Contemporary epistemologists often borrow from act and rule-based ethical models in building their theories. The turn away from such models toward a virtue approach by certain ethicists has therefore attracted the attention of epistemologists as well. I argue in this paper that a theory of belief formation centering on the concept of epistemic virtue works only if it has a strong internalist component regarding matters of justification. First, I critique a type of externalist reliabilism, Plantinga's theory of warrant, in order to illustrate why internalist considerations ought to be made in developing an epistemic theory regarding belief formation. Second, I demonstrate how Linda Zagzebski's epistemic virtue theory inherits impoverished aspects of Plantingan reliabilism, thereby helping me to illustrate the necessity of the internalist-virtue integration mentioned above. Third, I briefly outline one way in which internalist, deontic concepts and the concept of epistemic virtue may be integrated.

Before demonstrating why Plantinga's theory of warrant is an insufficient account of belief formation, it is necessary to summarily indicate the differences between internalism and externalism (particularly Plantinga's reliabilist theory of proper function), and most importantly, the distinction between internal justification and Plantingan warrant. Internalists, like their deontological counterparts in ethics, are essentially concerned with the permissibility of beliefs, or whether an agent is acting in accordance with epistemic duty. In order for a belief to be justified, the agent must have cognitive access to the grounds upon which it rests.
which the justification depends. The ability to determine whether a belief is justified is within the believer’s control. In contrast, externalist theories typically require no such internal cognitive access. The main concern of reliabilism, a popular form of externalism, is to form as many true beliefs as possible, with the reliability of the agent’s cognitive mechanisms serving as the primary condition for the belief to be true. The ideas of warrant, a reliabilist requirement for true belief formation, and justification are not to be conflated. On the difference between Plantinga’s warrant and justification, John Zeis states:

As Plantinga’s critique in the Warrant volumes makes clear, one of the fundamental differences between what he conceives of as warrant and what he and most others conceive of as justification is that warrant is (almost exclusively) an externalist property of belief, whereas justification has a strong internalist constraint. What does such a difference entail? Most generally, I think it entails a difference in the level of reflective consideration. A belief may be warranted in Plantinga’s sense, and there may be little or virtually no reflective consideration of the belief. Such reflective consideration of course would typically involve the consideration of grounds, evidence, epistemic duty-fulfillment and the like. (33)

The warrant of a belief depends upon factors that can be met without, or independent of, cognitive control on the part of the agent. On the other hand, the criteria for justification can be met only if the believer is in a certain amount of cognitive control, or as Zeis would suggest, engages in a sufficient “level of reflective consideration.”

I.

At the heart of Plantinga’s theory of epistemic warrant is the notion of proper function. He grants that this stipulation in itself is not sufficient for warrant, and goes on to outline other necessary conditions for its entailment, namely that an agent is in
an epistemically sound environment and that his cognitive faculties are working in accordance with their design plan:

We may say that a belief B has warrant for S if and only if the relevant segments (the segments involved in the production of B) are functioning properly in a cognitive environment sufficiently similar to that for which S's faculties are designed; and the modules of the design plan governing the production of B are (1) aimed at truth, and (2) such that there is a high objective probability that a belief formed in accordance with those modules (in that sort of cognitive environment) is true; and the more firmly S believes B the more warrant B has for S. (Plantinga 19)

The "production" of a true belief and the "high objective probability" that this belief is true are major aspects of Plantinga's requirements for warrant that are reminiscent of a consequentialist model in ethics, utilitarianism. In a characteristically consequentialist manner, the proper means required to produce true beliefs are not stipulated by the criteria Plantinga offers. Proper function itself is not a means to the end of producing true beliefs, but rather is a necessary condition for warrant that does not require any conscious activity on the part of the belief forming agent. Further, quantitative consideration of the probability of truth value reminds us of the objective 'weighing' of consequences associated with utilitarianism. The utilitarian agent acts in such a way that maximizes happiness, with the probability that this maximization will occur having been taken into consideration before the action is carried out. Since the maxim for the reliabilist is truth (what would usually be 'pleasure' or 'happiness' in a utilitarian theory of ethics), the end here is to produce as much truth as possible. Truth is therefore rendered calculable and the success of the agent's epistemic activity is quantitatively considered.

