (F \phi_j b) \rangle$ when $\langle L(F \phi_i b \supset \sim F \phi_j b) \rangle$ is true, it follows that he believes a contradiction (if he believes the conjunctions of conjuncts which he believes). But our acceptance of conflicts of oughts was predicated in the judgement that it is better to

avoid those problems concerning the nature of the objects of belief which are posed by the ascription of contradictory beliefs. On this ground, the suggested variant of 3.21 seems no better than 3.21 itself. Indeed, to this point, our attempt to account for simple «oughts» in terms of reasons has been pretty much a failure.

Let us, then, put reasons entirely aside for a bit, and consider a rather peculiar feature of «ought» statements, which Raz characterizes with incomplete success, and does not even try to explain. - Imagine that in the course of a conversation about my brother Alan, I assert firmly and candidly that Alan ought to spend more time on his Latin. According to Raz, my believing what I thus aver entails that I have «a certain critical attitude» towards Alan's behaviour - an attitude whose manifestation depends on whether or not he spends more time on his Latin, or fails to do so.¹³ But according to a very common and in the main correct analysis of communication, in sincerely telling you that Alan ought to spend more time on his Latin, I must be intending to get you to believe what I believe, namely that Alan ought to spend more time on his Latin. For suppose you fail to understand that I am intending to get you to believe that Alan ought to spend more time on his Latin; then even if you understand the conventional meaning of the sentence that I utter, you will fail to understand that I mean to be using it to make an assertion. This seems very plausible; but then on Raz's view it must be true that if I succeed in my intention, you too will have a critical attitude towards

Alan's behaviour insofar as his Latin is concerned, since you will have a belief such that your having it will entail your having the requisite attitude. Yet in general, how can I be confident that your believing what I say about Alan will be sufficient for your having a certain critical attitude toward him? When I tell you that Alan is five foot nine and get you to believe what I tell you, I can hardly be certain that your believing that he is five foot nine will be sufficient for your having a critical attitude toward. In fact, I may well hope that you will adopt no such critical attitude to him on that basis and I may regard myself as guilty of no comparably invidious discriminations. What then, is the difference vis à vis critical attitudes between believing that Alan is five foot nine and believing that he ought to spend more time on his Latin? More precisely what can account for the alleged difference between the alleged entailments of 3.22 and 3.23?

3.22 s believes that Alan ought to spend more time on his Latin.

3.23 s believes that Alan is five-foot nine.

Presumably any difference in the inferences validly supported by 3.22 and 3.23 will have to depend on a difference between the inferences supported by 3.24 and 3.25:

3.24 Alan ought to spend more time on his Latin.

3.25 Alan is five foot nine.

And it is a fair bet that the supposed difference in inferential

relations will have to be put down to the meaning of «ought» (and not to a difference between distinct senses of the verb «believe» as it occurs in 3.22 and 3.23). The question arises whether there is an available analysis of «ought» which would account for the difference. Unfortunately, Raz himself introduces the problem of these inferential relations only to leave it aside.

At this point, I should say that, unlike Raz, I do not believe that 3.22 entails 3.26:

3.26 s has a critical attitude toward Alan's behaviour -
an attitude whose manifestation depends on whether
or not he spends more time on his Latin.

But I think that it is not at all unreasonable to allow some degree of validity to an inference from 3.22 to 3.26 - a degree short of deductive validity. And I think that the appropriateness of the inference points in a direction that bring us very close to the meaning of «ought». An account of «ought» which supports this kind of inference would be on the way to being right. Somewhat surprisingly, something like such an analysis can be found in Sellars' old paper «Imperatives, Intentions, the Logic of 'Ought'». Although the account given by Sellars involves no employment of the notion of a reason for doing something, it shows how such an account can be formulated.

What is surprising is the claim that Sellars' analysis is even on the way to being right - for it is so clearly wrong. Sellars maintains that sentences of the form of 3.27 and 3.28 are logically equivalent:

3.27 b ought to ϕ .

3.28 We intend that b ϕ .¹⁴

Hence 3.29 and 3.30 are logically equivalent:

3.29 Alan ought to spend more time on his Latin.

3.30 We intend that Alan spend more time on his Latin.

Thus, when I tell you that Alan ought to spend more time on his Latin, I am telling you that we - you and I and possibly others as well - intend that Alan behave in a certain way. This seems at least mildly outrageous. For, in the case of myself alone, quite apart from you and others, it seems clear that while I may believe to be true the proposition that Alan ought to spend more time on his Latin, I may be bound and determined personally to do nothing whatever to attempt to make true the proposition that Alan will spend more time on his Latin. This would be the case if I believed that although he ought to spend more time on his Latin, it would be wrong for me to attempt either to guide or manipulate or interfere with him in any way because his actual conduct was something to be settled by his own independent decision. But in general, if I intend that the proposition that P become true, it cannot be the case that I am bound and determined personally to do nothing at all to bring it about that P . And if this is true of me, it is true of any of us, who are referred to in 3.30. It is this point that makes Raz's suggestion about a «critical attitude» more convincing than Sellars' appeal to intention, because without intending to do anything to get Alan to spend more time on his Latin, I can provide warrant for the claim that

I believe that he ought to do so, simply by standing ready to criticize him if and when he doesn't - and this even if I conceal my readiness from him until that time, just so that he may make his decision independently. While this may seem hard or unfair or at least «rigourist», it is surely not rendered inconceivable by the logic of «ought».

There are two suggestions that I should like to defend (i) Sellars' reliance on intention to explain «ought» is a muddle; and (ii) Sellars' contribution to the explication of «ought» consists in his explicit introduction of the first person plural into the account. From the second suggestion we can derive an account of «ought» in terms of reasons which preserves what is valuable in Raz's hypothesis about a critical attitude.

Let us, however, deal with suggestion (i) first. Here are three arguments against Sellars' appeal to intentions.

(A) Sellars brings the notion of intention into the explication of «ought» in order to get round a difficulty he sees in Hare's imperativist analysis. (It is perhaps worth remarking on the emotivist-imperativist lineage of Raz's claims about a critical attitude.) Sellars conceives the difficulty to be that the final step in carrying out a practical inference, that is, an inference about what someone ought to do, consists in drawing a conclusion, not in telling someone what to do. Sellars argues that these must be distinct, because what the pre-mises of a practical inference support or defend cannot be construed as a speech-act. Yet on the imperativist view, the conclusion of

a practical inference is a speech act - namely the utterance, if only in one's heart, of an imperative; and the utterance of an imperative is what is supported or defended by the premises of inferences. Hence, on Sellars' view, imperativism is wrong.¹⁵

(I will not comment on the validity or the soundness of this argument: I mention it only as a piece of stage-setting.)

In order to replace utterances of imperatives as the conclusions of practical inferences, Sellars turns expressions of intentions. He contrasts «tellings to» and «tellings that», which are speech acts, with «tellings of». A practical argument is supposed to consist of these «tellings of» or «expressings», not of «tellings to» or «tellings that». But it is clear that this gets us nowhere, since there is no reason not to regard «tellings of» or «expressings» as kinds of speech acts. Indeed Sellars is virtually committed to this, since he regards the having of intentions as a matter of inner mental episodes consisting of these «expressings» or «tellings of», where what is told of or expressed is represented in the form of certain kinds of sentences.¹⁶ It follows that the conclusion of a practical inference, on Sellars' own account, will be a matter of an inner or outer or «telling of» an intention, represented by an internal or external uttering of a certain kind of sentence, so that the premises of a practical inference will, as on the imperativist account, support or defend a kind of speech act. One might ask what else a practical inference might have supported, and I believe the preferred answer for Sellars would be an intention, as opposed to the ostensible expression of

an intention. That his own theory does not yield this preferred answer is indicated by his concession that having the thought that one has an intention, or apparently mentally expressing an intention, is insufficient for actually having that intention, if the thought or apparent mental expression has insufficient power to move one to act.¹⁷ But the (undefended) rules of inference which Sellars proposes in order to explain the validity of practical inferences are rules which apply to sentences in an object language which affords no means of distinguishing utterances which are genuine expressions of intention from utterances which represent the mistaken thought that one has an intention.¹⁸ It follows that Sellars' notion of validity such as it is, is defined for inferences in which the conclusion does not truly represent an intention, and hence that the inferences which Sellars calls «practical» should not be identified only with those whose conclusions represent intentions. And since this is true, the introduction of intentions fails to do what Sellars meant it to do, namely, to provide a theory of practical inference which differs from the imperativist theory in guaranteeing that the premises of inferences support something somehow more practical in the way of a conclusion than a linguistic or quasi-linguistic act might be.

(B) In moving from practical inferences in general to his particular account of «ought» Sellars relies on an unsound argument about the nature of intention. His aim is to explain the distinction between sentences of the forms of 3.31 and 3.32:

3.31 b ought not to ϕ .

3.32 It is not the case that b ought to ϕ .

Sentences of the form of 3.32 are, but sentences of the form of 3.31 are not compatible with sentences of the form of 3.33:

3.33 It is not the case that b ought not to do ϕ .

That is, Sellars allows conflicts of «oughts». Assuming that the notion of intention is essential to any analysis of «ought», Sellars argues that the relevant intentions cannot be the intentions of single individuals because, he maintains, there is no difference in meaning between sentences of the forms of 3.34 and 3.35, and that 3.34 gives the true form of 3.35:

3.34 s intends that b not ϕ .

3.35 s does not intend that b ϕ .¹⁹

(In 3.34 and 3.35 «s» and «b» need not denote distinct persons.)

Thus Sellars holds that sentences ascribing intentions to individual persons have no proper negations. He considers the obvious objection that a sentence of the form of 3.35 may be true if s has formed no intention with regard to b's ϕ -ing, while the truth of a sentence of the form of 3.34 requires that s have formed the particular intention that b not ϕ , but he argues that this objection does not compel us to admit the existence of the proper negations of sentences ascribing intentions. Where « ψ » represents an indicative sentence and «Shall (ψ)» represents a sentence of the form «I intend that ψ », Sellars suggests that 3.36, 3.37, and 3.38 represent ascriptions to me of a positive intention, a negative intention, and of «nonformation» of any

intention:

3.36 Shall (ψ)

3.37 Shall ($\sim\psi$)

3.38 Shall (ψ)?²⁰

The trouble with this, of course, is that on the one hand, Sellars plainly means us to understand 3.38 as excluding the truth of 3.36 and of 3.37; yet he gives us no way to understand this beyond the ordinary way of understanding it - which is in terms of 3.38's implying the negations of both 3.36 and 3.37. But then the negation of 3.36 couldn't be just an unobtrusive form of 3.37 as 3.35 is an unobtrusive form of 3.34; instead it would have to be the sort of proper negation that Sellars claims does not exist. On the other hand, if we take the question mark in 3.38 seriously there is no reason to believe that 3.38 indicates that there exists a possibility beyond those expressible in terms of 3.36 and 3.37. For instance suppose that « π » represents a proposition and « $\sim\pi$ » its negation: the mere syntactic possibility of forming the question « $\pi?$ » does not entail that the proposition that π does not satisfy the law of the excluded middle, and if this is not entailed, then the only possible situations are those in which « π » is true and those in which « π » is not true. By parity of reasoning if there are no proper negations of 3.36 and 3.37 then the syntactic possibility of forming the question in 3.38 does not entail that there are any possible situations except those in which either

3.36 or 3.37 are true. But if the only possible situations are those in which either 3.36 or 3.37 are true, then there are no possible situations in which I have formed no intention with regard to ψ . And this is absurd. Sellars, of course, wants to have it both ways: there are such situations, despite the fact that ascriptions of intention have no proper negations. As so often in Sellars, obfuscation achieved through syntactic irresponsibility is employed to achieve novel philosophical results.

(C) Sellars' blunder over intention and negation is what gives him his opportunity to introduce the first person plural into his analysis, thus confirming that unsound arguments can have interesting conclusions. His point is that even if single individuals must intend either that π or that $\sim\pi$, with simple negations of intention-ascriptions being inconceivable, nonetheless propositions about the intentions of groups of people do have simple negations, because such propositions are quantificational.²¹ Thus in each of 3.39 and 3.40 we get something like the following equivalences holding between (a) and (b):

3.39 (a) Alan ought to spend more time on his Latin.

(b) $(\forall x)$ (if x is one of us, x intends that
Alan spend more time on his Latin).

3.40 (a) It is not the case that Alan ought to spend more time on his Latin.

(b) $(\forall x) (x \text{ is one of us, and } x \text{ intends that Alan not spend more time on his Latin.})$.

Since 3.40 (b) is the simple negation of 3.39 (b), 3.40 (a) is the simple negation of 3.39 (a). Given the original mistake about intention and negation, this is ingenious, if wrong. But Sellars proceeds to mar his own invention, since he commits himself to the view that the internal or external utterance of a sentence such as 3.39 (b) may count as an expression of the intention of the utterer that Alan spend more time on his Latin, and when used as expressions of intention, such sentences in no way depend on the truth of sentences about what people other than the utterer intend with regard to Alan and his Latin. Now it is true that 3.39 (b) may be understood to entail 3.41 below given that it is analytic that I am one of us; and if I utter 3.41 I may be quite properly taken to be expressing my intention that Alan spend more time on his Latin, so that by a transference effected via the entailment, my utterance of 3.39 (b) may be taken to express among other things my intention with regard to Alan's Latin.

3.41 I intend that Alan spend more time on his Latin.

But Sellars insists that the intention that I express when I sincerely utter 3.39 (b) is not the intention I express when I utter 3.41: 3.39 (b) and 3.41 are not different modes of expressing the same intention - rather they express intentions of different modes. (Sellars, p. 203 ff.) The objection to this is that 3.39 (b)

cannot be used to express any intention but the one expressed in 3.41 since straightforward utterances of sentences like 3.42 below do not express anyone's intention that Alan spend more time on his Latin, and such sentences are the only ones about the relevant intentions entailed by 3.39 (b) and not equivalent to 3.41:

3.42 If Felicia is one of us, then Felicia intends
that Alan spend more time on his Latin.

The objection here can only be pushed aside if it is maintained that sentences like 3.39 (b) are not universal quantifications of sentences like 3.42, and of course, this is what is hinted at by Sellars' views about the independence of sentences like 3.39 (b) from sentences like 3.42, but if this independence is insisted upon then no sense can be attached to Sellars' quantificational approach to the negations of «ought» statements, since the intentions which figure in instantial sentences are not of the same mode as the intentions which figure in the quantified sentences. The result is just that the quantified sentences are left incomprehensible. Gesturing towards a transcendental argument that he never presents. Sellars concludes his account of «ought » by maintaining that the intentions in the mode of those referred to in the quantified sentences must be regarded as a distinct «form of life»;²³ but since incantatory invocations of Wittgenstein are not a substitute for comprehensibility, we may at this point leave Sellars' ideas about intention to those who are hierophantically inclined.

Let us now turn to the logically independent idea that

introduction of the first person plural into the account of «ought» is worth taking seriously. What follows is an argument in its favour.

Consider the following conjunction:

3.43 Alan ought to spend more time on his Latin and I have no concern of any kind in the question of whether or not he spends more time on his Latin.

There seems to be at least some kind of pragmatic inconsistency in 3.43. If I utter 3.43 unhesitatingly and with apparent sincerity, the fact that I thus utter its first conjunct seems to belie the disclaimer of concern contained in the second conjunct. If I have no concern of any kind in whether Alan spends more time on his Latin, why do I say unhesitatingly and categorically that he ought to? Why go so far, so blithely? Why not simply stick to the point that it is no concern of mine whether he spends more time on his Latin? Analogous questions arise if I ask myself whether I believe that 3.43 is true. Suppose I think that I sincerely believe that it is not any kind of concern of mine whether Alan spends more time on his Latin. Can I think at the same time that I sincerely believe that he ought to? When I think about it, shouldn't my apparently sincere belief that Alan ought to spend more time on his Latin persuade me that after all, I do believe that the question is of some concern to me? For if it is not of any concern to me, why do I find myself apparently sincerely believing that he ought to?

Not that if the «I» in 3.43 is replaced by «Davidson» as in

3.44 below, these kinds of questions do not arise, so long as whoever «Davidson» refers to is not on any particular occasion the sincere utterer or believer of 3.44 on that occasion.

3.44 Alan ought to spend more time on his Latin and
Davidson has no concern of any kind in the question
whether or not Alan spends more time on his Latin.

The reason for this is that a person's sincerely uttering or believing the first conjunct of 3.43 or 3.44 is itself a display of a certain kind of concern; so that a denial of concern expressed by means of the second conjunct of 3.43 or 3.44 makes immediate sense only if that denial has as its subject someone other than the one who sincerely utters or believes the first conjunct. But in 3.43 the subject of the denial, referred to by the pronoun «I», must be the utterer or believer himself, because of the contextually determined reference of «I»: hence the apparent inconsistency of 3.43. By contrast, the name «Davidson» need not refer to the utterer or believer of 3.44, so that 3.44 need be in no way inconsistent - though it may suffer from the same sort of inconsistency as 3.43 when in a given context Davidson is himself the utterer or believer. The inconsistency of 3.43 and the possible inconsistency of 3.44 thus depends on the context in which those sentences may be used to express a belief. It seems appropriate, therefore, to label the inconsistency pragmatic.

Grant that the inconsistency of 3.43 is real. Now imagine, as before, that in conversation with you, I firmly and candidly

assert that Alan ought to spend more time on his Latin. Since I am being candid, I believe what I assert. Furthermore, aware now of the inconsistency of my believing 3.43, I believe that I have at least some kind of concern in the question of whether or not Alan spends more time on his Latin. Again, since I am being candid, my intentions in asserting in the course of our conversation that Alan ought to spend more time on his Latin include the simple intention that you believe that he ought to. Given that I believe that he ought to, this simple intention seems quite natural. But, once more, aware now also of the inconsistency of your believing what you might express by means of 3.43, I can hardly intend that you believe that you have no concern of any kind in the question whether Alan spends more time on his Latin. Indeed, I must intend that what you believe be consistent with the proposition that you do have such a concern, and inconsistent with the negation of that proposition. This «consistency» constraint intention that you believe that Alan ought to spend more time on his Latin does not seem to make sense, however, unless I believe that you too really do have some kind of actual concern in the question of whether or not Alan spends more time on his Latin. For if you don't have any concern in the question and I believe this, I cannot expect you to believe that he ought to, without expecting you either to believe something false, or to fail to believe the logical consequences of your beliefs. But if in asserting that Alan ought to spend more time on his Latin I intend you to believe something which I believe to be false, or something which I regard

as inconsistent with something I believe to be true, then if I am fully aware of what I am doing, I cannot be judged sincere in making my assertion. It follows that if I tell you sincerely that Alan ought to spend more time on his Latin, I must believe that both you and I have some kind of actual concern in the question of whether or not he does so. But you and I are appropriately referred to as «we»: so I must believe that the question of Alan's Latin concerns us.

Is the indexical reference to us ineliminable here? It would be eliminable if my sincerity in telling you that Alan ought to spend more time on his Latin required that I believe not merely that we, but indeed that everybody had some kind of concern with the question. This, however, seems entirely implausible, since I can surely say to you with perfect sincerity that Alan ought to spend more time on his Latin while at the same time believing with regard to at least some people that it is none of their business whether he does so or not. What was argued above is just that I cannot believe this about you or me when I am sincerely telling you what Alan ought to do. The fact is that you and I may stand in some special relation to Alan - through family connections, or friendship or some institutional link - so that our concern can arise naturally or appropriately out of those relations; there may be some other people, however, who stand in no such relations, so that they cannot seriously be expected to have any concern with Alan and his Latin. The general elimination of any indexical reference to us in cases like this would require a method of

distinguishing «us» from «them» in any context where it could properly be said by one person to another for some «b» and « ϕ » that b ought to ϕ . Perhaps such a method can be devised, but I am not hopeful. With some degree of skepticism, I leave the problem as an exercise for interested readers.

The argument given above is, of course, restricted to cases where someone who believes that some b ought to ϕ also believes that others besides himself can properly be told that b ought to ϕ (assuming that they can be told at all). For if a speaker (thinker) does not think that others can properly be told, he need not be prepared to believe that anyone except himself has any concern in the question of whether b does ϕ . On this account it might be said that although there must be something 'first-personal' built into an explanation of simple «oughts», there is nothing essentially plural that need be adjoined to it. Strictly speaking, I think that this is correct, although presumably only in relatively non-standard cases does it come about that a person who believes that b ought to ϕ also believes that no one besides himself can properly be told that b ought to ϕ . This difficulty can be dealt with if we are willing to accept that the sincere utterance, in actual speech or sub voce in thought, of a sentence of the form of 3.45 commits its utterer to a belief in the truth of a sentence of the form of 3.46:

3.45 b ought to ϕ

3.46 The question whether b ϕ -s or not in some way
concerns the utterer of 3.45 and the audience at

which the utterance of 3.45 is aimed.

