

## AGAINST THE ANTI-CLOSURE RESPONSE TO THE FACTIVITY PROBLEM FOR EPISTEMIC CONTEXTUALISM

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**Abstract.** It appears that there is an inconsistency in combining epistemic contextualism with a plausible closure principle for knowledge and the view that knowledge is factive. I discuss the proposal that in order to avoid inconsistency the contextualist should reject closure and retain factivity. The proposal offers an alternative to closure and an argument that warrant fails to transmit through inference in the relevant cases. I criticize both accounts. The proposed alternative to closure is not well motivated and leaves unresolved the question of why standard closure should not hold. The argument that warrant does not transmit is based on an inaccurate model of warrant transmission. An important lesson that emerges is that known propositions themselves can serve as warrant for further propositions, which may be known provided they are competently deduced from the former. Indeed it is arguably the factivity of knowledge that accounts for the fact that known propositions themselves serve as warrant. Thus, the strategy of rejecting closure while retaining factivity is a bad one not merely because the proposed alternatives to standard closure are inadequate and transmission failure in relevant cases would not imply closure failure, but because factivity ensures that warrant transmission worries in the relevant cases are unfounded.

**Keywords:** factivity • contextualism • closure • warrant transmission

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### 1. The factivity problem for contextualism

According to epistemological contextualism, truth conditions of knowledge attributions are context-dependent: a statement of the form ‘S knows that p’ may be true as uttered in an ordinary context—a context in which the standards for knowledge are relatively undemanding—and false as uttered in a more demanding, skeptical context.<sup>1</sup> For instance, the statement ‘Bob knows he has hands’ may be true as uttered in an ordinary context in which various skeptical hypotheses (e.g., that Bob is a brain-in-a-vat) are ignored; and this same statement may be false as uttered in a skeptical context in which such hypotheses are taken more seriously. Contextualism appears to be supported by our ordinary judgments about the truth values of knowledge attributions in various contexts. But there is a well-known problem stemming from the factivity of ‘knows’. If the truth of a knowledge attribution, “S knows that p,” entails



that  $p$  is true, then it appears that one who makes such an attribution is committed to the claim that  $p$  is true, regardless of the particular standards for knowledge that may be in effect in the attributor's own context. Thus if it is possible for someone who is in a demanding, skeptical context to know that such an utterance by a subject who is in a low-standards context is correct,<sup>2</sup> then, given a plausible closure principle for knowledge, she will be in a position to know that  $p$  herself. This of course contradicts the contextualist's claim that such a subject is *not* in a position to know that  $p$ , since she's in a skeptical context in which the standards for knowledge are high. In short, there appears to be an inconsistency in combining contextualism with factivity and closure. The contextualist would seem to be committed, then, to rejecting either closure or factivity. Neither option is attractive. So the contextualist has a problem on her hands—call it *the factivity problem*.

This problem can be spelled out more precisely as follows. Consider a context  $H$  in which epistemic standards are very high—though not so high that knowledge that there are other subjects and utterances is not correctly attributed in  $H$ —such that it is incorrect for a subject  $S_1$  in  $H$  to attribute to another subject  $S_2$  the knowledge that there are  $F$ s, even where  $S_2$  has a typical visual experience as of  $F$ s<sup>3</sup> and forms the belief that there are  $F$ s on this basis. And consider an ordinary context  $O$  in which it is correct for  $S_1$  in  $O$  to attribute such knowledge to  $S_2$ —that is, “ $S_2$  knows that there are  $F$ s” is true *as uttered in  $O$* . Now consider the attribution in  $H$  of knowledge to  $S_1$ : “ $S_1$  knows that ‘ $S_2$  knows that there are  $F$ s’ is true.” Suppose that this attribution is also true. That is, suppose that  $S_1$  has the warrant necessary for knowing that the attribution, in  $O$ , of knowledge to  $S_2$  is correct.<sup>4</sup> Now we can argue as follows (using ‘knows<sub>C</sub> that  $p$ ’ as correctly applied to a subject  $S$  just in case ‘ $S$  knows that  $p$ ’ is true in  $C$ ):

1. It is not the case that  $S_1$  knows<sub>H</sub> that there are  $F$ s. (by contextualism)
2.  $S_1$  knows<sub>H</sub> that  $S_2$  knows<sub>O</sub> that there are  $F$ s. (by contextualism)
3.  $S_1$  knows<sub>H</sub> that if  $S_2$  knows<sub>O</sub> that there are  $F$ s, then there are  $F$ s. (by factivity of ‘knows’)
4.  $S_1$  knows<sub>H</sub> that there are  $F$ s.<sup>5</sup> (by closure)

There are three possible responses to the problem available to the contextualist. She might deny that there is indeed an inconsistency between factivity, contextualism, and closure.<sup>6</sup> She might instead reject the factivity of knowledge.<sup>7</sup> I am not concerned with either of these responses. I assume that knowledge is factive.<sup>8</sup> And I assume that there really is a factivity problem—that is, that there is an inconsistency between contextualism, closure and factivity. I focus on the response that rejects closure, and I consider two attempts to defend such a response. The first tries to explain away the closure principle by offering an alternative to it. I argue that this

attempt fails as the alternative to closure is not well motivated and leaves unresolved the question of why a stronger closure principle should not hold. The second attempt to develop an anti-closure solution to the problem argues that the closure principle does not hold in the relevant cases because warrant is not transmitted in these cases. I argue that this response rests on an incorrect model of warrant transmission.

An important lesson that emerges from the discussion is that known propositions themselves can serve as warrant for further propositions, which may be known provided they are competently deduced from the former. Indeed it is arguably the factivity of knowledge that accounts for the fact that known propositions themselves serve as warrant. The strategy of rejecting closure while retaining factivity is thus shown to be problematic not simply because challenges to closure are independently unconvincing but because factivity itself supports closure.

