

Can God Make up His Mind? Author(s): Tomis Kapitan

Source: International Journal for Philosophy of Religion, Vol. 15, No. 1/2 (1984), pp. 37-47

Published by: Springer

Stable URL: https://www.jstor.org/stable/40024821

Accessed: 02-11-2022 12:52 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at https://about.jstor.org/terms



Springer is collaborating with JSTOR to digitize, preserve and extend access to International  $Journal\ for\ Philosophy\ of\ Religion$ 

## CAN GOD MAKE UP HIS MIND?

TOMIS KAPITAN
Birzeit University

In "Omniprescience and Divine Determinism" Richard La Croix gives an interesting twist to the debate over the apparent inconsistency between divine omniscience and free will, arguing that an eternally *omniprescient* being, *viz.*, one which always has foreknowledge of all future events, cannot make decisions, possess free will, or act except from necessity. Phillip Quinn, in a critique of that essay, claims that La Croix's argumentation fails to secure these dramatic conclusions, even with the assumption that all future events are knowable. Here, with some modifications, I battle on behalf of La Croix.

La Croix's reasoning is complex, but the central argument concerning decision can be distilled into the following form:

- (1) If God decides at time  $t_1$  to perform action  $\emptyset$  at  $t_2$  then there is a time  $t_3$  prior to  $t_1$  and  $t_2$  such that God does not know at  $t_3$  whether or not he will decide at  $t_1$  to  $\emptyset$  at  $t_2$ .
- (2) For every event that occurs or will occur at a certain time, God knows at every prior time that that event will occur then.
- : (3) God cannot decide, at any time, to perform an action.

If by 'God' we mean a being which is, in part, eternally omniprescient, then (2) is trivially true, and this remains the case when we strengthen the definiens so that by 'God' is meant an eternally *omniscient* being, one which at all times knows all truths, as I will henceforth do. La Croix emphasizes that this argument assumes that any future events involving the decisions and actions of agents (or propositions about such events) are knowable in advance, and also that decision are events that occur in time, hence, that God himself is in time. Accordingly, the focus of debate will be centered upon (1).

Quinn's response is essentially twofold; he questions whether La Croix's premises are strong enough to generate the modality in the conclusion, charging La Croix with a modal fallacy on this score, and he challenges the premises themselves, specifically, in the reformulation, (1). Unfortunately, La Croix's argumentation does seem fallacious, at least on the surface. But this can easily be circumvented by observing that (1) and (2) entail,

(4) If God decides at  $t_1$  to  $\emptyset$  at  $t_2$  then there is a time  $t_3$  prior to  $t_1$  and  $t_2$  such that God does not know at  $t_3$  that he will decide at  $t_1$  to  $\emptyset$  at  $t_2$  and God knows at  $t_3$  that he will decide at  $t_1$  to  $\emptyset$  at  $t_2$ .

Since it is not logically possible that there is a being x, a proposition p and a time t such that x does not know at t that p and x knows at t that p, it follows, from (4), that God cannot choose or decide to perform any action.

Quinn's objections to (1) are more formidable. He first suggests that perhaps time has a first moment at which God made all his decisions so that there would be no prior time at which God did not know which decisions he would make or which actions he would perform. Secondly, he objects to La Croix's grounds for (1), namely, the more general claim,

(5) If an agent x decides at time  $t_1$  to perform action  $\emptyset$  at  $t_2$  then there is a time  $t_3$  prior to  $t_1$  and  $t_2$  such that x knows at  $t_3$  whether or not he will decide at  $t_1$  to  $\emptyset$  at  $t_2$ .

I will consider these objections in reverse order.

As a counter-example to (5) Quinn offers the following:

Suppose Smith knows that, if White invites him to the evening concert tomorrow morning, he will then decide to go that evening, and that, if he then decides to go, he will go. And now suppose Smith learns that White will invite him to the concert tomorrow morning. Smith, knowing a bit of logic, infers that he will then decide to go to the concert and that he will go to the concert that evening. Thus, it would appear, Smith knows what he will decide to do before he makes his decision and knows what he will do as a result of that decision before he makes it.<sup>4</sup>

In evaluating this argument it must be kept in mind that 'decide' is ambiguous. On occasion, it can mean the same as 'deliberate', as when we say that he is deciding what to do. But this is not the sense involved in (5) where to decide implies intending the act in question. So, (5) is not refuted by the obvious fact that one can know that one will deliberate and *that* one will decide about an action at some subsequent time. In addition, 'decide' must mean more than 'intend', at least if intending need not involve a selection from among various alternatives as decision clearly does.

