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Arguing from Ignorance

Jonathan Adler
CUNY

ARGUING FROM IGNORANCE

Jonathan E. Adler
Department of Philosophy
Brooklyn College and the Graduate School, CUNY
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Abstract:

Arguments from ignorance should be schematized: It has not been proven false that *p*. So it is possible that *p*. So, it is reasonable to believe *p*. Also, in opposition to standard views they should be distinguished from burden of proof and absence of evidence arguments. Much of the persuasiveness of such arguments can be located in the slippery uses of "possible." Besides equivocations on "possible" the argument is a fallacy for two reasons. First, the possibility implied by the first premise does not yield the serious possibility that is needed for establishing the conclusion. Second, ignorance is never sufficient reason for belief, only adequate evidence.

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In the 1957 film "Twelve Angry Men", at the start of the jury's deliberations, a straw poll yields eleven "guilty" and one "not guilty" vote. The lone juror played by Henry Fonda, concerned that conviction on a murder charge not be hasty, says defensively "...supposing we're wrong". To which another juror responds indignantly "Supposing we're wrong? Suppose this building should fall down on my head! You can suppose anything."

My sympathies are with the second juror. In fact, throughout about the first third of the movie the Fonda character repeatedly appeals to mere suppositions, typically without the least attempt, as he recognizes, to back them up as at all probable.

The reasoning fits the popular *argument from ignorance*, a fallacy first labeled by Locke ("Argumentum ad Ignorantiam"), though I do not adhere to Locke's characterization. (Locke, 1975, Book IV Ch. XVII section 20). The failure to disprove a claim is taken as sufficient for establishing a positive conclusion. Such arguments are especially prevalent in defense of hypotheses that strongly conflict with well established scientific findings.

Skipping some inferior versions,[1] the most plausible, arguments from ignorance have the following structure:

1. No one has disproven, or knows to be false, that *p*.
2. So, it is possible that *p* is true.[2]
3. So, there is reason not to reject *p* as false. (Or, *p*'s truth is seriously possible).
4. If there is reason not to reject *p* as false, then we should keep our minds open to the investigations of *p*'s truth.
5. So, we should keep our minds open to the investigations of *p*'s truth.
6. If we should keep our minds open to the investigation of *p*'s truth, then it is reasonable [permissible] to believe that *p*.
7. So, it is reasonable [permissible] to believe that *p*.

There are three crucial junctures in this schema. The first is from 1 to 2, while the second is from 2 to 3. I will not

examine the steps from 3 to 5, as introducing nothing new. The opening argument that our second juror is complaining about illustrates both steps. For the second juror's analogy substitute for p "The building will fall down on my head"; and for the real case at hand, substitute "The defendant is not guilty". Then the reasoning is: The fact the defendant's guilt has not been demonstrated as impervious to doubt implies that it is possible that he is innocent. If it is possible that he is innocent the jurors should not reject the claim that he is not guilty. In an example used in a paper from which I borrow here, the writer argues that we should not yet disbelieve in alien abduction stories because consistent with our evidence, the stories may be true. (Adler, forthcoming, Spring 1997).

The third juncture is from (5) to (7). My critical discussion of this step below focuses on the most famous and explicit defense of arguments from ignorance in James' "The Will to Believe" (James, 1951). Very briefly, James claimed that if the evidence for a proposition, such as that God exists, is indecisive, but there are deep personal reasons for believing it and suspending judgment is effectively no different from disbelieving, then it is permissible (and rational) to come to believe.[3] These three steps will be examined in order.