## 2. Closure: preliminaries

In order to evaluate the response to the factivity problem that involves rejecting closure, we must understand what closure comes to. In this section, I'll consider two different formulations of the closure principle that appear plausible, and I'll explain why I think one of these formulations is more plausible than the other. I'll also explain why I think that, on this understanding of the closure principle, the attempt to solve the factivity problem by rejecting the principle does not look promising.

First distinguish the following formulations of the closure principle for knowledge. Both formulations of the principle rely on a disquotational principle for knowledge, viz. (using 'knows-C' for 'knows according to the standards in place in C'):

An utterance of the form 'S knows that p' in a context C is true iff S knows-C that p.

So both formulations are "contextualist-friendly." Here is the first:

(CLOS) For all contexts C: ["S knows that p" (as uttered in C) is true and "S knows that (p  $\Rightarrow$  q)" (as uttered in C) is true]  $\Rightarrow$  "S knows that q" (as uttered in C) is true.<sup>9</sup>

(CLOS) rests on the above disquotational principle, as it rests on the following principle:

(CLOS<sub>disq</sub>) For all contexts C: [S knows-C that p and S knows-C that (p  $\Rightarrow$  q)]  $\Rightarrow$  S knows-C that q.

The second formulation is given in terms of the notion of *competent deduction*. It states:

(CLOS-D) For all contexts C: [“S knows that p” (as uttered in C) is true and S believes that q on the basis of competent deduction of the proposition that q from the proposition that  $p \Rightarrow$  “S knows that q” (as uttered in C) is true.

(CLOS-D) rests on the above disquotational principle, as it relies on the following principle:

(CLOS-D<sub>disq</sub>) For all contexts C: [S knows-C that p and S believes that q on the basis of competent deduction of the proposition that q from the proposition that p]  $\Rightarrow$  S knows-C that q.

A couple of points about these closure principles are worth noting. First, (CLOS) does not appear to rely even implicitly on the notion of a *competent deduction*.<sup>10</sup> According to (CLOS), S counts as knowing (by some standard C) that q, as long as S knows (by C) that p and S knows that  $p \Rightarrow q$ . S’s knowing that p and that  $p \Rightarrow q$  does not imply that S has *competently deduced* that q. Thus it seems that (CLOS) is stronger than (CLOS-D)—that is, that, according to (CLOS), a broader class of propositions are (due to the fact that knowledge is closed) known. At the same time, however, it is not clear whether one might come to know that q on the basis of competently deducing q from p, although one does not know (prior to the competent deduction, or as a result of it) that  $p \Rightarrow q$ ; if this is possible, then there will be cases of knowledge due to closure according to (CLOS-D) but not according to (CLOS).

Whether the competent-deduction condition is included in the closure principle will determine what counts as knowledge by closure. So one question that arises here—a question germane to the present discussion—is whether factors that determine the context dependency of the truth of knowledge attributions may somehow bear on one’s ability to make competent deductions. If this is possible, then one might try to solve the factivity problem by arguing that in the sort of skeptical context in which someone may correctly attribute knowledge of some proposition p to *another* subject (who is not in a skeptical context), she is not thereby in a position to *competently deduce* that p, simply because her power of competent deduction is inadequate given relevant contextual standards.

This possibility cannot be dismissed. However it is very plausible that one’s deductive competence is *not* context-sensitive—i.e., that such competence is *context-invariant*. That is, whether someone is able to competently deduce that q from her belief that p and her belief that  $p \Rightarrow q$  does not seem to depend on whether the context she’s in (in which she’s making knowledge attributions to others) is very demanding or not.<sup>11</sup> Nor does it seem that whether such competence is *properly attributed* depends on the standards in effect in the attributor’s context. If there is some context in which the attributee is properly regarded as having the ability to make such a deduction, then it seems that she is *in any context of attribution* properly regarded

as having that ability.<sup>12</sup> If the contextualist denies this—i.e., if she claims that it is only in certain contexts that deductive competence is properly attributed, and only in those contexts that such competence is, from the attributor's point of view, sufficient to put the subject in a position to extend her knowledge by exercising this ability—then she must explain how shifts in context bear on the truth of ascriptions of this ability. It's not clear that such an account can be given.

I suggest that this is one reason, anyway, why rejecting closure in order to retain contextualism and factivity seems ad hoc. (CLOS-D) is a plausible principle—and, as noted, it seems more secure than (CLOS) insofar as it includes the competent-deduction condition. This condition, moreover, appears to be independent of context, in the sense just explained (whether it's satisfied does not seem to depend on what standards may be in effect in the context of attribution). So it appears that the truth or falsity of (CLOS-D) is independent of context, in this sense. And so it is not clear what grounds the contextualist can provide for rejecting this principle.

Moreover, it's easier for the contextualist to reject closure if the principle is understood as not including the competent deduction condition, for she does not then need to explain why a subject's competent deduction fails to result in knowledge.<sup>13</sup> But, against this, arguably it's in part the fact that one's powers of competent deduction are context-independent that makes the idea of closure so compelling.

It is clear that if the contextualist's strategy of rejecting closure in order to retain factivity is to succeed, then it must provide grounds for rejecting closure. Whether the contextualist can do so remains to be seen. The foregoing discussion suggests that the contextualist is not in a particularly good position to provide such grounds, especially if closure is understood as including a competent deduction condition.