The case Quinn describes is not without plausibility. But in most cases, if not all, one knows that one will  $\emptyset$  if condition p holds only because one already *intends* to  $\emptyset$  if p. To intend to  $\emptyset$  if p, however, is to put oneself in a state of readiness to intend to  $\emptyset$ , and, hence, to  $\emptyset$ , upon coming to believe that p. If so, upon learning that White will invite him Smith justifiably infers that he will decide to go to the concert only *because* he has already decided to go, indeed, there is reason to suppose that he formulates his decision upon inferring, from the conditional intention and the fact that White will invite him, the *intention* to go to the concert. But if Smith formulates his intention upon learning that White will invite him then

his knowledge of his future intentional behavior is based on his awareness of what he has already decided to do. How then can we say that Smith knows what he will decide? One answer points to a further ambiguity in 'decide', basically, between formulating a decision, i.e., coming to intend or making up one's mind, and rehearsing that decision, viz., consciously affirming an intention already held.<sup>5</sup> Last night I decided to go swimming at nine o'clock this morning and, upon waking this morning, I again thought, in an intending way, of swimming at nine o'clock. Assuming that I did not change my mind in between, it is wrong to say that I made up my mind again upon waking or that I did not know last night how I would intentionally think and behave this morning. An attractive way to handle the case at hand, then, is to acknowledge that Smith knows in advance that he will rehearse his decision to go to the concert because he has already formulated this decision, not that he knows in advance how he will make up his mind before he makes it up. As such, the example would show only that the deciding spoken of in (5) is that of formulating, not rehearsing, a decision, and, henceforth, we will understand decision in this sense.

Despite all this, I am unsure that (5) is a law governing decision-making. An old controversy centers on a claim advanced by Carl Ginet:

(A) It is conceptually impossible for a person to know what a decision of his is going to be before he makes it.<sup>6</sup>

This thesis, stronger than (5), has been subjected to a variety of objections, mostly inconclusive. The distinction between formulating and rehearsing an intention is generally ignored and, so, many of the counter-examples, e.g., those appealing to weakness of will, fail to convince us that the agent did not already have the intention, that is, the propensity or disposition, to act and think in a certain way. Nothing precludes an agent from having contradictory intentions or inclinations. Other objections provide only foreknowledge of a conditional, of how one will decide under given conditions, and thus, fall even wider of the mark. Still further arguments, noting that we can have foreknowledge of the decisions of other agents, overlook the fact that the knowledge denied in (A) or (5) is decidedly first-person, not readily assimilable to third-person knowing. As such, 'his' in (A) and 'he' in (5) are what Hector-Neri Castañeda calls quasi-indicators, devices we have for attributing indexical reference to others. One promising counter-example is that of the betrothed who, presently hating winter sports yet knowing his fiancée loves to ski, knows his values, desires, and intentions will change to approximate hers; so he knows that he will decide to go skiing next winter. 8 Still, unless more is said, even this example fails to persuade. Does the agent really know that he will change his motivational structure? How can we be sure that he does not already have the intention to go skiing next winter eager as he is to please his fiancée? Or, finally, is it really a decision of his that he foreknows, or only an intention which is not a choice among competing options, assuming that such a distinction can be drawn?

Undoubtedly, the matter calls for deeper psychological investigation. My reservations about (5) or (A) stem from the fact that knowledge is dispositional, that we

do not always know that we know, and that we do occasionally hold inconsistent beliefs. Who knows but that one in the process of deciding about attending an evening concert might have, in the deep recesses of his doxastic storehouse, a belief, even a justified belief, that he will attend that concert, a belief which he fails to be attentive to. No doubt that were we to inquire of a person in the process of making up his or her mind, that is, deliberating, whether he or she now knows which action will be chosen, we would be met with a reply of the following sort: "no, not at this point; I've not yet made up my mind." This suggests that one who deliberates does not at the same time have an occurrent belief that he will do the action he is deliberating about. Perhaps the response also lends credence to Ginet's claim that deciding involves moving from a state of uncertainty into a kind of knowledge, a transition that is made more evident in deliberative decision. More cautiously, however, the deliberator's words indicate, at best, his or her feeling of uncertainty, an important datum which I will utilize below but not sufficient to establish (A) or (5). So, let us attempt to defend (1) without relying on (5) and, in the process, address Quinn's other objection to (1).