In claiming that the original hypothesis is not disproven or known to be false, there is implicitly the claim that the proper standard for endorsement (or rejection) is proof or knowledge. But it is evident that for most empirical claims or hypotheses, a lack of disproof is no more telling in favor than the absence of proof is telling against. The standard is too high. What we are looking for is adequacy of the evidence to the appropriate standards of (scientific) inquiry.[4]

But if we accept the first premise, then the second premise follows as *bare epistemic* possibility. The hypothesis is consistent with what we know or believe, including our evidence. Actually, premise 2 ordinarily has a stronger consequence. As a working hypothesis, Hacking proposes:

> a state of affairs is possible if it is not known not to obtain, and no practicable investigations would establish that it does not obtain. (Hacking, 1967, p.149. For proposed emendations see DeRose, 1991)

Lack of knowledge or proof of falsity (premise 1) yields the first conjunct only.[5]

The second conjunct in Hacking's analysis is most plausibly derived through *absent evidence reasoning*. In Conan Doyle's Sherlock Holmes story "Silver Blaze", the absence of evidence of the dog's barking is the clue that someone who knew the dog well, like its trainer or master, is the culprit. Since the expected effects (the dog's barking) of the hypothesis (that the criminal was a stranger) are not detected, there is genuine undermining evidence against it.

What is needed is that were p false, it would have been disproven. So... Well, so what? Here keeping the premise tacit evades a demand for reasons. Grounds are called for that the falsity (impossibility) of p would be detectable by now, unless p is true or possible.

Actually, absent (and background) evidence reasoning works against arguments from ignorance. Is premise 1, in these and similar cases, correct? Granted the substitutions for p are not demonstrably false or not logically or conceptually impossible. But that does not rule out our knowing p to be false. The second juror knows that the building will not fall down upon his head.

The assumption that p is compatible with our evidence and our background knowledge is ambiguous between

two claims:

> a. There are a set of assumptions (a model) under which *p*, our evidence, and our background knowledge are all true.
> b. Our evidence and our background knowledge do not establish that *p* is false.

Though (a) is true, only (b), which is false, is germane. But while we cooperatively attend to (a), we are directed away from (b).

It is a banality that any hypothesis can be rendered consistent with any evidence (and background knowledge), if one tinkers enough with connecting (auxiliary) assumptions. Thus, effortlessly,

> just because UFOs and their occupants defy our laws of physics does not mean there are not further laws of physics we have not as yet discovered or not as yet comprehend...(Bryan 1995, p. 422)

Additionally, there is an attempt to explain away the absent evidence of their presence. Conspiracies are conjectured to suppress reports of sightings, among otherwise highly competitive and diverse reporters, government officials, and scientists. No substantive, independent support is offered for these assumptions.

Since such weak consistency is ever available, then if it is adequate as a reason not to reject, we couldn't reject any hypothesis. The consequence is unacceptable, save for skeptical ends. The question is do we have adequate reasons to believe *p* false—reasons adequate for knowing it false. Here is where (b) enters, and its falsity implies the falsity of premise 1. If jurors can ever have proof beyond reasonable doubt, then they can have it when (a) holds.

Our difficulty in keeping focus on (b), rather than (a), is that we are looking for salient, decisive evidence against —a 'smoking gun'. For we have enormous, if diffuse, background evidence against the relevant instances of p. Very briefly, against the reports of the alien abductees is the vast evidence of the established physical laws that would have to be violated or strained. (The criterion goes back to Hume, 1977.) Aside from the most obvious failure of extensive scientific studies to detect any living organisms outside earth, regular visits of aliens must assume possibilities for space travel at speeds close to, if not exceeding, the speed of light. We also have credible alternative (psychological) explanations for the reports. In the case of hypotheses of psychic forces we know these to be false by the absent evidence of genuine, repeatable successes.

Conceding the first step (from premise 1 to 2), for the moment, the step from 2 to 3 does not succeed, and for reasons already indicated. If it is barely epistemically possible that *p* is true, it does not follow either that we wrongly reject it as false or that its truth is seriously possible. For the acceptance of 1, or the move from 1 to 2, we cooperatively treat "possible" at its weakest. But then to go from 2 to 3, we cooperate in an opposed direction by taking "possible" as much stronger.6

The second juror gladly admits that the building *might* fall down, but that is no reason not to reject as false the supposition that it does fall down. If he does know that it will not fall down, it is not possible for him that it will.