3.46 allows and indeed very strongly suggests that a plurality of persons are concerned with the question of b's ϕ -ing; but it leaves open the possibility that the only audience at which the utterance of 3.45 is aimed might turn out to be only the utterer of 3.45 himself. 3.46 does not contain the pronoun «us»; but it would not seem so very reprehensible to turn a blind eye to the impropriety of extending use of «us» so that it might be the object of the verb «concerns» in 3.46 even in the special cases just considered - where, of course, the lonely utterer of 3.45 is aware that he is the lonely utterer of 3.45.

It seems then that there is at least something to be said for linking the first person plural with «ought», although what I have said is not quite what Sellars himself says. But his main point seems to hold up pretty well. For suppose again that I tell you that Alan ought spend more time on his Latin. If you can really show me that you have no concern of any kind, and hence no legitimate concern in the question of whether or not he spends more time on his Latin, then I cannot honestly maintain my intention that your beliefs coincide with mine on the question whether he ought to spend more time on his Latin. But if I cannot honestly intend that you believe that Alan ought to spend more time on his Latin, then I cannot honestly say to you simply that he ought to. And if I cannot honestly say simply that he ought to, I must give up or modify my claim that he ought to, or else say what is strictly speaking, false. True pronouncements about what people ought or

not ought to do must often be reflections of a shared concern with what they do. In this way, such pronouncements carry a certain social weight: quite apart from whether these judgements are universalizable in Hare's sense of not, they make implicit reference to groups of people, even when they explicitly refer to a single individual.

Now, if Sellars had been right about the roles of both intentions and the first person plural in the analysis of «ought», then he would almost certainly have provided a solution to the problem of how the verbal transmission from a speaker to a hearer of the belief that b ought to ϕ should regularly be accompanied by the transmission from the speaker to the hearer of a «critical attitude», in Raz's terms, with regard to the question of whether b ϕ -s. For if the hearer came to believe that b ought to ϕ , then ignoring Sellars' obfuscating qualifications, he would believe that, among others, he himself intended that b ϕ . But then if b were not to ϕ , b would have failed to do what the hearer would have believed himself to have intended; and the prospect of b's possibly not carrying out what the hearer would have regarded as his own intention might well be supposed to evoke in the hearer a readiness to respond critically to b's behaviour insofar as that behaviour had some bearing on the question of whether b's ϕ -s or not. The resultant readiness to respond to critically would then constitute the sort of critical attitude discussed by Raz. A person's possessing such an attitude would not be entailed by his believing that b ought to ϕ , but it is plausible that it

might to be reasonably inferred that he possesses it - given certain unsurprising, rough empirical generalizations about the relations between his intentions, his beliefs, and his assessments of those situations in which his intentions are carried out as compared with those in which his intentions are not carried out. In that case, however, the inference from a person's believing that b ought to ϕ to that person's possessing a certain critical attitude would be an inductive inference, and not a logical one, as Raz suggests. It seems to me thoroughly and unarguably obvious that, contra Raz, the inference in question is an inductive inference, and not a logical one.

This sets us a problem. We have already seen that Sellars' employment of the notion of intention in his analysis of «ought» is unsatisfactory. As a result we have at hand no account of the plausibility of an inductive inference from a person's believing that b ought to ϕ , to his having a certain critical attitude since the account given above relies crucially on the notion of intention. Presumably the inference should be supported by some feature of what it is that is believed when a person believes that b ought to ϕ . If this feature could attach itself, by means of some fairly natural empirical generalization, to some general sort of critical-response to conduct, then the problem would be solved.

I propose that the relevant empirical generalization is this: people often do what they believe they have reason to do. Roughly speaking, what people believe when they believe that b ought to ϕ is that if b doesn't ϕ , there will be a reason for them to review

critically b's conduct. Correspondingly, when they believe both that b ought to have ϕ -ed and that b hasn't ϕ -ed, they believe that there is a reason for them to review critically b's conduct. And when people believe that they have reason to review critically b's conduct, they often do in such circumstances critically review b's conduct. When I say that a person has a reason to review critically b's conduct, I mean that there is a reason for him or her to consider seriously evidence that b has acted badly (cruelly, stupidly, foolishly, inefficiently, clumsily, unkindly, greedily, rudely, pridefully, cravenly, buffoonishly, vel aliter) and accordingly to adjust his or her response with respect to matters involving b. This offers us some explanation of why there is a natural empirical connection between a person's believing that b ought to ϕ and his readiness to respond critically to b's having not ϕ -ed: the person responds so because he believes he has reason to do so. This also explains why there is no invariable connection between a person's believing that b ought to ϕ and his critically responding in case b doesn't ϕ . For although people often do what they believe they have reason to do, of course they often don't do what they believe they have reason to do. (Indeed, this is only to be expected since a person may have a reason to ϕ_i and a reason to ϕ_j , and it may be impossible for him both to ϕ_i and ϕ_j .) And so a person may first believe that b ought to ϕ , and then later believe that b ought to have ϕ -ed and that b hasn't ϕ -ed, and yet be unprepared at any time to review b's conduct critically, even though she believes that b's not ϕ -ing is a reason

for her to do so. For example, at the end of Michael Innes' novel Hare Sitting Up, Lord Ailsworth, an eccentric ornithologist has locked Sir John Appleby and his associates in an attic full of wild ducks. Lord Ailsworth's devoted grand-daughter Jean seems clearly to hold the sensible opinion that Lord Ailsworth ought not to have done this; nonetheless, rather than being disposed to assess critically her grand-father's behaviour, Jean instead deprecates the conduct of Sir John and his colleagues for having set her grand-father off. Thus, love may intervene to build a detour cutting off the approach to a critical review of what a person has done, even in the presence of a sincere belief about what the person ought to have done. And what love of others may do, self-love may also do, so that a person may believe of himself that he ought to ϕ , and then later that he ought to have ϕ -ed, and that he has not ϕ -ed; and yet lapped in the protective waters of self-love, he may simply not undertake to assess his own conduct critically. If he behaves this way constantly, we may be inclined to doubt his sincerity, for it would perhaps be odd of him never to do what he believes he often has reason to do, but if this sort of thing is only occasional with him, the question of his sincerity need not forcibly raise itself at all. To suppose otherwise in this kind of case, to talk about an inverted commas use of 'ought', to think that weakness of will raises logical problems, as Hare did, would be to accept an emotivist legacy encumbered with debts owed to primitive logical behaviourism. By relying on the notion of a reason for doing something, we avoid all this and provide

ourselves with an account of the inductive connection between believing that b ought to ϕ and having a «critical attitude» to b .

We are now in a position to give a precise account of the simple «ought». Remember that the simple «ought» is the «ought» that is patterned after people's actual priorities, the «ought» that is tailor-made for «the simple soul, / Irresolute and selfish, misshapen, lame»; and that the enormity of what it may be that one simply ought to do is a reflection of the enormity of what one may simply be. For this reason, and because our previous argument showed no ground for rejecting the hypothesis, I shall continue to assume that if one simply ought to ϕ , there is an internal reason for one to ϕ . That is, I take 3.47 to be invariably true, though its contrapositive may be false:

$$3.47 \quad @_{\text{now } \alpha} (F \phi b) \supset (\exists Q) (R_{\text{now } \alpha} (Q, \phi b))$$

I shall also assume that anyone who believes that it can properly be said that b ought to ϕ , must also believe that someone, if perhaps only b , could properly say to b that b ought to ϕ . Then by our previous argument the truth of «($@_{\text{now } \alpha} (F \phi b)$)» will depend not only on the reasons that a speaker and an audience have to review critically b 's conduct if b doesn't ϕ , but also on b 's reasons to review his conduct if he doesn't ϕ . With respect to simple «oughts», when I say that b ought to ϕ , I imply that b is one of us. This has the following interesting consequence, which I believe to be correct:

If I say that the Russians simply ought to refrain from persecuting

Jews within their borders, the Russians can prove me wrong by showing either that they have no internal reasons to refrain from persecuting Jews or that they have no internal reasons critically to review their conduct if they don't refrain from persecuting Jews. But if on the basis of their internal reasons to persecute Jews and to review their conduct critically if they don't persecute Jews, the Russians claim that they simply ought to persecute Jews, I at any rate will be unable to concede their claim - for if I concede it, I will have to admit that the Russians simply ought to persecute Jews. But when I entertain the proposition that the Russians ought to persecute Jews, I will be entertaining the entailed proposition that I, as speaker or thinker, have an internal reason to review the conduct of the Russians critically, if they don't persecute Jews. And, as a matter of fact, this proposition is false: I have no such internal reason. What this shows is that an indexical account of simple oughts does not lead to the sorts of problem associated with sophomoric versions of cultural relativism.

These ideas about us tie in with what we may think of as the phenomenology behind the story of the agent convinced by the advocate at the heavenly tribunal that he ought to honour heaven's requirements, and by the earthly advocate that he ought to satisfy the demands of earth, when these are incompatible. For we may picture the agent in the presence of each of the tribunals, each of the advocates playing on the ties that bind the agent to the members of the particular tribunal before which he stands, convincing

him that everyone present, and therefore he himself as well, will have reason to review his conduct critically if he does not do what heaven (earth) requires. Equally impressed by these matched appeals to his group affiliations, when the agent addresses himself to his dilemma in private, he finds that he will have reason to review his conduct critically whether he fails to do what heaven requires, or alternatively fails to do what earth demands. For whatever he does, in honouring the claims that he does honour, he will be painfully aware that he has chosen to favour one of the associations of which he is part rather than the other, when it was open to him to make the opposite choice. And what this suggests is that when «conflicts of oughts» occur, they are liable to have an interpersonal basis. This partly explains why the belief that God has a personal nature makes such a difference to people's views about practical problems.

Finally, I shall assume that if b ought to ϕ , given his priorities and the set α of alternatives open to him, then if b doesn't ϕ , it is with respect to what he might have done given α now, that there is reason to review critically his conduct. This assumption adds concrete content to the idea that simple oughts are related to critical responses. Now let « $X_\alpha x$ » be « x critically reviews b 's conduct with respect to α now», « s » be «the speaker (thinker)», « a » be «the intended audience» and k be the set of alternatives consisting of X_α -ing and not- X_α -ing. As usual « F », and « L » are the future tense, and settledness operators respectively. Then the most straightforward interpretation of our

current hypothesis is this:

$$\begin{aligned}
 3.48 \quad \theta_{\text{now}} \alpha (F \phi b) \text{ iff } (\exists Q_i) (R_{\text{now}} \alpha (Q_i, \phi b)) \& \\
 (\exists G) (s \in G \& a \in G \& b \in G \& \\
 (\forall x) (x \in G \supset L (\sim F \phi b \supset F (\exists Q_j) (R_{\text{now}*} k \\
 (Q_j, X_{\alpha} x))))).
 \end{aligned}$$

In 3.48, «G» designates a set of people whose members include the speaker (thinker), the audience, and the agent b: it is we who are the members of G. The universally quantified clause says that for any person who is one of us, if it is the case that b isn't going to ϕ , then there will be a reason for any such person to review critically b's conduct with respect to α . The settledness operator in 3.48 guarantees that the universally quantified clause will not be made vacuously true by its merely turning out on the actual history that b will ϕ . If it were not for the «L», then whenever at t_i , b had a reason to ϕ and the actual history of the world were such that at some moment later than t_i , b ϕ -ed, then according to 3.48, it would be true, at t_i , that b ought to ϕ . For in those circumstances « $\sim F \phi b$ » would be false, so that « $\sim F \phi b \supset F(\exists Q_j) (R_{\text{now}*} k (Q_j, X_{\alpha} x))$ » would be automatically true. It is obvious that this could not be acceptable. The asterisk beside the second occurrence of the subscript «now» in 3.48 is meant to indicate that it is to be taken as falling within the scope of the future tense operator «F» immediately preceding it; the moment designated by «now*» is to be identical with some moment t_j later than the present moment t_i , such that

at t_j $\langle \exists Q_j (R_{\text{now}} \prec (Q_j, \chi_\alpha x)) \rangle$ is true - (if indeed, it is true). According to 3.48, the material conditional within the scope of the operator L must be true on every possible history passing through the present moment, if $\langle \theta_{\text{now}} \alpha (F \phi b) \rangle$ is to be true. That is the effect of the $\langle L \rangle$. Now our intuitive idea is that b ought to ϕ just in case b has a reason to ϕ , b is one of us, and all of us have a reason to review b 's conduct critically if he hasn't ϕ -ed. This seems simple enough, and 3.48 seems to capture what is involved; but because of the conditional within the scope of the $\langle L \rangle$, 3.48 does not seem very simple, for it requires that a certain relation between objective probabilities holds on many possible histories. In fact, however, it is not especially difficult to see how 3.48 works.

Let us return once more to the case of the swordfish and the red snapper. Of the nine items on my menu, these, having identical levels of cholesterol, are lower in cholesterol than any of the other items on the menu. With regard to either of them, this is a reason for me to order it since I am concerned about keeping my cholesterol intake low. But it is not the case that, on this basis alone, we want to say that I ought to order the swordfish, and I ought to order the red snapper. 3.48 gives us grounds for refusing to say either of these things. Suppose that in foro interno I am considering what to order. Then in the terms of 3.48, we can let G consist of me alone, so that $I (= d)$ am s , a , and b . Since there is a reason for me to order-the-swordfish ($= \sigma$), the first conjunct on the right-hand side of

3.48 is satisfied with respect to the question of whether it is true that $\Theta_{\text{now } \alpha} (F \sigma d)$. Hence, since I am the only member of G, $\langle \Theta_{\text{now } \alpha} (F \sigma d) \rangle$ will be true if it is settled that if I am not going to order the swordfish, there will at some time be a reason for me critically to review my conduct with respect to the set α_{now} , whose members are ordering swordfish, ordering red snapper, ordering a shrimp and filet mignon brochette, etc. If this is to be true, however, it must be true on every history passing through the present moment that if I am not going to order the swordfish, there will be a moment at which something is a reason for me to consider my conduct with respect to ordering now in a critical light. But since ordering the red snapper is among my alternatives now, then by the unsettledness condition on alternatives, there are some histories passing through the present moment on which it is true that I am going to order the red snapper. By the exclusiveness condition on alternatives, these will be histories on which I am not going to order the swordfish. Hence on these histories, the antecedent of the conditional $\langle \sim F \sigma d \supset F(\exists Q_j) (R_{\text{now}^*} \kappa (Q_j, X_\alpha d)) \rangle$ is true. If $\langle \Theta_{\text{now } \alpha} (F \sigma d) \rangle$ is to be true, the consequent of this conditional must also be true on these histories. There are excellent grounds, however, for maintaining that on these histories the consequent will be false. As the example has been presented, all the information that we have suggests that there would be a reason for me critically to review my conduct in ordering dinner now just in case, in ordering, I chose some item having more cholesterol than is

contained in some other item I might have chosen. Call this proposition «C». On histories where I order the red snapper, I do not choose an item having more cholesterol than is contained by some other item I might have chosen. Hence on such histories «C» is false at every moment so that there will not arise moments at which its being the case that C is a reason for me critically to review my conduct in ordering dinner. But apart from «C», there seems to be no available plausible substituent for the « Q_j » of 3.48, so that on such histories « $\sim F \sigma d \supset F(\exists Q_j)$ ($R_{\text{now}} * \ll (Q_j, X_\alpha d) \gg$)» must come out false in the example. Then it is not now settled that if I am not going to order the swordfish, there will come a time when my not having ordered the swordfish gives rise to a reason for me to review my conduct critically. If this is not now settled, then by 3.48 it is not now true that I ought to order the swordfish. A similar argument will show that it is not now true that I ought to order the red snapper. These results accord with intuition, and they do not yield the spurious conflicts of oughts that followed from the two quite different accounts of simple «oughts» contained in 3.1 and 3.20.

The present example lets us see why a formula related to 3.48 but considerably simpler than it will not yield a satisfactory treatment of simple oughts. For it must be admitted that the main thrust of the intuitive idea behind 3.48 can be captured in a simpler formula than 3.48. The complexity of 3.48 is due to the fact that its-being-the-case-that-b-has-not- ϕ -ed is a reason for us to review his conduct critically, only if b has not ϕ -ed.

Ex hypothesis, however, when b ought to ϕ , b's ϕ -ing if it is to occur at all, is something that will occur in the future. This forces us to go to future moments and consider conditionals whose condition is that b will not ϕ , to see whether, once given that condition, it is true then that each of us has a reason critically to review b's conduct. According to 3.48, when we claim that b ought to ϕ , we are concerned with the relevance at future moments of some proposition to the goodness of our critically reviewing his conduct. But it seems to me reasonable to claim rather that, when we say that b ought to ϕ , we are concerned with the relevance at the present moment of the hypothesis that b will not ϕ , to the proposition that it will be maximally good for us to review his conduct critically. This does not seem terribly different from the idea with which we started, yet it lends itself to a formulation which requires us to consider inequalities between objective probabilities only on the actual history and only at the present moment. The formula which expresses the hypothesis in question is 3.49:

$$\begin{aligned}
 3.49 \quad & \theta_{\text{now } \alpha} (F \phi b) \text{ iff } (\exists Q) (R_{\text{now } \alpha} (Q, \phi b)) \& \\
 & (\exists G) (s \in G \& a \in G \& b \in G \& \\
 & (\forall x) (x \in G \supset . (\sum_{k \dots} \text{prob}_c (pr_e^k) \times pr_e^k (F M_{\text{now}^*} \& \\
 & (X_\alpha x) / \sim F \phi b)) > (\sum_{k \dots} \text{prob}_c (pr_e^k) \times pr_e^k (F M_{\text{now}^*} \< \\
 & (X_\alpha x) / F \phi b))))
 \end{aligned}$$

An equivalent formulation, making use of the measure of objective relevance defined in 2.75 is 3.50:

$$\begin{aligned}
3.50 \quad & \theta_{\text{now } \alpha} (F \phi b) \text{ iff } (\exists Q) (R_{\text{now } \alpha} (Q, \phi b)) \& \\
& (\exists G) (s \in G \& a \in G \& b \in G \& \\
& (\forall x) (x \in G \supset \text{orel } (F M_{\text{now } \kappa}^* (X_{\alpha} x) / \sim F \phi b) \\
& > 0)).
\end{aligned}$$

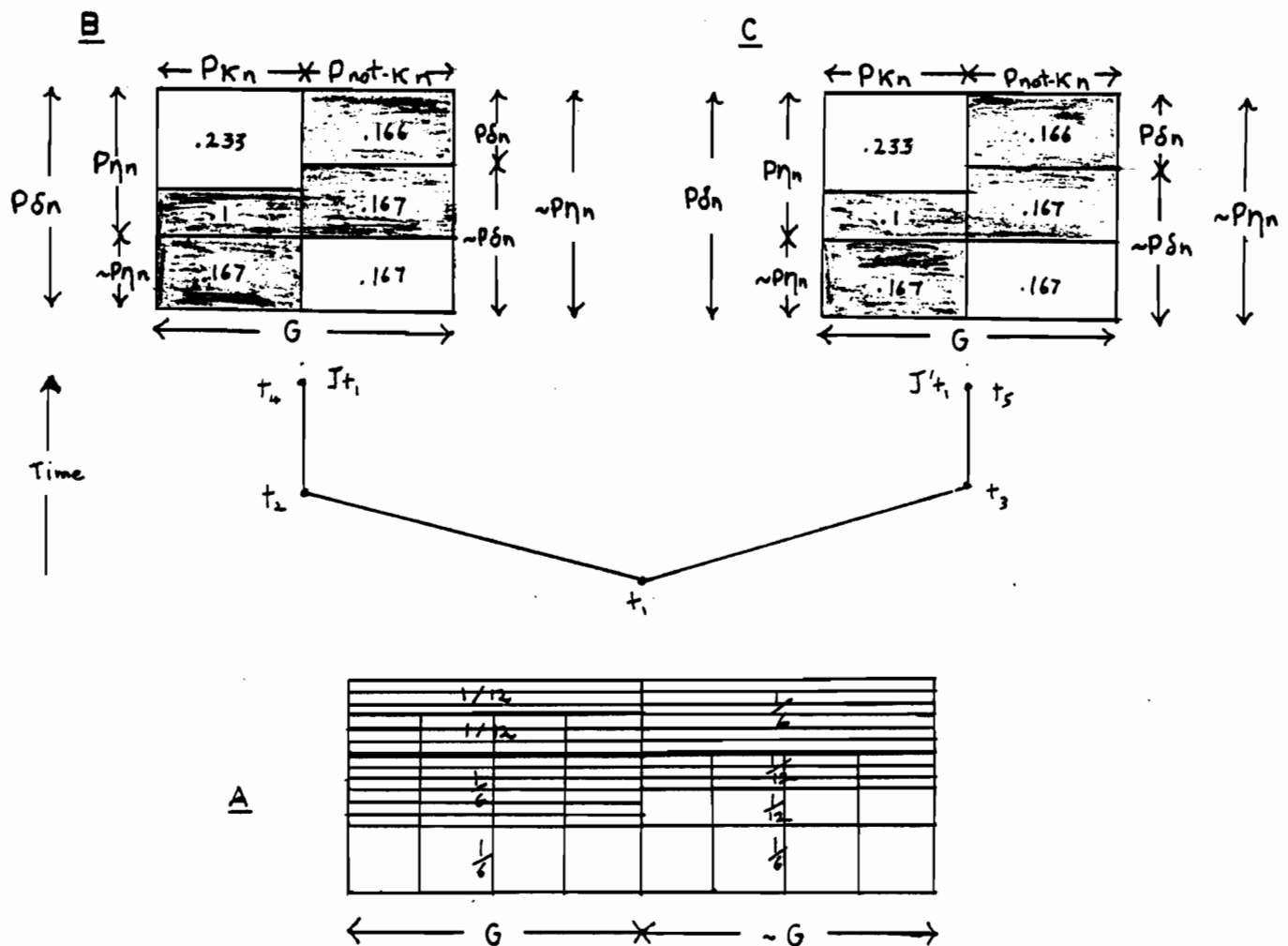
Both 3.49 and 3.50 eliminate «L», one material conditional, and the propositional variable «Q_j». The trouble, however, with 3.49 or equivalently 3.50, is that it makes what I ought to do dependent on the probability of what I will do. Let us add to the swordfish example the information that when I am considering what to order, I am moderately drunk. As a result (i) if I do not order the swordfish, then throwing caution to the winds, I will probably not order the red snapper; (ii) similarly if I do not order the red snapper, I will probably not order the swordfish; and (iii) as a matter of fact, I will probably order neither the swordfish nor the red snapper. Nonetheless, despite my alcohol-induced, temporary lack of self-discipline I am well aware that the probable maximal goodness of my critically reviewing my ordering of dinner now if I order neither, is considerably greater than the probable maximal goodness of my critically reviewing my ordering if I order either. From this it will quickly follow, given the rest of our information, that I ought to order the swordfish and that I ought to order the red snapper. Thus according to 3.49 (3.50), the spurious conflict of oughts reappears, brought on by a few cocktails. According to 3.48, however, the cocktails make no difference, because it is still the case that on the now

improbable histories where I order one of the swordfish or the red snapper. I will have no reason critically to review my conduct which is connected with my not having ordered the other. For on the improbable histories the proposition that C will not be true, it will not be settled that if I will not order the swordfish, then I will have a reason to consider my conduct critically. Hence it will still not now be true that I ought to order the swordfish - and similarly for the red snapper. Since this seems to be the more natural conclusion to draw, I suggest that we stick with the complications brought on by the «L», etc. and adopt 3.48 and not 3.49 (3.50).