To decide is to intend an action  $\emptyset_i$  which is embedded within a range of actions  $\emptyset_1,...,\emptyset_n$ ,  $1 \le_i \le_n$ , each of which the agent takes to be an open alternative for him. Typically, this presumption is formulated before the decision takes place, if only an instance before, but certainly not later, Still, not to beg any questions against Quinn, let us settle on the schema,

(6) If x decides at  $t_1$  to  $\emptyset$  at  $t_2$  then he believes that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him,

leaving open whether the assumption must be formulated prior to the making of the decision. What is it to take a course of action as an open alternative? Reflection upon deliberation reveals that, minimally, a deliberator assumes an action to be open only if he feels he can perform it and an alternative only if he recognizes that he could do something else instead. Granting this, we may suppose,

(7) If x believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him then he believes at  $t_1$  that he will  $\emptyset$  at  $t_2$  if and only if he decides to  $\emptyset$  at  $t_2$ ,

with the proviso that the time of deciding must fall within the closed interval bounded by  $t_1$  and  $t_2$ . For finite agents, probability qualifiers will frequently govern the performance of the action, but, once mentioned, these can be left implicit. The same qualifiers would not appear to apply in the case of an omniscient agent.

Satisfaction of the consequent of (7), however, does not entail satisfaction of its antecedent. An agent who feels that he would do  $\emptyset$  just in case he chose to might be correct in taking  $\emptyset$ -ing to be a *possible* action for him, but it does not follow that he takes  $\emptyset$ -ing to be an open alternative for him. Sally, upon entering the local ice cream shop, might believe that she would eat chocolate ice cream if

she chose, but she realizes that if she did eat it then she would break out in a horrible rash. She might even dislike chocolate ice cream and have formed a belief that because of her dislike and fear of a rash she will be caused not to choose chocolate. Believing that her not eating chocolate ice cream is already determined, therefore, she no longer considers it an open alternative for her. Perhaps reflections of this sort have led many philosophers to say that if an agent takes both his doing  $\emptyset$  and his refraining from  $\emptyset$  to be *open* courses of action for him then he assumes that his  $\emptyset$ -ing is, as of yet, a *contingent* matter and, consequently, that nothing *yet* determines his choice either to  $\emptyset$  or not to  $\emptyset$ . A further condition seems appropriate:

(8) If x believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him then he believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is, as of yet, a contingent matter.

This schema is decidedly generic and a proper specification of the type of contingency involved is by no means transparent. The modality is not just simple logical contingency or, for that matter, any other sort of nomic contingency, viz., contingency fixed solely by reference to some body of laws. Instead, a modality which includes reference to the actual world of particular objects and conditions is required that, as such, is a relativized modality. Let us say, then, that a state of affairs (event, proposition) p is contingent relative to a set of states of affairs S just in case neither p nor not-p is a consequence of S or, in other words, that the obtaining of the members of S is not sufficient for the obtaining or p nor for that of not-p. A more restricted definition stipulates that the consequence or sufficiency be causal in nature. On either alternative, there remains a choice among the different candidates for the set S needed to fix the modality embedded in (8). To mention just three, the agent can take the contingency to be fixed relative to

- (a) all propositions true at t<sub>1</sub> (including those with reference to past and future);
- (b) all states of affairs (facts, conditions) existing prior to and including t<sub>1</sub>; or
- (c) all that which he then (at t<sub>1</sub>) believes (knows).

Each of (a)—(c) has been advanced at one time or another, <sup>13</sup> though it is unimportant, for present purposes, which candidate we select. (c) has the advantage of not rendering a decision-making determinist inconsistent and squares nicely with the response of the deliberator who, when asked if he is aware of anything which determines his eventual decision, reports: "I am unaware of any such thing; as far as I can tell, it is entirely up to me which alternative I choose." Still, (c) can be understood in at least two ways depending on whether the phrase 'he then believes' occurs outside or inside the scope of belief in the consequent of (8). The response of the deliberator would suggest an internal occurrence, but it is interesting to note that the two readings are equivalent when the agent in question is omniscient. <sup>14</sup> Of course, for an omniscient agent, (c) is sufficient for (a) and (b),

so nothing beyond (c) need be assumed in granting (8).