For *p* to be seriously possible for someone is for that person not to disbelieve it and to regard *p* as a viable hypothesis. But (bare) epistemic possibility is too weak to yield this conclusion. The second juror intimates, as we observed, that if the mere possibility that the defendant is innocent, despite the overwhelming evidence, is

reason not to judge him guilty, then we would never have sufficient reasons to judge anyone guilty or to disbelieve most anything e.g. that the building will fall on one's head, that the Tooth Fairy will visit one's home, that the sun revolves around the earth.

Of course, if an argument from ignorance is accompanied by the absent evidence reasoning noted earlier, the step to 3 can be secured. If the failure of disproof (or to refute or to know false) should have occurred were p false and it doesn't, then we should not reject it, but keep an open mind on its truth as seriously possible. But all of this is mere supposition, and so perfectly at one with bare possibility.

A pragmatic expectation facilitates the unearned transition from bare to serious possibility. Since we expect a contribution to be informative (Grice, 1989), we expect that what the contribution affirms about a particular, the speaker could not affirm, without prolixity, about a much broader class. For if he could, he should so assert, since more informative. Consequently, if we take a speaker as cooperative, we take his affirmation about a particular not to hold, so far as he knows, to others in the broader class. I call this kind of informativeness "*selective relevance*". (Adler, 1984).

So when it is asserted either that it is not proven that the alien abduction stories (esp, the existence of God, the defendant is guilty) are false or that it is possible that they are true, we expect that these attributions are distinctive to these particular claims or hypotheses, so far as the speaker's own knowledge is concerned. That is, the failure to prove these is not a failure grounded in the use of "prove" (or "possible"), but in the details of these claims or hypotheses. The expectation of selective relevance is the expectation of focus on the foreground, and in these cases, it is an expectation exploited.

Given the expectation of selective relevance, we will tend to identify evidence with focal evidence, setting aside background knowledge, especially concerning laws and regularities. Suppose no one has disproved esp, still, those failed disproofs are not the only, or even the most important, evidence against the reality of esp. More important is the background evidence of the continuing failure to even design a replicable experiment revealing the workings of esp.

Selective relevance leads us to take the otherwise uninformative, and so easily warranted, claim that it is possible that p is true as implicating that it is worth serious consideration. If the speaker did believe that p is not more than just possible, in this weak way, he should so assert it, rather than allowing, if not encouraging, us to think of p as more promising. But p is so promising only if we overlook our strong, background reasons or evidence against these claims. Failures of selective relevance are an ancient complaint of distraction. Aristotle observes.

> ...an argument which denied that it was better to take a walk after dinner, because of Zeno's argument, would not be a proper argument for a doctor, because Zeno's argument is of general application. (Aristotle, 1984), 172a, 8-10)

Let's now grant, for the sake of argument, premise 5 that p is seriously possible and that we should keep an open mind on it. Can we get to 7? No. The reason we think otherwise is confusion over the intimate connection of belief, truth, and evidence.

Most famously, James (1951) offered and defended arguments from ignorance in "The Will to Believe". James assumes that propositions like God exists, in certain people's lives, meet the additional conditions that belief in them is forced (or non-optional), the matter for decision being "living", "momentous", "forced" and the evidence essentially indeterminate. Under these conditions, James claims, it is permissible to will or decide to believe, and

not to do so, for fear of error, is irrational.

Two preliminary points. First, by adding these conditions, James restricts the scope of the argument, so that conflict with "evidentialism",7 which otherwise James accepts, is more limited. Still, how are these conditions going to lessen the conflict, even if they limit it? None of these conditions removes the (alleged) indeterminacy of the evidence. So none speak to the gap between one's attitude and one's recognized epistemic position. Many potential beliefs will be living and momentous to some people: Santa Claus, Zeus, the devil, ghosts, angels, Lamarckian adaptation, the earth being the center of the universe. These can each be "forced" in James' sense, as discussed below, if a lack of belief leads one to act indistinguishably from disbelievers. So what is to block the profligate application of James' argument to these cases as well?