When he introduces the notion of congenial cognitive environment to complement the proper functioning of the agent's belief-forming mechanism, Plantinga offers a short example:
Your automobile might be in perfect working order, despite the fact that it will not run well at the top of Pike's Peak, or under water, or on the moon. We must therefore add another component to warrant; your faculties must be in good working order, and the environment must be appropriate for your particular repertoire of epistemic power.

(7)

Now this example illustrates that an entity functioning properly must be situated in an environment conducive to its activity if that action is to actually take place properly. So it is evident here that external factors can inhibit a properly functioning mechanism from realizing its proper ends. This point is self-evident and not one to be challenged in itself. But its implications in the context of Plantinga's theory are significant and ought to be paid mind. I use an example of my own that involves an automobile to show that there are internal considerations to be made that Plantinga overlooks: An automobile that I am accustomed to driving is functioning properly because all the mechanical parts are working. I can count on the fact that the vehicle will not malfunction on its own accord. It is functioning properly, but driving it one day, I make a mistake and crash into a telephone pole. In this case I did not do my duty, or fulfill an obligation to use the mechanism properly. Now a reliabilist might say in reply that my improper use of the vehicle might stem from some sort of outside, inhibiting factor, even one much less extreme than Plantinga's, that prevents me from using the mechanism properly. In other words, the state of reliability was hindered from without. In the case that my environment is conducive to proper driving, however, there are clear internal considerations to be made in this instance about the lack of fulfillment of my duties as a driver. An evaluation of this matter from the viewpoint that an external phenomenon must have caused me to crash the vehicle would skirt the issue that there are duties and obligations that I ought to fulfill in acting responsibly.

For Plantinga, there are scenarios in which the agent's cognitive faculties function properly in a suitable environment but cannot sufficiently provide for the warrant of beliefs. My
criticisms cannot therefore stand to effectively challenge Plantinga's theory of warrant unless I consider its third component, the design plan of an agent's cognitive mechanism. As is the case for an organ or other biological entities and systems, cognitive faculties are said by Plantinga to have a particular design plan that serves as a "blueprint" of their particular function (13). He states, "The purpose of the heart is to pump blood; that of our cognitive faculties (overall) is to supply us with reliable information: about our environment, about the past, about the thoughts and feelings of others, and so on" (14). Now Plantinga runs into a problem here in trying to illustrate that the relationship between our cognitive purpose and the relevant faculties is of a similar nature to the purpose of such an organ as the heart and its relation to the applicable biological system. A primary distinction that Plantinga fails to draw is that the involuntary activity of the heart contrasts with the voluntary cognitive faculties involved in belief formation. Belief forming faculties, unlike the heart, require a degree of volition internal to the agent; I could choose to not form beliefs, or better true beliefs, in spite of the fact that the relevant cognitive faculties are in good working order. Even if my environment is suitable for such proper function, I can still choose to not engage in forming beliefs. Further, the design plan of the relevant segments of my cognitive faculties may be aimed at truth with the objective probability of true belief formation being high, yet these faculties do not have to necessarily be used accordingly.

Closely related to the voluntary nature of belief formation is the idea that the relevant cognitive mechanisms are under a certain amount of the agent's control. That is, belief formation can be initiated through a decision on the part of the agent, and further, carried out with accessibility to the mechanism that ultimately justifies the belief. Presumably, proper function itself is maintained insofar as phenomena like cognitive disorder or external pressures do not corrupt the agent's belief forming mechanism. These considerations, however, denote inhibiting factors not in the believer's control. As in my automobile example, consideration of phenomena internal to the agent and within her control is necessary in evaluating belief formation.

The notion of a design plan even further illustrates the
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state of unawareness and lack of control allowed in achieving Plantingan warrant. If Plantinga posits that it is proper function in accordance with the design plan that entails warrant, then what conscious, controlled activities internal to the agent, if any, contribute to the warrant of belief? Now concessions could be made to Plantinga when we consider some of the necessary components that any reasonable epistemologist would have to take into account when forming a theory of true belief. As most would agree, our cognitive faculties have to be functioning properly, or as they are supposed to, within a congenial environment for sound epistemic judgments to be made. But even if Plantinga is correct and such criteria are sufficient for warrant, then the idea of warrant itself (when considering the above arguments) is still insufficient in satisfying the requirements for producing true beliefs. We then need to incorporate a strong component of justification into a theory of belief formation, and I illustrate one way in which this may be accomplished after showing that Zagzebski's epistemic virtue theory collapses into a Plantingan type of reliabilism.

