What has over the years surfaced as perhaps the central issue in the debate surrounding the problem of free will and determinism is the question whether determinism is compatible with responsibility. Recently, however, some philosophers have shifted this debate—rightly, I think—asking not whether determinism and responsibility are compatible, but rather whether mechanism and responsibility are compatible.\(^2\)

In this essay, I will examine a treatment of the free will/determinism problem which assumes this latter, shifted perspective. But before this is attempted, some answer must be made to the perfectly understandable question, "What does the shift from determinism talk to mechanism talk really amount to, and why should we make it?"\(^3\)

Determinism, strictly speaking, is a thesis about how events occur, amounting to roughly this: Every event is causally necessitated by preceding events. If determinism and responsibility are incompatible, it is because determinism is an excusing condition, since (1) determinism implies that we could not (and cannot) do otherwise than we actually did (and do), and (2) we consider not being able to do otherwise an excuse for misconduct (and hence, a reason for not holding the agent to be responsible).

Mechanism is a thesis, not about how events occur, but about how they are explained, namely: Every event is subject to explanations that do not use such teleological concepts as purposes, intentions, and desires. If mechanism and responsibility are incompatible, then it is because mechanism forces us to discard certain explanation modes we feel are necessary to viewing any agent as responsible.

---

\(^1\)I am indebted to Ronald McClamrock, Robert Richman, and Ernest Sosa for their helpful criticisms of earlier versions of this paper.


\(^3\)In answering this complex question below I draw heavily from sections 3 and 7 in Gary Watson’s excellent Introduction to Gary Watson (ed), Free Will (Oxford: Oxford University Press, 1982).
Modal incompatibilism (i.e., the thesis that determinism (with its "necessity") and responsibility are incompatible) is explained by Gary Watson in this way:

Determinism is said to imply that certain criteria internal to our moral framework are never satisfied, for example, that we are all excused for our misconduct because not being able to do otherwise is an excuse. (Watson, p. 13)

However, determinism talk always appears incongruous with, and remote from, the way we talk about moral matters, and hence we often have the intuition that determinism somehow cannot address our moral framework, much less invalidate one of its criteria.

Explanatory incompatibilism (i.e., the thesis that mechanism and responsibility are incompatible) vindicates our intuition:

(I)t is not that determinism implies the omnipresence of the usual excusing conditions, but that it calls into question the whole framework in which talk of exculpation makes sense. Our conduct would then have the status of natural forces. The reason these are not morally responsible agents is not that they couldn't have done otherwise; it is that they are not teleological agents. (Watson, p. 13)

Mechanism, then, does not attempt to address our moral framework; it supersedes it.

The shift from determinism talk to mechanism talk is not simply a change in the way we view some truth about the world. Whereas it is true that determinism implies mechanism and its explanatory restrictions, it is not true that mechanism implies determinism.

A fruitful and comprehensive explanatory scheme that was both mechanistic and inherently probabilistic would tend just as much (or little) to displace teleological accounts. (Watson, p. 13)

Against this background I can now enter into the project of this essay, which is to examine an important article by Daniel C. Dennett on explanatory incompatibilism, appropriately titled "Mechanism and

4Watson waits until the end of his discussion on explanatory incompatibilism to make a clear break between determinism and mechanism (see Watson, p. 13); before that he treats mechanism as another way to think about determinism, and thus has explanatory incompatibilists and modal incompatibilists alike talking about determinism and what it implies. This is one such instance. Little violence would be done to the text if "mechanism" were inserted here for "determinism", since this is really what Watson has in mind.
Dennett starts out the first section of "Mechanism and Responsibility" by telling us that "mechanism is here to stay, unlike determinism and its denial, which go in and out of fashion." (Dennett, p. 150) However, this permanence of mechanism, brought on by its success in describing people and other things, is supposedly disturbing, since

...whenever a particular bit of human motion can be given an entirely mechanistic explanation...any non-mechanistic, rational purposive explanation of the same motions is otiose. (Dennett, p. 150)

Indeed, it seems that purposive explanations are not only rendered otiose, but are false, a claim Dennett describes as the principle that "the mechanistic displaces the purposive" (hereafter, the "displacement principle"), and which he states like this:

...any mechanistic (or causal) explanation of human motions takes priority over, indeed renders false, any explanation in terms of desires, beliefs, intention. (Dennett, p. 151)

Since this is supposed to be a problem for the believer in responsibility, according to Dennett, it is implied that responsibility somehow requires the purposive kind of explanation which is rendered false. The argument which arises out of this proceeds from the claims that (1) there exist mechanistic explanations of human motion, (2) mechanistic explanations render rational, purposive explanations false, and (3) responsibility presupposes such rational, purposive explanations, to the conclusion (4) there is no responsibility. Dennett wishes to deny this conclusion, and since the inference appears to be valid, he denies one of the premissed claims, that being that mechanistic explanations falsify purposive ones.

In order to show the displacement principle to be faulty, Dennett realizes that he needs to get clear on the elements of this principle, something he does in sections II, III, and IV. I discuss two of Dennett's elaborations here.

---

1. The displacement principle has to do with two types of explanation, one mechanistic and the other purposive. Within the latter, which Dennett prefers to term 'Intentional,' arises our notion of responsibility, and for good reason:

*Intentional explanations*...cite thoughts, desires, beliefs, intentions, rather than chemical reactions, explosions, electric impulses, in explaining the occurrence of human motions. (Dennett, p. 152)

More to the point, though, the crucial difference between these explanation kinds for Dennett is that the Intentional explanation gives a rationale for the explicandum, and the mechanistic explanation does not. The latter is to be considered just a causal story, whereas the former is more.⁶

2. Intentional explanations are given from the Intentional stance, which carries with it an assumption of rationality for the entity whose behaviour is explained.⁷ However, this stance, which involves talk of responsibility, does not necessarily involve *moral* responsibility; that is the province of the moral (or personal) stance. The moral stance, though, does presuppose the Intentional stance, and the importance of this fact is emphasized by Dennett in concluding section IV:

The ethical implication to be extracted from the distinction of stance is not that the Intentional stance is a moral stance, but that it is a precondition of any moral stance, and hence if it is jeopardized by any triumph of mechanism, the notion of moral responsibility is jeopardized in turn. (Dennett, p. 160)

We can now reformulate Dennett's project in virtue of these elaborations. This is the complete argument which Dennett needs to defeat:

1. Human motion is explainable from the mechanistic stance.
2. The mechanistic stance precludes the Intentional stance.
3. The moral stance presupposes the Intentional stance.
4. Moral responsibility assumes explanation from the moral stance.

---

⁶As Dennett writes, he is interested in establishing "that Intentional explanations are at least not causal explanations *simpliciter." (Dennett, "Mechanism," p. 152) This entire paragraph 1. is an elaboration on Dennett's section II.

⁷Find a rich exposition of the Intentional and other stances in Dennett's section III. The balance of this paragraph deals with material in section IV.
Thus 5. Moral responsibility is in principle discardable.

Dennett wishes here to deny premiss 2., once again claiming that the mechanistic and Intentional stances are compatible.

This affords a general view of Dennett's project in terms of its objective and its context. However, a fuller picture is possible by making one contrast between Dennett and others who talk about responsibility.

Dennett talks about human motions being explainable from different stances, but many others consider human actions as the proper locus of reference in determining responsibility. The motivation for Dennett's policy appears to be this: by using a neutral term for those things which are describable as actions or as "mere" events, one does not prejudice either the Intentional or mechanistic stance. To those who use the term "action" in developing arguments either for or against human responsibility, Dennett may well claim that such use carries with it a presupposition of the Intentional stance, where by definition talk about reasons, desires, and intentions will apply, and talk solely about causes won't.

Sections I though IV in "Mechanism and Responsibility" present Dennett's compatibilist project, something I have briefly formulated in part 1. Here I wish to analyze Dennett's attempt in section V to fulfill part of that project; an attempt, specifically, to rebut an argument by A.C. MacIntyre for the incompatibility of the mechanistic and Intentional stances. My general scheme here will be to (1) present the very words of MacIntyre which Dennett cites and draws upon, (2) explain and critique Dennett's formulation of, and response, to, MacIntyre, (3) reinterpret MacIntyre's argument, and finally (4) present a criticism to MacIntyre which Dennett should employ in light of the reinterpretation.