Second, James just takes for granted that one can decide to believe, a topic I shall not discuss directly. (See, however, Williams 1973). Assuredly, however, in taking it for granted that we can so decide, James' reasoning reflects his casual attitude toward belief's aim of truth. The only formal, rather than personal or prudential, condition that James imposes is that choice is "forced". A forced choice is created by exhaustive alternatives. However,

> if I say, 'Either accept this truth or go without it', I put on you a forced option, for there is no standing place outside of the alternative. (James, 1951 p.89)

If you do not 'accept this truth' then you thereby 'go without it'. A forced choice is meant to exclude suspension of belief.

James is presumably thinking here of the law of the excluded middle. However, even where there is an exhaustion of alternatives, injection of belief creates the further alternative to both belief and disbelief, of not believing i.e. suspending judgment. But the religious hypothesis James holds is a forced option:

> We cannot escape the issue by remaining sceptical and waiting for more light, because, although we do avoid error in that way *if religion be untrue*, we lost the good, if it be true, just as certainly as if we positively choose to disbelieve. (James, 1951 p.106)

So if we fail to believe, and not just if we disbelieve, then we do not act as believers. In not so acting, in not taking part in religious rituals, we effectively lose any truth it has to offer. If suspension of judgment, however, amounts to disbelief, then either attitude we take will exceed our evidence. Yet we must take one. This is the dilemma James attempts to foist on us. But even if we grant James that a lack of belief is practically indistinguishable from disbelief, lack of belief remains a distinct attitude from disbelief. Our desires or purposes, however noble, cannot eliminate a possibility in logical space. So it is the attitude one *must* take (not merely the attitude one ought to take nor the one that one chooses to take), when one judges the evidence as indecisive. (Against Descartes' account of the role of will in permitting error, Spinoza claims "...suspension of judgment is really a perception, not free will." Spinoza, 1982 IIp49 Scholium, p.99).

Unlike the usual criticisms, I want to acknowledge that James intended his argument to be epistemic. Our injunction is not just to avoid error, he reminds us, but to seek truth. If one does not 'will to believe' in this circumstance then there is the *"risk of losing the truth"*. However, we risk losing an unlimited number of particular truths constantly. Just think of all the facts that are buried in the past that would greatly assist our understanding of history. If we cannot ascertain them, we just let them go, resigning ourselves to gaps in our historical understanding. It would surely not serve an interest in truth to just "will to believe" those that promote

our interests, however deep and sincere.

James' reasoning depends upon a wilful conflation. It is a commonplace that we risk error in accepting hypotheses, which apply beyond our evidence. But to take that risk is not the same as knowingly adopting an attitude (belief) under conditions false to it in being evidentially indeterminate (at best). For when we risk error normally, it is the role of evidence that facilitates taking the risk by minimizing it.[8]

Let me close by returning to a claim that I slipped by. I held that suspension of judgment is an attitude one *must* take when the evidence is recognizably indecisive, just as much as one must believe, when it is decisive as with Descartes' clear and distinct perceptions.

Now there are reasons why we are confused on this point, though these closing paragraphs heavily condense a complex argument. 'Belief' is ordinarily used in a number of different ways, such as to treat it as tantamount to 'belief in', 'faith', or 'trust'. But the fundamental notion is "(fully) believes that...", and it is to be distinguished not only from these, but also from degrees of partial belief.[9]

More forcefully, there is a long tradition in the ethics of belief, James only being the most prominent contributor, where we speak of what is 'permissible' to believe and like locutions. Thus, recently, distinguished epistemologists have defended what they refer to as the "Reidian" view that belief is a default—it is permissible to come to believe or continue to believe unless there is special reason not to. Beliefs are "innocent until proven guilty".[10] Alston writes:

> we are permitted to believe that *p* unless we have adequate reason for supposing it false. (Alston 1983 p. 116; see also 119. See also Plantinga 1983).

Contrary to Reidian views, I am impressed by a forceful ancient challenge. Try to believe that:

> There are an even number of stars. (Burnyeat, 1983 p.132).

We fail this challenge. The failure is not due to a lack of effort or interference. We *cannot* believe it.