### **3. First anti-closure response: an alternative to standard closure**

The problem of factivity arises on any plausible formulation of closure that implies that the standard by which one knows (due to closure) that  $q$ , is the very same standard by which one knows that  $p$  and that  $p$  implies  $q$ . (I will use the term "standard closure" to mean just this condition; that is, standard closure holds just in case some closure principle that satisfies this condition (e.g., CLOS-D) holds.) The question is whether the contextualist might solve the factivity problem by rejecting standard closure. The defender of the first anti-closure response that I'll discuss tries to explain away standard closure by offering an alternative principle that does not give rise to the factivity problem and that, she argues, we may have confused with standard closure. Consider the alternative proposed by Peter Baumann (2008, p.593):<sup>14</sup>:

(CLOS\*) For all contexts  $C$  there is a context  $D$  (not more demanding than  $C$ )

such that: [“A knows-that  $p$ ” (as uttered in C) is true and “A knows that ( $p \Rightarrow q$ )” (as uttered in C) is true]  $\Rightarrow$  “A knows that  $q$ ” (as uttered in D) is true.

(CLOS\*) does not imply that knowledge is closed *within* a single context. (CLOS\*) is clearly weaker than (CLOS-D), and it will not permit the sort of inference which leads to inconsistency in the original puzzle. So, if (CLOS\*) is a plausible alternative to (CLOS-D), then the problem of factivity is apparently solved.

The success of this anti-closure response depends, then, on whether (CLOS\*) is indeed a plausible alternative to standard closure. In support of (CLOS\*), Baumann describes a case involving two subjects, “Mary” and “Frank”: Mary is in a skeptical context (“C-S”), and Frank is in an ordinary, non-skeptical context (“C-O”). Baumann argues that although Mary “knows-high” (i.e., she is correctly described as knowing by the high standards that are in place in C-S) that Frank “knows-low” (i.e., he is correctly described as knowing by the relatively low standards that are in place in C-O) that there’s no life on Mars, this does not imply that Mary knows-high *what Frank knows*. In fact, Baumann claims, Mary *doesn’t* know-high that there’s no life on Mars, because “[t]he warrant Mary needs in order to count as a knower about Frank’s epistemic situation is not (or usually not) the same kind of warrant as the one she needs in order to count as a knower of the things Frank knows. . . .” (Baumann 2008, p.591)

Notice that the general view of the nature of warrant that is expressed here (vague as it is) is at least *consistent* with Mary’s knowing-high *what Frank knows*. (For ease of expression, let “L” stand for the proposition that there’s no life on Mars, and let “F” stand for the proposition that Frank knows-low that there’s no life on Mars.) Mary may indeed count as knowing-high that L, even if this is not due to her knowing that F. The view of warrant under consideration is consistent, moreover, with the claim that Mary cannot *fail* to know-high that L, provided she knows-high that F. For it’s possible that Mary cannot have the kind of warrant she needs in order to know-high that F without *also* having the kind of warrant she needs in order to know-high that L. That is, it is consistent with the claim that the two warrants are of different kinds, that one is entailed by the other. Baumann seems aware of this. He allows, at least, that “Mary herself must claim to know that there is no life on Mars if she wants to be able to claim to know that Frank knows that there is no life on Mars.” (Baumann 2008, p.591) But, Baumann argues, Mary’s knowledge that L cannot in fact be knowledge-high:

[T]he factors which determine whether Mary’s knowledge of Frank’s knowledge is knowledge-high or knowledge-low have little or nothing to do with the quality (as “high” or “low”) of Frank’s or Mary’s knowledge about Mars; rather, those factors relate to all the things an epistemic subject might do or not do in order to figure out whether something is the case or not (whether

there is life on Mars or not). This explains why A's knowing-high that B knows-low that  $p$  does not guarantee (given the above principles) that A knows-high that  $p$ —even though A's knowing that B knows that  $p$  guarantees or requires that A knows that  $p$ . (Baumann 2008, p.591)

Given that Mary meets the *highest standards for knowing* that F, and meets the *highest standards for knowing* that Frank's epistemic state is incompatible with not-L, why should Mary nevertheless fail to know-high that L? Baumann's thought is that knowledge of another subject's epistemic situation is *not dependent upon the same factors* as knowledge of the subject matter that the subject's epistemic situation concerns. But it is not very clear what's required for the truth of this claim. At least, it is not clear that it is true on any interpretation on which it implies a failure of standard closure. In support of this claim, Baumann suggests that we may appeal to the possibility of one's knowing by testimony that another subject is in a certain epistemic state with respect to a certain subject matter about which one may be ignorant. This response is either a red herring or it is question-begging, depending on how it is interpreted. While it's widely agreed that it's possible for one to have knowledge by testimony that another subject knows that  $p$ , where  $p$  is a proposition for which one has no first-order evidence or independent justification for believing, this fact is irrelevant to the issue at hand. The question is why the knowledge, *testimonial or otherwise*, that another subject knows (by some standard) that  $p$ , together with the additional knowledge-high that knowledge that  $p$  implies  $p$ , should not yield knowledge-high that  $p$ .<sup>15</sup> On the other hand, if the claim is simply that one can know that another subject knows that  $p$  without being in a position to know (by some means) that  $p$ , then the response is straightforwardly question-begging.

If the contextualist is forced to reject standard closure in order to retain the view that knowledge is factive, then contextualism is seriously compromised. An alternative closure principle such as (CLOS\*) is not well motivated and is *prima facie* unacceptable. At any rate, Baumann's defense of (CLOS\*) fails, because it doesn't explain why a subject's knowledge-high that  $p$  and knowledge-high that  $p \Rightarrow q$  should not suffice for knowledge-high that  $q$ , as the account does not explain why there should be any sort of *reduction* in epistemic standing of one's belief that  $q$ .<sup>16</sup> The defender of the anti-closure response to the factivity problem must, then, do better than to offer such an alternative.

