Warrant and Proper Function

In *Warrant: The Current Debate*, Alvin Plantinga examined various proposed accounts of warrant (that which turns true belief into knowledge) and found them all wanting. The most pervasive failing, as he saw it, was that the various accounts failed to incorporate a notion of proper function (henceforth PF).

In Chapter 1 of *Warrant and Proper Function*, Plantinga begins by fleshing out his theory of warrant. He argues that the concept of PF seems bound up with other, interdefinable notions: design, damage, purpose, normativity, and the like. PF is applies to obviously designed artifacts (like cars or computers) but is a concept also employed in the biological and physical sciences. But PF is not enough for warrant. A satisfactory account of warrant must also incorporate considerations of cognitive environment, degrees of firmness with which a belief is held, that the cognitive faculty being deployed is ‘aimed’ at truth, and that the design plan is a good one (i.e., one that has a high objective probability of generating true beliefs). For example, our senses might possess PF in earth’s cognitive environment but not on another planet with very different laws of nature.[1] Warrant must also take account of the fact that some beliefs are more warranted than others because we hold them more firmly. If we hold belief A and B, and both are generated by cognitive faculties properly functioning on the basis of a good design plan successfully aimed at the truth, but we hold one more tentatively than the other, the more firmly held one is more warranted and is more likely to be ‘knowledge’.[2]

The point, one might say, of a particular cognitive module must be the production of true beliefs. If not, then a cognitive module might be functioning properly (and thus satisfying one of the constraints of this model of warrant) but not be aimed at true beliefs (and thus violate another constraint of this model).[3] If the design plan is a poor one, then the likelihood that the beliefs generated by it are untrue. If untrue, they are not knowledge and—by definition—cannot be warranted.[4]

In Chapter 2, Plantinga makes various interesting distinctions between proximate, intermediate, and ultimate functions[5], snapshot and max design plans[6], and the like. Plantinga also argues that Gettier problems are much more of a difficulty for internalist models of warrant, because they fail (by definition) to take into account external factors i.e. congeniality of the cognitive environment. Because his view of warrant is an externalist one, he judges it robust in the face of Gettier problems. He also spends some time talking about how proper function may have to take place in terms of satisfying multiple constraints within a complex cognitive system. For example, certain visual illusions demonstrate errors on the part of our vision module. On the whole, however, our visual systems function quite well. This, Plantinga thinks, may be because of other goals God had in mind—for example, creating embodied moral agents. He ends the chapter by discussing defeaters and overrides. If I believe A and later learn some fact B that gives me reason to reject A, then B is a defeater for A. Say you read somewhere that the University of Aberdeen was founded in 1405. You later encounter a historian at a cocktail party who tells you that publication contained a misprint: the university was founded in 1505. The historian has provided you with a defeater for your earlier belief: a rebutting defeater, a reason to reject the earlier belief. There are also undercutting defeaters.
Say you are watching widgets being assembled, and they look red to you. You form the belief “The widgets are red”. You are later told that, in fact, the whole room is irradiated in red light and would have looked red whether or not they were in fact red. You now have an undercutting defeater: you don’t have a reason to reject the earlier belief, but rather to refrain from judging one way or the other. In a sense, you have a reason to be agnostic about the color of the widgets. Defeaters seem to be aimed at the preservation of true beliefs. Overriders (see footnote 3) may not be. Plantinga also argues he has thus far employed a ‘naturalistic’ epistemology. That is, his various constraints (proper function, appropriate or congenial environment, etc. etc.) are used in the biological and social sciences and not just in philosophy and theology.[7]

In Chapters 3 through 9, Plantinga then examines 8 ‘cognitive modules’ or faculties (knowledge of ourselves, memory, perception, knowledge of other persons, testimony, a priori knowledge, induction, and probability).[8]

“….I shall mention and emphasize those features of these modules that illustrate and elucidate the account of warrant I think correct, and those features of these modules about which it has something special to say.” (pp. 48 Kindle edition)

So there is no pretense on Plantinga’s part of exhaustive description of these modules; rather, they can be conceived of as a series of test cases for the adequacy of his proposed model of warrant.