3.48 is strong enough to prevent too many propositions about what people ought to do from turning out to be true, as the swordfish example shows. But is it so strong that it eliminates the possibility of conflicting oughts just as the account of 3.21 did? If so we should be inclined to reject it. I shall now show that 3.47 allows for the logical consistency of propositions of the form « $\Theta_{\text{now } \alpha} (F \phi b) \ \& \ \Theta_{\text{now } \alpha} (\text{not-}F \phi b)$ ». We already know from the discussion at the beginning of this chapter that the proposition that $\text{not-}F \phi b$ entails the proposition that $\sim F \phi b$ (see p. 206 above). Hence the proposition that $\Theta_{\text{now } \alpha} (F \phi b) \ \& \ \Theta_{\text{now } \alpha} (\text{not-}F \phi b)$ involves a conflict of oughts which is as strong logically as anyone is likely to be interested in. An argument similar to the one to be given can easily (indeed, more easily) be constructed to show the logical consistency of propositions of the form « $\Theta_{\text{now } \alpha} (F \phi_1 b) \ \& \ \Theta_{\text{now } \alpha} (F \phi_2 b)$ » where « ϕ_1 » and « ϕ_2 »

are such that $\neg L(F\phi_1 b \supset \neg F\phi_2 b)$ but the proposition that $F\phi_1 b$ does not entail that $\neg F\phi_2 b$.

To show consistency, we build a model, which we represent in Fig. 2:



Let t_1 in Fig. 2 be now. Jt_1 and $J't_1$ are distinct histories passing through t_1 , t_2 and t_4 are in the future with respect to t_1 on Jt_1 ; and t_3 and t_5 are in the future with respect

to t_1 on $J't_1$. The rectangle A is a probability distribution at t_1 ; and the rectangles B and C are probability distributions at t_4 and t_5 respectively.

Let $\langle G \rangle = \langle \text{A son's death in battle must cause grief to his father.} \rangle$

$\langle P \rangle =$ the past tense operator

$\langle K n \rangle = \langle \text{I kill Turnus.} \rangle$

$\langle \text{not-}K n \rangle = \langle \text{I refrain from killing Turnus.} \rangle$

$\alpha = \{ \{ K\text{-ing} \} \{ \text{not-}K\text{-ing} \} \}$;

$\langle \eta n \rangle = \langle \text{I bring consolation to Evander for Pallas' death.} \rangle$;

$\langle \delta n \rangle = \langle \text{My treatment of Turnus causes Daunus to grieve.} \rangle$

At t_1 I know that G, so that the left-hand half of the rectangle A represents my prob_c , while the whole of A represents my prob_e . (I, of course, am Aeneas.) As in Chapter II, let the vertically striped areas in A be those in which $\langle M_{\text{now } \alpha} (F K n) \rangle$ is true; let the horizontally striped areas in A be those in which $\langle M_{\text{now } \alpha} (\text{not-} F K n) \rangle$ is true; and let the areas containing both vertical and horizontal stripes be those in which both these sentences are true. (Remember that $\langle \text{not-}F K n \rangle$ is to be understood as $\langle F \text{ not-} K n \rangle$). On the basis of the reasoning in Chapter II, Section VI, p. 184f., we know that at t_1 , it is true both that $R_{\text{now } \alpha} (G K n)$ and $R_{\text{now } \alpha} (G, \text{not } -K n)$. Existentially generalizing, we conclude that $(\exists Q_1) (R_{\text{now } \alpha} (Q_1, K n))$ and that $(\exists Q_1) (R_{\text{now } \alpha} (Q_1, \text{not } -K n))$. Thus the first steps have been taken toward showing what is needed

if Fig. 2 is to illustrate a case where a proposition of the form « $\theta_{\text{now } \alpha} (F \kappa n) \ \& \ \theta_{\text{now } \alpha} (\text{not } -F \kappa n)$ » is true.

Let us deal first with the conjunct « $\theta_{\text{now } \alpha} (F \kappa n)$ ». Assume that I, Aeneas, am considering in foro interno whether to kill Turnus or to refrain from killing him. Then in the terms of 3.48, I exist and am s, a and b, so that what has to be demonstrated if I may conclude that I ought to kill Turnus is just that $L(\sim F \kappa n \supset F(\exists Q_j) (R_{\text{now}*\kappa} (Q_j \chi_{\alpha} n))$ - i.e., that it is settled that if I am not going to kill Turnus, it will be the case that there is some proposition which is a reason for me to criticize my conduct with respect to α now.

Let it be the case that at t_2 on Jt_1 , « κn » and « δn » are true. That is, at t_2 on Jt_1 , I kill Turnus and my treatment of him causes Daunus to grieve. Then at t_4 on Jt_1 , (the next moment after t_2 on Jt_1) « $P \kappa n$ » is true. At t_4 my new current probability distribution prob_c is represented by the left-hand half of the rectangle B; and for the purposes of establishing facts about reasons, at t_4 the whole of rectangle B is my prob_e . In fact rectangle B is just the left-hand half of rectangle A modified with regard to tense operators: the information contained in B (apart from tenses) might just as well have been represented in the left-hand half of A, except that the information would have cluttered hopelessly the drawing of A, and it is in any case irrelevant to the point that we used A to establish.

In B, the shaded areas represent those cases where

$\langle M_{\text{now}^*} \kappa (F \chi_\alpha n) \rangle$ is true.

Since at t_2 , on Jt_1 $\langle \kappa n \rangle$ is true, it follows that at t_1 on Jt_1 , $\langle F \kappa n \rangle$ is true, and $\langle \sim F \kappa n \rangle$ is false. Then at t_1 on Jt_1 , $\langle \sim F \kappa n \supset F(\exists Q_j) (R_{\text{now}^*} \kappa (Q_j, \chi_\alpha n)) \rangle$ is vacuously true because its antecedent is false.

Since Jt_1 and $J't_1$ are the only histories in the model, we have now only to show that the same conditional is true at t_1 on $J't_1$ to show that the conditional is settled.

Assume that at t_3 on $J't_1$, $\langle \text{not-}\kappa n \rangle$ and $\langle \eta n \rangle$ are true. That is, at t_3 on $J't_1$, I cause it to be settled that I will not kill Turnus, and I do not bring any consolation to Evander for Pallas' death. At t_5 the next moment after t_3 on $J't_1$, both $\langle P \text{ not-}\kappa n \rangle$ and $\langle \sim P \eta n \rangle$ are true. At t_5 , then, my new current probability distribution prob_c is represented by the right-hand half of the rectangle C; and for the purposes of establishing facts about reasons we may regard the whole of rectangle C as my prob_e . In fact, rectangle C and rectangle B are identical, since my earlier probability distributions at both t_4 and t_5 are the same as what used to be my current probability function at t_1 . Thus like B, C too contains information that would have been available in the left-hand half of A, had we not suppressed it for reasons of convenience.

Because $\langle \text{not-}\kappa n \rangle$ is true at t_3 on $J't_3$, $\langle \sim \kappa n \rangle$ is true at t_3 , and because $\langle \text{not-}\kappa n \rangle$ entails $\langle \sim F \kappa n \rangle$, $\langle \kappa n \rangle$ must also be false and $\langle \sim \kappa n \rangle$ true at t_5 . Then at t_1 , $\langle \sim F \kappa n \rangle$ is true. Now, if the conditional $\langle \sim F \kappa n \supset F(\exists Q_j) (R_{\text{now}^*} \kappa (Q_j, \chi_\alpha n)) \rangle$ is

to be true at t_1 on Jt_1 , its consequent must be true at t_1 on Jt_1 . But at t_5 it is true that $R_{\text{now } \kappa} (\sim P \wedge n, \chi_\alpha n)$. That is, at t_5 , its being the case that I have not brought consolation to Evander is a reason for me to critically review my conduct with respect to α now. For at t_5 , it is true that $\sim P \wedge n$. And it is true that

$$\sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \kappa} (F \chi_\alpha n) / \sim P \wedge n) > \\ \sum_k \text{prob}_c (\text{pr}_e^k) \times \text{pr}_e^k (M_{\text{now } \kappa} (F \chi_\alpha n) / P \wedge n).$$

For it is clear that given the minimal resources of the model any « C^k » must be tautological and hence that $\text{prob}_c (\text{pr}_e^-)$ must equal 1. Then we have:

$$\text{pr}_e^- (M_{\text{now } \kappa} (F \chi_\alpha n) / \sim P \wedge n) = \text{prob}_e (M_{\text{now } \kappa} (F \chi_\alpha n) / \\ \sim P \wedge n) = \frac{.166 + .167}{.5} = \frac{.233}{.5} = .66 > .300 = \\ \frac{.1}{.1 + .233} = \text{prob}_e (M_{\text{now } \kappa} (F \chi_\alpha n) / P \wedge n) = \text{pr}_e^- \\ (M_{\text{now } \kappa} (F \chi_\alpha n) / P \wedge n).$$

If at t_5 on $J't_1$, $R_{\text{now } \kappa} (\sim P \wedge n, \chi_\alpha n)$, then at t_5 on $J't_1$, $(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha n))$, by existential generalization. Hence, at t_1 on $J't_1$, « $F(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha n))$ » is true. Then at t_1 on $J't_1$ the conditional « $\sim F \kappa n \supset F(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha n))$ » is true. But then this conditional is true on both Jt_1 and $J't_1$, that is, on all the histories in the model. Then the model makes it true at t_1 that $L(\sim F \kappa n \supset F(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha n)))$. Since we already have it that at t_1 that $(\exists Q_i) (R_{\text{now } \alpha} (Q_i, \kappa n))$, I, Aeneas, may conclude that $\theta_{\text{now } \alpha} (F \kappa n)$ - that I ought to kill

Turnus.

A precisely similar argument will show that $\theta_{\text{now } \alpha} (\text{not-}F \prec n)$ - that I ought to refrain from killing him. Again what has to be shown is that $\langle L(\sim F \text{ not-} \prec n \supset F (\exists Q_j)(R_{\text{now}^*} \prec (Q_j, \chi_\alpha n)) \rangle$ is true at t_1 on both Jt_1 and $J't_1$. (Once more, remember that $\langle \text{not-}F \prec n \rangle$ is a notational variant of $\langle F \text{ not-} \prec n \rangle$.) Because $\langle \text{not-} \prec n \rangle$ is true at t_3 on $J't_1$, $\langle \sim F \text{ not-} \prec n \rangle$ is false at t_1 on $J't_1$, so that at t_1 on $J't_1$ the conditional is vacuously true. For Jt_1 what must be demonstrated is that at t_4 , $(\exists Q_j)(R_{\text{now}} \prec (Q_j, \chi_\alpha n))$. Here $\langle P \delta n \rangle$ is the substituend, for at t_4 it is true that $R_{\text{now}} \prec (P \delta n, \chi_\alpha n)$. That is, its being the case that my treatment of Turnus has caused Daunus to grieve is a reason for me to review my conduct critically. For, once more taking any $\langle C^k \rangle$ to be tautological and $\text{prob}_c (\text{pr}_e^-) = 1$, rectangle B at t_4 yields

$$\begin{aligned} \text{pr}_k^- (M_{\text{now}} \prec (F \chi_\alpha n) / P \delta n) &= \text{prob}_c (M_{\text{now}} \prec (F \chi_\alpha n) / P \delta n) = \\ \frac{.1 + .167}{.5} &= .534 > .5 = \frac{.167}{.167 + .167} = \text{prob}_c (M_{\text{now}} \prec \\ (F \chi_\alpha n) / P \delta n) &= \text{pr}_k^- (M_{\text{now}} \prec (F \chi_\alpha^- n) / \sim P \delta n). \end{aligned}$$

Then at t_1 on Jt_1 $\langle F(\exists Q_j)(R_{\text{now}^*} \prec (Q_j, \chi_\alpha n)) \rangle$ is true, so that the conditional of which it is the consequent is true. Then the conditional is true at t_1 on all the histories in the model, so that it is settled that it is true. I may therefore conclude that at t_1 $\theta_{\text{now } \alpha} (\text{not-} \prec n)$. Hence at t_1 , I may truly conclude that $\theta_{\text{now } \alpha} (F \prec n) \& \theta_{\text{now } \alpha} (\text{not-}F \prec n)$, and conflicts of simple $\langle \text{oughts} \rangle$ have thus been shown to be consistent.

It is worth noting that Fig. 2 would not illustrate a conflict of oughts, if in order to show that I ought to ϕ , one had to show not merely that if I am not going to ϕ , there will be a reason for me to review my conduct critically in the light of the alternatives that were open to me, but rather that if I am not going to ϕ , there will come a time when my not having ϕ -ed will be a reason for me to review my conduct critically in the light of the alternatives that are now open to me. Though I have no proof, I suspect that 3.51, if it were proposed as an alternative to 3.48, would rule out conflicts:

$$\begin{aligned}
 3.51 \quad \theta_{\text{now } \alpha} (F \phi b) \text{ iff } & (\exists Q)(R_{\text{now } \alpha} (Q, F \phi b)) \& \\
 & (\exists G) (s \in G \& a \in G \& b \in G \& \\
 & (\forall x) (x \in G \supset L(\sim F \phi b \supset F(R_{\text{now } \alpha} (\sim P \phi b), \chi_{\alpha} x))).
 \end{aligned}$$

Because 3.51 quantifies only once over propositions, it is somewhat neater than 3.48, which does so twice. Since, however, I have been unable to produce a model which yields a conflict of simple «oughts» when simple «oughts» are interpreted according to 3.51 I have stuck with 3.48. Whether the choice is otherwise significant, I leave for the reader to consider.

I want to suggest now, very tentatively, a way of understanding what it is for one «ought» to override another. I shall say:

$$\begin{aligned}
 3.52 \quad \text{That } \theta_{\text{now } \alpha} (F \phi_1 b) \text{ simply overrides that} \\
 \theta_{\text{now } \alpha} (F \phi_2 b) \text{ iff}
 \end{aligned}$$

- (i) $L(F \phi_1 b \supset \sim F \phi_2 b)$;
- (ii) $\theta_{\text{now}} \alpha (F \phi_1 b)$;
- (iii) $\theta_{\text{now}} \alpha (F \phi_2 b)$;
- (iv) $(\exists Q_i) (\forall Q_j) (Q_i, \text{ as a reason for } b \text{ to } \phi_1, \text{ outweighs } Q_j \text{ as a reason for } b \text{ to } \phi_2); \text{ and}$
- (v) $(\exists G) (s \in G \ \& \ a \in G \ \& \ b \in G \supset$
 $(\forall x) (x \in G \supset \text{prob}_c(((F M_{\text{now}^* \kappa} (F \chi_\alpha x)) /$
 $\sim F \phi_1 b) > \text{prob}_c(((F M_{\text{now}^* \kappa} (F \chi_\alpha x)) /$
 $\sim F \phi_2 b))))).$

The «simply» in 3.52 is a reminder that as we are concerned with simple oughts, which take people's personal priorities as they are, the overriding relation that we must be interested in is one whose obtaining is equally determined by the personal priorities people actually have. It is for this reason that clause (v) makes the notion of overriding indexical in the same way that 3.47 makes the simple «ought» indexical.

3.52 is really quite simple. The significant clauses (iv) and (v) say merely that when it is true for me to say to you that its being the case that you ought to ϕ_1 overrides its being the case that you ought to ϕ_2 , then : (a) you have a reason to ϕ_1 which outweighs any reason you have to ϕ_2 , and it is more probable that it will be maximally good for us to review your conduct critically if you don't ϕ_1 , than that it will be maximally good for us to do so if you don't ϕ_2 . I put this idea forward tentatively

because it seems a little strong. No doubt alternatives to 3.52 can be devised, but I have not investigated the possibilities. In any case it is at least clear given the model in Fig. 2, that by employing 3.52, I, as Aeneas, can determine that at t_1 its being the case that I ought to kill Turnus overrides its being the case that I ought to omit killing him. For in the model as presented, there is evidently only one operative reason to kill or to omit killing, and that is the proposition that G. Since in rectangle A $\text{prob}_c (M_{\text{now} \alpha} (F \kappa n)) (= \frac{1}{6} + \frac{1}{6} + \frac{1}{2}) > \text{prob}_c M_{\text{now} \alpha} (F \text{not-}\kappa n) (= \frac{1}{6} + \frac{1}{12} + \frac{1}{12})$, it follows that G as a reason for killing outweighs G as a reason for not killing. Furthermore, since the identical rectangles B and C represent information contained in prob_c but omitted from the left-hand half of rectangle A, we can look to either of them, making appropriate tense modifications, to discover that at t_1 $\text{prob}_c (F M_{\text{now} \kappa} (F \chi_{\alpha} n) / \sim F \kappa n) (= \frac{.167 + .166}{.5} = .666) > \text{prob}_c (F M_{\text{now} \kappa} (F \chi_{\alpha} n) / \sim F \text{not-}\kappa n) (= \frac{.167 + .1}{.5} = .534)$. Thus, it is more probable that it will be maximally good for me to review my conduct if I omit to kill Turnus, than that it will be maximally good for me to do so if I do kill him. Presumably I believe this, on some such ground as that (a) I recognize my close ties to Evander and Pallas as making the demand that Pallas be avenged more urgent than the claim for Turnus' life which arises from my less personal connection with his father Daunus; and (b) if I begin to favour strangers over friends, I had better check to see whether I am not going off the rails.

Because 3.52 is formulated in terms of simple probabilistic inequalities, it allows for cases of conflicting oughts where neither overrides the other. Then if we like we can draw a distinction between actual and prima facie «oughts» in such a way that there are no conflicts between actual «oughts» but only between prima facie «oughts» or between prima facie and actual «oughts» or else we can draw the distinction in another way, allowing conflicts between actual «oughts». For hints, the reader who favours the first approach may look back at our 3.12 and 3.13 (see p. ²¹¹ above); readers who like the second approach should look at 3.14 and 3.15 (p. ²¹³ 213).

Before leaving simple «oughts» I should like to make good the claim I advanced at the end of Chapter II that «ought» represented by a sentential operator like « $O_{\text{now}} \alpha$ », is not closed under entailment, so that the logic of «ought» is not any kind of modal logic, and a fortiori, not any kind of deontic logic.

Let «P» = «I have promised Pepita to pick her up to take her to dinner.»

« πd » = «I pick Pepita up to take her to dinner.»

« ϕd » = «I phone Pepita to tell her I can't pick her up for dinner.»

Now, the proposition that πd entails the proposition that $\pi d \vee \text{not-}\phi d$. That is, it is logically necessary that if I pick Pepita up to take her to dinner, then either I pick Pepita up to take her to dinner, or I omit to phone Pepita to tell her I can't pick her up for dinner. But the proposition that $\pi d \vee \text{not-}\phi d$ entails

t_1 is now. Gt_1 , $G't_2$, Jt_1 , and $J't_2$ are all histories passing through the present moment.