Dennett begins his consideration of MacIntyre by quoting a few passages from one section of MacIntyre's article, "Determinism." The cited passages are as follows:

Behaviour is rational--in this arbitrarily, defined sense--if, and only if, it can be influenced, or inhibited by the adducing of some logically relevant consideration....But this means that if a man's behaviour is rational it cannot be determined by the state of glands or any other antecedent causal factor. For if giving a man more or better

---

8 There are seven sections in Dennett, "Mechanism." Here I do not explicitly deal with sections VI and VII.

information or suggesting a new argument to him is a both necessary and sufficient condition for, as we say, changing his mind, then we exclude, for this occasion at least, the possibility of other sufficient conditions...Thus to show that behaviour is rational is enough to show that it is not causally determined in the sense of being the effect of a set of sufficient conditions operating independently of the agent's deliberation or possibility of deliberation. So the discoveries of the physiologist and psychologist may indefinitely increase our knowledge of why men behave irrationally but they could never show that rational behaviour in this sense was causally determined.  

Dennett believes the most fundamental point to come out of what MacIntyre says above is the "misleading suggestion" that...

...the existence of sufficient conditions for events in a system puts that system in a strait-jacket, as it were, and thus denies it the flexibility required of a truly rational system. (Dennett, p. 161)

Dennett takes this to imply the incompatibility of the mechanistic and Intentional stances, presumably via reasoning something like this: Rationality, for MacIntyre, entails a lack of, and thus independence from, sufficient (causal) conditions, meaning that if such conditions do exist (i.e., if mechanistic explanation is in principle applicable) then the system under scrutiny is somehow "programmed," and thus non-rational (hence, a presupposition of Intentional explanation is false). How Dennett actually formulates MacIntyre's argument for the latter's 'suggestion' and the incompatibilism it implies, plus how Dennett in turn responds to this argument, is what must now be investigated.

Dennett outlines the MacIntyre argument as one based on the idea of tropistic behaviour; behaviour, in other words, done solely in response to, or under the direct control of, a stimulus. To illustrate the concept, Dennett uses an example from Dean Wooldridge of an egg-carrying wasp which, being first thought to act in a rational manner when preparing to lay her eggs, is later discovered to be acting from a very simple routine of stimuli, and thus isn't considered rational. For example, the wasp always leaves a cricket which it has paralyzed (which is to be food for the newly hatched wasp grubs) on the threshold of the burrow to be used for hatching, goes inside to inspect the hole, and then comes out to drag the cricket inside.

---

If, while the wasp is inside making her preliminary inspection the cricket is moved a few inches away, the wasp, on emerging from the burrow, will bring the cricket back to the threshold, but not inside, and will then repeat the preparatory procedure of entering the burrow to see that everything is all right. If again the cricket is removed a few inches while the wasp is inside, once again the wasp will move the cricket up to the threshold and re-enter the burrow for a final check. The wasp never thinks of pulling the cricket straight in.  

The wasp's behaviour is a tropism because the mechanism which governs it is finite—i.e., at some degree of complexity there are relevant distinctions to be made but these fall outside of the mechanism's scope, and thus go unheeded. The extrapolation we are to make from this is that we are, in principle, no different from the wasp. We may be incredibly more complex, but our behaviour, being controlled by a finite mechanism, is tropistic.  

Dennett sees MacIntyre correctly contending that "any system that can be explained mechanistically—at whatever length—must be in an extended sense tropistic." (The tropism interpretation appears to arise...  