In Chapter 3, when discussing knowledge of ourselves (that is, the belief that we are continuous persons from event to event and time to time rather than ‘person slices’), Plantinga rebuts skeptical theories which posit that we should not believe that we are such continuous persons. He thinks that such skeptical theories boil down to a question about whether the beliefs are true, and demonstrates that as long as the various constraints of his model of warrant are satisfied, our believing such is warranted. In discussing memory, Plantinga emphasizes that accepting or rejecting a memory as correct or incorrect is hard to describe in terms of sensuous imagery. It is not, for most of us, as if there is a visual picture we can recall in detail and determine whether or not the accompanying memory is correct. Rather, there is a sort of impulsional evidence[9], a feeling of ‘rightness’ or ‘fitness’ about a memory. Again, if our memory faculties meet the demands of his model of warrant, then our memory beliefs are also warranted. He also notes that our memory beliefs are basic: that is, they are believed not on the basis of other beliefs. It is unlikely that we trust our memory on any other basis (such as inference to the best explanation) for the simple reason that any such argument would be so complex that we would have to rely on memory (recalling that it was I who wrote down the earlier steps to the argument) and so forth.

In Chapter 4, Plantinga discusses the ‘problem of other minds’—that is, knowledge of other people. That is, how do we justify our beliefs that there are other persons (and not just convincing robots, or figments of our own imagination ala solipsism)? He examines and rebuts the claims that we believe in other minds on the basis of (a) analogical arguments (b) scientific theories and (c) Wittgensteinian criteria.[10] He finds all of these attempts unconvincing, and suggests that his theory of warrant supplies the answer.
“From the present perspective on the nature of warrant the answer is just simplicity itself. The answer, first, is that a human being whose appropriate cognitive faculties are functioning properly and who is aware of B will find herself making the S ascription (in the absence of defeaters).[11] There is nothing in the least unjustified about such ascriptions, no is there anything strange, odd, nonstandard about making them quite independently of any analogical or inductive or abductive arguments. Indeed, the pathology is on the other foot: it is the person who believes in others only on the basis of analogical arguments….who is weird or nonstandard…. So if the part of the design plan governing these processes is successfully aimed at truth, then ascriptions of mental states to others will often have high warrant for us; if they are also true, they will constitute knowledge.”

In discussing testimony, Plantinga approvingly cites Thomas Reid’s view of the matter: properly functioning persons will, in the absence of defeaters, accept what other people tell them. (Obviously, we can gain defeaters for testimony: direct counterevidence from our own experience, knowledge that the person who is testifying is a pathological liar, etc.). The most important point here, however (see footnote 1) is that the warrant we have for any belief gained by testimony is only by warrant transfer. If the conditions for warrant are violated by anyone else in the chain (they were mistaken, their own cognitive faculties are not functioning properly, or they are lying—that is, their cognitive faculties are not currently ‘aimed’ at the generation of true beliefs) then neither will we be warranted in believing that proposition.

In Chapter 5, Plantinga discusses perception. He notes that, as with memory, perceptual beliefs are often basic—that is, non-inferred. He also argues that we can have perception (or something like it) in the absence of sensuous imagery.[12] Again, he argues that if sensory beliefs are formed in such a way that his criteria for warrant are met, then (given that they are true beliefs) so will they be warranted.

In Chapter 6, Plantinga discusses a priori knowledge (the ability to see the truths of propositions or mathematics) and how his theory of warrant can account for them. As with memory, Plantinga stresses that what evidence there is for accepting or rejecting some bit of a priori knowledge is impulsive rather than sensuous evidence—it is that hard to define but familiar sense of ‘fitness’ or ‘rightness’. If the conditions of his model of warrant are met, then so too will a priori beliefs be warranted and, if true, constitute knowledge.[13]

In Chapter 7, Plantinga tackles what he calls the ‘old’ and ‘new’ problems of induction. The old problem of induction derives from David Hume, who notes that induction (the belief that the future will resemble the past) is something that is hard to justify on independent grounds. Thus, on one hand, Hume was depressed that he could not justify continuing to believe in induction. On the other hand, he saw that belief in induction was what made science possible. Plantinga proposes that this problem can be resolved by asking the following question: What would a properly functioning individual do in these circumstances? His model of warrant, he thinks, supplies the answer: that a properly functioning person will continue to believe in induction.[14] The ‘new’ induction revolves around the following question: what inductive hypotheses are appropriate to make (in Plantinga’s phrasing, what properties are ‘projectible’) and which ones are not?[15] Again, Plantinga thinks that this can be resolved by answering the following
question: What inductive hypotheses would a properly functioning human being make in this situation?

