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# Arguments from Expert Opinion and Persistent Bias

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**Abstract:** Accounts of arguments from expert opinion take it for granted that expert judgments are reliable, and so an argument that proceeds from premises about what an expert judges to a conclusion that the expert is probably right is a strong argument. In my (2013), I considered a potential justification for this assumption, namely, that expert judgments are more likely to be true than novice judgments, and discussed empirical evidence suggesting that expert judgments are not more reliable than novice judgments or even chance. In this paper, I consider another potential justification for this assumption, namely, that expert judgments are not influenced by the kinds of cognitive biases novice judgments are influenced by, and discuss empirical evidence suggesting that experts are vulnerable to pretty much the same kinds of cognitive biases as novices. If this is correct, then the basic assumption at the core of accounts of arguments from expert opinion remains unjustified.

**Keywords:** arguments from expert opinion; cognitive bias; decision heuristics; expert performance; persistent bias

## 1. Introduction

In my (2013) paper, I argue that arguments from expert opinion are weak arguments. An argument from expert opinion is an argument one makes when there is no reason to believe that  $p$  other than the fact that an expert judges that  $p$  is the case and the expert's judgment is taken as evidence that (probably)  $p$ . To say that such an argument is weak is to say that an expert's judgment that  $p$  does not make it significantly more likely that  $p$ . This claim is supported by experimental studies on expert performance. Such studies show that expert performance is often no better than the performance of novices or even chance.

My (2013) paper received some attention from argumentation theorists, and for that, I am very grateful. Unfortunately, I think that the attention was misplaced. That is to say, instead of focusing on what I take to be the main challenge my paper raises, namely, *how to justify the assumption that expert judgments are a reliable source of evidence*, which every account of arguments from expert opinion takes for granted, those who responded to my paper have chosen to focus on my formulation of arguments from expert opinion and accuse me of "refusing to countenance the possibility that other premises of the form of the argument from expert opinion need to be taken into account" (Walton 2014, p. 142),<sup>1</sup> on my examples and accuse me of being a "radical sceptic about expertise" (Seidel 2014, p. 215),<sup>2</sup> and even on objections raised against my argument (rather than my own argument) and accuse me of being "confused" (Hinton 2015, p. 542).

However, as I have argued at length in my (2013, pp. 67-72), virtually all formulations of arguments from expert opinion, including Walton's (2006, p. 750), take it for granted that an expert's judgment that  $p$  counts as (defeasible) evidence for  $p$ . No matter how many premises an argumentation scheme for arguments from expert opinion contains, or how many critical

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<sup>1</sup> See also Walton (2016, pp. 117-144).

<sup>2</sup> See also Jackson (2015, pp. 227-243).

questions are added to that argumentation scheme (Walton et al 2008, pp. 14-15), the basic assumption is that expert judgments count as (defeasible) evidence for propositions.<sup>3</sup> After all, that is precisely what an argument from expert opinion is supposed to be; that is, an inference from what an expert judges to be the case to the conclusion that what the expert judges to be the case probably is the case. The question I raised in my (2013) is this: *Why assume that an expert's judgment that  $p$  is (defeasible) evidence for  $p$ ?* In other words, according to Goodwin (2011, p. 293), “the appeal to expert authority is a blackmail and bond transaction [...] that brings *the background norm of respect for expertise* to bear in a particular situation” (emphasis added). But why should we respect expertise at all (let alone accept such respect as a “background norm”)?

In my (2013) paper, I consider the following response to this question concerning the justification for the “background norm of respect for expertise”:

The assumption that an expert's judgment that  $p$  is (defeasible) evidence for  $p$  is warranted only if expert judgments are more reliable (i.e., more likely to be true) than novice judgments.

In other words, we should respect expertise because experts are more likely to get things right than novices are. As I argue in my (2013, pp. 63-65), however, this response is inadequate because expert judgments are not more likely to be true than novice judgments. Since the question whether expert judgments are reliable or not is an empirical question, I have looked at experimental studies aimed at testing expert performance. As I discuss in my (2013, pp. 63-65), many experimental studies on expert performance show that experts often fail to perform better than novices on tasks such as decision-making, forecasting, diagnosing, and the like. In fact, expert judgments are often no more likely to be true than false, which means that, statistically speaking, they are not significantly better than guessing. Based on such empirical evidence derived from experimental studies on expert performance, I (2013, pp. 58-59) have argued as follows:

1. An expert's judgment that  $p$  is (defeasible) evidence for  $p$  only if expert judgments are reliable.
  2. It is not the case that expert judgments are reliable.
- Therefore,
3. It is not the case that an expert's judgment that  $p$  is (defeasible) evidence for  $p$ .

In other words, if there were evidence that expert judgments are reliable (or at least more reliable than novice judgments), then that would have been a strong reason to think that experts judgments are (defeasible) evidence for the truth of such judgments. Since there is no evidence that expert judgments are reliable (in fact, there is evidence to the contrary, i.e., that expert judgments are not more reliable than novice judgments), there is no reason to think that expert judgments are (defeasible) evidence for the truth of such judgments.