That a deliberator cannot know, while deliberating, which alternative he will eventually undertake, is a commonly held view. Perhaps a further aspect of taking an action to be open is that the agent is, as of yet, uncertain whether he will undertake it or refrain from so doing. This idea must be measured against our earlier reservations about (5). At the same time, however, let us recall the response of the deliberator who stated that he had not yet made up his mind when asked whether he knew which action he would choose. Taken at face value, his words convey his realization, concerning each alternative, that he has not yet decided upon it, in short, they indicate his sense of uncertainty. If this is so, then the datum supports nothing so strong as the ignorance conditions of (5) or Ginet's (A) but, instead, a more modest proposal, namely,

(9) If x believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him then he believes at  $t_1$  that he himself has not yet decided whether or not he will  $\emptyset$  at  $t_2$ .

We might claim the reason for which one believes he has not yet decided about what he will do is that he does not yet *know* what he will do. In other words, perhaps the sense of uncertainty is more thoroughly captured in,

(10) If x believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him then he believes at  $t_1$  that he himself does not yet know whether or not he will  $\emptyset$  at  $t_2$ .

Satisfaction of (10) guarantees that of (9), at least for minimally rational agents, though the converse does not hold unless we assume something on the order of Ginet's (A). Both schemata, like (7) and (8), involve an ascription of self-reference to the agent in which case we are once again dealing with quasi-indicators within the scope of 'believes'.

One might object that since not every decision terminates a process of conscious deliberation what holds for the latter does not automatically carry over to all cases of decision-making. This is, of course, true. But insofar as we use terms like 'decides' or 'chooses' in the standard way we are evidently speaking of a mental process that includes selection of something from among a plurality of options. One decides to  $\emptyset$  only upon the assumption, usually implicit, that one's  $\emptyset$ -ing is an open alternative. Deliberation only provides the occasion for the presumptions underlying decision-making to be more readily discerned, and none seems more significant than that the future is not fixed but, as of yet, open. Thus, (6) is beyond doubt, and (7)—(10) are reasonable attempts to supply necessary conditions for a crucial aspect of decision-making.

Premise (1) can now be defended by appeal to (6)—(10) together with the usual equivalences concerning omniscient beings:

(11) For any proposition p and time t, God believes at t that p iff God knows at t that p iff p is true at t. 16

From (11) and the principle of excluded middle it follows that for each proposition p God knows p or God knows not-p. I am assuming, naturally, that knowledge of events is propositional.

For those who feel that we may have stacked the deck on La Croix's behalf by granting (9) and (10) let me now offer a proof of,

(12) If God believes at t<sub>1</sub> that his Ø-ing at t<sub>2</sub> is an open alternative for him then he believes at t<sub>1</sub> that he himself has not yet decided whether or not he will Ø at t<sub>2</sub>,

from (7), (8) and (11) alone. If God believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative then, by (8), he takes his  $\emptyset$ -ing at  $t_2$  to be, as of yet, a contingent matter and, therefore, he assumes that there is nothing which yet determines his  $\emptyset$ -ing at  $t_2$ . Now, by (11), God knows either

(i) he himself has already decided to  $\emptyset$  at  $t_2$ ,

or

(ii) it is not the case that he himself has already decided to  $\emptyset$  at  $t_2$ .

If God knows (i) then (i) is true, and since, by (7) and (11), he knows he will  $\emptyset$  at  $t_2$  iff he decides to  $\emptyset$  at  $t_2$  then he will  $\emptyset$  at  $t_2$  and, by (11), knows that he will. In such a case he does not take his  $\emptyset$ -ing at  $t_2$  to be undetermined, for he must believe that it is determined — by his decision to  $\emptyset$  at  $t_2$ , since, by (7), he takes his deciding to  $\emptyset$  at  $t_2$  to be sufficient for his  $\emptyset$ -ing at  $t_2$ . Hence, given (8), God cannot know (i) while taking his  $\emptyset$ -ing at  $t_2$  to be an open alternative. So, God knows (ii). By analogous argument God knows at  $t_1$  that he has not decided to refrain from  $\emptyset$ -ing at  $t_2$ . This secures (12) independently of (9) or (10).