II.

Linda Zagzebski raises an interesting criticism of reliabilism by suggesting that there is room for luck in its theories. With an agent's belief-forming mechanism working reliably, reliabilists can assume that luck, under normal circumstances, will more times than not bring about true beliefs (Zagzebski 39). Now this point illustrates the dangers of reliabilism well. With the desire to seek truth should come the desire to avoid falsehood, but the inheritance of the utilitarian tradition by reliabilists has allowed them to go as far as to say that any epistemic means may be used so long as more truth is produced than falsehood. From a traditional internalist perspective and presumably from Zagzebski's standpoint, this lack of regulation on epistemic means is unacceptable. The guessing agent is not fulfilling his duty to form beliefs responsibly, while at the same time, the intellectual habit of guessing is certainly an epistemic vice. I demonstrate below how vicious epistemic means like guessing could still be employed within a virtue theory like Zagzebski's, thereby helping me make the case that epistemic virtue can only contribute to a
theory of belief formation if strong deontic concepts, like duty, are mandated for justification to exist.

Zagzebski argues “that a virtue-based epistemology is well suited to analyze the traditional concepts of epistemology, namely, justification and knowledge” (11). For this virtue theorist, the concept of epistemic virtue is not evaluated by identifying whether a belief is formed properly, nor if an agent is disposed to believing correctly. Further, a virtue is not just a disposition to act in the ‘right’ way because virtuous action may not correspond to act-based, normative criteria (Zagzebski 15-6). The believer, from the perspective of theories based on act-based criteria, is not necessarily ‘right’ to the fullest extent, but simply ‘not wrong.’ Zagzebski emphasizes that, in a theory of epistemic virtue, ‘right’ does not simply mean ‘not wrong.’ She looks to virtue ethics to explain this point:

The focus of this type of ethics is on avoiding blameworthiness rather than on achieving moral praiseworthiness. Virtue ethics, in contrast, allows for a greater range of evaluative levels and gives due regard to the fact that our moral aim is not only to avoid the bottom level of the moral scale but to end up as high on the scale as possible. (28)

Zagzebski claims that her interpretation of deontic concepts is broad enough to correspond to almost any virtue theory (232). She states the following about the different types of virtue theories:

According to a merely agent-focused theory, the behavior of virtuous persons does not make an act right but is simply the best way to determine rightness, whereas a pure virtue theory treats the rightness of an act as strictly dependent upon virtue. In a pure virtue theory, an act is right because it is the sort of act a virtuous person might do, whereas in an agent-focused theory, what is done by a virtuous person is just the best criterion of rightness. (232)
Although she admits that her theory reads in such a way that her ideas may, at times, correspond most easily to pure virtue theories, Zagzebski nevertheless asserts that her first series of deontic definitions does not take "internal states of the agent" into consideration (235).

For Zagzebski, a virtue approach to epistemology expands the realm of both praise and reproach in passing judgments on a belief and the way in which it is formed. In other words, the judgments of permissibility (the formation of a belief that renders the agent simply wrong or not wrong) that characterize epistemic evaluation in the act-based tradition are not the only evaluative criteria used in her virtue-based model. The agent's state of being right can extend beyond his just having done what is permissible—he can act in a praiseworthy manner (Zagzebski 233). She describes one way to characterize virtuous behavior:

A virtuous person's behavior arises out of virtuous motives and is reliably successful in achieving virtuous ends. What makes the virtuous person reliably successful in addition to her motive is her understanding of the moral and nonmoral facts about the situations she encounters. The level of understanding a virtuous person has, then, is whatever is sufficient to make her reliably successful in producing the ends of virtue. (234)

So, virtuous motivation leading to the reliable production of virtuous ends is essentially her take on the requirements of epistemic success. There are clearly aspects of this account that are both internalist and reliabilist in the sense that the motivational factors are internal and the reliable production of ends are reminiscent of Plantinga’s reliabilist theory. The difference between this aspect of Zagzebski's theory and Plantinga’s reliabilism is that the nature of the believer’s motivation is necessarily virtuous and the end to be produced is virtuous as well. But the theory is still characteristically reliabilist in the sense that the epistemic goal is to produce true beliefs.