Accordingly, the justification for the “background norm of respect for expertise” cannot be that expert judgments are reliable, since experimental studies suggest that expert judgments

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<sup>3</sup> In Wagemans' (2011, p. 337) “scheme for argumentation from expert opinion,” this basic assumption is stated as follows: “Accepting that  $O$  is asserted by  $E$  renders acceptable that  $O$  is true or acceptable.”

are not more reliable than novice judgments. In fact, there is empirical evidence that expert judgments are often not significantly more likely to be true than false.

In this paper, I will consider another potential response to the question concerning the justification for the “background norm of respect for expertise.” This response goes as follows:

The assumption that an expert’s judgment that  $p$  is (defeasible) evidence for  $p$  is warranted only if experts are not susceptible to the kinds of cognitive biases that novices are susceptible to.

In other words, we should respect expertise because, unlike novices, experts are immune to cognitive biases, such as confirmation bias, framing effects, order effects, and the like. I will argue that this response, too, is inadequate, since experimental studies on cognitive biases show that experts are vulnerable to pretty much the same kinds of biases as novices. If this is correct, then the “background norm of respect for expertise,” the basic assumption at the core of arguments from expert opinion according to which experts judgments are a reliable source of evidence, remains unjustified.

## 2. Are experts immune to bias?

I take it as uncontroversial that, from an epistemic point of view, we should not trust or respect sources of evidence that are not reliable. My critics would probably agree with that. For example, Seidel (2014, p. 195) writes that he has “no objection to this latter claim [namely, that “arguments from expert opinion are weak arguments unless the fact that  $E$  says that  $p$  makes it significantly more likely that  $p$  is true” (Mizrahi 2013, p. 58)] since it just is a formulation of the close connection between the reliability and the epistemic trustworthiness of an epistemic source.” In my (2013) paper, I have discussed experimental studies that provide empirical evidence against the claim that expert judgments are reliable (either significantly more likely to be true than novice judgments or significantly more likely to be true than false).

The aforementioned empirical evidence notwithstanding, some might still think that we should trust or respect expert judgments because, unlike the judgments of novices, the judgments of experts are not subject to cognitive biases. For example, confirmation bias is “a tendency to search out and pay special attention to information that supports one’s beliefs, while ignoring information that contradicts and belief” (Goodwin 2010, p. 8). If we were to find out that, unlike novices, experts are immune to confirmation bias, then that would provide a strong reason to trust or respect expert judgments. The question, then, is whether or not experts are as susceptible to confirmation bias (as well as other cognitive biases) as novices are. Since this is an empirical question, let’s look at experimental studies aimed at testing for cognitive biases among experts and novices.

Here are a few examples of experimental findings about the cognitive biases novices and experts are susceptible to in a variety of domains:

- **Driving:** Waylen et al (2004, p. 323) “compared expert police drivers with novice police drivers,” and found that “[d]espite their extensive additional training and experience, experts still appear to be as susceptible to illusions of superiority as everyone else.”

- **Law:** In a series of experimental studies, Guthrie, Rachlinski, and Wistrich (2001, 2007, 2009) “demonstrated that anchoring, hindsight, framing, and other documented biases influence the way in which judges [even “judges who specialize in a specific area of law”] analyze legal vignettes” (Teichman and Zamir 2014, p. 691).
- **Medicine:** The results of several experimental studies (e.g., McNeil et al 1982) show that decisions made by patients, medical students, and physicians are all subject to framing effects (e.g., whether the same treatment is presented as a potential loss or as a potential gain).
- **Philosophy:** A growing body of experimental work suggests that, just like the judgments of non-philosophers, the judgments of professional philosophers are influenced by cognitive biases. For instance, Schwitzgebel and Cushman (2012) show that the moral judgments of professional philosophers, just like the judgments of non-philosophers, are affected by the order in which hypothetical scenarios are presented. In a follow-up study, Schwitzgebel and Cushman (2015) show that framing and order effects persist despite high levels of academic expertise and familiarity with the hypothetical scenarios (e.g., the trolley problem) that were presented to the professional philosophers who participated in the study.
- **Software engineering:** Leventhal et al (1994) found that expert programmers are susceptible to confirmation bias, or what they call “positive test bias,” just as novices are. The results of their experimental study show evidence of positive test bias, i.e., of the tendency of software testers to test software against data that supports their judgments about that software regardless of the subjects’ level of expertise. (See also Calikli and Bener 2015.)

Accordingly, the results of many experimental studies do not support the claim that experts are not susceptible to the kinds of cognitive biases that novices are susceptible to. In fact, such experimental studies provide empirical evidence to the contrary; that is, they show that experts are susceptible to cognitive biases just like everyone else. As Eisenstein and Lodish (2002, p. 437) put it, “Experts can fall prey to the same array of cognitive biases that affect novices, resulting in sub-optimal performance and unreliability.”