Reidians deny this. Thus if you find yourself, for whatever reason, with the belief that there are an even number of stars, then, for Alston, you are entitled to continue to believe it. For you will surely not find adequate reason for "supposing it false". The ancient challenge is a counterexample to this Reidian view. The "cannot" is conceptual, and its force we can each appreciate by explicit regard of our commitments in belief and our epistemic position in holding any particular belief. Thus, for the ancient challenge, the underlying incoherence is as follows:

> I believe that there are an even number of stars.[11] But my believing it does not render it true, as I hold. All that can settle that it is true is that I have sufficient evidence of its truth. But I obviously lack sufficient evidence that it is true. So I cannot judge it true. There are other attitudes (such as partial belief and suspension of judgment) that I can take toward this proposition better calibrated than (full) belief to my reasons. So I cannot believe that *p* in full awareness. If I cannot believe it in full awareness, then I do not believe it, while fully aware, as I am presently. So I do not believe it.

Notes

1. The following is the most popular rendition:

> 1. It is not-proven (provable) that p is false.
> 2. So, p. (Woods and Walton 1978; Sorensen, 1988 pp. 129-159.; Krabbe, 1995).

Such a schema immediately licenses conflicting conclusions. See Robinson (1971) p. 102.

Two other kinds of argument have been classified under the label "arguments from ignorance"—absent evidence arguments (discussed below) and burden of proof reasoning, similar to the characterization of Locke. (See Walton, 1996; Krabbe, 1995)

While in all three cases a lack of evidence is offered in support of a claim, the structure of these arguments are very different (pivotal premises, assumptions). The schema for arguments from ignorance in the text are, as argued below, not cogent, while the other two, at least on some versions, are cogent.

Viewing these together is conflation, characteristic of (contextual) views of fallacies which hold that whether an argument is fallacious depends upon, or varies with, its context of use. But this opposition I pursue at length elsewhere, so I shall let it drop. See Adler, forthcoming Nov. 1997; Adler, 1996.

2. Woods and Walton observe that the fallacy in one form can be "exhibited as confusion between the pair"

> $\sim Ka\sim p/p$ with $Ka\sim\sim p/p$. (Woods and Walton 1978, p.92).

But it does seem OK to reason $\sim Ka\sim p$/Possible, for all a knows, that p or /that p is consistent with all a knows. (The inference is furthered by epistemic logics where K is akin to N or the box, and so epistemic possibility is just $\sim Ka\sim$.)

3. For another quick illustration: It hasn't been shown that the universe didn't have a beginning. (Varying an example in Robinson 1971). So it's possible that it did. If it's possible that the universe had a beginning, then it cannot be wrong to believe it. So, it is permissible to believe that the world had a beginning.

4. For the sake of discussion, I shall assume the standard view that since evidence never entails what it is evidence for, the evidence and the denial of what it is evidence for are compatible. However, I do not actually accept this. But restating it in terms more in line with my view would not alter the criticisms, while being needlessly tendentious.

5. Arguably, assertions of possibility are meant also to imply real possibility. If so, 1 does not entail 2. A lack of disproof is a lack of disproof by us, and so cannot establish real possibility. The absence of disproof (so far) of time travel does not imply that it is a genuine possibility. In the case of the alien abduction stories, the relevant possibility is physical possibility. But there is conflict with accepted scientific findings. These accounts frequently assume speeds of travel that would require acceleration above the speed of light.

6. The phenomena is connected to conversational contextualism. See Lewis 1996.

7. Evidentialism holds that belief is proper only if (and, arguably, if) it is proportioned to the evidence.

8. A very clever, though highly restricted, defense of Jamesian reasoning is to be found in Velleman, 1989, 57-66. The restriction is to beliefs concerning one's own actions.

9. Consider how the intuitive rug is pulled out from under James and (allegedly) Reidian views if instead of their claims being made about (full) belief, we substitute the epistemically weaker, degrees of partial belief.

10. Wolterrstorf 1983 p. 164. Effectively this is to endorse arguments from ignorance.

11. The contradiction is more evidence for why I cannot come to believe.

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