In spite of the problem I have presented for Baumann's alternative to standard closure, one might think that (CLOS) is in fact too strong and that the appropriate strategy for the contextualist is to explain it away by offering a plausible alternative. The trouble with Baumann's attempt to do this, as we've seen, is that his (CLOS\*) is apparently too weak: it is implausible both that it is the correct closure principle, and that we may have reasonably confused this principle with (CLOS). (CLOS\*) is apparently too weak, because it allows that it is *possible* that a subject S's warrant, in

virtue of which “S knows that p” and “S knows that  $(p \Rightarrow q)$ ” (both uttered in C), is transmitted, so that “S knows that q” (uttered in C) is true; but it fails to explain why such warrant may *not* be transmitted.<sup>17</sup> Without such an explanation, the attempt to solve the factivity problem by substituting (CLOS\*) for (CLOS) fails.

But perhaps there is a better alternative, a principle that is stronger than (CLOS\*) but weaker than (CLOS), such as:

(CLOS<sup>++</sup>) For all contexts C, there is a context D (equally as demanding as C) such that: [“A knows-that p” (as uttered in C) is true and “A knows that  $(p \Rightarrow q)$ ” (as uttered in C) is true]  $\Rightarrow$  “A knows that q” (as uttered in D) is true.

Provided that it is a plausible closure candidate, (CLOS<sup>++</sup>) would serve the contextualist’s aim of retaining factivity without inconsistency just as well. But even (CLOS<sup>++</sup>) is apparently too weak, since the question remains why, given this principle, it should be possible that there is some context E that is equally as demanding as C (i.e., no stronger and no weaker) such that “A knows that p” (as uttered in C) is true, “A knows that  $(p \Rightarrow q)$ ” (as uttered in C) is true, and “A knows that q” (as uttered in E) is *not* true. If warrant is transmitted in D, why is it not also transmitted in E? If there is *some* context, equally as demanding as C, where warrant is transmitted, then why is such warrant not transmitted in *any* context which is equally as demanding as C?

If (CLOS<sup>++</sup>) is too weak, then there appears to be no suitable alternative to (CLOS). And if (CLOS<sup>++</sup>) is too weak, then it appears that a corresponding alternative to (CLOS-D) will also be too weak. Such a principle will fail to rule out the possibility that a thinker may, according to the standards in effect within a single context of attribution, come to know-high that q by competently deducing q from her knowledge-high that p; and so it will fail to explain why such a deduction yields knowledge-high in some, but not all, contexts of attribution.

I think that we can argue more directly in support of the claim that standard closure holds in the case of Mary: (CLOS-D)—not (CLOS\*) or (CLOS<sup>++</sup>)—is the principle that best explains why warrant is transmitted through inference in this case. (This is not to say that (CLOS-D) holds only where warrant is transmitted.) The argument that I’ll offer here involves two steps. First, there are clear cases in which knowledge is extended through competent deduction, and such cases are best explained by (CLOS-D). Intuitively, these are cases in which warrant is transmitted from premise(s) to conclusion without any “epistemic loss.” Second, supposing there are such cases, then the case involving Mary is such a case. Consider the following scenario. Mary knows-high that domestic dogs are members of the family, *canidae*. (We may suppose that Mary’s knowledge-high is based on testimony; or, if it is doubtful whether knowledge-high can be obtained in such a way, we may imagine that Mary has such knowledge because she has expert knowledge of dogs.) She also knows-high



that if dogs are canids, then dogs are warm-blooded. As a result of competent deduction from these two propositions which she knows-high, Mary knows-high that dogs are warm-blooded. What then explains why Mary knows-high that dogs are warm-blooded? Intuitively, that (CLOS-D)—not (CLOS\*), and not some principle stronger than (CLOS\*) but weaker than (CLOS-D)—holds. While (CLOS\*) is consistent with Mary’s knowing-high, on the basis of her competent deduction, that dogs are warm-blooded, in the case described, it doesn’t explain why she knows this. That is, given that Mary knows-high that dogs are canids and that all canids are warm-blooded, and given that Mary competently deduces that dogs are warm-blooded, it seems not only that Mary cannot fail to know that dogs are warm-blooded but that she cannot fail to know-high that dogs are warm-blooded. What could explain why Mary indeed knows that dogs are warm-blooded but knows this only by some lower standard for knowledge? We can suppose Mary is not being irrational. (That is something we can legitimately stipulate in the description of the case, as it is not something which is dependent on the particular standards for knowledge that may or may not be in effect in her context.) She has competently deduced the proposition that dogs are warm-blooded from propositions she already knows.

If we must allow that in this case Mary knows-high the proposition that she competently deduces from the others, then one who rejects (CLOS-D) has the burden of explaining why, in the case in which Mary has knowledge of Frank’s epistemic condition, she fails to know-high the proposition that she then (we may suppose) competently deduces, *that there is no life on Mars*. Again, Mary is not being irrational, and she does not believe that there is no life on Mars on *irrelevant* grounds. She believes this on the basis of her belief that Frank knows there’s no life on Mars and her belief that if Frank knows this then it must be true. But Mary does not just believe these things, she knows them *by the highest standards*. It is hard to see, then, why Mary should fail to know *by the highest standards* what her knowledge-high implies *once she has competently deduced what it implies*.<sup>18</sup>

Intuitively, there is no important epistemic difference between Mary’s inferences in the two cases. If this is right, then if Mary knows-high that dogs are warm-blooded (i.e., “Mary knows that dogs are warm-blooded” (as uttered in C) is true), then Mary also knows-high that there’s no life on Mars (i.e., “Mary knows that there’s no life on Mars” (as uttered in C) is true). The factivity problem for the contextualist stands.