At t_1 , «P» is true, and I know it to be true, so that at t_1 $\text{prob}_c(P) = 1$. This is represented in the left-hand half of the rectangle A. For the purposes of assessing facts about reasons in the model, my prob_e is represented by the entire rectangle A. In areas containing horizontal stripes, « $M_{\text{now } \alpha}(F[\lambda \times (\pi \times v \text{ not-}\phi \times x]d))$ » is true. In areas containing vertical stripes « $M_{\text{now } \alpha}(F \pi d)$ » is true. In areas containing both kinds of stripes, both sentences are true. Taking all « C^k 's» to be equivalent to tautologies $\text{prob}_c(\text{pr}_e^-) = 1$ and

$$\begin{aligned} \text{pr}_e^-(M_{\text{now } \alpha}(F \pi d)/P) &= \text{prob}_e(M_{\text{now } \alpha}(F \pi d)/P) = \frac{.4}{.5} = .8 > \\ .2 = \frac{.1}{.5} &= \text{prob}_e(M_{\text{now } \alpha}(F \pi d)/\sim P) = \text{pr}_e^-(M_{\text{now } \alpha}(F \pi d)/\sim P) \end{aligned}$$

Hence, « $R_{\text{now } \alpha}(P, \pi d)$ » is true at t_1 .

$$\begin{aligned} \text{pr}_e^-(M_{\text{now } \alpha}(F[\lambda \times (\pi \times v \text{ not-}\phi \times x]d)/P) &= \text{prob}_e \\ (M_{\text{now } \alpha}(F[\lambda \times (\pi \times v \text{ not-}\phi \times x]d)/P) &= \\ \frac{.4}{.5} = .8 \nmid .8 = \frac{.1 + .3}{.5} &= \text{prob}_e(M_{\text{now } \alpha}(F[\lambda \times (\pi \times v \text{ not-}\phi \times x]d)/\sim P) = \\ \text{pr}_e^-(M_{\text{now } \alpha}(F[\lambda \times (\pi \times v \text{ not-}\phi \times x]d)/\sim P), \end{aligned}$$

so that it is false that $R_{\text{now } \alpha}(P, [\lambda \times (\pi \times v \text{ not-}\phi \times x]d)$.

In the model, the only other propositions guaranteed true at t_1 are tautologies and the conditions necessary for the existence of an appropriate set of alternatives. None of these can be a reason with respect to the alternatives at stake, so that it is not the case at t_1 that $(\exists Q_i)(R_{\text{now } \alpha}(Q_i, [\lambda \times (\pi \times v \text{ not-}\phi \times x]d))$. By 3.48 it follows that « $\sim_{\text{now } \alpha}(F[\lambda \times (\pi \times v \text{ not-}\phi \times x]d)$ » is true at t_1 .

It remains to show that at t_1 $\langle \theta_{\text{now}} \alpha (F \pi d) \rangle$ is also true. We already have it that at t_1 , $R_{\text{now}} \alpha (P, \pi d)$. Existentially generalizing we get the consequence that $(\exists Q_i) (R_{\text{now}} \alpha (Q_i, \pi d))$.

Assume that I exist and that I am considering in foro interno whether I ought to π . Then in the terms of 3.48 I am s , a , and d . What has to be demonstrated is that at t_1 $L(\sim F \pi d \supset F(\exists Q_j) (R_{\text{now}^*} \kappa (Q_j, \chi_\alpha d)))$.

Now look at the histories Gt_1 , $G't_1$, Jt_1 , $J't_1$. Let it be the case that:

On Gt_1 at t_2 $\langle \text{not-}\phi d \rangle$ and $\langle \pi d \rangle$ are false; at t_6

$\langle \text{not-}\phi d \rangle$ and $\langle \pi d \rangle$ are false;

On $G't_1$ at t_3 $\langle \text{not-}\phi d \rangle$ is true and $\langle \pi d \rangle$ is false; at

t_7 $\langle \text{not-}\phi d \rangle$ and $\langle \pi d \rangle$ are false;

On Jt_1 at t_8 $\langle \text{not-}\phi d \rangle$ and $\langle \pi d \rangle$ are false; at t_{12}

$\langle \text{not-}\phi d \rangle$ is false and $\langle \pi d \rangle$ is true;

On $J't_1$ at t_5 $\langle \text{not-}\phi d \rangle$ is true and $\langle \pi d \rangle$ is false; at t_{13}

$\langle \text{not-}\phi d \rangle$ is false and $\langle \pi d \rangle$ is true.

Then on Jt_1 and $J't_1$ at t_1 , $\langle F \pi d \rangle$ is true and $\langle \sim F \pi d \rangle$ false, so that at t_1 on these histories $\langle \sim F \pi d \supset F(\exists Q_j) (R_{\text{now}^*} \kappa (Q_j, \chi_\alpha d)) \rangle$ is vacuously true. The non-vacuous cases are on histories Gt_1 and $G't_1$.

Taking Gt_1 first, we see that at t_{10} , both $\langle \sim P \pi d \rangle$ and $\langle \sim P \text{not-}\phi d \rangle$ are true. My prob_c at t_{10} is represented in rectangle — B, by the unshaded rectangle on the lower left, together with the smallest shaded rectangle above it. In B and C the shaded areas are those in which $\langle M_{\text{now}} \kappa (F \chi_\alpha d) \rangle$ is true. As with Fig. 2,

these rectangles, representing future prob_e 's contain no more information than would have been represented in the left-hand half of A, with appropriate adjustments for tense, if we had not chosen for convenience to ignore this. At t_{10} we have to take the one $\langle C^k \rangle$ to consist of $\langle \sim P \text{ not-}\phi d \rangle$ with $\text{prob}_c (\text{pr}_e^{\sim P \text{ not-}\phi d}) = 1$. Then we get:

$$\begin{aligned} \text{pr}_e^{\sim P \text{ not-}\phi d} (M_{\text{now } \kappa} (F \chi_\alpha d) / \sim P \pi d) &= \text{prob}_e (M_{\text{now } \kappa} \\ (F \chi_\alpha d) / \sim P \pi d \ \& \ \sim P \text{ not-}\phi d) &= \frac{.06}{.06 + .18} = \frac{.06}{.24} = .25 > \\ .167 &= \frac{.02}{.12} = \frac{.02}{.1 + .02} = \text{prob}_e (M_{\text{now } \alpha \kappa} (F \chi_\alpha d) / \sim P \pi d \\ \& \ \sim P \text{ not-}\phi d) &= \text{pr}_e^{\sim P \text{ not-}\phi d} (M_{\text{now } \kappa} (F \chi_\alpha d) / P \pi d). \end{aligned}$$

Then at t_{10} $R_{\text{now } \kappa} (\sim P \pi d, \chi_\alpha d)$, so that $(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha d))$.

Hence at t_1 on Gt_1 , $F(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha d))$, so that at t_1

on Gt_1 , $\langle \sim F \pi d \supset F(\exists Q_j) (R_{\text{now } \kappa} (Q_j, \chi_\alpha d)) \rangle$ is true. A

parallel argument will show that the conditional is also true on

$G't_1$ at t_1 , if at t_1 , we take the one $\langle C^k \rangle$ to be $\langle P \text{ not-}\phi d \rangle$ with the $\text{prob}_c (\text{pr}_e^{P \text{ not-}\phi d}) = 1$ and again suppose that $\langle P \pi d \rangle$ is

the appropriate substituent for $\langle Q_j \rangle$. The numerical inequality we get in this way is $\frac{.16}{.16} = 1 > 0 = \frac{0}{.48}$. Since this is certainly true,

we now have it that the relevant conditional is true at t_1 on

every history in the model, so that at t_1 $\langle L(\sim F \pi d \supset F(\exists Q_j)$

$R_{\text{now } \kappa} (Q_j, \chi_\alpha d)) \rangle$. But we already have it that $\langle \exists Q_i \rangle (R_{\text{now } \alpha}$

$(Q_i, \pi d)$. It follows that at t_1 I may truly conclude that

$\theta_{\text{now}} (F \pi d)$, and not only that but by the argument on p. 264,

$\theta_{\text{now } \alpha} (F \pi d) \ \& \ \sim \theta_{\text{now } \alpha} (F[\lambda x (\pi x \vee \text{not-}\phi x]d)$. This, however,

is just what we needed to show that the operator $\langle \theta_{\text{now } \alpha} \rangle$ is not

closed under entailment. If $\langle \Theta_{\text{now } \alpha} \rangle$ captures what is meant by «ought» when people say that so-and-so ought to do such-and-such, then the logic of the «ought» that people thus use is not deontic logic.

Perhaps it is worth noting that in the example just given, if there had been a reason for me either-to-pick-Pepita-up-to-take-her-to-dinner-or-else-omit-to-phone-her-to-tell-her-I-can't-pick-her-up, then it would have been the case that I ought to do so. This can be seen by considering the fact that at t_1 in the model it is somewhat surprisingly true that $L(\sim F[\lambda x (\pi x \vee \text{not-}\phi x)]d \supset F(R_{\text{now}^* K}(\sim P \pi d \ \& \ \sim P \text{not-}\phi d, \chi_\alpha d)))$. The reason for this is that I felt it would have been inappropriate to allow any real probability to the maximal goodness of my critically reviewing my conduct, if I simply picked Pepita up and didn't phone to tell her that I could not. Logically, however, there might have been such a probability. In any case, if something supports the hypothesis that it is maximally good for me to ϕ , but nothing supports the hypothesis that it is maximally good for me either to ϕ or to ψ . I do not see why I should be driven to accept that I ought either to ϕ or to ψ , just on the basis that I believe that I ought to ϕ . What the preceding argument shows, I hope, is that this intuition is capable of being defended in a thoroughly precise way, without departing from a fairly natural idea - the idea that what I ought to is what I have reason to do, and what, if I don't do, I shall have reason to criticize myself for not doing.

That is the simple «ought». Special «oughts» and the legal

«ought» in particular, are to be understood, I have suggested, in terms of conditionals and simple «oughts». I shall take it for granted from now on that we can all understand a simple «ought» when we meet one.

II. The Case of the Legal «Ought», and a Brief General Account of Special «Oughts».

The legal «ought», and special «oughts» in general, are so much simpler than simple «oughts», that it is a wonder that they are thought to cause any problems at all. Yet as we saw in Chapter One, they are regarded as raising certain questions. The reader will recall that questions begin to arise in connection with sentences such as the following:

3.54 Legally speaking, you ought not to keep a common bawdy house; but I don't believe that you ought not to keep a common bawdy house.

If someone utters 3.54, the effect of the clause following the semi-colon is to cancel the suggestion that would otherwise be carried, that the speaker is advising or suggesting that his interlocutor not keep a common bawdy house. Presumably the «ought» in the clause following the semi-colon is a simple «ought», so that a speaker who utters the second clause of 3.54 means to convey the idea that he doesn't believe both of the following: that his interlocutor has a reason not to keep a common bawdy house and that his interlocutor and he himself belong to some class or group of people, all of whom would have a reason to regard critically the

interlocutor's conduct, if the interlocutor were to keep a common bawdy house. That is, there is at least one of these propositions that the speaker doesn't believe.

The point about 3.54, however, is that it seems that a speaker may assert the whole of it without raising in his audience the suspicion that in asserting the clause that comes before the semi-colon (the «legally speaking» clause), the speaker must be asserting something that he doesn't believe. That is, 3.54 is not a sentence of the form

3.55 P; but I don't believe that P.

It would appear that someone who asserts the whole of a proposition of the form of 3.54 must raise doubts about whether he believes that P - for he says that he doesn't believe that P, and yet he asserts that P. In asserting that P, he conversationally implicates that he believes that P. Of course, conversational implicatures can be explicitly cancelled, but if this one is cancelled, as it is by the clause that follows the semi-colon, it is not at all clear what is to be made of the assertion that P. For the usual point of assertion is to get the audience to believe or to continue to believe what is asserted; but when a speaker openly declares his own disbelief in what he has asserted, viz. that P, it is hard to see how in that context he can think that his act of asserting that P will contribute to the end of getting others to believe or to continue to believe that P. That is why utterances of the form of 3.55 are regarded as pointless and paradoxical.

Why is the utterance of 3.54 not similarly pointless and paradoxical? The simplest answer is that 3.56 does not entail 3.57:

3.56 Legally speaking, you ought not to keep a
common bawdy house.

3.57 You ought not to keep a common bawdy house.

Because this is possible, a person may believe the former without believing the latter. Someone who utters 3.54 conversationally implicates that he believes that 3.56 is true, and asserts that he doesn't believe that 3.57 is true. Since 3.56 does not entail 3.57, the assertion of 3.57 does not cancel the conversational implicature of the assertion of 3.56. Hence no problem arises. A similar argument will explain why the assertion of 3.58 is not pointless or paradoxical either.

3.59 You ought not to keep a common bawdy house; but
I don't believe that it is true that, legally
speaking, you ought not to keep a common bawdy
house.

The apparent acceptability of 3.59 suggests that 3.57 does not entail 3.56, any more than 3.56 entails 3.57. So much is obvious. We already have an account of what 3.57 says. Our current concern is with the precise sense of 3.56.

A preliminary question is whether the clause which stands as an independent sentence in 3.57 («you ought not to keep a common bawdy house») also figures as a part of the sentence numbered 3.56 («Legally speaking, you ought not to keep a common

bawdy house»). Certainly it seems as if this is the case. More precisely, what we want to know, however, is whether the content of the proposition expressed by 3.56 is a function of the proposition expressed by 3.57. As we saw in Chapter One, the legal philosophers Raz and Finnis seem to answer this question negatively. Raz appears to regard 3.56 as equivalent to something like 3.60, and Finnis appears to think of it as equivalent to something like 3.61:²⁴

3.60 If the ideal law abiding citizen (the legal man or woman) were in your circumstances, it would be true of him or her that he or she ought not to keep a common bawdy house.

3.61 If the mature man or woman of practical wisdom (the practically reasonable man or woman) were in your circumstances, it would be true of him or her that he or she ought not to keep a common bawdy house.

The «oughts» in 3.60 and 3.61 we may read as simple «oughts». There is little temptation to regard the content of the propositions expressed by 3.60 and 3.61 as a function of the content of the proposition that you ought not to keep a common bawdy house. Thus, to determine, for example, the class of possible histories which is identical to the proposition expressed by 3.60, it does not seem necessary to know anything which is particularly about the class of those possible histories which make true the sentential

clause «you ought not to keep a common bawdy house». Now, admittedly both 3.60 and 3.61 meet what we may regard as the minimal requirement on potential explications of 3.56, that they neither entail nor be entailed by 3.57. And so it might be supposed that when 3.56 is properly understood, it can be seen not to include 3.57 as a part of itself. Then, perhaps the content of the proposition that legally speaking, you ought not to keep a common bawdy house would not be a function of the content of the proposition that you ought not to keep a common bawdy house. Similarly, perhaps the content of the proposition that legally speaking, John Smith ought not to keep a common bawdy house would not be a function of the content of the proposition that John Smith ought not to keep a common bawdy house, etc.

This, however, is too swift. For it is possible to form analogues of 3.60 and 3.61 expressing propositions whose content does seem to be a function of the content of the proposition that you ought not to keep a common bawdy house:

3.62 If you were the ideal law-abiding citizen (a legal man or woman) it would be true of you that you ought not to keep a common bawdy house.

3.63 If you were the mature man or woman of practical wisdom (the practically reasonable man or woman), it would be true of you that you ought not to keep a common bawdy house.

Thus, to determine what class of possible histories is identical with the proposition expressed in 3.62, it does seem necessary to

know something about which possible histories are those which make true the sentential clause «you ought not to keep a common bawdy house». Now the difficulty for Raz and Finnis, if indeed they were concerned to defend 3.60 and 3.61 respectively over 3.62 and, 3.63, would be that there does not seem to be much more theoretical baggage carried by 3.60 and 3.61, than that which is carried by 3.62 and 3.63, when all of these are regarded as conveying the sense of the proposition that legally speaking, you ought not to keep a common bawdy house. Of course, given the pair of analogues 3.60 and 3.62, or the pair 3.61 and 3.63, for either pair it could not be the case that both members expressed the sense of the proposition that legally speaking you ought not to keep a common bawdy house, unless the members were logically equivalent. Our previous argument has suggested that the members of each pair are not «intentionally isomorphic», but no argument has been given to show that the members of each pair are not logically equivalent to each other. Nor do Raz and Finnis offer such arguments. In answer to our preliminary question, then, it seems at least possible, even on the views of Raz and Finnis, to construe the content of the proposition that legally speaking you ought not to keep a common bawdy house as a function of the content of the proposition that you ought not to keep a common bawdy house. And this opens the door at least to interpreting the sentence, «Legally speaking you ought not to keep a common bawdy house», in terms of a conditional sentence whose consequent is «you ought not to keep a common bawdy house».

Suppose that «P» is the antecedent of the conditional sentence which conveys the sense of the proposition that legally speaking you ought not to keep a common bawdy house. Then we can transform the sentence that was our starting point in this section as follows:

3.64 If P, you ought not to keep a common bawdy house; but I don't believe that you ought not to keep a common bawdy house.

As long as «P» is not taken to express a necessary truth or falsehood, what precedes the semi-colon in 3.64 does not entail that you ought not to keep a common bawdy house, so that a speaker who utters 3.64 need not conversationally implicate that he believes that you ought not to keep a common bawdy house, only to cancel the implicature by denying that he believes that you ought not to do so. Hence the assertion of 3.64 need not be pointless or paradoxical. A similar argument will show that the assertion of 3.65 need not be pointless or paradoxical, so long as P is taken not to express a necessary truth or falsehood, and «if» is not taken to express material implication:

3.65 You ought not to keep a common bawdy house; but I don't believe it to be the case that, if P, you ought not to keep a common bawdy house.

But although the assertion of 3.65 need not be pointless or paradoxical, the assertion of 3.65 will nevertheless seem odd, if we assume that the truth of both the antecedent and the consequent

the conditional guarantees the truth of the conditional. For then, given the speaker's conversationally implicated belief in the consequent of the conditional «If P, you ought not to keep a common bawdy house», the subsequent denial of belief in the conditional itself seems to implicate that the speaker believes the antecedent «P» to be false. If so, the conditional which the speaker does not believe ought to be expressed as a counterfactual. A similar argument can be constructed, even if we make the weaker assumption that belief in the truth of the antecedent and the consequent of a conditional must yield a high degree of belief in the truth of the consequent, conditional on the truth of the antecedent. For then, if we take the speaker's denial of belief in the conditional in 3.65 to be a denial that he or she accepts a high conditional probability, we can use Bayes' theorem to get from the implicature that the speaker believes that you ought not to keep a common bawdy house, to the implicature that the speaker does not believe that P. Again a subjunctive conditional would seem called for. I propose to get round this difficulty by proposing that in 3.64 and 3.65 we replace «if» with the Stalnaker conditional operator « $\rightarrow$ » which is intended to do duty in both indicative and subjunctive conditionals. Then what we have shown is that a sentence of the form «P $\rightarrow$ you ought not to keep a common bawdy house», must easily pass the minimal test that anything must satisfy if it is to convey the sense of the proposition that, legally speaking, you ought not to keep a common bawdy house.

It is at this point that serious argument can begin. Early in Chapter One, (p.³), I suggested that the difference between a sentence such as, «You ought not to keep a common bawdy house», and a sentence such as «Legally speaking, you ought not to keep a common bawdy house», is that sentences like the former are used to make categorical suggestions, and sentences like the latter are used to make conditional suggestions. Instead of talking of «suggestions», let us speak in terms of «recommendations». It seems to me that Raz is best interpreted as denying that sentences such as «Legally speaking, you ought not to keep a common bawdy house» are used to convey conditional recommendations. Thus interpreted, it will be open to him to allow that the sense of such sentences can be conveyed using sentences which are conditionals. He will then have to maintain nothing more than that the conditional sentences in question can not appropriately be used for making conditional recommendations.

Let us say that whenever someone says something that entails that there is a reason for some person to do something, he conveys a categorical recommendation that the person in question do the thing in question. In saying this we may suppose that the recommendation thus conveyed may be a very limited recommendation indeed. For all that need be entailed by what is said is that there is some support for the hypothesis that it would be maximally good for the person in question to do the thing in question. Thus a categorical recommendation may be a very weak recommendation. So be it. It follows that whenever someone says simply that some

person ought to do something, then if 3.48 captures what is commonly understood by the word «ought», the speaker must thus convey a categorical recommendation that the person in question do the thing in question. This is because according to 3.48, someone who says that a person ought to do something, says something that entails that there is a reason for the person in question to do the thing in question.

Let us now say that someone conveys a conditional recommendation that some person do something just in case he says something such that, with regard to a particular condition, his saying it conventionally implicates that it is an open possibility that the condition holds, and that, if the condition does hold, there is a reason for the person in question to do the thing in question. In such a case, if «P» represents the particular condition in question, let us say that the conditional recommendation that $b \phi$ conveyed by the speaker is a recommendation, that $b \phi$, conditional on its-being-the-case-that-P.