---

12Wooldridge, p. 82. This passage is cited in Dennett, "Mechanism," p. 162.  
13These concerns, according to D. Dennett, Elbow Room (Cambridge and London: The MIT Press, 1984), give life to one of the unwarranted "bugbears" of the free will problem: the fear of sphexishness. (Dennett is using a term from Douglas Hofstadter, "On the Seeming paradox of Mechanizing Creativity," in D. Hofstadter, Metamagical Themas (New York: Basic Books, Inc., 1985), pp. 526-46, the root of which comes from the genus (Sphex) of the digger wasp we encountered above.) The fear is that we may be like the wasp in the respect that "she is not a free agent, but rather at the mercy of brute physical causation, driven inexorably into her states and activities by features of the environment outside her control." (Dennett, Elbow Room, p. 11) Compare this with Hofstadter, "Paradox," pp. 529-538.  
14Dennett, "Mechanism," p. 163. I see this as a variation of another claim, made by Dennett as he lays out his version of MacIntyre's argument:

...there is no way to design a system that can be guaranteed to react appropriately under all environmental conditions. (Dennett, "Mechanism," p. 162)

Dennett argues for this claim in D. Dennett, Content and Consciousness (London and Henley: Routledge & Kegan Paul, 1969). The underlying idea here is brought out nicely in Dennett, Elbow Room:
from the straitjacket/flexibility metaphor which Dennett uses in characterizing MacIntyre's 'misleading suggestion'. See passage quoted above.) But what does this all-pervasive tropism mean except that any mechanistic system (presumably including the human one) fails to react to some 'logically relevant considerations'? Indeed, just as the wasp doesn't take note of having checked the burrow before, but repeats the procedure of bringing the cricket to the threshold and then entering to check the burrow again, so we must not take note of everything relevant.¹⁵

At this point, Dennett would have MacIntyre bring in his definition of rationality—that being, roughly, the capacity to be affected by some logically relevant consideration—and thus conclude that if we are like the wasp we are indeed not rational. (Notice, however, that this move requires Dennett to interpret MacIntyre's "rationality" as "the capacity to be affected by any logically relevant consideration." But if we are not rational (by virtue of mechanism, via our tropistic nature), then for Dennett this amounts to a denial of the applicability of the Intentional stance, and thus we can conclude that the mechanistic stance precludes the Intentional stance.

Dennett's version of MacIntyre's argument runs then like this:

...brains are meaning manipulators, information processors,... *semantic engines*, (p. 28)

...as physical mechanisms [brains] can only be *syntactic engines*, responding only to structural or formal properties. (p. 28)

Since meaning does not reside, like some rare ore, in physical features of stimuli, no alchemical extraction process could distill it and respond to it. (p. 28)

...brains only approximate the behavior of the (ideal, pure) semantic engine. The perfect semantic engine, the perfect Kantian rational will, is indeed friction-free, infinitely alert to nuances of meaning, perfectly invulnerable to sphexishness—and physically impossible. (p.

See also Dennett's comments on how "the proof in computability theory that the 'halting problem' has no solution" shows that there could be no finite, nonmagical, perfect self-watcher. (Dennett, *Elbow Room*, p. 31)

¹⁵Notice that I cannot be much more specific than this, since a list of the things which are known (a) to exist and (b) to be totally outside of our ken, would smack of self-contradiction.
The thesis is implied by this passage:

...the only implication that could be drawn from the general thesis of man's ultimately mechanistic organization would be that man must, then, be imperfectly rational, in the sense that he cannot be so designed as to ensure rational responses to all contingencies, hardly an alarming or counter intuitive finding...(Dennett, "Mechanism," pp. 163-164)

---

16 The thesis is implied by this passage:

...the only implication that could be drawn from the general thesis of man's ultimately mechanistic organization would be that man must, then, be imperfectly rational, in the sense that he cannot be so designed as to ensure rational responses to all contingencies, hardly an alarming or counter intuitive finding...(Dennett, "Mechanism," pp. 163-164)
behaviour will disqualify it for plausible Intentional characterization, make it a mere happening and not an action, but we cannot generalize from simple examples to complex, for it is precisely the simplicity of the examples that grounds the crucial conclusion. (Dennett, p. 163)

Dennett is saying that although MacIntyre is right to infer our tropistic nature from the facts that (a) the wasp is tropistic and (b) we are like the wasp in being mechanistically explainable, he is not right in making his further inference. Even though we are like the wasp in our tropism, it does not follow that we are alike in rationality or susceptibility to Intentional explanation. The reason is this: rationality is not a function of whether we heed all logically relevant considerations or whether we are mechanistically explainable, but a function of how many considerations we heed and how complex our mechanism. The predictive power, and thus the applicability, of the Intentional stance (with its assumption of rationality) is brought out as the tropistic nature of systems is made more and more complex.  