In Chapters 8 and 9, Plantinga examines the notion of epistemic conditional probability: that is, what is the likelihood that A will occur, given that B is true? Right off the bat, Plantinga notes that this concept is a bit tricky as it involves two different notions of probability. There is the objective probability: that is, if we had objective statistical evidence at hand, what probabilities would we assign? There is also what we might call subjective (or epistemic) probability: as humans we seldom have the relevant objective probabilities at hand. Still, we want to say that there is a range of values (perhaps between 0.00 and 1.00 in many cases) that we should assign to the probability of A. Again, Plantinga thinks that the answer is given by what a properly functioning human being would do in those circumstances.

In Chapter 10, Plantinga considers coherence and several varieties of foundationalism (classical, Reidian, and evidentialist). In discussing coherence and classical foundationalism, he is basically retreading material from Warrant: The Current Debate, so I eschew lengthy detailing of it here. He refers back to the case of the Epistemically Inflexible Climber from WCD to demonstrate that coherence cannot be the sole criterion for warrant, and dismisses classical foundationalism as both too narrow (too much of what we know does not meet the standards of classical foundationalism) and worse, classical foundationalism appears to be self-referentially incoherent. More interesting is his defense of what he terms Reidian (after Thomas Reid) foundationalism. First, contrary to classical foundationalism he has already argued (see the earlier discussions of perception, memory, etc.) that many beliefs can be properly basic.[16]

In comparing classical foundationalism to Reidian foundationalism, Plantinga says

“Reidian and classical foundationalism will concur, of course, in holding that the question how I am appeared to is crucial to the question of whether a given perceptual judgment has warrant for me. They will agree that if I am appeared to in a certain familiar way, I will be warranted in the belief that I see a tiger lily; if instead I am watching football on television but through some odd chance form this belief, it will have little or nothing by the way of warrant for me. The difference between the two positions comes into view when we ask how the experience in question must be related to the belief in question, if the latter is to have warrant.” (p. 183 edition)

The crucial difference, Plantinga thinks, is as follows. The classical foundationalist stipulates that I would be warranted in believing the proposition ‘I see a tiger lily’ only if the following three conditions were met. (1) I believe certain experiential propositions (2) I believe ‘I see a tiger lily’ on the basis of the experiential propositions mentioned in (1) and (3) that the experiential propositions do indeed offer evidential support for ‘I see a tiger lily’. Reid (and Plantinga) dispute all three conditions, most centrally (3). Rather, say Reid and Plantinga, I am warranted in believing ‘I see a tiger lily’ by that belief being formed in the right circumstances, where ‘right’ includes the satisfaction of the other conditions for warrant and that I am in fact appeared to in that way. So on this view, proper basicity is a source of warrant. Plantinga rounds out Chapter 10 by noting the connections between classical foundationalism and evidentialism. The Reidian will agree that beliefs, when properly formed, are formed on the basis of evidence. But the Reidian construal of evidence is broader than just propositional evidence.
(In the tiger lily example above, we have the evidence of the senses.) Plantinga then proceeds to point out that the narrower construal of evidence employed by the classical foundationalist (and the evidentialist) will preclude many different kinds of knowledge. In fact, propositional evidence and sensual evidence (e.g., being appeared to tiger-lilishly) don’t cover it. Recall the examples of memory and a priori knowledge. Neither seem to be accompanied by propositions or sensuous imagery. And yet they are central to all human epistemic endeavors (including science: now what did the earlier investigation find? I can’t recall…) Now, simply having the ‘impulsional’ evidence spoken of earlier is not enough by itself. It isn’t infallible—but that doesn’t distinguish it from perceptual beliefs (we can fall prey to illusions) or propositional beliefs (we are sometimes convinced by invalid or unsound arguments). BUT this, once again, presupposes the idea of proper function.