Now the position of Raz and Finnis can be understood in the following way. Let « P_1 » be any sentence such that the conditional « $P_1 \rightarrow$ you ought not to keep a common bawdy house» conveys what is commonly understood by the sentence «Legally speaking, you ought not to keep a common bawdy house». Then speakers cannot use this last sentence to convey the recommendation that you not keep a common bawdy house, conditional on its being the case that P_1 . For whatever « P_1 » is, if the conditional sentence « $P_1 \rightarrow$ you ought not to keep a common bawdy house» captures the

sense of «Legally speaking, you ought not to keep a common bawdy house», then on the Raz-Finnis view the conditional sentence « $P_1 \rightarrow$ you ought not to keep a common bawdy house» must be counterfactual. That is, « P_1 » must be some obvious fiction, such as «You are the legal man» or «you are the mature man of practical wisdom». This, of course, is the whole burden of claim that some theoretical idealization, some ideal type must be hypostatized if legal «oughts» are to be properly understood. Given this, and imagining that a speaker's «Legally speaking, you ought not to keep a common bawdy house» can entail only a plainly counterfactual conditional such as 3.62 or 3.63, with their patently fictional antecedents, we find ourselves forced by the subjunctive mood of the conditionals to conclude that it is not an open possibility that you are the legal man, or that you are the mature man of practical wisdom. Hence, with regard to these «conditionals», a speaker's utterance does not conventionally implicate that it is an open possibility that these conditions hold. What is implicated is just that these conditions do not hold and so are not open. Quite naturally, then, we do not conclude that if someone tells you that legally speaking you ought not to keep a common bawdy house, what he or she is offering you is a conditional recommendation that you ought not to keep a common bawdy house - the condition in this case being that you are the legal man, or the mature man of practical wisdom. To offer the conditional recommendation one would have to assert indicative conditionals such as 3.66 or 3.67:

3.66 If you are the ideal law-abiding citizen

(the legal man or woman) you ought not to keep
a common bawdy house.

3.67 If you are the mature man or woman of practical
wisdom (the practically reasonable man or woman).
you ought not to keep a common bawdy house.

But it is quite plain that while Raz or Finnis might regard the counterfactual conditionals corresponding to these (3.60 and 3.61 above) as giving the sense of a sentence containing a legal «ought», they would not regard these indicatives as capable of performing the same job. These indicatives, however, are the sort of sentences that could be used to convey conditional recommendations albeit rather lame ones. What Raz says is that the use of legal «oughts» cannot be understood in terms of assertions of conditionals. Assertions of counterfactuals are, however, assertions of conditionals and everything Raz says suggests that counterfactuals can indeed be regarded as yielding an account of legal «oughts». For this reason I shall take it that what Raz means to suggest about conditionals is that the use of legal «oughts» cannot be understood in terms of conditional recommendations.

In Chapter One, it was argued at considerable length that the sort of counterfactual hypothesis favoured by Raz and Finnis are of no help whatever in understanding legal «oughts». What I want now to propose, contrary to what Raz and Finnis seem to maintain, is that legal «oughts» can be explained in terms of conditionals that do not have to be counterfactual; and that legal «oughts», and all other special «oughts» as well, can be

used by speakers to convey conditional recommendations. This last contention imposes a requirement on the antecedents of conditionals that explicate legal «oughts»: it must be sensible to suppose that the conditional sentences that speakers might use in place of legal «oughts» can typically carry the conventional implicatures that the conditions expressed by the antecedents be open possibilities. Of course, this constraint is hardly very exacting since it merely demands that the conditionals be plausibly framed in the indicative mood in a natural language. Before proceeding to the proposal, however, I want to say a word about Raz's argument against the view that the legal «oughts» can be used to make conditional recommendations. The argument is presented only once, on pages 173 and 174 of Practical Reason and Norms. It is so short and so remarkable that I have included the whole of it in Appendix Two at the end of this essay. To see how the argument works, let «Law $\odot_{\text{now}}$ (F ϕ b)» be «Legally speaking, b ought to ϕ », and let «P» be a sentential clause whose main verb is in the indicative and not the subjunctive mood. Now consider 3.68:

$$3.68 \quad \text{Law } \odot_{\text{now}} (F \phi b) \text{ iff } P \rightarrow \odot_{\text{now}} (F \phi b)$$

(Recall that 3.2 says that $\odot_{\text{now}} (F \phi b)$ iff for all maximal sets α such that ϕ -ing is in α , $\odot_{\text{now}} \alpha (F \phi b)$.) Raz considers five possible substituends for «P», viz.,

- (a) b wants to be law-abiding;
- (b) there are reasons to follow the law;
- (c) L (a particular law) is systemically valid (i.e.,
valid according to a Hartian rule of recognition

which exists in a particular jurisdiction.);

(d) L is systemically valid as applied to b; and

(e) $\text{Law } \theta_{\text{now}} (F \phi b)$

(e), of course, is unacceptable because it makes 3.68 a completely unilluminating account of legal «oughts», as Raz points out. With regard to (a) - (d), Raz's objection is always the same. For each P, he points out it is possible to assign truth values so that « $\text{Law } \theta_{\text{now}} (F \phi b)$ » is true; «P» is false; and « $\theta_{\text{now}} (F \phi b)$ » is true. 3.68, he concludes, is unacceptable.

This argument is obviously invalid. To show that 3.68 is unacceptable, what has to be shown is that what occurs on the left-hand side of the «iff» may be true when what occurs on the right-hand side is false; or that what occurs on the left-hand side of the «iff» is false when what occurs on the right-hand side is true. In Raz's objections he considers cases where what occurs on the left-hand side of the «iff» is true. What he has to show, then, is that it is possible that amongst these cases are cases where « $P \rightarrow \theta_{\text{now}} (F \phi b)$ » is false. To do so, he must produce either (a) cases where «P» is true and « $\theta_{\text{now}} (F \phi b)$ » is false; or, since « $\rightarrow$ » is not the material conditional, (b) cases where «P» is false on the actual history but on the nearest non-actual history where «P» is true « $\theta_{\text{now}} (F \phi b)$ » is false. He produces neither of these kinds of cases. It is difficult to understand why he supposes that cases where «P» is false and « $\theta_{\text{now}} (F \phi b)$ » is true are of any interest at all. He says: «On this type of analysis, the antecedent must state in perfect generality what

conditions would be sufficient to make what ought legally to be done into what ought to be done » (emphasis mine). What this suggests is that if there are cases where «P» is false and « $\textcircled{0}_{\text{now}}$ (F ϕ b) is true, then although «P» may express a sufficient condition, nevertheless «perfect generality» has not been achieved. Now the second «ought» in this quotation is the simple «ought». Because this is so, what is claimed in this quotation is false. Suppose that legally speaking, I ought not to keep a common bawdy house. In this connection, not keeping a common bawdy house is what ought legally to be done by me. Suppose that my only priority is to do what my mother wants, and that I regard my failures to do what she wants as matter for self-criticism. It will follow that if my mother wants me not to keep a common bawdy house, I ought not to keep a common bawdy house. Then the situation is as follows - what ought legally to be done by me is this: not keeping a common bawdy house; and my mother's wanting me not to keep a common bawdy house is sufficient to make this into what ought to be done by me. If what Raz says were true then in stating the conditions under which legally speaking I ought not to keep a common bawdy house, it would be necessary to include the condition that my mother wants me not to keep a common bawdy house. Since this is false, what Raz says about «perfect generality» is false; and he has provided no satisfactory explanation of why he thinks cases where «P» is false and « $\textcircled{0}_{\text{now}}$ (F ϕ b)» is true are of any relevance to the acceptability of proposals of the form of 3.68. Raz, therefore, presents no reason for believing that legal «oughts» cannot be

understood in terms of indicative conditionals capable of conveying conditional recommendations. Because this is so, the reader may wonder whether of the first four proposals that Raz put forward only to reject, one of them may not give us a satisfactory account of the legal «ought». In fact, they are all eliminated by the same counter-example which we used against the legal man theory in Chapter One. The case was one where a supplier of steel in Ontario had got a verbal agreement from a contractor to change the terms of payment under an already existing contract, whereby the contractor would now pay more for the steel, and the steel supplier would do no more than supply the steel originally contracted for. Since the verbal agreement in question provides no new «consideration» to the contractor in return for his paying the higher price now agreed upon, the Ontario courts might very well be forced by recent precedent to refuse to regard the verbal agreement as an enforceable contract. If however, the agreement is put into a document under seal, it will be enforceable without consideration. It seems possible to judge that in these circumstances legally speaking, the steel supplier ought to get the agreement put into a sealed document. Let « σ s» be «the steel supplier gets the agreement put into a sealed document». What has to be tested is the following instance of 3.68, where «Q» successively takes on the appropriate form of each of Raz's proposals (a) - (d).

$$3.69 \quad \text{Law } \theta_{\text{now}} (F \sigma s) \text{ iff } Q \rightarrow \theta_{\text{now}} (F \sigma s).$$

Suppose that «Law $\theta_{\text{now}} (F \sigma s)$ » is true. It has to be shown that

«Q» may be true when $\langle \theta_{\text{now}} (F \sigma s) \rangle$ is false. The relevant law in this case is just that in the absence of consideration a contract not under seal is not enforceable, but an agreement under seal is enforceable without consideration. This law does not require that anyone have an agreement put into a sealed document if the agreement is backed by no consideration; it merely makes clear that the courts will not enforce such an agreement unless this is done. The law imposes no penalty on people who do not do this and offer no consideration. and if these people are fortunate in those with whom they make such agreements, they need suffer no loss for not having sealed the agreement. Now:

(a) «Q» says that s wants to be law-abiding. But s breaks no law by failing to σ . Suppose as we did in Chapter One, that s is likely to offend the contractor by seeming to look for proof of good faith in requesting that the agreement be written and sealed; and suppose that s will risk a great deal to avoid offending the contractor, being reliably assured of a high probability of benefit for himself if he can manage this, and of a low probability of this if he can't. Then it may well be that where «Q» is true, $\langle \theta_{\text{now}} (F \sigma s) \rangle$ is false, since s may have no reason to review his conduct if he does not σ , since in not- σ ing he breaks no law, and he acts for his own probable benefit. Then «Q» is true, $\langle \theta_{\text{now}} (F \sigma s) \rangle$ is false, and hence $\langle Q \rightarrow \theta_{\text{now}} (F \sigma s) \rangle$ is false. «Law $\langle \theta_{\text{now}} (F \sigma s) \rangle$ » is true, however, and so 3.69 is false.

(b) «Q» says that there are reasons to follow the law.

Raz makes it clear that by «following the law» he means «obeying all the laws in one's jurisdiction». But in not σ -ing, s does not fail to obey any law. Hence the same argument as the one given for (a) may be used to show that « $\Theta_{\text{now}} (F \sigma s)$ » can be false when «Q» is true so that 3.69 is false.

(c) «Q» says «L (a particular law) is systemically valid».

The only law in question is by hypothesis the law about contracts without consideration. s does not violate it in not σ -ing, and for the same reasons as those already given « $\Theta_{\text{now}} (F \sigma s)$ » may be false when «Q» is true, with the same result.

(d) «Q» is «L is systemically valid as applied to s ».

The same situation may arise notwithstanding, with the result as before.

Hence, none of Raz's proposals will work. I shall now present a proposal that deals with this case.

I shall assume that associated with human institutions and practices such as law, medicine, morality, science, fashion, sport, etc., there are certain characteristic kinds of priorities: orderings of classes of states of affairs, according to which some kinds are regarded as preferred to others. For instance, it seems that associated with the practice of medicine is an ordering according to which the class of states of affairs in which a person runs some risks from the side effects of ingesting a powerful analgesic is taken to be preferred to the class of states of affairs in which the person is gradually crippled by chronic arthritis. These

priorities we may think of as analogous to the personal priorities in terms of which simple reasons and simple oughts are defined. The classes of states of affairs ordered by these priorities we may therefore understand in terms of sets of possible histories, and partitions of such sets - which may include for us, sets of alternatives. As in the case for particular people in particular situations, institutions and practices may have associated with them sets of priorities which are undefined over certain sets of alternatives. Thus, for a particular person, given the set of alternatives whose only members are reading de Ste. Croix on the Peloponnesian war and reading Kagan on the Peloponnesian war, it may very well be that as far as, e.g., finance is concerned, there are no particular priorities which order this set for the person in question. In this case, presumably, we want to be able to say that it is not the case for either of the alternatives that financially speaking, the person in question ought to read it; and not the case that financially speaking she ought not to read it. Generalizations of this basic idea seem simple enough.

Now, for particular α , t_i , person b , and institution or practice I , suppose that there are two possibly distinct sets of priorities ordering α . Then let $\$$ and $\$^I$ be possibly distinct systems of spheres $S_1, S_2, S_3, \dots, S_1^I, S_2^I, S_3^I, \dots$, associated with α at t_i , $\$$ being b 's personal system, and $\$^I$ being the system connected with the institution or practices I . I shall write $\langle \$^I_{r_{\text{now } \alpha}} \$^b \rangle$ for «the priorities associated with I with respect to α are reflected in b 's priorities with respect to α »

and I shall say that:

$$\begin{aligned}
 3.69 \quad & \$^I_{r \text{ now } \alpha} \$^b \text{ iff } (\exists t_i) (t_i = \text{now} \ \& \\
 & (\forall Gt_i) (\forall G't_i) (\forall S^I_m) (\forall S^I_n) (S^I_m \subset \$^I \ \& \ S^I_m \subset \$^I \ \& \\
 & Gt_i \in S^I_m \ \& \ G't_i \in S^I_m \ \& \ S^I_m \subset S^I_n \supset \\
 & (\exists S_m) (\exists S_n) (S^b_m \subset \$ \ \& \ S^b_m \subset \$ \ Gt_i \in S_m \ \& \ G't_i \in \\
 & S_n \ \& \ S_m \subset S_n)).
 \end{aligned}$$

Then when institutional priorities are reflected in personal priorities, if Gt_i is better than $G't_i$; according to the institutional system, it is better according to the personal system as well. Yet 3.69 allows that even when personal priorities reflect institutional one, Gt_i may be better than $G't_i$ according to the personal system, but merely indifferent to $G't_i$, according to the institutional system. That is, when institutional priorities are reflected in personal priorities, personal priorities may go beyond institutional priorities by having more spheres in $\$^b$ than are contained in the institutional system $\$^I$ despite the fact that both $\$^b$ and $\$^I$ order the same number of histories, namely, all the histories in α . Note that conditions of the form $\$^I_{r \text{ now } \alpha} \$^b$ need not be regarded as typically counterfactual.

With this notion of reflection in hand, let us now define a class of operators which we may use in order to talk about institutional reasons and institutional «oughts». It is these reasons and «oughts» will be our special reasons and special «oughts». Where «I» is a term designating some practice or

institution such as medicine, the law; fashion, academic endeavour, finance, etc., we may read $\langle I R_{\text{now } \alpha} (Q, \phi b) \rangle$ as meaning «As far as I is concerned, given the alternatives in α Q is a reason for b to ϕ , and $\langle I \theta_{\text{now } \alpha} (F \phi b) \rangle$ as meaning «As far as I is concerned, given the alternatives in α , b ought to ϕ .» For many institutions and practices there will be some adverb connected with the form designating the institution, in the way that «medically» is connected with «medicine», «legally» with «the law», «financially» with «finance», etc. Then there may be an appropriate sentential modifier which can be formed by adjoining to the adverb the participle «speaking» and which can be used to give a reading for $\langle I R_{\text{now } \alpha} (Q, \phi b) \rangle$ in the way that «Legally speaking, given the alternatives in α , Q is a reason for b to ϕ » can be used as a reading of $\langle I R_{\text{now } \alpha} (Q, \phi b) \rangle$; and «Legally speaking, given the alternatives in α , b ought to ϕ », can be used as a reading of $\langle I \theta_{\text{now } \alpha} (F \phi b) \rangle$.

What I propose is that we adopt the following:

3.70 $I R_{\text{now } \alpha} (Q, \phi b)$ iff
 $(\exists Z) ((Z = \$^I \ \& \ \$^I \text{ is non-empty for } \alpha \text{ now } \&$
 $(Z r_{\text{now } \alpha} \$^b \rightarrow R_{\text{now } \alpha} (Q, \phi b)) \ \&$
 $(\neg Z r_{\text{now } \alpha} \$^b \rightarrow \neg R_{\text{now } \alpha} (Q, \phi b)))$.

3.71 $I R_{\text{now}} (Q, \phi b)$ iff for all maximal sets α_i of
 which ϕ -ing is a member $I R_{\text{now } \alpha_i} (Q, \phi b)$

In 3.69, the quantification over systems of spheres embodying institutional priorities is meant to give expression to the idea that the institutional priorities we are concerned with in assessing the two conditionals in the scope of the quantifier are those priorities as they are on the actual history of the world.

The antecedent of at least one of the two conditionals must be false.

To assess the truth of the conditional with the false antecedent we must consider the most similar non-actual history where the antecedent is true. On a non-actual history, the antecedent in question might be true either because given the institutional priorities on the actual history, b's counterfactual priorities on the non-actual history reflected (didn't reflect) them; or because given b's priorities on the actual history, the counterfactual institutional priorities on the non-actual history were (were not) reflected in them. But when we speak of institutional reasons for a person to do something, presumably we mean that, given the priorities associated with the institution as it actually stands, if b's priorities should happen not actually to reflect those priorities, nonetheless, if they did reflect them, he would have reason to do the thing in question. The quantification in 3.70 makes the right-hand side de re with respect to institutional priorities and that seems to correspond with our intuitions.

Note that if b's personal priorities are not defined with respect to α , so that $\$^b$ is empty on the actual history, the

antecedent of the first condition in 3.70 will require us to consider a history where b 's priorities are defined. This yields the result that, for instance, a person may have military reasons to do one thing rather than another, when personally he sees no way at all of putting the appalling options before him in any kind of order.

Observe, too, that if with respect to a particular set α of alternatives at t_i , the institutional system of spheres $\$^I$ is empty, it will be false for any $\langle Q \rangle$ that as far as I is concerned, Q is a reason for b to ϕ , given α .

3.70 contains two conditionals. The second one may seem unnecessary, but it is not. The first conditional simply says that if institutional priorities are (were) reflected in b 's priorities, Q is (would be) a reason for b to ϕ . This seems perfectly straightforward. But there is a possible difficulty. Suppose that on the actual history I do in fact want to be law-abiding so that my priorities reflect legal priorities. Then for any actual α , $\$^{Law}_{r\alpha} \$^{David}$. Now it's being the case that there is a law against keeping a common bawdy house, is a reason for me not to keep a common bawdy house given the alternatives of either keeping or not keeping one. For, since my priorities actually reflect legal priorities, it is true that, other things being equal, I regard histories on which I do not keep a common bawdy house when there is a law prohibiting it as preferable to histories on which I do keep one when the same law exists. With respect to the alternatives of either keeping or not keeping one, the

proposition that it is maximally good for me not to keep a common bawdy house, granted that there is a law against keeping one, thus seems more assertable than the proposition that if there were no law against keeping a common bawdy house, it would be maximally good for me not to keep one. This is an index of the positive objective probabilistic relevance of its being the case that there is a law against keeping bawdy houses, to the maximal goodness of my not doing so. That is why the existence of the law is a reason for me not to do so. It is natural to class this as a legal reason. But suppose in addition, that I also want terribly to do what my mother wants me to. In fact, it is not the case that she wants me to do anything that would involve my breaking the law, but (a) this is accidental, and (b) my wanting to do what she wants me to do does not depend on it. On moral grounds my mother wants me not to keep a common bawdy house. Call this proposition «W». Imagine that its being the case that W is a reason for me not to keep a common bawdy house (= not-κ) (given the relevant alternatives). But then we shall have it that $\$^{Law}_{r_{now} \alpha} \$^{David}$ and that $R_{now} \alpha (W, not-\kappa m)$, which entail that $\$^{Law}_{r_{now} \alpha} \$^{David} \rightarrow R_{now} \alpha (W, not-\kappa David)$. If only this conditional had to be satisfied for it to be the case that $Law_{R_{now} \alpha} (W, not-\kappa David)$, then my mother's wanting me not to keep a common bawdy house would be a legal reason for my not doing so. This silly result is just what the second conditional avoids. For it forces us to consider the non-actual situation in which actual legal priorities, with respect to keeping nor not keeping a bawdy house, are not reflected in my priorities.