So, it is not the case that any system which is not affected by some logically relevant consideration is not rational, but that it is imperfectly rational in inverse proportion to the complexity of the system's mechanism. This is what I think to be a plausible reading of Dennett's response to MacIntyre.

Dennett's reply to the argument he has characterized as MacIntyre's seems correct. However, I am not convinced that the argument which is responded to is in fact MacIntyre's. Below, I shall present three reasons for doubting Dennett's interpretation, after which I will reinterpret MacIntyre's argument and look for a response to it which Dennett could use.

First, it is unclear that Dennett has correctly interpreted MacIntyre's definition of rationality as (roughly) "the capacity to be affected by some (i.e., any) logically relevant consideration." Another reading, which seems to be the prima facie obvious one, renders rationality as "the capacity to be affected by some (i.e., at least one) logically relevant consideration." Under this interpretation, many systems are classified as rational, with distinctions made within the class based upon how many considerations are heeded. Notice two things about this reading: (1) it would rule out premiss 3. in the Dennett rendition of MacIntyre's argument, making

17What Dennett has in mind in the passage quoted immediately above is elaborated on in Dennett, *Elbow Room*. There the author uses the notion of an intuition pump (roughly, a thought experiment which emphasizes the "important" features of the case at hand to arrive at a particular intuition) which ignores complexity to explain the erroneous inference from sphexishness to non-rationality. (See Dennett, *Elbow Room*, p. 12, 31-34)
Dennett's version untenable and his response to it superfluous, and (2) it highly resembles Dennett's own idea of rationality.

Second, is it plain that MacIntyre's argument can be accurately captured within Dennett's model of tropistic behaviour? Dennett points toward tropism talk by using his strait-jacket/flexibility metaphor to characterize MacIntyre's 'misleading suggestion'. But MacIntyre never talks about tropism, strait-jackets, or the like, and so without further elaboration from Dennett we are justified in being a little skeptical.

Third, Dennett's interpretation of the argument ignores MacIntyre's flow of reasoning. Dennett wants to show MacIntyre as starting with a connection between mechanism and tropism, then adding his definition of rationality, and finally concluding with incompatibilism. However, as the cited passages shows, MacIntyre starts with his definition of rationality; the second passage (beginning 'But this means that ...') follows from the definition in some way, and the third passage (beginning 'Thus...') follows from the second.\(^{18}\)

Given the above considerations, an alternative to Dennett's interpretation of the MacIntyre argument should at least be entertained. The interpretation I will develop here is more literal than Dennett's, and as a result avoids the last two potential difficulties just outlined. The interpretation also ignores any dispute over the proper rendering of MacIntyre's definition of rationality, and thus avoids the first objection as well.

The MacIntyre quotation cited by Dennett contains three distinct but interconnected passages. The first page gives us the definition of rational behaviour as behaviour which "can be influenced, or inhibited by the adducing of some logically relevant consideration." Thus, this capacity to be affected by the right things lies at the heart of the idea of rationality.

The third passage represents the conclusion with which Dennett takes issue. The key segment is this:

...to show that behaviour is rational is enough to show that it is not causally determined...

Thus, rationality (along with Intentional explanation) precludes causal (i.e., mechanistically explainable) determination, and vice-versa.

Now something has happened between the first passage, which gives us a definition of rationality, and this third passage about the incompatibility of rationality and causal determination. In the second

\(^{18}\)In MacIntyre, there is nearly a page-long gap between the first and second passages. (See MacIntyre, pp. 248-9) However, I believe Dennett's "compression" of MacIntyre' words preserves the inferential connection which MacIntyre creates between the passages.
passage, we are supposedly to find a justificatory bridge from one to the other. The key segment here is as follows:

...if a man's behaviour is rational it cannot be determined by the state of his glands or any other antecedent causal factor.

This statement can be read in at least two different ways, and my claim is that Maclntyre exploits this ambiguity in requiring the second passage to both follow from the first and also imply the third. I will try to make this apparent in giving the general points of the argument.