“…..it is…..sometimes quite right to say that someone who has this kind of impulsional experience has no evidence. A person may be irrationally convinced that the rest of us are out to do him in, even though…he has no evidence at all for this paranoid belief; nor would we suppose we were wrong in thinking he had no evidence if it were pointed out that in fact he has a strong inclination to accept the proposition in question. But this just reflects our belief that in the case of believing this sort of proposition if this inclination to believe is all you have by way of evidence, then your belief is irrational and evidences pathology. It does not follow that this kind of evidence is not really evidence. And if we do take it to be evidence, then no doubt it will be true that in a well-formed noetic structure, belief is always on the side of evidence. Indeed, how could it be otherwise? Could it really be that you should believe a proposition, even though it had none of this phenomenal attractiveness, this seeming-to-be-true—even if, that is, there was no felt or feelable inclination to believe it on your part? So the evidentialist is right; where there is warrant, there is evidence. Having this evidence, however, or having this evidence and forming belief on the basis of it, is not sufficient for warrant: proper function is also required. And given proper function, we also have evidence: impulsional evidence, to be sure, but also whatever sort is required, in the situation at hand, by the design plan; and that will be the evidence that confers warrant.” (p. 192 Kindle edition)

So impulsional evidence is evidence, given that the proposed model of warrant is satisfied. And impulsional evidence—a sense of ‘rightness’ or ‘fitness’—reigns in cognitive modules whose existence is widely accepted (e.g., memory and a priori knowledge). Thus any proposed method of knowing which also exhibits these characteristics cannot be rejected out of hand on those grounds alone, unless one is willing to toss memory and (arguably) a priori knowledge on the trash heap.

In Chapters 11 and 12, Plantinga offers two arguments[17] against naturalism. In Chapter 11, he offers an argument for the falsity of naturalism (thus, he proposes a rebutting defeater for naturalism). In Chapter 12, he proposes that there is an incompatibility between believing that (1) our cognitive faculties are reliable (that is, produce preponderantly true beliefs), henceforth symbolized by R, and (2) that naturalism and evolution both obtain. This argument (now known as the Evolutionary Argument Against Naturalism, or EAAN) proposes that even if naturalism (N) and evolution (E) hold, it is irrational to believe them both. Thus, the EAAN offers an undercutting defeater for naturalism. (Recall the above red light / widget example.) In other
words, he is not here arguing for the falsity of naturalism and evolution, he is arguing that if N & E hold then we would not be in a position to rationally affirm N & E.[18]

The argument from Chapter 11 can be summarized as follows:

(1) For any person S to have knowledge, S must have beliefs produced by cognitive faculties functioning properly according to a good design plan aimed at true-belief production.
(2) If naturalism is true, then no person has cognitive faculties that (in any literal sense) function properly according to a good design plan aimed at true-belief production.[19]
(3) Therefore, if naturalism is true, then no person has knowledge.
(4) But some persons do have knowledge, so naturalism is not true.
(5) Given the implausibility of the alternatives, theism is true.

The EAAN presented in Chapter 12 can be formalized as follows:

(6) The probability of reliability of our cognitive faculties, given that naturalism and evolution are true, is either low or inscrutable.
(7) If S believes both N & E and (6), then S has a defeater for R.
(8) If S has a defeater for R, then S has a defeater for all S’s beliefs, including the belief that N & E.

Put more intelligibly, in defense of (6) Plantinga examines various ways in which our beliefs and behaviors might be related. Those belief-behavior relationships which are most likely to obtain if N & E are true are those which are least likely to result in R. Thus, N & E lower the probability that R (our faculties are reliable). If that is true, then (7) follows: believing (6) and N & E gives one reason to reject any beliefs which arise from our cognitive faculties (which, of course, would mean we should reject all of our beliefs)…including the belief that N & E hold (hence 8). [20]

Summary. This was a genuinely enjoyable book to read. Given that this is an intense work of analytic philosophy, the liveliness of Plantinga’s writing style is surprising. Throughout, I felt like Plantinga was enjoying expositing as much as I was writing. And somehow (although perhaps this too presupposes the sensus divinitatis) I felt that, while enjoying the complex artistry of our cognitive systems, he was also enjoying what it said about the Artist of those systems. Any Christian who has not read this series of books should do so—now.

[This review first appeared here.]