We may very well suppose it to be true that in such a situation, my mother's wanting me not to keep a common bawdy house would still be a reason for me not to keep a common bawdy house. («If she weren't around, I'd jump at the chance to keep one; but I couldn't run the risk of having her hurt as she would be if she found out that . . . , etc.») If so, then my mother's wanting me not to keep a common bawdy house will not be a legal reason for me not to keep one. For, keeping the actual system $\$^{Law}$ fixed and varying $\$^{David}$ the counterfactual conditional « $\sim(\$^{Law}_{now} \alpha \$^{David}) \rightarrow \sim(R_{now} \alpha (W, \text{not-}\kappa \text{ David}))$ » is false. But on the same counterfactual history, where it is true that $\sim(\$^{Law}_{now} \alpha \$^{David})$, it is also true that $\sim R_{now} \alpha$ (There is a law against keeping common bawdy houses, not- κ David). For in this counterfactual history, given my mother's not wanting me to keep a common bawdy house, it is not the case that the proposition that it is maximally good for me not to keep a common bawdy house, given the law against it need not be regarded as any more assertable than the counterfactual it would be maximally good for me not to keep a common bawdy house if there were no law against it. On the counterfactual history I don't care about the law anyway: it is not the law that is relevant to my estimate of the goodness of keeping a bawdy house, but my mother's will. Hence on the counterfactual history, the existence of the law provides me with no simple reason at all. The upshot of this concern with the counterfactual situation where my priorities do not reflect legal priorities is to establish that although both the existence of the law and my mother's will

are both reasons for me not to keep a common bawdy house, only the former is a legal reason. This is the effect of the second conditional in 3.70, and it is surely desirable. It may be that it was this sort of issue that Raz was attempting to get at in his discussion of cases where a legal «ought» sentence is true, the corresponding simple «ought» sentence is true, but the sentence expressing the condition which links legal «oughts» and simple «oughts» is false. If so, however, his argument does nothing to establish that assertions about legal reasons and legal «oughts» cannot be understood in terms of indicative conditionals and used to convey conditional recommendations. What it shows is just that pairs of conditionals are necessary to explain legal reasons and legal «oughts».

It would be nice if we could account for special «oughts» in the same way that we can give an account of special reasons. The account would look like this:

$$\begin{aligned}
 3.72 * I \ominus_{\text{now } \alpha} (F \phi b) \text{ iff} \\
 (\exists Z) (Z = \$^I \text{ \& } \$^I \text{ is non-empty \&} \\
 (Zr_{\text{now } a} \$^b \rightarrow \ominus_{\text{now } \alpha} (F \phi b)) \& \\
 (\sim (Zr_{\text{now } \alpha} \$^b) \rightarrow \sim \ominus_{\text{now } \alpha} (F \phi b))) .
 \end{aligned}$$

$$\begin{aligned}
 3.73 * I \ominus_{\text{now}} (F \phi b) \text{ iff for all maximal sets } \alpha_i, \\
 I \ominus_{\text{now } \alpha_i} (F \phi b).
 \end{aligned}$$

Unfortunately, 3.72* cannot be right. For one of its consequences is that a lawyer who is also an anarchist cannot truly tell a client that legally speaking, the client ought to pay the tax due on income earned on tips - even if the lawyer knows of a law requiring him to do so. She cannot do this because on our account of $\langle \theta_{\text{now } \alpha} \rangle$ (3.48, p. 246 Chapter 3, Section I), $\langle \theta_{\text{now } \alpha} (F(\text{the client pays income tax on tips})) \rangle$ is true only if she, as speaker, will have a simple, i.e. personal, reason to review her client's conduct critically, if he does not pay the tax. Then even if the client's priorities reflect legal priorities, $\langle \theta_{\text{now } \alpha} (F(\text{the client pays tax on tips})) \rangle$ will be false, if, given the lawyer's personal priorities, she will have no reason critically to review his conduct if he fails to pay - as she may not have if she is an anarchist whose priorities include depriving the government of any resource that it might use to sustain itself. But in such circumstances, the conditional $\langle \$^{\text{Law}}_{r_{\text{now } \alpha}} \$^{\text{Client}} \rangle$ $\langle \theta_{\text{now } \alpha} (F(\text{the client pays tax on tips})) \rangle$ will be false, the Income Tax Act notwithstanding. And so according to 3.72*, $\langle \text{Law } \theta_{\text{now } \alpha} (F(\text{the client pays income tax on tips})) \rangle$ will be false, even given the Act. This will not do.

The problem arises because on our account of simple oughts $\langle \theta_{\text{now } \alpha} (F \phi b) \rangle$ contains a quantified variable which ranges over us, the members of some group G_i and when $\langle \theta_{\text{now } \alpha} (F \phi b) \rangle$ is true, each of us must have a reason, given our personal priorities to review b's conduct critically if b does not ϕ . If $\langle I \theta_{\text{now } \alpha} (F \phi b) \rangle$ is to be true, what we want to guarantee is not only that b should

have a reason, as far as the institution I is concerned, to ϕ ;
 but also that, if b should not ϕ , there would be a reason for each
 of us to review b's conduct critically just in case our personal
 priorities reflected the priorities of the institution in question.
 If so, any proper presentation of what is expressed by a sentence
 of the form «I $\Theta_{\text{now } \alpha}$ F ϕ b» will have to ensure that all necessary
 reflections of institutional priorities in personal priorities are
 taken into consideration. The only way that I can see to produce the
 necessary effect is to replicate precisely our treatment of simple
 «oughts» replacing sentences about simple reasons, however, with
 sentences about special, institutional reasons. Then what we have
 is:

$$\begin{aligned}
 3.72 \quad I \Theta_{\text{now } \alpha} (F \phi b) \text{ iff} \\
 & (\exists Q_i) (I R_{\text{now } \alpha} (Q_i, F \phi b) \ \& \\
 & (\exists G) (s \in G \ \& \ a \in G \ \& \ b \in G \ \& \\
 & (\forall x) (x \in G \supset L(\sim F \phi b \supset F(\exists Q_j) (I R_{\text{now}^* \kappa} \\
 & (Q_j, X_{\alpha} x))))).
 \end{aligned}$$

$$\begin{aligned}
 3.73 \quad I \Theta_{\text{now}} (F \phi b) \text{ iff for all maximal sets } \alpha_i, \\
 I \Theta_{\text{now } \alpha_i} (F \phi b).
 \end{aligned}$$

3.72 is something of a disappointment, for, most unhappily, it
contains no occurrences of « $\Theta_{\text{now } \alpha}$ (F ϕ b)». Does this mean
 that special «oughts» are really not conditional oughts after all?
 In one very literal sense I am afraid it does. But in the most
 important sense I think that it does not mean that special oughts

are not conditional «oughts». For as the reader can easily work out from 3.72, when $\langle I O_{\text{now } \alpha} (F \phi b) \rangle$ is true, then if the priorities of every member of G reflect the appropriate priorities of I, then $\langle O_{\text{now } \alpha} (F \phi b) \rangle$ must be true, and likewise, if the priorities of every member of G reflect the priorities of I, and $\langle I O_{\text{now } \alpha} (F \phi b) \rangle$ is false, then $\langle O_{\text{now } \alpha} (F \phi b) \rangle$ must be false too. It is also obvious that, if 3.72 gives the truth conditions of special «oughts», then special «oughts» can be used to convey conditional recommendations. This is possible because among the implicit conditions in the first conjunct of 3.72 is one which is satisfied if b's priorities reflect the priorities of the institution I; and it is not impossible that in uttering $\langle I O_{\text{now } \alpha} F \phi b \rangle$ someone should implicate that this is an open condition, such that if it is satisfied, there actually is a reason for b to ϕ , and this is all that is required for a speaker is to be able to convey a conditional recommendation by uttering $\langle I O_{\text{now } \alpha} F \phi b \rangle$. 3.72 explains special, institutional «oughts», not in terms of conditional simple «oughts», but in terms of conditional simple reasons, which correspond precisely to the unconditional simple reasons that figure in simple «oughts». At the beginning of Chapter Two, I suggested that we should try to think of special «oughts» as conditionals with simple «oughts» as consequents. What we have now seen is that the complex internal structure of simple «oughts» seems to defeat that project. Special «oughts» are not simple «oughts» with conditions adjoined to them; they are simple «oughts» whose structure has been altered by the introduction of conditions

within them. It remains true, nonetheless, that together conditionals and simple «oughts» can explain the nature of special «oughts».

The problem of the anarchist lawyer is solved by 3.72. According to 3.71, if «Law $O_{\text{now } \alpha}$ (F(the client pays tax on tips))» is truly asserted by the anarchist lawyer, then if the client's priorities reflect legal priorities, « $O_{\text{now } \alpha}$ F(the client pays tax on tips))» must be true. For this to be true, if the client weren't going to pay the tax on his tips, the anarchist lawyer herself would have to have a personal reason to review his conduct critically. According to 3.72, it need only be the case that she would have such a reason, if legal priorities were reflected in her priorities. Now, if the client is not going to pay the tax and she remains an anarchist, she will not have such a reason; but her priorities will not then reflect legal priorities. So for any Q_j , the conditional « $(\$^{\text{Law}} r_{\text{now } \alpha} \$^{\text{Lawyer}}) \rightarrow R_{\text{now } \kappa} (\chi_{\alpha} \text{ Lawyer})$ » will be true (where « χ » is «critically reviews b's conduct with respect to α »). On the other hand if her priorities were to reflect legal priorities then there would be a reason for her to critically review his conduct if he were not to pay the tax, for then he would violate the provisions of the Income Tax Act, and that is legally a bad thing to do. Then if the client were not to pay the tax there would be as far as the law was concerned a reason for the anarchist lawyer to critically review the client's conduct. It is equally true that since violating the provisions of the Income Tax Act is legally a bad thing to do, then if the client's priorities reflected legal

priorities and he did not pay the tax on his tips, he would indeed have a personal reason to review his conduct critically, for he would have done what the law and therefore he himself regarded as a bad thing; but if his priorities did not reflect legal priorities then the anarchist lawyer might well assume that his having violated provisions of the Income Tax Act would not be a personal reason for him to review his conduct critically. Then if the lawyer and the client are the only members of G, it may well be true for every member of G that if the client doesn't pay the tax, every member of G will have a legal reason to review the client's conduct. Then if the lawyer can specify a legal reason for the client to pay the tax, all the clauses of 3.72 will be satisfied, and she need not be afraid of saying something false if she says that legally speaking, the client ought to pay the tax due on his tips. The fact that she will have no personal reason to assure him if he doesn't no longer has any bearing on the legal advice she gives. And that is as it should be.

The only thing we have left to do now is to return once more to the case of the contractor and the steel supplier, to see whether our account of legal «oughts» is not falsified by the counter-example which falsifies the legal man theory of legal «oughts», and the practically reasonable man theory of legal «oughts» as we saw in Chapter One; and in addition eliminates all the proposals discussed and rejected by Raz. To avoid falsification we shall have to make a final modification to our scheme.

As in Chapter One (p. 13), I am the lawyer and you are the steel supplier. In terms of 3.72, I am s and you are both a and b . You have told me about your agreement with the contractor, and because of the recent precedent, I cannot fail to be aware that your agreement is not enforceable, because it is not backed by any consideration offered by you to the contractor in return for his paying you a higher price for steel than he had originally contracted to pay. As a lawyer I also know that if the agreement is memorialized in a sealed document, it will be enforceable. Furthermore I make the assumption that behind the institution of the law of contract there lies the following principle which determines the priorities of the law: for any person p , if p is a party to a serious and consequential agreement which is of benefit to himself, states of affairs in which the agreement is legally enforceable are to be regarded as preferable by p to states of affairs in which the agreement is unenforceable. This is a fast-food version of a liberal theory of the purpose of contract law. The theory in question may be called liberal because it allows that in one and the same jurisdiction, the same situation may be assessed differently, in terms of their legal preferability, by different agents. In Sen's terminology, explained in Chapter Two, Section IV above, the system of priorities associated with the law should be understood to be evaluator-relative. Because the law of contract is designed to serve the possibly divergent purposes of distinct agents, it should be no surprise that, variously set off against the positions of particular individuals,

the law may operate in such a way as to produce distinct legal orderings of a single set of histories, each ordering relative to a single agent. This means that, in the terms of our institutional systems of spheres, we may have to think even of $\$^I$ as a function which takes not only a moment and a set of alternatives, but also a particular agent, and produces an institutional ordering of histories with respect to the agent in question. Thus when we consider whether an agent's priorities reflect a set of institutional priorities, what we are concerned with is the institutional priorities as defined relative to the particular agent we are interested in.

Now, for generality we must replace « $\$^I$ » in 3.70 with « $\$^I_b$ », to indicate that in thinking of institutional reasons and «oughts» the institutional priorities that we must consider to be reflected in an agent's personal priorities, are those institutional priorities which are defined by taking him as agent. 3.72 should be understood in accordance with this final modification. With all of this in mind, let us imagine that as a lawyer, I believe that legally speaking you ought to get the agreement put into a sealed document. That is, I believe that $\text{LawO}_{\text{now}} \alpha (F(\text{you get the agreement sealed}))$. Now the circumstance which falsifies this on all the other accounts which we have examined, is the one in which you prefer not to get the agreement sealed, because the contractor is known to be both honourable and touchy on points of honour, and if you avoid offending him, you may do yourself a great benefit, but if you suggest that you need legal assurances of good faith,

you may lose a lot of business. Let us suppose that this is true on the actual history and that you and I both know this. Then on the actual history, it may be that you have no reason to get the agreement sealed, and it seems likely that knowing what you know, if you don't get the agreement sealed, you will not have a reason to review your conduct critically for not having done so. But note that insofar as this is true, your priorities do not reflect legal priorities. For you, it is more important to you to have an unenforceable verbal agreement than an enforceable sealed contract; but on the legal ordering of priorities, as defined for you, it is more important to have an enforceable sealed contract than an unenforceable verbal agreement, because the agreement in question is serious, consequential, and of benefit to you. (A valid contract is your only guarantee that you will be paid enough to cover your costs in supplying steel.) Thus we have established the necessary negative claims that if your priorities don't reflect legal priorities, then you won't have a reason to get the contract sealed, and further that on the same assumption, if you don't get the contract sealed you won't have a reason to critically review your conduct. The second of these claims comes into play when we take you as a value of x in the universally quantified material conditional in 3.72. We may suppose that I am the only other member of G and so the only other possible value of x in 3.71. Now although I am a lawyer, I can easily appreciate that it would be better for you to stick with the unenforceable verbal agreement than to request the sealed contract, so that if

you were not to get your agreement put into a sealed document, in my own person I should have no reason to review your conduct critically. But if so, my priorities do not reflect legal priorities any more than yours do. For what I can «easily appreciate» is something which, according to the ordering determined by legal priorities, is simply false. Since you are a party to an agreement which is serious, consequential, and of benefit to you, it is legally preferable for you to have an enforceable contract. Insofar as I appreciate that this is not important for you, I am not evaluating matters according to the legal priorities. Then since you and I are the only members of G, then for every x in G, if x's priorities do not reflect legal priorities and if you don't get your agreement put into a sealed document, x will not have a reason to review your conduct critically.

On the other hand, if your priorities did reflect legal priorities, then it would be the case that for you an enforceable contract was better than an unenforceable one. Then the existence of the laws concerning consideration and the enforceability of sealed documents even in the absence of consideration would be a reason for you to get your agreement sealed. (This together with the first negative claim established in the preceding paragraph, guarantees that legally speaking there is a reason for you to get the contract put into a sealed document.)

Furthermore, if an enforceable agreement were more important to you than a verbal agreement, even with its all attendant possible advantages, then if you failed to get your agreement sealed, that

itself would be a reason for you to regard your conduct critically,
 for in so acting you would have guaranteed yourself a less
 preferable situation than you would otherwise have found yourself in.
 Taking you as x in the material conditional in 3.72, this together
 with the second negative claim established on p.302 above,
 guarantees that if you don't get your agreement put into a sealed
 document, then legally speaking there will be a reason for you to
 review your conduct critically. Moreover, if my priorities reflected
 legal priorities, and you did not get your agreement put into
 a sealed document, I too would judge that you had placed yourself
 in a worse situation than you might have done, and that would
 be reason for me to regard your conduct as unwise or ill-advised.
 That is, legally speaking, I, as well as you, would have a reason
 to review your conduct critically. You and I, however, are the only mem-
 bers of G , so that, for every x in G it is true that if you don't
 get your agreement put into a sealed document, then legally
 speaking there will be a reason for x to review your conduct
 critically. But we already have it that legally speaking,
 there is a reason for you to get your agreement put under seal.
 Then all the clauses of 3.72 are satisfied and I may truly tell
 you that Law $\Theta(F(\text{you get your agreement sealed}))$ - that is, that
 legally speaking, you ought to get your agreement put into a
 sealed document. And I can say this even though I know that given
 your personal priorities, it is not the case that you ought to get
 the agreement put into a sealed document. Thus the case of the
 steel supplier is properly disposed of by 3.72, as it is not by any

hypothesis discussed by Raz.

The reader may recall that Finnis' practically reasonable man theory of the legal «ought» did deal with the steel supplier in an appropriate way (See Chapter One, p. 18). What it failed to do was to yield the result that it is not the case that legally speaking, the contractor in the same case ought to get his agreement with the steel supplier put into a sealed document. Our modified version of 3.72 deals with this too. For we may suppose that the contractor's priorities reflect legal priorities with regard to enforceability of contracts without supposing the contractor has any reason to get his agreement with the steel supplier put into a sealed document. This is because his agreement with the steel supplier, though serious and consequential, is not of benefit to himself. If he fails to make his agreement enforceable, his legal position is surely better than if he does make it enforceable. But then the contractor will have no legal reason to get his agreement put into a sealed document. This will make it impossible for the right-hand side of 3.72 to be true when b is the contractor and $\langle \phi \rangle$ is «gets his agreement sealed». Then it will be false to say that as far as the law is concerned, the contractor ought to get his agreement put into a sealed document. Thus 3.72 handles the difficulty which Finnis' practically reasonable man theory fails to handle.

This brings us to the end of a long and twisting road. I have tried to show how starting with a straightforward notion of preferability, together with the theory of probability, an account

can be given of what it is for a person to have an internal reason to do something. I have tried to argue that this account can be used to explain what is said when it is claimed that a person ought to do something, when the person's actual priorities and motivations are taken as a *donnée* in a situation where a practical recommendation is being made. Finally I have considered cases where an individual's personal priorities are not taken for granted, and instead the priorities of an institution or practice are regarded as setting the terms under which a recommendation is made. Through^{-out} I have tried to formulate an account of reasons «oughts» and special «oughts» which is as precise as possible. One virtue of this, I believe, is that it allows all the flaws of the various theses presented to be readily exposed. If nothing else, I hope that the reader may have enjoyed the opportunity of identifying them for himself. Perhaps the eventual result will be the construction of some better story about reasons and «oughts».

Appendix One

It is not, I think, obvious that for any two history functions G and G' and for any moment t_i there is a history function J such that J agrees with G on all moments posterior to t_i and with G' on all moments antiposterior to t_i ; or, in the terminology of Thomason and Gupta, that there is a J such that $\text{Post}(G, t_i) \cap \text{A Post}(G', t_i) = \{J\}$. Thomason and Gupta give the following directions for defining such a J :

(A) If moment t_j is posterior to t_i , let $Jt_j = Gt_j$.

(B) If t_j is antiposterior to t_i and there is a t_k such that $t_i \approx t_k$ (i.e., t_i is copresent with t_k) and $t_k \in G't_j$, let $Jt_j = Gt_j$. (Uniqueness of t_k is guaranteed, as Thomason and Gupta point out.)

(C) Otherwise, let $Jt_j = G't_j$.

Thomason and Gupta write that «it is easily confirmed by a tedious but not ingenious calculation» that $\text{Post}(G, t_i) \cap \text{A Post}(G', t_i) = \{J\}$. Suspicious readers may want to see this calculation, since Thomason and Gupta do not provide it; and so I shall present it in this appendix.

What has to be shown is that, as constructed according to Thomason and Gupta,

$$\begin{aligned} J \in \text{Post}(G, t_i) \ \& \ J \in \text{A Post}(G', t_i) \ \& \ \{(J') \\ (J' \in \text{Post}(G, t_i) \ \& \ J' \in \text{A Post}(G', t_i)) \supset J' = J\} \end{aligned}$$

Now $\langle J \in \text{Post}(G, t_i) \rangle$ is the symbolic formulation of the proposition that J agrees with G on all moments posterior to t_i ; and similarly $\langle J \in \text{A Post}(G', t_i) \rangle$ says just that J agrees with G' on all moments antiposterior to t_i . In what follows I shall write $\langle Pt_j, t_i \rangle$ for ' t_j is posterior to t_i ', $\langle At_j, t_i \rangle$ for ' t_j is antiposterior to t_i '; $\langle t_j \cong t_i \rangle$ for ' t_j is copresent with t_i '; and $\langle t_j < t_i \rangle$ for ' t_j linearly precedes t_i '. Before proving the main result, let us see first the uniqueness of the $\langle t_k \rangle$ mentioned in (B) above; and then also as a preliminary matter, we shall demonstrate that if t_j linearly precedes t_i and $t_i \in Gt_k$, then $t_j \in Gt_k$.

For uniqueness of t_k , what has to be shown is that:

$$(\forall t_k) (t_k \cong t_i \ \& \ t_k \in G't_j \supset (\forall t_{k'}) (t_{k'} \cong t_i \ \& \ t_{k'} \in G't_j \supset t_{k'} = t_k))$$

The proof is indirect.