Virtuous motivation is not enough to constitute a suffi-
cient internal aspect of this theory. I do not have to have cogni­
tive access to my belief-forming mechanism in order to be moti­
vated in such a way that Zagzebski describes. All that her inter­
nalist feature does is add value to the epistemic end. I am
motivated to produce this end, virtuously perhaps, but neverthe­
less there is no check on my belief forming process other than
that it is directed toward virtue. Therefore, insofar as I seek to
produce virtuous ends, with a reliable mechanism to produce
such ends, I can achieve epistemic success. Clearly then, Zagzeb­
ski inherits aspects of the utilitarian model that are intrinsic to
reliabilist theories like Plantinga’s. Plantinga concentrates little, if
not at all, on stipulating the proper means by which true beliefs
may be formed. The reliability of belief-forming mechanisms is a
necessary condition under which beliefs may be warranted but
not the means by which we may come to believe and be justified.
So Zagzebski, if she is to separate herself from Plantinga at all,
must make the case that a virtuously motivated agent who directs
himself toward a virtuous end actually forms the belief virtu­
ously. However, cannot I be motivated in a certain way but not
act in a way properly reflecting the nature of that motivation? In
other words, can I use means that are characteristic of epistemic
viciousness like guessing? If I can, then this component of
Zagzebski’s virtue theory collapses into a reliabilist model; I
could act to produce an end without any definitive internal
consideration of how I am to attain such an end.

If we concentrate on Zagzebski’s treatment of justifica­
tion, the dominating presence of reliabilism in her theory is made
even more evident. She states, “A justified belief is what a person
who is motivated by intellectual virtue, and who has the under­
standing of his cognitive situation a virtuous person would have,
might believe in like circumstances” (241). Key to our discussion
is how we interpret what constitutes, for Zagzebski, an agent’s
“understanding of his cognitive situation.” Now, if we refer to
her description (which I cited earlier) of that which constitutes
virtuous behavior, then this “understanding” implies an aware­
ness of the moral and non-moral facts of a particular situation.
An awareness of such facts, however, does not necessarily sug­
gest a state of cognitive accessibility to the grounds that justify
my belief because my cognitive situation, despite my awareness
of relevant facts, may be one in which I am uncertain of which relevant facts lead to cognitive certainty.

Zagzebski grants that her theory can be interpreted as having stronger externalist tendencies than she herself attributes to it, for her concept of virtuous motivation could be changed to the extent that the internal component of the theory bears less significance. At the same time, she sees the theory as adaptable to an internalist framework if the production of virtuous ends is eliminated from the criterion of epistemic success and attention is given solely to motivational factors in defining intellectual virtue. The modifications suggested here to tailor the theory toward internalism are not suitable, and the concessions to externalism unnecessary, given the already prominent reliabilist features of the theory. The internal motivational factors stipulated by Zagzebski need not be lessened for her theory to retain its great reliabilist appeal.

As mentioned previously, even if I have virtuous motivations directed toward virtuous ends and I deem my cognitive mechanisms to be reliable, I may still use vicious or irresponsible means in order to produce such ends. As long as my primary goal is to produce ends, independent of the nature of these ends, I can use means unbecoming a virtuous agent. To use an example, let us say I have decided to go to a lecture given by a famous professor on Aristotle's theory of friendship. I drive to the lecture in the same reliable automobile mentioned in the earlier example. I am motivated to get to the lecture because I have this desire to understand Aristotle. Virtuously motivated to learn, I keep driving, only to realize that I am lost after coming to a stop sign. Not knowing whether I must turn right or left to find my destination, I randomly guess. Here, independent of whether I guessed correctly, I did not use virtuous means to attain a virtuous end. The use of a vicious epistemic means in this example, guessing, could have stemmed from a number of factors, but there is no basis for its permissibility. Further, I could have an awareness of the facts about the situation that I have encountered, an awareness that is one of the components that characterizes virtuous behavior for Zagzebski, while still failing to use virtuous means in resolving the situation. For instance, I know that during some point in my trip I became lost. Also, I am aware of my destination and the
reasons for my wanting to reach that destination. These are the facts surrounding the situation that I encounter, and my guessing which way I ought to turn is a means not in accord with the virtuous nature of both my motivation and goal.