1. Rational behaviour is defined as behaviour which can be affected by some logically relevant consideration.
2. But if 1. is the case, then rational behaviour is not determined by something else—e.g., any causal factor.
3. However, from 2, we can infer that if we have some behaviour which is rational, then we know that it is not causally determined.

Each line—1., 2., and 3.—represents what I've remarked to be the general point of the first, second, and third passages, respectively. In reading through the steps, one should focus on what service line 2. is giving at the two stages of the argument with which it is concerned.

From line 1. to line 2. we get something like an inference concerning the logical properties of rational behaviour: from a definition, and thus a statement of the necessary and sufficient conditions, of rational behaviour, we can infer that any specification distinct from that set of conditions is not the definition of rational behaviour. This point can be expressed using Maclntyre's term 'determine': whether or not a given behaviour is rational is determined by whether it can be affected by some logically relevant consideration; but if this is how rational behaviour is (logically) determined, then anything distinct from it (e.g., 'any brute causal factor') will not (logically) determine rational behaviour. Hence, line 2. concerns logical determination.

From line 2. to line 3. we are again to infer something concerning determination, but now it is causal determination. Line 3. denies causal determination to a behaviour which is rational, and thus line 2., if it is to lead to 3. in some direct manner, must be read as also saying something about causal determination.

What this analysis points to is the necessity for Maclntyre to equivocate on the term "determine" in order for the conclusion 3. to follow from 1. Hence, the inference is invalid. To further illustrate the mistake I see Maclntyre making here, I present an analogous argument.

1. Good dice-rolls (of two dice, say) are determined by whether the dice score over seven points or not.
2. But if 1. is the case, then good dice-rolls are not determined by something else—e.g. by random.

3. However, from 2, we can infer that if we have some dice-roll which is good, then we know that the roll is not determined by random.

The same equivocation is going on here as before: the first inference (1. to 2.) concerns the logical determination of good dice-rolls (i.e., what we mean and do not mean by 'good dice-roll'), whereas the second inference (2. to 3.) concerns the causal determination of good dice-rolls.

Another way of characterizing this objection springs from M. C. Bradley's response to this same argument of MacIntyre. Bradley says that MacIntyre wants to infer from a fact about the reasons why we act to a fact about the causes of our actions—specifically, the inference is this: if rational behaviour is (logically) determined by my reasons for action, then it is not (logically) determined by anything else (e.g., any brute causal factor); but then since the behaviour is not determined by any causal factor it isn't causally determined. This type of inference can be made in my interpretation of the argument only if line 2. is made to emphasize first the reasons of "rational behaviour," and then the causes, and this is another aspect of the same equivocation mentioned above.

The equivocation objection seems to be the proper response to MacIntyre's argument as I have interpreted it. If Dennett replaces his potentially problematic version of the argument with mine, then he should employ the equivocation criticism.

We can now recapitulate the major steps of this essay: First, Dennett argues for the existence of moral responsibility in light of mechanism through denying a premiss in an argument meant to show the contrary; Second, the premiss he denies claims that mechanistic and Intentional explanation stances are incompatible; Third, an argument for the denied premiss which Dennett considers is given by MacIntyre; Fourth, Dennett characterizes the MacIntyre argument as one based on the fact of humans' tropistic nature, and he attacks the conclusion by claiming that "rationality" is a term which admits of degrees; Fifth, there is reason to believe Dennett's characterization of MacIntyre's argument is incorrect, and that the argument is properly understood in the way I outline it above; Sixth, the alternative characterization of MacIntyre's argument leads one...

19 M. C. Bradley, "A Note on Mr. MacIntyre's 'Determinism'," in Beroński, p. 257.
20 Dennett talks of reasons and causes in connection with mechanism/responsibility incompatibilism in Dennett, Elbow Room. There he seems to hold that theses claiming that reasons and causes are incompatible are usually the output of an intuition pump erroneously focused on very simple causal stories. (pp. 31-32) This parallels what we've seen to be Dennett's diagnosis of MacIntyre.
to believe that MacIntyre is really trading on an ambiguity in order to reach his desired conclusion; and Seventh, it is this equivocation which Dennett should emphasize in responding to MacIntyre's argument, and thus better support the central claim of his article.