#### 4. Second anti-closure response: warrant is not transmitted

The second attempt to defend an anti-closure response to the factivity problem is based on the idea that standard closure fails to hold in the relevant cases, including the case involving Mary, because the subject’s warrant fails to transmit by inference in

these cases. Thus Mary fails to know that **L** by the same standard that she knows that **F** and that **F** implies that **L**, because her warrant for believing that **F** does not transmit to her belief that **L**. Why—or in what sense—should we think that this warrant fails to transmit? One thought is that Mary is unable to acquire a (new) warrant for believing that **L** simply by deducing **L** from **F** and  $F \Rightarrow L$ .<sup>19</sup> If Mary is unable to acquire a new warrant for believing **L**, and she has no prior warrant for it—or, at any rate, no warrant that is sufficient for knowledge-high—then she will fail to know-high that **L**.

Why should Mary be unable to acquire a new warrant for her belief that **L**? One argument that might be offered is based on the *relay model* of warrant transmission. I borrow the term from Nicholas Silins, who characterizes the model as holding that if an inference transmits warrant, then the inference insures that one's justification for believing the premises *becomes* one's justification for believing the conclusion. (Silins 2005, p86) The relay model thus takes one's warrant for **q** to be somehow derived from one's warrant for **p** and that  $p \Rightarrow q$ , rather than from the propositions that **p** and that  $p \Rightarrow q$  themselves. According to the relay model, one is able to extend one's knowledge not directly from *what one knows* but only from one's *warrant* for what one knows.

If Mary's warrant for **L** is of a different kind than her warrant for **F**, then it seems that the relay model can be invoked to explain why Mary should lack knowledge-high that **L**, as follows: If any warrant is transmitted in this case, it is Mary's warrant for **F** and  $F \Rightarrow L$ . Since this warrant is not of the kind that is required for knowing-high that **L**, Mary will fail to know-high that **L** (even if the warrant in question is sufficient for knowing that **L** by *some* standard).

The basic assumption here is that a warrant is transmitted through inference only if it remains warrant of the same type throughout its transmission. Suppose, for instance, that you have a warrant based on your current perceptual experience for the claim that there are more than ten people in the room, and that you deduce from this that there are more than five people in the room. As a consequence you have acquired a warrant for the claim that there are five people in the room. This warrant includes your warrant for the original claim that there are more than ten people in the room. Thus it seems that the original warrant is transmitted only if it remains warrant of the same type (in this case, it remains *perceptual* (rather than *a priori*, testimonial, etc.) warrant).

The assumption that transmission does not somehow change the nature of the warrant transmitted is very plausible. However, the relay model's account of how warrant gets transmitted via inference is not plausible. We can see this by considering that the following general principle, which is incompatible with the relay model, is compelling:

If **S** has warrant for believing that **q** on the basis of **S**'s knowledge that **p** and

that  $p \Rightarrow q$ , then  $S$ 's warrant for believing that  $q$  is provided by *what  $S$  knows*, i.e., the propositions *that  $p$*  and *that  $p \Rightarrow q$* .

I'll call this the *Known Propositions as Warrant* (KPW) principle. In general, the idea is that if a subject  $S$ 's warrant for believing that  $p$  is sufficient for  $S$ 's *knowing* (by some standard) that  $p$ , then  $p$  itself may serve as a warrant for further beliefs. If, for instance you know that it is 1:51 pm, and you know that you have an appointment at 2 pm, then your warrant for believing that you have less than ten minutes to make your appointment consists in part in the propositions known, viz. that it is 1:51 and that the appointment is at 2.<sup>20</sup> Since the relay model implies that  $p$  itself *cannot* serve as a warrant for further beliefs—that only one's *warrant for believing  $p$*  can do so—the relay model must be rejected.

Given KPW, we have good reason to accept that if  $S$ 's inference from  $p$  and  $p \Rightarrow q$  gives  $S$  warrant sufficient for knowing that  $q$  *by some standard* (high or low), then it gives  $S$  warrant sufficient for knowing this *by the same standards by which  $S$  knows that  $p$  and that  $p \Rightarrow q$* . For given that  $S$ 's warrant sufficient for knowing that  $q$  comes from the propositions that  $p$  and  $p \Rightarrow q$  themselves, it follows that *the nature of  $S$ 's warrant for believing these propositions is irrelevant*; and given that  $S$ 's competent deduction of  $q$  from these propositions does not result in any epistemic loss (and there is nothing else, it seems, that would account for such loss),  $S$ 's knowledge that  $q$  must have the same standing as  $S$ 's knowledge that  $p$  and that  $p \Rightarrow q$ . In the case of Mary: If it's the *fact* (which Mary knows) that  $F$ , together with the fact that  $F \Rightarrow L$ , that provides Mary's warrant for knowing that  $L$ , then we cannot explain why this warrant may give Mary mere knowledge-*low* that  $L$  by appealing to her warrant for these claims.<sup>21</sup> The nature of Mary's warrant for  $F$  and  $F \Rightarrow L$ <sup>22</sup>, together with certain features of the context of attribution, determine whether her knowledge of *these* propositions is high or low; it does not determine whether her knowledge of any propositions *deduced from them* is high or low. In particular, competent deduction of further propositions from  $F$  and  $F \Rightarrow L$  should not affect the epistemic status of the knowledge that results. Provided Mary knows (by some standard) the propositions from which she competently deduces  $L$ , her warrant for the latter proposition should remain as high as her warrant for the initial propositions.<sup>23</sup>