1	$(\forall t_k) (t_k \cong t_i \ \& \ t_k \in G't_j \ \& \ (\forall t_{k'}) (t_{k'} \cong t_i \ \& \ t_{k'} \in G't_j \ \& \ t_{k'} \neq t_k))$	hyp
2	$t_k \mid t_k \cong t_i \ \& \ t_k \in G't_j \ \& \ (\forall t_{k'}) (t_{k'} \cong t_i \ \& \ t_{k'} \in G't_j \ \& \ t_{k'} \neq t_k)$	hyp
2a.	$t_k \in Gt_j$	conjelim 2
3	$(\exists t_{k'}) (t_{k'} \cong t_i \ \& \ t_{k'} \in G't_j \ \& \ t_{k'} \neq t_k)$	conjelim 2
4	$t_{k'} \mid t_{k'} \cong t_i \ \& \ t_{k'} \in G't_j \ \& \ t_{k'} \neq t_k$	hyp
5	$t_{k'} \cong t_i$	conjelim 2
6	$t_{k'} \cong t_k$	conjelim & reit 2
7	$t_{k'} \cong t_k$	equivalence properties of $\cong$ 5,6
8	$t_{k'} \nmid t_k$	def. of $\cong$ 7

9	$t_k \not\approx t_k'$	def. of $\approx$ 7
9a	$(\forall t_k') (\forall t_k) (t_k \in G_j^t \& t_k' \in G_j^t \supset t_k = t_k',$ $\vee t_k < t_k' \vee t_k' < t_k)$	linearity of histories
9b	$t_k \in G_j^t \& t_k' \in G_j^t \supset t_k = t_k', \forall t_k t_k', \forall t_k t_k'$	univ instant 9b
10	$t_k' \in G_j^t$	conj elim 4
11	$t_k \in G_j^t$	reit 2
11b	$t_k \in G_j^t \& t_k' \in G_j^t$	Conj. intro 10,11
12	$t_k = t_k', \forall t_k < t_k', \forall t_k' < t_k$	Condelim 9b, 11b
13	$t_k' = t_k$	Disjunctive Syllog m 8,9,12.
14	$t_k \neq t_k'$	Conjelim 4
15	$\sim (\exists t_k') (t_k' \approx t_i \& t_i' \in G_j^t \& t_k' \neq t_i')$	Reductio 13, 14
16	$\sim (\exists t_k') (t_k' \approx t_i \& t_k' \in G_j^t \& t_k' \neq t_k)$	Exist instant, 4-15
17	$\sim (\exists t_k) (t_k \approx t_i \& t_k \in G_j^t \& (\exists t_k') (t_k' \approx t_i \&$ $(t_k' \approx t_i \& t_k' \in G_j^t \& t_k' \neq t_k)))$	Reductio 3, 16
18	$\sim (\exists t_k) (t_k \approx t_i \& t_k \in G_j^t \& (\exists t_k') (t_k' \approx t_i \&$ $t_k' \in G_j^t \& t_k' \neq t_k))$	Exist Instant. 2-17
19	$\sim (\exists t_k) (t_k \approx t_i \& t_k \in G_j^t \& (\exists t_k') (t_k' \approx t_i \&$ $t_k' \in G_j^t \& t_k' \neq t_k))$	Reductio 1,18

$$20. (\forall t_k)(t_k = t_i \& t_k \in G't_j \supset (\forall t_{k'}) (t_{k'} = t_i \& t_{k'} \in G't_j \supset t_{k'} = t_k))$$

Quantifier change etc. 19.

Thus the claim about uniqueness of t_k in B is correct, although it plays no role in what follows.

Now to show that if t_g linearly precedes t_j and $t_j \in Gt_i$, then $t \in Gt_i$, we must prove that $(\forall t_g)(\forall t_j)(t_j < t_g \& t_j \in Gt_i \supset t_g \in Gt_i)$. Again the proff is indirect. First we suppose that $(\exists t_j)(\exists t_g)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i)$. We show that if this is so then contrary to a necessary assumption, Gt_i is not a history, since it is not a maximal linear pathway through the set of moments. Since Gt_i is assumed by definition to be a history, it must meet the following maximality condition.

$$(\forall t_j)(\forall t_i) \{ (t_j \in Gt_i \& t_k \in Gt_i \supset t_j = t_k \vee t_j < t_k \vee t_j > t_k) \& (\forall S) [(\forall t_m)(\forall t_n) (t_m \in S \& t_n \in S \supset t_m = t_n \vee t_m < t_n \vee t_m > t_n) \supset (Gt_i \subseteq S \supset S = Gt_i)] \}$$

where S is any set. (Chapter Two, section IV, subsection b, p. 90). It turns out that given the assumption with which the proof starts there is a set which meets the conditions on S but which is not identical with Gt_i . Since Gt_i is assumed to be a history, this assumption must be wrong. Note that written the proof we make use of the truth that for any moments t_g, t_j, t_k , $t_k \in \{t_g \cup Gt_i \& t_j \in \{t_g \cup Gt_i \supset (t_k = t_g \& t_j = t_g), \vee (t_k = t_g \& t_j \neq t_g) \vee (t_k \neq t_g \& t_j = t_g) \vee (t_k \neq t_g \& t_j \neq t_g)$. The consequent of this says that for moments t_g, t_j, t_k , either one or none or both of t_j, t_k , are identical with t_g . Since this is plainly necessarily true, the generalization of the conditional must be true too. I call the generalization

the «identity result».

1.	$(\exists t_g)(\exists t_j)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i)$	hyp.
2.	$t_g \mid (\exists t_j)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i)$	hyp.
3.	$t_j \mid t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i.$	hyp.
4.	$t_g \in \{t_g\} \cup Gt_i$	set theory
4a.	$t_g < t_j$	conj. elim. 3
5.	$t_j \in Gt_i$	conj. elim. 3
5a.	$t_g \notin Gt_i$	conj. elim. 3
6.	$(\forall t_k)(t_k \in \{t_g\} \cup Gt_i \supset t_k = t_g \vee (\exists t_f)(t_f \in Gt_i \& t_k = t_f))$	set theory
7.	$t_k \mid t_k \in \{t_g\} \cup Gt_i \supset t_k = t_g \vee (\exists t_f)(t_f \in Gt_i \& t_k = t_f)$	hyp.
8.	$t_k \in \{t_g\} \cup Gt_i$	hyp.
9.	$t_k \in \{t_g\} \cup Gt_i \supset t_k = t_g \vee (\exists t_f)(t_f \in Gt_i \& t_k = t_f)$	reit 7
10.	$t_k = t_g \vee (\exists t_f)(t_f \in Gt_i \& t_k = t_f)$	cond. elim 89
11.	$t_k = t_g$	hyp
12.	$t_g = t_k \vee t_g < t_k \vee t_k < t_g$	disj. intro. 11

13	$\exists t_f)(t_f \in Gt_i \& t_k = t_f)$	hyp.
14	$t_f \mid t_f \in Gt_i \& t_k = t_f$	hyp.
15	$t_k = t_f$	conj. elim. 14
16	$t_f \in Gt_i$	conj. elim. 14
17	$t_k \in Gt_i$	identity elim. 15,16.
18	$(\forall t_j)(\forall t_k)(t_j \in Gt_i \& t_k \in Gt_i \supset t_j = t_k \vee t_j < t_k \vee t_k < t_j)$	linearity of histories
19	$t_j \in Gt_i \& t_k \in Gt_i \supset t_j = t_k \vee t_j < t_k \vee t_k < t_j$	univ. instant.
20	$t_j \in Gt_i$	reit 5
21	$t_j \in Gt_i \& t_k \in Gt_i$	conj. intro. 17,20
22	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	cond. elim. 19,21
23	$t_j = t_k$	hyp.
24	$t_g < t_j$	cond. elim. + reit 4
25	$t_g < t_k$	iden. elim. 23,24
26	$t_g = t_k \vee t_g < t_k$	
	$\vee t_k < t_g$	disj. intro. 25
27	$t_j < t_k$	hyp.

28						$t_g < t_j$	reit 4a
29						$t_g < t_k$	transitivity of $\leq$ 27,28
30						$t_g = t_k \vee t_g < t_k$ $\vee t_k < t_g$	disj. intro. 29.
31						$t_k < t_j$	hyp.
32						$t_g < t_j$	reit 4a
33						$t_g = t_k \vee t_g < t_k$ $\vee t_k < t_g$	«tree property» of < 31,32
34						$t_g = t_k \vee t_g < t_k \vee t_k < t_g$	disj. elim. 22,23-26, 27-30,31-33.
35						$t_g = t_k \vee t_g < t_k \vee t_k < t_g$	exist instant 13,14-34
36						$t_g = t_k \vee t_g < t_k \vee t_k < t_g$	disj. elim. 10,11-12,13-35
37						$t_k \in \{t_g\} \cup Gt_i \supset t_g = t_k \vee t_g < t_k \vee t_k < t_g$	cond. intro. 8-36
38						$(\forall k)(t_k \in \{t_g\} \cup Gt_i \supset t_g = t_k \vee t_g < t_k$ $\vee t_k < t_g)$	univ. gen. 37
39						$(\forall j)(\forall k)(t_j \in \{t_g\} \cup Gt_i \& t_k \in \{t_g\} \cup$ $Gt_i \supset (t_j = t_g \& t_k = t_g) \vee (t_j = t_g$ $\& t_k \neq t_g) \vee (t_j \neq t_g \& t_k = t_g) \vee$ $t_j \neq t_g \& t_k \neq t_g))$	«identity result»

40.	$t_j \in \{t_g\} \cup Gt_i \& t_k \in \{t_g\} \cup Gt_i \supset.$ $(t_j = t_g \& t_k = t_g) \vee (t_j = t_g \& t_k \neq t_g)$ $\vee (t_j \neq t_g \& t_k = t_g) \vee (t_j \neq t_g \& t_k \neq t_g)$	hyp.
41.	$t_j \in \{t_g\} \cup Gt_i \& t_k \in \{t_g\} \cup Gt_i$	hyp.
41a.	$t_k \in \{t_g\} \cup Gt_i$	conj. elim. 41.
42	line 40	reit 40
42a	$t_j \in \{t_g\} \cup Gt_i$	conj. elim. 41
43	$^1(t_j = t_g \& t_k = t_g) \vee .^2(t_j = t_g$ $\& t_k \neq t_g) \vee .^3(t_j \neq t_g \& t_k = t_g)$ $\vee .^4(t_j \neq t_g \& t_k \neq t_g)$	cond. elim. 41,42
44	$\frac{1}{-} t_j = t_g \& t_k = t_g$	hyp.
45	$t_j = t_k$	conj. elim. 44
46	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	disj. intro. 45
47	$\frac{2}{-} t_j = t_g \& t_k \neq t_g$	hyp.
47a	$t_j = t_g$	conj. elim. 47
48	$(\forall t_k)(t_k \in \{t_g\} \cup Gt_i \supset.$ $t_g = t_k \vee t_g < t_k \vee t_k < t_g)$	reit 38.
49	$t_k \in \{t_g\} \cup Gt_i \supset t_g = t_k$ $\vee t_g < t_k \vee t_k < t_g$	univ. instant 48
50	$t_k \in \{t_g\} \cup Gt_i$	reit 41a
51	$t_g = t_k \vee t_g < t_k \vee t_k < t_g$	cond. elim. 49,50

52	$t_g \neq t_k$	conj elim. 47
53	$t_g < t_k \vee t_k < t_g$	disj. syllog. 51,52
54	$t_g < t_k$	hyp
55	$t_j = t_g$	reit 47a
56	$t_j < t_k$	id. elim. 54,55
57	$t_j = t_k \vee t_j < t_k$ $\vee t_k < t_j$	disj. intro. 56
58	$t_k < t_g$	hyp.
59	$t_j = t_g$	reit 47a
60	$t_k < t_j$	id. elim. 58,59
61	$t_j = t_k \vee t_j < t_k \vee$ $t_k < t_j$	disj. intro. 60
62	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	disj. elim. 53,54-57,58-61
63	³ $t_j \neq t_g \& t_k = t_g$	hyp.
64	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	proved from 63 as 62 is proved from 47
65	⁴ $t_j \neq g \& t_k \neq g$	hyp.
66	$(\forall t_k)(t_k \in \{t_g\} \cup Gt_i \supset$ $t_k = t_g \vee (\exists t_f)(t_f \in Gt_i \&$ $t_k = t_f))$	set theory

68	$t_j \in \{t_g\} \cup Gt_i \supset t_j = t_g v.$ $(\exists t_f)(t_f \in Gt_i \& t_j = t_f)$	univ. instant.
69	$t_j \in \{t_g\} \cup Gt_i$	reit 42 a
70	$t_j = t_g v. (\exists t_f)(t_f \in Gt_i$ $\& t_j = t_f)$	cond. elim. 68,69
71	$t_j \neq t_g$	conj. elim 65
72	$(\exists t_f)(t_f \in Gt_i \& t_j = t_f)$	disj. syll. 70,71
73	$t_f \mid t_f \in Gt_i \& t_j = t_f$	hyp.
74	$t_j = t_f$	conj. elim. 73
74a	$t_f \in Gt_i$	conj. elim. 73
75	$t_j \in Gt_i$	id. elim. 74,74a
76	$t_j \in Gt_i$	exist instant 72,73-75
77	$t_k \in Gt_i$	proved from 65 as 76 is proved from 65-75
78	$(\forall t_j)(\forall t_k)(t_j \in Gt_i$ $\& t_k \in Gt_i \supset t_j = t_k v.$ $t_j < t_k v. t_k < t_j$	linearity of histories
79	$t_j \in Gt_i \& t_k \in Gt_i \supset t_j = t_k$ $v. t_j < t_k v. t_k < t_j$	univ. instant. 78
80	$t_j \in Gt_i \& t_k \in Gt_i$	conj. intro. 76,77
81	$t_j = t_k v. t_j < t_k v. t_k < t_j$	cond. elim. 79,80

82	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	disj. elim 43,44-46, 47-62,63-64,65-81.
83	$t_j \in \{t_g\} \cup Gt_i \& t_k \in \{t_g\} \cup Gt_i \supset t_j = t_k \vee t_j < t_k \vee t_k < t_j$	cond. intro. 41-82
84	$(\forall t_m)(\forall t_n)(t_m \in \{t_g\} \cup Gt_i \& t_n \in \{t_g\} \cup Gt_i \supset t_m = t_n \vee t_m < t_n \vee t_n < t_m)$	univ. gen. 83
85	$(\forall t_j)(\forall t_k)(t_j \in Gt_i \& t_k \in Gt_i \supset t_j = t_k \vee t_j < t_k \vee t_k < t_j) \& [(\forall t_m)(\forall t_n)(t_m \in \{t_g\} \cup Gt_i \& t_n \in \{t_g\} \cup Gt_i \supset t_m = t_n \vee t_m < t_n \vee t_n < t_m) \supset (Gt_i \subseteq \{t_g\} \cup Gt_i \supset Gt_i = \{t_g\} \cup Gt_i)]$	maximality of histories
86	$(\forall t_m)(\forall t_n)(t_m \in \{t_g\} \cup Gt_i \& t_n \in \{t_g\} \cup Gt_i \supset t_m = t_n \vee t_m < t_n \vee t_n < t_m) \supset (Gt_i \subseteq \{t_g\} \cup Gt_i \supset Gt_i = \{t_g\} \cup Gt_i)$	conj. elim. 85
87	$Gt_i \subseteq \{t_g\} \cup Gt_i \supset Gt_i = \{t_g\} \cup Gt_i$	cond. elim. 84,86
88	$Gt_i \subseteq \{t_g\} \cup Gt_i$	set theory
89	$Gt_i = \{t_g\} \cup Gt_i$	cond. elim 87,88
90	$t_g \in \{t_g\} \cup Gt_i$	set theory
91	$t_g \in Gt_i$	id. elim. 89,90
91a	$t_j \mid t_q < t_j \& t_j \in Gt_i \& t_q \notin Gt_i$	hyp
91b	$t_q \notin Gt_i$	conclusion 91a
92	$t_g \in Gt_i$	exist instant 2 91a-91b

93	$\left \neg(\exists t_j)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i) \right.$	reductio 91,92
94	$\neg(\exists t_j)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i)$	exist elim. 2,3-93
95	$\neg(\exists t_g)(\exists t_j)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i)$	reductio 2,94
96	$\neg(\exists t_g)(\exists t_j)(t_g < t_j \& t_j \in Gt_i \& t_g \notin Gt_i)$	exist. elim. 1,2-95
97	$(\forall t_g)(\forall t_j)(t_g < t_j \& t_j \in Gt_i \supset t_g \in Gt_i)$	quantifier interchange etc., 96

This result I call the maximality result.

Now we prove that the instructions in (A) (B) and (C) really do yield the desired history function J. By definition,

$$1. J \in \text{Post}(G, t_i) \equiv (\forall t_j)(Pt_j t_i \supset Jt_j = Gt_j).$$

(Cf. Chapter Two, Section IV (b) p.96)

By (A) we are to construct J so that $(\forall t_j)(Pt_j t_i \supset Jt_j = Gt_j)$.

Hence $J \in (\text{Post } Gt_i)$ by $\wedge$ -conditional elimination from 1. and in (A).

Instructions (B) and (C) deal with moments antiposterior to t_i . According to instruction (B) we are to construct J so that $(\forall t_j)(At_g t_i \supset (\forall t_k)(t_k \approx t_i \& t_k \in G't_j \supset Jt_g = Gt_k))$. (Remember that « $At_g t_i$ » means that t_g is antiposterior to t_i , and that we have shown the uniqueness of any t_k such that $t_k \approx t_i \& t_k \in G't_g$.) The word «otherwise» in «C» refers to the case where for given t_g there is no t_k such that $t_k \approx t_i \& t_k \in G't_g$; according to (C) then we are to construct J so that $(\forall t_g)(At_g t_i \supset [(\forall t_k)(t_k \approx t_i \supset t_k \notin G't_g) \supset Jt_g = G't_g])$. Note that, given t_g , the following is a logical truth. $(\exists t_k)(t_k \approx t_i \& t_k \in G't_g) \vee (\forall t_k)(t_k \approx t_i \supset t_k \notin G't_g)$, since it is just an example of the excluded middle. To show

that $J \in A \text{ Post}(G', t_i)$, the definition requires us to show that

$(\forall t_j)(\forall t_g)(A t_j t_i \& A t_g t_i \supset t_j \equiv t_g \in G' t_g)$ (cf. Chapter Two, Section IV, b, p. 93.) Here is the proof that J meets the requirement.