In his first objection to (1) Quinn urges that

... it is possible that at the first moment of time God made all his decisions about what he was going to do at every subsequent time, in which case there would be no time prior to any divine decision at which God had not yet made that decision.<sup>17</sup>

This supposition conflicts with principles (6), (11) and (12). Assume that God decides at  $t_1$  to  $\emptyset$  at  $t_2$  and that  $t_1$  is the first moment of time. By (6), God takes his  $\emptyset$ -ing at  $t_2$  to be an open alternative for him, and, as mentioned earlier, this assumption cannot be formulated by God any later than the time of the decision, viz, it too occurs at  $t_1$ . By (12), however, God believes at  $t_1$  that he has not yet (at  $t_1$ ) decided to  $\emptyset$  at  $t_2$ , and since all God's beliefs are true by (11), then God

has not decided at  $t_1$  to  $\emptyset$  at  $t_2$ . This contradicts the supposition that God did decide at  $t_1$ . Consequently, given the foregoing principles, this supposition is not possible at all and Quinn's first objection to (1), like the second, can be dismissed. Deciding takes place only upon a bedrock of antecedent presumptions.

We can now advance to a central lemma:

(13) If God believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him then he believes at  $t_1$  that he himself does not yet know whether or not he will decide to  $\emptyset$  at  $t_2$ .

This can easily be seen to be a consequence of (7) and (10), for if, by (10), he does not know whether or not he will  $\emptyset$  then, by (7), he does not know whether or not he will decide to  $\emptyset$ . However, this appeal to (10) can be avoided and (13) can be derived from the contingency assumption (8). Thus, if God believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative then, by (8), he believes at  $t_1$  that his  $\emptyset$ -ing at  $t_2$  is, as of yet, contingent. By (11), he knows at  $t_1$  either

(iii) he himself already knows (at  $t_1$ ) that he will decide to  $\emptyset$  at  $t_2$ ,

or,

(iv) he himself does not already know (at  $t_1$ ) that he will decide to  $\emptyset$  at  $t_2$ .

Relativizing the contingency in (8) to (c), we discover that if God knows (iii) then he also knows that his deciding to  $\emptyset$  at  $t_2$  is not contingent with respect to everything he himself knows at  $t_1$ , that is, his deciding to  $\emptyset$  at  $t_2$  is already determined by what he knows at  $t_1$ , namely, (iii). That is, (iii) describes an antecedent condition whose existence is sufficient for God's deciding to  $\emptyset$  at  $t_2$ . But this result violates the requirements of (8). Consequently, God knows at  $t_1$  (iv). With an analogous argument for refraining from  $\emptyset$  we prove the lemma without relying on (9) or (10).<sup>18</sup>

It is but a short jump to (1). If God decides at  $t_1$  to  $\emptyset$  at  $t_2$  then, by (6) and our reply to Quinn's first objection to (1), there is a time  $t_3$ , prior to  $t_1$  and  $t_2$ , such that God believes at  $t_3$  that his  $\emptyset$ -ing at  $t_2$  is an open alternative for him. Then, by (13), God believes at  $t_3$  that he himself does not yet know whether or not he will decide at  $t_1$  to  $\emptyset$  at  $t_2$ . Since, by (11), this belief is true, we have established (1). La Croix's conclusion (3) raises its head with vivid force; God cannot make up his mind.

Any number of replies to La Croix's argument present themselves, for example, that which contests his assumption concerning so-called future contingents (see note 3). Another raises the possibility that the laws governing the decision-making of human beings do not apply to God, and Quinn comes close to suggesting something of this sort. This possibility is always there, but we cannot help but judge on the basis of our experience of decision-making in finite beings like ourselves. If there are other beings who decide in ways unlike our own, in accordance with

different laws, then these ways must be explicated and a continued attribution of the property of being a decision-maker to such beings justified. Failing this, we have little choice but to describe decision as we understand it.