Notice that the factivity of knowledge is apparently what accounts for the fact that known propositions themselves may serve as warrant for further propositions. That is, it's factivity that explains why you can rely directly on  $p$  when  $p$  is known, rather than on propositions distinct from  $p$  which comprise your reasons for believing  $p$ ; your warrant for  $p$  thus need not figure in your warrant for any further propositions deduced from  $p$ . Thus, the strategy of rejecting closure while retaining factivity appears to be a bad one not only for the reasons already discussed (i.e., alternatives to standard closure are inadequate, and failure of warrant transmission would not

imply failure of closure), but because factivity ensures that warrant transmission worries in relevant cases are unfounded: since warrant for inferred propositions in these cases consists of the known propositions from which they're deduced, one's warrant for the knowns propositions is irrelevant.<sup>24</sup>

As a rejoinder, the defender of the anti-closure response might argue that the response need not invoke the relay model; rather, it can simply rely on the idea that there is a *difference in kind* between the warrant one must have for first-order knowledge of a proposition  $p$  and the warrant one must have for knowledge of another subject's epistemic situation with respect to  $p$ . Thus, it might be argued, it is irrelevant whether Mary acquires her warrant for believing that  $L$  in the way that the relay model suggests—or whether she *acquires* any such warrant at all, for that matter. The point is that Mary deduces that  $L$  from her belief that  $F$  and that  $F \Rightarrow L$ , and so bases her belief that  $L$  on a belief whose warrant is suitable only for knowledge of another subject's epistemic situation.

The crucial principle, according to this response, appears to be this:

(W1) The warrant  $S$  must have in order to know that another subject knows (by some standard) that  $p$  is not of the same kind as the warrant  $S$  must have in order to know (by some standard) that  $p$ .

The argument just considered is that regardless of how warrant gets transmitted in the inference from  $F \Rightarrow L$  and  $F$  to  $L$ , Mary will not gain the kind of warrant she needs to count as knowing that  $L$ , since this warrant is simply of a different kind than the warrant required for knowing that  $F$ . Whether this argument succeeds depends crucially on how we distinguish between kinds of warrant. For instance, I take it that (W1) will not provide strong support for the anti-closure response on more fine-grained conceptions of warrant kinds, since on such conceptions it will be less plausible that warrant of one kind cannot be derived from warrant of another. Another difficulty for this argument is that it does not explain how warrant of a particular kind may be derived from, or based on, another warrant of the same kind, in a way that makes it clear that warrant can only be acquired in this way. Setting aside the details of this account, though, I do not think the argument will succeed. First, it is important to note that, whatever the merits of (W1), it is consistent with the following claim:

(W2)  $S$  has warrant sufficient for knowledge-high that  $B$  knows-low that  $p \Rightarrow S$  has warrant for knowledge-high that  $p$ .

For it is consistent with (W1) that while the warrant  $S$  may have for knowing-high that  $B$  knows that  $p$  is *different in kind* from the warrant  $S$  may have for knowing-high that  $p$ , nevertheless, provided  $S$  competently deduces that  $p$  from  $B$  knows that

$p$ ,  $S$  has warrant of the first kind only if  $S$  has warrant of the second kind: thus, if  $S$  knows-high that  $B$  knows (by some standard) that  $p$ , then  $S$  also knows-high that  $p$ .

Now, I grant that the claim that warrant kinds may be related in this way needs support. But I suggest that we can see some support for it in that it's plausible that, in general, the process of reasoning from premise(s) to a conclusion confers a kind of warrant *on its own*—provided, anyway, that one has some prior warrant for the premises. In general, if  $p$  and  $p \Rightarrow q$  are true, then one acquires warrant for  $q$  *in the very act of inferring that  $q$*  from these propositions. So, the resulting warrant for believing that  $q$  is not, it seems, necessarily of the very same kind as one's prior warrant for  $p$  and  $p \Rightarrow q$ .

The view that one's reasoning from a set of premises to a conclusion confers a kind of warrant on its own, which is distinct from the warrant one has for the premises, needs further clarification and defense. However, it is plausible, and I suggest that it helps us see how (W2) might hold even if the relevant warrants are of different kinds. Moreover, since (W1) is *consistent* with (W2), any support we may have for (W1) will not explain why (W2) misleadingly appears to be true.

Finally, it is worth pointing out that even supposing that the view just suggested is false—thus, that any warrant that is acquired through inference in this kind of case is derived solely from prior warrant for the premises—it is not clear that this implies that the derived warrant must be of the same kind as the warrant from which it's derived. Here I suggest it's appropriate to compare the notion of *a priori* entailment between different kinds of fact or property. While it is controversial whether there is an *a priori* entailment, for instance, between the physical facts and the phenomenal facts,<sup>25</sup> I take it that the controversy is not to be settled by an appeal to a principle of warrant according to which knowledge of physical facts requires warrant of a different kind than is required by knowledge of phenomenal facts. Any such principle is likely to be controversial—but even if it holds, it is still, I take it, an open question as far as that goes whether there is an *a priori* entailment between some set of physical propositions (perhaps including propositions only graspable through certain as-yet-unacquired concepts) and some set of phenomenal propositions.

I conclude, then, that (W1) cannot help to explain away (W2). But if (W1) is (supposing it's true) no threat to (W2), then it is no threat to (CLOS-D), either. So, (W1) cannot help to explain away (CLOS-D).

## Conclusion

One lesson to draw from the foregoing discussion is that the factivity problem does not depend at all on whether, in the case of the sort of inter-contextual knowledge attribution we've considered, the attributor's warrant for the attribution is of the same kind as the attributee's. A more general lesson, I suggest, is that considerations of

warrant transmission are of no help to the contextualist. If anything, such considerations only reveal the difficulty of the factivity problem. For careful reflection on them reveals that a plausible closure principle must be consistent with the view that you can use *what you know*, together with competent deduction, as the basis for extending your knowledge, *without epistemic loss*; and that your success in doing so is not, then, dependent on the particular epistemic standards for ‘knows’ that are in effect in the attributor’s context.