Zagzebski's understanding of the role that virtue plays in belief formation is not compatible with a strong internalism. She states, "Although I have rejected purely externalist accounts of knowledge, I have also argued that a weaker form of externalism is right since 'virtue' is a success term" (333). If virtue is such a kind of term, and strong virtuous motivations are to be the primary, if not the only internal criteria in her theory, then it would seem that our virtuous motivations still stem from a desire to produce virtuous ends. Since Zagzebski thinks weaker external theories are right because of their understanding of virtue, then the sort of term 'virtue' is in the context of belief formation would have to change if we have strong internalist convictions.

We are now faced with the questions about the terms of virtue. Early in *Virtues of the Mind*, Zagzebski states:

> The mark of a virtue theory of morality is that the primary object of evaluation is persons or inner traits of persons rather than acts. To describe a good person is to describe that person's virtues, and it is maintained that a virtue is reducible neither to the performance of acts independently identified as right nor to a disposition to perform such acts. There is both more and less to a moral virtue than a disposition to act in the right way. There is more because a virtue also includes being disposed to have characteristic emotions, desires, motives, and attitudes. There is less because a virtuous person does not invariably act in a way that can be fully captured by any set of independent normative criteria. (15-6)

Despite Zagzebski's claims that virtue theory often denotes inner characteristics of the agent that are out of the scope of normative criteria, I believe that the chief characteristic of virtue is that it disposes the individual to ultimately act in a good way. Now
virtue theory may require degrees of evaluation both above and below rightness, but an action-promoting disposition aids the individual, initially, to act in such a way that is 'right.' If Zagzebski is correct in saying that from an act-based perspective, 'right' means simply 'not wrong,' then virtue can initially dispose us to do just that—what is 'not wrong.' The virtuous agent is expected to go beyond obligation (beyond what is 'not wrong'), but can still be disposed toward action by the virtue even if that action cannot be deemed praiseworthy, or something else beyond 'not wrong.' The higher degrees of meritorious action are certainly characteristic of virtuous disposition, but every good act of any degree is, at bottom, 'not wrong.' This condition of being 'not wrong' is indeed a state of rightness, one that is ensured in belief formation by the minimum, deontic criteria of internal justification. Beyond these basic requirements for justification, it is the primary function of epistemic virtue to dispose us toward goodness in forming and holding true beliefs.

III.

A concept of epistemic virtue can complement traditional internalism to form a theory that takes into account a sufficient component of deontic concepts. At the outset, we should understand justification as a term of rightness and virtue as a term of goodness. As in ethics, the right and the good should serve different functions here. An action is right if, at minimum, it meets the requirements of permissibility, thereby not violating any duty or obligation. In its negative sense, rightness therefore fundamentally designates that an action is 'not wrong.' Actions that exceed obligation or go beyond the call of duty are not only right, but can also be evaluated in terms of their goodness. Now, on the nature of the relationship between the good and the right, we can say that the right is necessary for the promotion of the good in the sense that it provides a foundation upon, or a framework within which the good is cultivated. It is with this relationship in mind that I outline how internal justification and a concept of epistemic virtue may be unified.

First, in forming true beliefs, an agent must have an awareness of the cognitive mechanisms that he uses to justify his beliefs. The process is then sufficiently under the agent's control
when in having this awareness, he reflects on that which is
cognitively accessible to him. If a belief is formed in such a state
of cognitive control, then the agent is epistemically dutiful in that
he has met the minimum requirements of justifying his belief.
Being internally justified in such a way, the agent is 'right.'
Second, the agent may be disposed toward good (we could use a
variety of terms here that designate degrees of goodness) belief
formation by epistemic virtue, therefore having gone beyond the
call of duty.

Virtue is both an epistemic aid and reward, for it con­
tributes to, and is cultivated by good belief formation. Since the
minimum requirements for internal justification are purely deon­
tic here, however, epistemic virtue need not be a necessary factor
in fulfilling such requirements. There are, of course, varying
degrees of goodness that the virtuous person may be disposed
toward in action. The same degrees of goodness apply to belief
formation as well, but our epistemic standards should first and
foremost establish what entails rightness in the belief forming
process.

Notes
1 I thank Stan Yeung for those late night discussions in which we strug­
 gled with this example.
2 Please see Zagzebski, p. 313.
3 Please see Zagzebski, p. 330. She has Plantinga’s theory of proper
function in mind here.
4 I thank Gavin Colvert for his undying guidance and the revisions he
made on earlier drafts of this paper.

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