I have not, in all this, focused upon La Croix's wider speculations concerning divine determinism. Of course, if there is no divine choice then there is no divine free choice, and all debate about whether God freely chose to create the world he did from among a plethora of possible worlds is decisively settled.<sup>20</sup> But it is quite another matter to say that God could not have acted otherwise than he did; divine determinism in no sense follows from (3). Quinn, later in his paper, shifts ground and argues that even if God cannot decide he can, nonetheless, intend, even if his intentions are fixed from eternity. Nothing in La Croix's argumentation, he continues, short of another modal fallacy, implies that God could not have intended otherwise than he did. That is to say, it is still possible, "logically and nomologically," for God to do and intend otherwise.<sup>21</sup>

I will not contest Quinn's point here, save to mention that the modality is most likely a relativized one of the sort mentioned above, and not indexed merely by laws or logic or of nature. One nagging doubt remains; is it so obvious that an omniscient being can intend to do an action? The distinction between formulating and rehearsing a decision applies equally to intention, and there is no difficulty in allowing foreknowledge that one will rehearse an intention. But can one come to intend a course of action which is not taken to be an open alternative? Notice that many of our actions or mere bodily movements, e.g., breathing, blinking, are not intentional. We did not at one point in our lives come to intend them in order for them to occur; they take place automatically, as it were, often without notice. Nor do we now intend to engage in such activity as there is no question in our minds that we will continue to so behave short of catastrophies beyond our control. Coming to intend involves an arrangement of our motivational set-up so that our action will serve our ends; it embodies a conscious effort, though not necessarily an awareness that we are intending. And it would appear that we formulate and endorse an intention of the form "I shall "o" only by taking it for granted that unless we  $\emptyset$  certain of our ends will not be realized. Why bother to intend to  $\emptyset$  if one realizes that one's Ø-ing is unavoidable, that it will occur anyway, that it is not contingent relative to what one takes to be the case? The most plausible picture is that all intending takes place upon the assumption of a partially open future and that every formulation of an intention is a decision, minimally, between a course of action and its complement. If this is so, principles (6)-(10) cover all intentional behavior and render it impossible for an omniscient being, not only to decide, but to come to intend and act intentionally.

These conclusions are of no small theological importance. They indicate that if there is an omniscient God then his creation cannot be modeled on intentional action as we understand it, nor can his omnipotence be defined in terms of what he could have intended, nor is he commendable by virtue of his free choices. In sum, these results cast further doubts upon the possibility of an omniscient deity.