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## Notes

<sup>1</sup>In this paper I focus on *attributor contextualism*, which holds that the truth of knowledge ascriptions is dependent on the *ascriber's* context. The sort of problem that I'll discuss arises for *subject contextualism* too, but I won't try to show that here. Also note that I will not be concerned with the differences between varieties of attributor contextualism, as the problem I will discuss is not affected by such differences and concerns only the basic commitments of the view. For discussion of some important differences between varieties of contextualism, see Wright 2005.

<sup>2</sup>One might deny that the contextualist can know this if she is in a skeptical context. In particular, one might argue that such knowledge is unattainable given that, in a skeptical context, one cannot know that *there are other subjects*, that *there are utterances*, etc. (See Williamson 2005.) But arguably there are demanding contexts which are not so extreme—contexts in which (the contextualist, it seems, would have to allow) a subject can know by those demanding-but-not-extreme standards that knowledge of a proposition *p* is *correctly attributed* in a somewhat less demanding context, even if *she* (the subject) fails to know that *p* by those same demanding-but-not-extreme standards. (This point is made in Baumann 2008, p.582.) In what follows, I am going to assume that there are such contexts, thus that such asymmetrical knowledge ascriptions are possible. (For recent accounts that deny this see Montminy 2008; Brueckner 2009; Ashfield 2013.) I assume moreover that in such contexts it is possible to correctly attribute knowledge (by the relatively demanding standards in place) of the truth of such an attribution *to the contextualist*—i.e., that an utterance of the form “*S<sub>C</sub> knows that ‘S<sub>O</sub> knows that p’ is true*” is, in such a context, true. Thus even if we allow that the contextualist is unable to correctly *self*-attribute knowledge that ‘*S<sub>O</sub> knows that p*’ is true (perhaps because she is not, by her own lights, in a position to know that there are other subjects, etc.), it is still the case that someone in a slightly less demanding context (in which knowledge that there are other subjects, etc., is correctly self-attributed) should be able to correctly attribute knowledge *to the contextualist* that ‘*S<sub>O</sub> knows that p*’ is true. So, I am interested in the question of whether, supposing it is indeed possible for the contextualist to count as having knowledge of this sort (if only by the standards of some less demanding context)—i.e., knowledge that attributions of knowledge to others, made in non-skeptical contexts, are true—this may undermine the contextualist's position.

<sup>3</sup>We may suppose that *F* is a concept normally applied on the basis of ordinary visual experience (though not a phenomenal or “recognitionnal” concept)—e.g., the concept *tree*.

<sup>4</sup>The assumption here is that contextualism is at least consistent with *S<sub>1</sub>*'s having such knowledge. I have noted (fn. 2) that some authors reject this claim; I am supposing that they're mistaken, since my aim is to see whether, if this is so, contextualism can avoid the factivity problem by other means. Note that might be argued that contextualism is not only consistent with the claim that *S<sub>1</sub>* has the knowledge indicated but that it entails this. I will not argue for this claim, however.

<sup>5</sup>One might worry that (2) and (3) are nonsense, in particular that they falsely assume

that it makes sense to attribute both knowledge by the standards of H and knowledge by the standards of O in the very same statement. But, the argument goes, the context must be constant: either (2) and (3) attribute knowledge by the same set of standards to both  $S_1$  and  $S_2$ , or (2) and (3) are indeterminate. I'm not sure this is right, but I think we can sidestep the worry and run the argument at the meta-linguistic level, as follows:

1. It is not the case that " $S_1$  knows that there are Fs" is true (as uttered in H). (by contextualism)
2. " $S_1$  knows that ' $S_2$  knows that there are Fs' is true (as uttered in O)" is true (as uttered in H). (by contextualism)
3. " $S_1$  knows that if ' $S_2$  knows that there are Fs' is true (as uttered in O), then there are Fs" is true (as uttered in H). (by the factivity of 'knows')
4. " $S_1$  knows that there are Fs" is true (as uttered in H). (by closure)

Here we do not allow any shifting of the context. For knowledge is not directly attributed to  $S_1$  or  $S_2$  in (2) and (3). Rather, (2) and (3) concern only the truth of utterances within a certain context. Presumably we are not barred from referring to different contexts (O and H) in the same statement, or from recognizing the truth of attributions of knowledge within such contexts. If so, the worry about the original argument seems to point not to a serious problem with it but only to a potential problem about how to state it.

<sup>6</sup>For a defense of this view see Brueckner 2009; also Montminy 2008.

<sup>7</sup>For a critique of the view that 'knows' is factive see Hazlett 2010. While Hazlett is not concerned with the factivity problem, it is, I think, an open question whether the contextualist may adopt his Gricean account that 'knows' is non-factive, and that utterances of the form " $S$  knows  $p$ " standardly carry the implication that  $p$ .

<sup>8</sup>Of course, some authors reject this assumption. I do not address their arguments here. For a recent discussion of arguments against the factivity of knowledge, see Bricker 2021.

<sup>9</sup>Throughout the paper, ' $\Rightarrow$ ' may be understood as denoting strict implication, i.e.:  $p \Rightarrow q$  is defined as  $\neg \Diamond(p \wedge \neg q)$  (where the modality is understood as alethic).

<sup>10</sup>The term 'competent deduction' is somewhat unclear. I will adopt Tucker's (2010a) understanding of when competent deduction occurs, according to which the following conditions are necessary for competent deduction: (i) the relevant argument has well-justified premises; (ii) the premises provide deductive support for their conclusions; (iii) the subject knows that the premises provide deductive support for their conclusions; (iv) there are no relevant defeaters; and (v) the argument is not premise circular.

<sup>11</sup>Nor does such competence seem to depend on how demanding the attributee's context is. But if we're focusing on the attributor's ability to deduce propositions from her attributions of knowledge to others, then this point is irrelevant.

