
Bruce Aune’s _Reason and Action_ is an important book which will engage and challenge philosophers interested in the theory of action. In this review I focus on what I believe to be the most important new material presented by Aune: the discussion of the logic of practical reasoning in Chapter IV.

In Chapter IV Aune criticizes the logics of practical reasoning developed by Sellars, Binckley, and Castañeda. Aune’s argument is that no special logic of practical reasoning is required; the principles of “assertoric” first-order logic suffice to validate the inferences we intuitively want to count as valid practical inferences. Aune’s position effects a considerable simplification, insofar as no special operator expressing volition is required.

Intuitively, Aune argues, it seems that the following practical inference is valid:

1. I will bring about E.
2. Unless I do A, I can’t bring about E.
3. Therefore, I will do A.

In this argument, sentences “1” and “3” are supposed to be interpreted as expressing volitional thoughts; they are not simple future indicatives. If we introduce a special volitional operator, “S” (where “S(P)” is interpreted as “I will it to be the case that P”), we could regiment “1” and “3” as follows:

1* S(I bring about E)
3* Therefore, S(I do A)

Of course, “3*” does not follow from “1*” and “2” without the use of special rules of inference for the “S-operator”. Aune points out, however, that the inference becomes valid if the volitional “will” and the “shall” of the simple future indicative are interchangeable, and sentence “2” is regimented suitably:

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* In preparing this review, I have benefited from discussions with Michael Bratman.
If the volitional "will" and the indicative "shall" are interchangeable, then "3" follows from "1" and "2*" by modus ponens. It appears, then, that we can use ordinary principles of assertoric logic to validate practical inferences, and we don’t need a special logic of practical reasoning, if the volitional "will" and the future indicative "shall" are intersubstitutable—that is, if the following inferences are valid:

(A)  | I will do A  
-----|----------------- 
I shall do A

(B)  | I shall do A  
-----|----------------- 
I will do A

(Again the form, "I will do A", is taken as an expression of a volitional thought, while the form, "I shall do A", is a future indicative.)

Aune argues that both inferences (A) and (B) are valid. Aune says:

This consideration seems to be supported by the observation that "I will do A" logically implies "I shall do A" just in case the set {"I will do A", "I shall not do A"} is inconsistent, and that "I shall do A" implies "I will do A" just in case the set {"I shall do A", "I won't do A"} is inconsistent. And these sets do seem inconsistent. [pp. 152-153]

Aune constructs a semantics which meshes with these intuitions. A statement has the value R just in case it expresses a volitional thought which is realized (p. 148). A statement X has value 1 if either (a) X is an indicative and has the value T or (b) X is an S-statement and has the value R. An inference is valid just in case its conclusion has the value 1 whenever its premises have the value 1.

While Aune holds that inferences (A) and (B) are valid, he distinguishes them from (C) and (D), which he believes are invalid:

(C)  | I intend to do A  
-----|----------------- 
I shall do A

(D)  | I shall do A  
-----|----------------- 
I intend to do A

Aune says, “It may be helpful to emphasize at this point that ‘I will go tomorrow’ does not mean ‘I intend to go tomorrow’. . . . To be sure, when a person says ‘I will go tomorrow’ he expresses the intention of going tomorrow—just as he expresses the belief that pigs are carnivorous when he says ‘Pigs are carnivorous’ ” (p. 155). So for Aune, “I will go tomorrow but I shall not go tomorrow” is logically inconsistent, while “I intend to go tomorrow but I shall not go tomorrow” is not logically inconsistent (albeit pragmatically odd).
The simplicity of Aune’s approach is not without its cost in unintuitive results. While I would grant that there is a certain sort of pragmatic inconsistency in “I will go tomorrow but I shall not go tomorrow”—it would never be appropriate to assert “I shall not go tomorrow” in a situation in which it would be appropriate to assert “I will go tomorrow”—nevertheless, there doesn’t seem to be a logical inconsistency. If we took a different semantic approach from Aune’s logic of realization (or “fulfillment”) and we assigned a positive semantic value to an expression of a volitional thought just in case the expression of the volitional thought were appropriate (which would be consonant with the approaches of Binckley and Castañeda), we could deny the logical inconsistency (while conceding the pragmatic oddity); it might be appropriate to express the volitional thought, “I will do A,” even though “I shall do A” is false.

Aune would probably insist on a logic of “fulfillment” rather than “appropriateness” for practical reasoning on the grounds that such a semantic approach would effect a considerable simplification in the logic of practical reasoning. I now turn to what I take to be a serious problem with Aune’s approach.

Aune concedes that we need not assimilate foreseen but unintended outcomes of our actions and intended effects of our actions (pp. 86–87). The point is not that the doctrine of the double effect is true; that is, there need not be an important moral difference between foreseen but unintended effects and intended effects. But surely there is a difference between an agent’s merely foreseeing an outcome and the agent’s intending it; an agent who merely foresees an outcome will have different behavioral dispositions from an agent who intends the outcome.