## NOTES

- Richard La Croix, "Omniprescience and Divine Determinism," Religious Studies (1976), 365-381.
- 2. Phillip Quinn, "Divine Foreknowledge and Divine Freedom," International Journal for Philosophy of Religion IX (1978), 219-240.
- 3. La Croix, op.cit., pp. 366-369. He notes that a denial that so-called "future contingents" are foreknowable is a significant counter to his argument (pp. 380-381). Quinn does not call this assumption into question, though it has been fashionable to do so in some circles, see, for example, Nicholas Denyer, Time, Action & Necessity: a proof of free will (London: Duckworth, 1981) and J. Runzo, "Omniscience and Freedom for Evil," International Journal for Philosophy of Religion XII (1981), 139-143. It begs the question to label certain events "contingent," however, without giving good reasons to suppose that there are no causal chains leading up to them.
- 4. Quinn, op.cit., p. 234.
- 5. I am borrowing heavily from Hector-Neri Castañeda's work on intentions here, especially his *Thinking and Doing: The Philosophical Foundations of Institutions* (Dordrecht: D. Reidel, 1975), Chapters 6 and 10. The contrast between formulating and rehearsing an intention, for example, is emphasized on pages 275-278, and he has produced impressive evidence for the claims that intentions can be inferred, pp. 25-31 and *passim*, and that some intentions are conditional in form, pp. 160ff. See also Castañeda's "Reply to Sellars," in *Agent, Language, and the Structure of the World* (Indianapolis: Hackett, 1983), James E. Tomberlin, editor, pp. 419-433.
- 6. Carl Ginet, "Can the Will Be Caused?" Philosophical Review 71 (1962), 49-55, and compare S. Hampshire and H.L.A. Hart, "Decision, Intention and Certainty," Mind LXVII (1958), where a similar thesis is advocated. Ginet's critics on this include J. Canfield, "Knowing About Future Decisions," Analysis 22 (1962), 127-129; J.W.R. Cox, "Can I Know Beforehand What I Am Going to Decide?" Philosophical Review 72 (1963), 88-92; and M. Stocker, "Knowledge, Causation, and Decision," Nous 2 (1968), 65-73. See also R. Young, Freedom, Responsibility and God (New York: Barnes & Noble, 1975), 169-185 and R.G. Burton, "Choice," Philosophy and Phenomenological Research 42 (1982), 581-586.
- 7. See Castañeda's "'He': A Study in the Logic of Self-Consciousness," Ratio 8 (1966), 130-157; "Indicators and Quasi-Indicators," American Philosophical Quarterly 4 (1967), 85-100; and "Reference, Reality and Perceptual Fields," Proceedings and Addresses of the American Philosophical Association 53 (1980), pp. 763-822. He has argued hard and long in these and other papers that quasi-indicators cannot be replaced by third-person designations and, mutatis mutandis, that first-person reference is irreducible to third-person reference.
- 8. I take this example from Stocker, op.cit., p. 69.
- 9. The term 'believes' is used with some reluctance here, though it might be fully appropriate when the agent is omniscient. In general, I use the term to indicate doxastic states generically, without implying an ability to articulate or verbalize the content affirmed. Perhaps terms like 'assumes', 'takes for granted' or even 'feels' might be more suitable in this context.
- 10. This Kantian thesis has been advanced by many contemporary philosophers, e.g., R. Taylor, "Deliberation and Foreknowledge," American Philosophical Quarterly 1 (1964), 73-80 and Action and Purpose (Englewood Cliffs, N.J.: Prentice-Hall, 1966), pp. 178-182; Denyer, op.cit., pp. 5, 39-42, 65-66; and P, van Inwagen, An Essay on Free Will (Oxford: Clarendon Press, 1983), pp. 153-160.
- 11. See T. Smiley, "Relative Necessity," Journal of Symbolic Logis 28 (1963), 113-134, and I.L. Humberstone, "Relative Necessity Revisited," Reports on Mathematical Logic 13 (1981), 33-42.

- 12. Other variants on this construal of relative contingency may be equally suitable. I insist that the notion of *consequence*, and, similarly, that of sufficiency (implication), be taken in a generic sense, and not be restricted to the narrower relation of logical consequence. I refer the reader to my "On the Concept of Material Consequence," *History and Philosophy of Logic* 3 (1982), 193-211, for a discussion of extra-logical consequence.
- 13. With some stylistic modifications, (a) is found in Denyer, op.cit., (b) in van Inwagen, op.cit., and I have suggested (c) in a review of Denyer's book forthcoming in Nous.
- 14. Where x is omniscient we have  $\forall uB_x(\emptyset)$  iff  $B_x(\forall u\emptyset)$  regardless of the restriction on the variable u. I am indebted to Mr. Paul Spade for having brought this to my attention.
- 15. See R. Taylor "Deliberation and Foreknowledge," p. 75 and Action and Purpose, pp. 174-176; A.N. Prior, Papers on Time and Tense (Oxford: Clarendon Press, 1968), pp. 47-48; A. Goldman, A Theory of Human Action (Englewood Cliffs, N.J.: Prentice-Hall, 1970), p. 195; and Denyer, op.cit., p. 48.
- Cf., P. Grim, "Some Neglected Problems of Omniscience," American Philosophical Quarterly 20 (1983), 265-266.
- 17. Quinn, op.cit., p. 230.
- 18. I take it as obvious that the phrase 'whether or not' as occurring in these principles indicates a conjunction of denials of knowledge. The derivation of (13) from (8) might not work if one is adamant on defining the contingency in (8) in terms of causal consequence, and one holds that foreknowledge is not always a causally determining factor. This latter point is not so obvious in the case of God, but even granting it leaves us with the problem of accounting for foreknowledge without relying on knowledge of past and present causes, in which case, for an omniscient being, (8) would still suffice for (13). Otherwise, (13) rests on (7), (10) and (11) alone.
- 19. Quinn, op.cit., pp. 233-234.
- 20. For a recent discussion see T. Flint, "The Problem of Divine Freedom," American Philosophical Quarterly 20 (1983), 255-264.
- 21. Quinn, op.cit., pp. 236-237.