[1] Other human beings can also operate as part of our cognitive environment, especially when we are dealing with testimony.
[2] The idea here is that in a properly functioning cognitive module, the more firmly a belief is held, the more objectively probable it is that it is a true belief, and hence has more warrant. Part of what it means to be properly functioning, in other words, is for there to be a tendency to believe more firmly those propositions for which one has more warrant.
[3] Plantinga helpfully provides the example of an ‘optimistic overrider’. A patient is told that he is terminally ill and has months to live. If he went on the basis of a cognitive module which is designed to generate true beliefs, he would be skeptical about his chances of survival. But the proper function of the optimistic overrider (henceforth OO) is something different: to preserve
happiness, perhaps. If the optimistic overrider fails to function and the ‘original’ truth-oriented
cognitive faculty proceeds unimpeded, warranted true belief (and hence knowledge) results.
There is also a connection with the Freudian complaint against religion lurking here. Freud
believed that theism results from ‘wishful thinking’. In Warranted Christian Belief, Plantinga
interprets the Freudian complaint to be as follows: that theistic belief is therefore unwarranted,
because derived from a cognitive module or faculty whose goal is not truth.
[4] This is the correct intuition behind reliabilism.
[5] E.g., the proximate function of the heart is to pump blood. The intermediate (or perhaps
ultimate) function of the heart is to ensure survival.
[6] Some plans specify how a cognitive module will properly function right now in a given
situation, others plot a developmental trajectory of maturation. Thus, for an 8 year old human
child, there is a specification of how their reasoning powers should function when they are 20,
30, or 40 years old.
[7] Interestingly, Plantinga argues in a footnote that even the ‘extreme’ naturalistic epistemology
of Quine, which attempted to stick to purely descriptive psychology, presupposes something like
proper function. Plantinga will later argue that proper function is an Achille’s Heel of naturalistic
epistemologies, including Quine’s.
[8] He notes that he also believes in other faculties or modules: those that give rise to moral
beliefs as well as what Calvin called the sensus divinitatis and the ‘instigation of the Holy Spirit’.
The latter two play a central role in Warranted Christian Belief.
[9] A term he does not introduce until the end of the book, but which fits here as well as there.
[10] This is, of course, ground Plantinga first tread in his God and Other Minds (1967).
[11] For B insert ‘the female is crying’ and S insert ‘the female is in pain’.
[12] He does this by citing the psychological phenomenon known as ‘blindsight’. This is a thread
that appears in Warranted Christian Belief when he discusses whether or not properly basic
theistic belief is or is not ‘religious experience’.
[13] This is a shameful and all too brief summary of one of the most fascinating chapters in this
book. His quote regarding intuition on p. 107 is worth the price of admission all by itself, as are
his discussions of problems naturalism has with explaining how we can have knowledge of
propositions and mathematics which are (arguably) abstract and hence causally effete. In
essence, he proposes the medieval view that abstract objects correspond to divine thoughts. Since
they are causally connected to God, and God is causally connected to us, so (by transitivity) are
we causally connected to and hence able to interact with propositions and sets.
[14] By now it should be clear that ‘proper function’ is essentially a normative concept. It is also
interesting to note also that various thinkers have commented on the parallels between the
normativity of PF and ethics. See Good God by Baggett and Walls and the article by Mark
Linville in The Blackwell Companion to Natural Theology.
[15] The famous ‘grue’ example is at play here.
[16] In Warranted Christian Belief he argues that both theistic belief and specifically Christian
belief can be properly basic.
[17] More accurately, he offers three. However, the first argument offered in Chapter 12 has not
been as popular as the one summarized above. It also offers a rebutting defeater for naturalism.
[18] In summarizing these arguments, I am drawing heavily from the article “If knowledge, then
God: The Epistemological Theistic Arguments of Plantinga and Van Til” by James Anderson.
See http://www.proginosko.com/docs/If_Knowledge_Then_God.pdf
[19] Evidence for premise 2 arises from Plantinga’s analysis of naturalistic accounts of proper
function. E.g., one might define PF in terms of ‘is’ rather than ‘ought’. But then the following
problem arises: if it became statistically normal for persons to be born blind (via nuclear
radiation) would we want to say that the 1 percent who *can* see are not properly functioning?
[20] The EAAN has undergone considerable changes since the version presented in WPF. The
most recent version of which I am aware is in Chapter 10 of Where the Conflict Really Lies.
There Plantinga takes it that naturalism entails materialism, and thus that beliefs and behaviors
are not causally related at all—in the jargon of the day, that epiphenomenalism would hold,
given naturalism (and its entailment, materialism). He refers explicitly to this during a Q & A
session at Biola University following his presentation of the EAAN. See http://cdn-
edu.biola.edu/2012_spring/cct_lectures/2012_02_02_plantinga_aud.mp3, 1:02:43 to 1:05:38.
This adjustment of the EAAN also obviates an interesting critique put forward by Richard