Suppose I foresee that I shall wear out my tires, but I do not intend to do so (pp. 86–87). From “I shall wear out my tires” I am logically empowered (although not required; p. 163) to conclude, “I will that I wear out my tires” (or more carefully, “I will that I shall wear out my tires”). But this is inconsistent with my not intending to wear out my tires (since the form “I will that I wear out my tires” expresses the intention to wear out my tires); if I do draw the inference, “I will that I wear out my tires,” it must be the case that I do indeed intend to wear out the tires. That is, on Aune’s approach, if an agent foresees an unintended outcome, the agent cannot make a certain logically valid inference without falling into inconsistency. If an agent who has a “correct” philosophical theory—the agent accepts Aune’s theory and thus knows that “I shall wear out my tires” logically implies “I will that I wear out my tires”—foresees an unintended outcome, the agent will have to refrain from making an inference which he knows to be valid, on pain of inconsistency.
Some philosophers believe that there is some sort of criticizable irrationality of which an agent is guilty, when he fails to make an inference which he knows to be a valid inference. Aune, however, in his comments on Binckley’s “Sage” (pp. 163–164) seems to indicate that he might not believe that “withholding assent to a conclusion implied (whether one realizes it or not) by one’s premises is irrational” (p. 163). This is an important issue in an evaluation of Aune’s approach to practical reasoning; in cases where an agent foresees an unintended outcome, Aune’s account requires the agent to refrain from making an inference which the agent knows to be valid. If an agent’s refraining from making an inference which he knows to be valid is criticizably irrational, then Aune has constructed a logical system which will require agents to be criticizably irrational (since there will certainly be cases of foreseen but unintended outcomes).

To see that the issue of whether it is in some sense irrational to fail to make an inference which one knows to be logically valid is important to an evaluation of Aune’s approach, consider the following argument. Suppose an agent intends an outcome A which it is not the case that he believes will occur. (It is a controversial issue whether intending that A occur requires believing that A will occur, or merely not believing that A will not occur.) An agent who intends that A occur accepts the volitional thought, “I will that A occur”. But from “I will that A occur” one is logically empowered (on Aune’s theory) to infer “A shall occur”. The agent has apparently put himself into the paradoxical position of holding (accepting, asserting) “A shall occur” but not believing that A shall occur. The paradoxical nature of the agent’s position is heightened on the reasonable assumption that the agent realizes that the form “A shall occur” expresses the belief that A shall occur.

How could Aune avoid this argument? One might claim that an agent cannot intend that A occur (or intend to do A) without also believing that A will occur. While this is a plausible position, it would lead to severe difficulties with other components of Aune’s theory. That is, if intending that A occur (or intending to do A) requires believing that A will occur, then how can Aune claim that doing A intentionally requires doing A with the intention of doing A? (p. 91). There are many plausible examples which show that if intending that A occur (or intending to do A) requires believing that A will occur, then doing A intentionally cannot require intending to do A. Suppose, for instance, that you want to shoot a bear which has terrorized a village, but it’s not the case that you believe you will shoot the bear (although you also don’t believe that you won’t shoot the bear). You go into the forest and successfully shoot the bear (as a result of an appropriate causal se-
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quence). It seems that you shoot the bear intentionally, even though you didn't believe you would shoot the bear, and hence, didn’t intend to shoot the bear.

So if Aune wishes to maintain his analysis of intentional action (which requires for doing action A intentionally that the agent do A with the intention of doing A), he cannot avoid the above argument by denying that an agent can intend that A occur (or intend to do A) without believing that A will occur. What Aune must say is that an agent who intends that A occur without believing that A will occur must refrain from making an inference which (assuming that the agent has the correct philosophical theory) he knows to be valid, lest the agent fall into some sort of Moorean paradox. Again, if an agent who refrains from making an inference which he knows to be valid is criticizably irrational, and assuming that the agent avoids the Moorean paradox, then Aune’s approach to the logic of practical reasoning will require some agents (whom we intuitively do not consider irrational) to be criticizably irrational.

Aune does say, “A person who refuses (for a time) to draw any conclusions from his premises may be irresponsible, perverse, or even insane—but he is not thereby inconsistent” (p. 163). But presumably an agent’s not being inconsistent is compatible with his being in some sense criticizably irrational, and I find it an undesirable feature of a logic of practical reasoning that it seems to require a sort of criticizable irrationality of some agents. The complexity of the systems of Binkley and Castañeda is (partially) a result of a desire to avoid the sorts of ostensible paradoxes which afflict Aune’s simpler approach. Of course, a philosopher who believes that there is no sort of criticizable irrationality of which an agent who fails to make inferences he knows to be valid is guilty will not be convinced that the simplicity of Aune’s approach comes at a steep price.

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The book under review (henceforth: Essays) will be of interest, I believe, not only to the professional linguist, but also to the sophisticated nonspecialist eager to familiarise himself with the major features of the so called “extended standard theory.” The latter is an outgrowth of the S(standard) T(heory) of Chomsky (1965) and Katz & Postal