In addition to the aforementioned cognitive biases, there is empirical evidence suggesting that there are several decision heuristics that both experts and novices tend to use. These unreliable decision heuristics have the following characteristics:

First, the errors in judgments attributable to the heuristic are systematic and directional; that is, they always act in the same way and in the same direction. Second, they are general and nontransferable; that is, all humans are susceptible to the errors and knowledge of how they act does not immunize us against them. Third, they are independent of intelligence and education; that is, *experts make the same mistakes as novices* (Lash et al 2009, p. 6; emphasis added).

Two of these heuristics are:

- **Anchoring and adjustment:** a decision-making process in which “people make estimates by starting from an initial value that is adjusted to yield a final answer” (Tversky and Kahneman 1974, p. 1128). These “adjustments are typically insufficient” (Tversky and Kahneman 1974, p. 1128). For example, Northcraft and Neale (1987) conducted a study whose results show that both novices (undergraduate students) and experts (real estate agents) use anchoring and adjustment in information-rich, real-world settings (as opposed to a laboratory setting).
- **Overconfidence:** “people are often more confident in their judgments than is warranted by the facts” (Griffin and Tversky 1992, p. 411). Numerous experimental studies show evidence of overconfidence in expert judgments of physicians (Lusted 1977), clinical psychologists (Oskamp 1965), lawyers (Wagenaar and Keren 1986), negotiators (Neale and Bazerman 1991), engineers (Kidd 1970), and security analysts (Staël von Holstein 1972). As Griffin and Tversky (1992, p. 412) report: “As one critic described expert prediction, ‘often wrong but rarely in doubt’.”

In a study that looked at both anchoring and overconfidence, English et al (2005) show that, just like novices, criminal law experts are susceptible to anchoring but tend to be very confident about their biased judgments.

Accordingly, empirical evidence suggests that, not only do experts fall prey to pretty much the same kinds of cognitive biases that novices fall prey to, they also tend to use the sort of unreliable decision heuristics that novices typically use. In the words of Kahneman (1991, p. 144), “there is much evidence that experts are not immune to the cognitive illusions that affect other people.”

In light of the fact that some have claimed that my overall argument in (2013) is “self-undermining” (Seidel 2014, p. 210), it is important to note that the warrant for the claim that experts are not immune to the cognitive biases that affect all of us is *not* that experts on cognition say so. Rather, the warrant for the claim that experts are not immune to the cognitive biases that affect all of us is *empirical evidence* gathered from experimental studies on cognitive biases among experts and novices. There is a clear difference between accepting a claim because it is judged to be true by an expert and accepting a claim because empirical evidence supports it.<sup>4</sup> Indeed, in Walton’s (2016, pp. 130-131) argumentation scheme for arguments from expert opinion, an expert is taken to be a source of evidence (the “major premise”) but there is a critical question about whether or not the expert’s assertion is based on *evidence* (the “backup evidence question”).<sup>5</sup> This is why I argue in my (2013, pp. 67-72) that Walton’s argumentation scheme for arguments from expert opinion faces a dilemma: if there is evidence for an expert’s assertion from a source that is more reliable than expert opinion, why rely on expert opinion at all?

### 3. Conclusion

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<sup>4</sup> See Mizrahi (forthcoming).

<sup>5</sup> Cf. Wagemans (2011, p. 337): “E is able to provide further evidence for O.”

In conclusion, based on empirical evidence derived from experimental studies on cognitive biases among experts and novices, my overall argument can be summed up as follows:

1. An expert's judgment that  $p$  is (defeasible) evidence for  $p$  only if experts are not susceptible to the kinds of cognitive biases that novices are susceptible to.
2. It is not the case that experts are not susceptible to the kinds of cognitive biases that novices are susceptible to.  
Therefore,
3. It is not the case that an expert's judgment that  $p$  is (defeasible) evidence for  $p$ .

In other words, if there were evidence that experts are immune to the kinds of cognitive biases that novices are susceptible to, then that would have been a strong reason to think that expert judgments are (defeasible) evidence for the truth of such judgments. Since there is no evidence that experts are immune to the kinds of cognitive biases that novices are susceptible to (in fact, there is empirical evidence to the contrary; that is, that experts are vulnerable to pretty much the same kinds of biases as novices), there is no reason to think that expert judgments are (defeasible) evidence for the truth of such judgments.

Accordingly, the justification for the "background norm of respect for expertise" cannot be that experts are immune to the kinds of cognitive biases that novices are susceptible to, since several experimental studies on cognitive biases provide empirical evidence that expert judgments are susceptible to pretty much the same kinds of biases that novice judgments are susceptible to. Given that it is also not the case that expert judgments are significantly more likely to be true than novice judgments or significantly more likely to be true than false, as I have argued in my (2013) paper, it looks like the "background norm of respect for expertise" remains unjustified.

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