1	$A t_j t_i \& A t_g t_i$	Hyp
2	$(\exists t_k)(t_k \equiv t_i \& t_k \in G' t_g) \vee (\forall t_k)$ $(t_k \equiv t_i \supset t_k \notin G' t_g)$	excluded middle
3	$(\exists t_k)(t_k \equiv t_i \& t_k \in G' t_g)$	hyp
4	$t_k \equiv t_i \& t_k \in G' t_g$	hyp
4a	$t_k \in G' t_g$	Conj. elim 4
5	$(\forall t_g)(A t_g t_i \supset (\forall t_k)(t_k \equiv t_i \&$ $t_k \in G' t_g \supset J t_g = G t_k))$	(B)
6	$A t_g t_i \supset (\forall t_k)(t_k \equiv t_i \& t_k \in G' t_g \supset$ $J t_g = G t_k)$	univ. instant 5
7	$A t_g t_i$	reit 1
8	$(\forall t_k)(t_k \equiv t_i \& t_k \in G' t_g \supset$ $J t_g = G t_k)$	cond. elim. 6,7
9	$t_k \equiv t_i \& t_k \in G' t_g \supset J t_g = G t_k$	univ instant 8
10	$J t_g = G t_k$	cond. elim 4,9
10a	$t_k \equiv t_i$	conj. elim. 4
11	$t_j \in J t_g$	hyp
12	$J t_g = G t_k$	reit 10

13	$t_j \in G \cdot t_k$	id. elim. 11.12
14	$t_k \in G \cdot t_k$	definition of $G' t_k$
15	$(\forall t_j)(\forall t_k)(t_j \in G \cdot t_k \& t_k \in G \cdot t_k \supset$ $t_j = t_k \vee t_j < t_k \vee t_k < t_j$	linearity of histories
16	$t_j \in G \cdot t_k \& t_k \in G \cdot t_j \supset t_j = t_k \vee$ $t_j < t_k \vee t_k < t_j$	univ. instant 15
17	$t_j \in G \cdot t_k \& t_k \in G \cdot t_k$	conj. intro 13,14
18	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	cond. elim. 16,17
19	$t_k \in G' t_g$	reit 19 4a
20	$t_j = t_k$	hyp
21	$t_k \in G' t_g$	reit 19
22	$t_j \in G' t_g$	id. elim 20,21
23	$t_j < t_k$	hyp.
24	$t_k \in G' t_g$	reit 19
25	$(\forall t_j)(\forall t_k)(t_j < t_k \& t_k \in G' t_g \supset$ $t_g \in G' t_g)$	maximality result
26	$t_j < t_k \& t_k \in G' t_g \supset t_j \in G' t_g$	univ. instant 25
27	$t_j < t_k \& t_k \in G' t_g$	conj. intro. 23,24

28	$t_j \in G't_g$	cond. elim. 26,27
29	$t_k < t_j$	hyp.
30	$t_k \cong t_i$	reit 10a
31	$t_k \cong t_j$	hyp.
32	$t_k \not\cong t_j$	def of $\cong$
33	$t_k < t_j$	reit 29
34	$\sim t_k \cong t_j$	neg intro 31, 32-33
35	$P t_j t_i$	def. of P + 29
36	$\sim A t_j t_i$	def. of A + 34,35
37	$A t_j t_i$	reit 1
38	$t_j \in G't_g$	reductio 36,37
39	$t_j \in G't_g$	disj. elim 18, 20-22, 23-28
40	$t_j \in G't_g$	hyp.
41	$t_j \not\vdash J t_g$	hyp.
42	$J t_g = G t_k$	reit 10
43	$t_j \not\vdash G t_k$	id. elim 41,42
44	$t_k \in G't_g$	reit 4a

45	$t_j \in G't_g$	reit 40
46	$(\forall t_j)(\forall t_k)(t_j \in G't_g \& t_k \in G't_g \supset$ $t_j = t_k \vee t_j < t_k \vee$ $t_k < t_j)$	linearity of histories
47	$t_j \in G't_g \& t_k \in G't_g \supset t_j = t_k$ $\vee t_j < t_k \vee t_k < t_j$	univ. instant 46
48	$t_j \in G't_g \& t_k \in G't_g$	conj. intro. 44,45
49	$t_j = t_k \vee t_j < t_k \vee t_k < t_j$	cond. elim. 47,48
50	$t_j = t_k$	hyp.
51	$t_j \notin G't_k$	reit 43
52	$t_k \notin G't_k$	id. elim. 51,52
53	$t_k \in G't_k$	def. of $G't_k$
54	$t_j \in Jt_g$	reductio 52,53
55	$t_j \leq t_k$	hyp.
56	$t_k \in G't_k$	def. of $G't_k$
57	$(\forall t_j)(\forall t_k)(t_j < t_k \&$ $t_k \in G't_k \supset t_j \in G't_k)$	maximality result
58	$t_j < t_k \& t_k \in G't_k \supset t_j$ $\in G't_k$	univ. instant 57
59	$t_j < t_k \& t_k \in G't_k$	conj. intro 55,56

60		$t_j \in G't_k$	cond. elim. 58, 59
61		$t_j \notin G't_k$	reit 43
62		$t_j \in Jt_g$	reductio 60, 61
63		$t_k < t_j$	hyp.
63a		$t_k \equiv t_i$	reit 10a
64		$\sim A t_j t_i$	def. of A + 63, 63a
65		$A t_j t_i$	reit 1
66		$t_j \in Jt_g$	reductio 64, 65
67		$t_j \in Jt_g$	disj. elim. 49, 50-56, 55-62, 63-67
68		$t_j \in Jt_g$	neg. elim. 41, 67
69		$t_j \in Jt_g \equiv t_j \in G't_g$	Bicond intro. 11-39, 40-68
70		$t_j \in Jt_g \equiv t_j \in G't_g$	exist. elim. 3, 4-69
71		$(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_g)$	hyp.
72		$(\forall t_g) (A t_g t_i \supset [(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_g) \supset Jt_g = G't_g])$	(C)
73		$A t_g t_i \supset [(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_g) \supset Jt_g = G't_g]$	univ. instant 72
74		$A t_g t_i$	

75	$(\forall t_k)(t_k \approx t_k \supset t_k \notin G't_g) \supset Jt_g = G't_g$	cond. elim. 73,74
76	$Jt_g = G't_g$	cond. elim. 71,75
77	$t_j \in Jt_g$	hyp.
78	$Jt_g = G't_g$	reit 76
79	$t_j \in G't_g$	id. elim. 77,78
80	$t_j \in G't_g$	hyp.
81	$Jt_g = G't_g$	reit 76
82	$t_j \in Jt_g$	id. elim 80,81
83	$t_j \in Jt_g \equiv t_j \in G't_g$	bicond intro. 77-79,80-82
84	$t_j \in Jt_g \equiv t_j \in G't_g$	disj. elim 2,3-70,71-83
85	$(\forall t_j)(\forall t_i)(A t_j t_i \& t_j \supset t_j \in Jt_g \equiv t_j \in G't_g)$	cond. intro. 1-84.
86	$(\forall t_j)(\forall t_g)(A t_j t_i \& t_j \supset t_j \in Jt_g \equiv t_j \in G't_g)$	univ gen. 85

This completes the proof that $J \in A \text{ Post } (G', t_i)$. It remains to show that if J' is any history function such that $J' \in \text{Post } (G, t_i)$ and $J' \in A \text{ Post } (G't_i)$, then $J' = J$. That is, the method of construction proposed by Thomason and Gupta yields a unique result. What has to be demonstrated is that $(\forall t_j)(J't_j = Jt_j)$. Then the functions will pick out the same histories at every moment and will thus themselves be the same. For each t_j there are three cases to be considered: (a) t_j is posterior to t_i ; (b) t_j is antiposterior to t_i , and there is some t_k , $t_k \approx t_i$ and

(c) t_j is antiposterior

$t_k \in G't_j$ to t_i , and for all t_k such that $t_k < t_i$, $t_k \in G't_j$.

1	$J' \in \text{Post}(G, t_i) \& J' \in A \text{ Post}(G't_i)$	hyp.
2	$J \in \text{Post}(G, t_i) \& J \in A \text{ Post}(G't_i)$	by preceding proofs.
3	t_j	hyp.
4	$t_j \supset P t_j t_i v. A t_j t_i$	def. of A, P
5	$P t_j t_i v. A t_j t_i$	cond. elim. 3,4
6	$P t_j t_i$	hyp.
7	$J \in \text{Post}(G't_i) \equiv (\forall t_j) (P t_j t_i \supset J't_j = G t_j)$	def. Post ()
8	$J' \in \text{Post}(G't_i) \equiv (\forall t_j) (P t_j t_i \supset J't_j = G t_j)$	def. Post ()
8a	$J' \in \text{Post}(G, t_i) \& J' \in A \text{ Post}(G't_i)$	reit 1
8b	$J \in \text{Post}(G, t_i) \& J \in A \text{ Post}(G't_i)$	reit 2
9	$J' \in (\text{Post } G t_i)$	conj. elim. 8a
9a	$J \in (\text{Post } G t_i)$	conj. elim. 8b
10	$(\forall t_j) (P t_j t_i \supset J't_j = G t_j)$	bicond. elim. 7,9
11	$(\forall t_j) (P t_j t_i \supset J't_j = G t_j)$	bicond. elim. 8,10
12	$P t_j t_i \supset J't_j = G t_j$	univ. instant. 10
13	$P t_j t_i \supset J't_j = G t_j$	univ. instant. 11
14	$J't_j = G t_j$	cond. elim. 6,12
15	$J t_j = G t_j$	elim cond. $\wedge$ 6,13

16	$J't_j = Jt_j$	transitivity of =
17	$A t_j t_i$	hyp.
18	$(\exists t_k)(t_k \equiv t_i \& t_k \in G't_j) \vee (\forall t_k)$ $(t_k \equiv t_i \supset t_k \notin G't_j)$	excluded middle
19	$(\exists t_k)(t_k \equiv t_i \& t_k \in G't_j)$	hyp.
20	$t_k \equiv t_i \& t_k \in G't_j$	hyp.
21	$(\forall t_g)(At_g t_i \supset (\forall t_k)(t_k \equiv t_i \&$ $t_k \in G't_g \supset J't_g = Gt_g))$	(B)
22	$At_j t_i \supset (\forall t_k)(t_k \equiv t_i \& t_k \in$ $G't_g \supset Jt_g = Gt_g)$	univ instant 21
23	$At_j t_i$	reit 17
24	$(\forall t_k)(t_k \equiv t_i \& t_k \in G't_j \supset$ $J't_j = G't_j)$	univ. instant 24
25	$t_k \equiv t_i \& t_k \in G't_j \supset J't_j = Gt_j$	univ. instant 24
26	$t_k \equiv t_i \& t_k \in G't_j$	reit 20
27	$J't_j = Gt_j$	condelim 25,26
28	$(\forall t_g)(At_g t_i \supset (\forall t_k)(t_k \equiv t_i \&$ $t_k \in G't_g \supset Jt_g = Gt_g))$	(B)
29	$At_j t_i \supset (\forall t_k)(t_k \equiv t_i \& t_k \in$ $G't_j \supset Jt_g = Gt_g)$	univ. instant 28

30	$(\forall t_k)(t_k \equiv t_i \& t_k \in G't_j \supset$	
	$Jt_j = Gt_j)$	cond. elim. 23,29
31	$t_k \equiv t_i \& t_k \in G't_j \supset Jt_j = Gt_j$	Univ instant 30
32	$Jt_j = Gt_j$	cond. elim 26,31
33	$J't_j = Jt_j$	transitivity of $\equiv$ 27,32
34	$J't_j = Jt_j$	exist elim. 19,20-33
35	$(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_j)$	hyp.
36	$(\forall t_j)(A t_j t_i \supset [(\forall t_k)(t_k \equiv t_i \supset$	
	$t_k \notin G't_j) \supset J't_j = G't_j])$	(C)
37	$(\forall t_j)(A t_j t_i \supset [(\forall t_k)(t_k \equiv t_i \supset$	
	$t_k \notin G't_j) \supset Jt_j = G't_j])$	(C)
38	$At_j t_i \supset [(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_j)$	
	$\supset J't_j = G't_j]$	univ. instant 36
39	$A t_j t_i \supset [(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_j)$	
	$\supset Jt_j = G't_j])$	univ. instant 37
40	$A t_j t_i$	reit 17
41	$(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_j) \supset J't_j$	
	$= G't_j$	cond. elim. 38,40
42	$(\forall t_k)(t_k \equiv t_i \supset t_k \notin G't_j) \supset$	
	$Jt_j = G't_j$	cond. elim. 39,40

43					$J't_j = G't_j$	cond. elim 35,41
44					$Jt_j = Gt_j$	cond. elim 35,42
45					$J't_j = Jt_j$	transitivity of =, 43,44
46					$J't_j = Jt_j$	disj. elim. 18,19-34,35-45
47					$J't_j = Jt_j$	disj. elim. 5, 6-16,17-45
48					$(\forall t_j)(J't_j = Jt_j)$	univ. gen. 47
49					$J' = J$	def. of J, J' 48
50					$J \in \text{Post}(Gt_i) \& J' \in A \text{ Post}(G', t_i) \supset J' = J$	cond. intro. 1,49
51					$(\forall J')(J' \in \text{Post}(G, t_i) \& J' \in A \text{ Post}(G', t_i) \supset J' = J)$	univ. gen. 50.

What we have shown then is that $[J \in \text{Post}(Gt_i) \& J \in A \text{ Post}(G', t_i) \& (\forall J') (J' \in \text{Post}(G, t_i) \& J' \in A \text{ Post}(G', t_i) \supset J' = J)]$. Then J is the unique element in the set $\text{Post}(G, t_i) \cap A \text{ Post}(G', t_i)$, as Thomason and Gupta claim.

Appendix Two

Raz 1975, p. 173f.:

— The analyses to be rejected assimilate the statements under consideration into one or the other of the basic types of statement. One such explanation claims that to say:

(1) According to law A ought to ϕ

is an elliptical form of saying:

(2) If A wants to be law-abiding he ought to ϕ .

This explanation must be rejected even by those who favour this line of analysis. The explanation attempts to reduce statements 'according to law' and the like to statements of what (valid) reasons there are. It interprets the qualification 'according to law' and similar qualifications as indicating that the sentence is used elliptically to assert a conditional. Just as a conditional whose consequent is an ought-sentence is not an assertion of a reason so, and in the same way, a statement of what ought to be done according to law is not a statement of what there is reason to do. It is a disguised conditional assertion of what one has reason to do. But on this type of analysis the antecedent of the conditional must state in perfect generality what conditions would be sufficient to make what ought legally to be done into what ought to be done. That one wants to be law-abiding is just one such sufficient condition. There could be others. So the analysis must be modified into:

(3) If there are reasons to follow the law then A ought to ϕ .

But the very same objection which led us to reject (2) as an analysis of (1) shows that (3) ought also to be rejected. For even (3) does not state in full generality all the sufficient conditions for accepting what in (1) is said to be required by law as what ought to be done. There may be grave faults in the legal system sufficient to justify disobedience to large parts of it and yet there may be reason to do what is required by law according to (1) for the reason that it is required by law. There may be reason to respect parts of the legal system—perhaps most of it—because of the importance of having some legal system or even because the one in force is fundamentally sound, and yet the ideal of the law-abiding citizen may be unjustified since many laws should be disobeyed. In a situation such as this one

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ought to ϕ because it is legally required but the antecedent of (3) is false. Hence (3) does not meet the conditions which could justify regarding it as an analysis of (1).

Let us assume that (1) is true in virtue of the law L. Can one regard the following as an analysis of (1):

(4) If L is systemically valid then A ought to ϕ .

Considerations of the same kind show that (4) also fails. L is systemically valid only if it is systemically valid for all its norm subjects. But it is enough that A will have reason to follow L for the 'ought' in (1) to become unconditional. What then of the following:

(5) If L is systemically valid as applied to A then A ought to ϕ .

This also fails as an analysis of (1) for L may require some action of which ϕ -ing is an instance and L may not be valid as applied to A and yet the fact that L also requires ϕ -ing may be a reason for A to ϕ . So it seems that the conditional analysis results in the assertion that:

(6) If because according to law A ought to ϕ A ought to ϕ then A ought to ϕ

is an analysis of

(1) According to law A ought to ϕ .

And this is clearly absurd.

Footnotes to Preface

¹Blackburn, 1973, pp. 52-56, citing Carnap in support.

²Raz, 1975, p. 13; Harman, 1977, p. 117.

Footnotes to Chapter One

¹Raz, 1975, pp. 172-175.

²Ibid., pp. 171-177.

³Finnis, 1980.

⁴Raz, 1975, p. 29.

⁵Ibid., p. 29.

⁶Raz, 1974, p. 138.

⁷Kelsen, 1967, p. 218n.

⁸Raz, 1974, p. 141.

⁹Gupta, 1980, p. 39.

¹⁰Strawson, 1952, pp. 174, 195ff.; Gibbard, 1981, pp.

211-217. (This follows for Gibbard only if universally quantified propositions are construed as conditionals.)

¹²Skyrms, 1980, p. 172.

¹³One way that will not do is to translate sentences like 1.14 above into a language with a dyadic deontic operator. The translation would be as follows: $(x) (x \text{ has no reason not to keep a common bawdy house} \rightarrow 0 (x \text{ has a reason not to keep a common bawdy house}/x \text{ is within the jurisdiction in question}))$. This is

objectionable on the same grounds as the counterfactual proposal is.

¹⁴Raz, 1975, p. 171.

¹⁵Finnes, 1980, p. 15.

¹⁶Ibid, pp. 86-90.

¹⁷Ibid, pp. 103-126.

¹⁸Ibid, p. 7.

¹⁹Ibid. p. 7f.

²⁰Ibid, p. 15.

²¹Ibid, p. vi.

²²Grizez, 1965, p. 348f.

²³Finnis, 1980, p. 276f.

²⁴Ibid, p. 147.

²⁵Ibid., p. 155.

²⁶Kelly, 1966, p. 14.

^{26a} Ibid.,p. 26f.

²⁷Owen, 1960, pp. 163-190.

²⁸Ibid, p. 170f.

²⁹Ross, 1924, p. 160f.

³⁰Gauthier, Jolif, 1970, p. 45f.

³¹Lukes, 1974, p. 34f.

³²Gauthier, Jolif, 1970, p. 685.

³³Fortenbaugh, 1975, p. 51.

³⁴Ibid, p. 56.

³⁵Ibid., p. 57.

³⁶Finnis, 1980, p. 11.

³⁷Berti, 1970, p. 180f.

³⁸Dugard, 1978, p. 86f.

³⁹Ibid., pp. 53-106.

⁴⁰Wilson, J.A.'s decision was widely criticized: see
Swan, Reiter, 1982, p. 107.

⁴¹de Strycker, 1968, p. 610f.

⁴²Lloyd, 1962.

⁴³Finnis, 1980, p. 10.

⁴⁴Lloyd, 1962, p. 68f.

⁴⁵Cherniss, 1944, pp. 513-524; Hardie, 1980, p. 54f.;
Woods, 1982, p. 76.; Lloyd, 1962, p. 70.

⁴⁶Lloyd, 1962, p. 72f.

⁴⁷Ibid, p. 81.

⁴⁸For Alexander, see Ibid., p. 78.

⁴⁹Thomas Aquinas, 1949, p. 465f.

⁵⁰Ibid, p. 453.

⁵¹Ross, 1961.

⁵²Ibid, p. 121.

⁵³Ibid, p. 122.

Footnotes to Chapter Two

¹Fitch, 1967, p. 272; Karger, 1972, pp. 109, 120.

²van Fraassen, 1973; Chellas, 1980.

³van Fraassen, 1973, p. 18; the formulation suggested
by Quinn, 1978, p. 120.

⁴Chellas, 1980, p. 273.

⁵Cf. Lewis, 1973, p. 182.

⁶Raz, 1975, p. 16.

⁷Davidson, 1963, p. 84.

⁸Example adapted from Williams, 1978, p. 19.

⁹Thomson, 1977, p. 78.

¹⁰Ibid, pp. 157-200.

¹¹Thomason, 1970; Thomason and Gupta, 1981. Much of what
follows is taken almost verbatim from the latter.

¹²Stalnaker, 1981, p. 99.

¹³Cf. Stalnaker, 1975, p. 203; Ellis, 1979, p. 78; Gibbard,
1981, p. 211.

¹⁴Thomason, 1970, p. 267n.

¹⁵Lewis, 1974, p. 7.

¹⁶Sen, 1970, p. 9.

¹⁷Sen, 1973, p. 248.

¹⁸Williams, 1973, p. 93.

¹⁹Sen, 1970, p. 17. If non-maximal sets of alternatives are allowed, then systems of spheres do not yield the same results as a-functions; for non-empty systems of spheres order histories strictly and completely so that a system associated with an expanded set of alternatives could be non-empty only if a system associated with any subset of the expanded set were non-empty; but our conditions on a-functions do not require that an a-function must be empty for an expanded set if it is empty for some subset of the expanded set. Contrast Lewis' condition (2) on what he calls «choice functions», Lewis, 1974, p. 3. This may be an argument in favour of the Limit Assumption.

²⁰See note 19 above.

²¹Pollock, 1977, p. 19; Herzberger, 1979, pp. 84-86; Stalnaker, 1981, pp. 96-98.

²²Stalnaker, 1981, p. 97.

²³Lewis, 1974, p. 6.

²⁴Sen, 1982, p. 30.

²⁵Jeffrey, 1965, p. 159.

²⁶Skyrms, 1980, p. 96-100.

²⁷Ibid.

²⁸Ibid.

²⁹Stalnaker, 1982, p. 12.

³⁰Raz, 1975, p. 24.

³¹Ibid.

³²van Fraassen, 1980, p. 149.

^{32a}See 2.53 above.

³³Raz, 1975, p. 26.

³⁴Adams, 1975, pp. 28-31; Ellis, 1979, pp 68-74.

³⁵Chellas, 1980, p. 273.

³⁶Thomason and Gupta, 1981, p. 318.

Footnotes to Chapter Three

- ¹Baier, 1958, pp. 103, 280f; Harman, 1977, pp. 117-125;
Raz, 1975, pp. 28-35.
- ²Raz, 1975, p. 29.
- ³Ibid, p. 30.
- ⁴Conee, 1982, p. 88.
- ⁵al-Hibri, 1978, p. 49.
- ⁶Ibid.; Baier, 1958, p. 102f. on rebuttable presumptions;
Ross, 1930, p. 20.
- ⁷Dover, 1974, p. 3.
- ⁸van Fraassen, 1973, p. 13.
- ^{8a}Dover, 1974, p. 304.
- ⁹Simmons, 1979, p. 27n.
- ¹⁰Grice, 1967, ch. 2, p. 7.
- ¹¹Ibid., p. 24.
- ^{11a}Ibid., p. 12.
- ¹²Ibid., p. 5f.
- ¹³Raz, 1975, p. 32.

¹⁴Sellars, 1963, p. 202.

¹⁵Ibid., p. 172.

¹⁶Ibid., p. 195.

¹⁷Ibid., p. 196.

¹⁸Ibid., pp. 174-178, 192-195.

¹⁹Ibid., p. 198.

²⁰Ibid., p. 199.

²¹Ibid., p. 202.

²²Ibid., p. 203ff.

²³Ibid., p. 205.

²⁴See Chapter One.

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