<sup>12</sup>Does this presuppose that a competent deduction is always a logically valid one? Arguably not. It may presuppose that one may competently deduce that  $q$  from  $p$  and  $p \Rightarrow q$  provided one is justified in believing these propositions, even if they are not true.

<sup>13</sup>Even the anti-contextualist might say that closure fails in cases where the subject simply doesn't believe that  $q$  because she has not deduced that  $q$  from her belief that  $p$  and her belief that  $p \Rightarrow q$ .

<sup>14</sup>Baumann focuses on the first closure principle I introduced, (CLOS), and he argues that the contextualist ought to reject this principle. Now, as we've noted, this formulation of clo-



sure does not include a competent deduction condition and so is subject to apparent counterexample anyway; so the contextualist may indeed be justified in rejecting it. Baumann's account, however, does not turn on the difference between (CLOS) and (CLOS-D); his argument, if successful, ought to apply equally in the case of (CLOS-D) to show that it too ought to be rejected. Since (CLOS-D) is a more plausible closure principle, we should consider whether Baumann has provided any grounds for rejecting it. (In my discussion of Baumann's account I'll focus, as he does, on (CLOS); but note that the points I will make do not turn on the difference between (CLOS) and (CLOS-D).)

<sup>15</sup>Baumann may argue that in general knowledge-high cannot be testimonial. But if that's right, then Mary cannot have testimonial knowledge-high that Frank knows-low that there's no life on Mars; and so there is no failure of closure here.

<sup>16</sup>I should note that the problem appears just as pressing if closure is understood as including the competent deduction condition: why, if Mary has competently deduced that *p* only from propositions that she knows-high, should this result in anything less than knowledge-high? The general view that knowledge of another subject's epistemic situation is of a different kind than knowledge of the subject matter which her epistemic situation concerns does not explain this.

<sup>17</sup>I have not yet said anything about what warrant transmission is, exactly, or just how it relates to closure; I turn to this question in the next section. Here I am relying only on what I take to be an intuitive understanding of when warrant transmits in a way that results in knowledge. The thought is that Baumann's (CLOS\*) does not rule out the possibility that a reasoner may (according to the standards in effect within a single context of attribution) acquire knowledge-high that *q* by inferring *q* from her knowledge-high that *p* and her knowledge-high that ( $p \Rightarrow q$ ).

<sup>18</sup>Cf. Williamson 2005, p.97 (my italics):

Mary does not know(high) that the universe was not created an hour ago. Equally, she does not know(high) that she had her purse yesterday morning. Therefore, on a truth-functional reading of the conditional, if Mary know(high)s that she had her purse yesterday morning then she know(high)s that the universe was not created an hour ago. More generally, *deduction is a way of extending know(high)ledge, given that we are not here concerned with scepticism about the validity of the deductive reasoning itself*. If one believes the conclusion that *Q* on the basis of competent deduction from the premise that *P* (and perhaps some other premises too), and one know(high)s that *P* (and those other premises too, if any), then one know(high)s that *Q*.

<sup>19</sup>There is a distinction, as Wright (2008) notes, between the idea that an inference fails to bestow a *new* warrant on the belief that the conclusion holds, and the idea that an inference fails to bestow a *first-time* warrant on the belief. As Wright puts it, some arguments may be essentially tied to warrant *enhancement* rather than warrant *creation*. Such an argument may succeed in transmitting warrant to its conclusion even if it is not capable of conferring a first-time warrant for its conclusion. The view presently under consideration is that Mary is unable to acquire any new warrant for believing *L*—any warrant, that is, that she did not already have—just by deducing *L* from *F* and  $F \Rightarrow L$ .

<sup>20</sup>I suggest that this is indicated by the fact that were someone attributing such knowledge to explain why your belief that you have less than ten minutes is warranted, they would likely

cite the truth of the propositions (that it is 1:51 and that you have a 2 o'clock appointment), rather than your justification for believing them. By contrast, in cases in which either your evidence is not strong enough for knowledge of those propositions or they are not true despite your having strong evidence, an attributor would cite your justification for believing the propositions, rather than their truth.

<sup>21</sup>I do not mean to assume any particular ontological view about the nature of facts, but only that facts suitable objects of belief (and thus also of knowledge). My point could be put by saying it is the *object* of Mary's knowledge—what's known—from which Mary's warrant may be acquired. If this is thought to be problematic, however, then I suggest that we can talk solely in terms of propositions—propositions known, on the account I'm suggesting, will provide warrant for knowledge of further propositions.

<sup>22</sup>—and, of course, the standards in effect in the context of attribution.

<sup>23</sup>In fairness to the defender of the anti-closure response under consideration, it should be noted that the nature of warrant transmission is still not very well understood. It is not clear what *failure* of warrant transmission consists in—or even that there is a single kind of transmission failure, even if there are certain inferences that seem to exhibit such failure. (See Coliva 2012 for further discussion.) Consequently, it is not clear that the defender of this kind of anti-closure response to the factivity problem must rely on the relay model—perhaps there are other grounds for thinking that the Mary inference is not warrant-transmitting. I leave this question for another occasion. Let me say however that even if the inference should turn out not to be warrant-transmitting it is a further question whether this would imply a failure of closure. I have been supposing for the sake of argument that it would imply a failure of closure, but Wright and others have argued otherwise.

To see what the worry is here, suppose that there is no difference in kind between the relevant warrants, and suppose the relay model is inaccurate. Might warrant still fail to transmit in the case of Mary? Not if such a failure of transmission *requires* that closure holds. Compare the familiar inference,

(Z) That animal is a zebra.

∴ (¬M) That animal isn't a cleverly disguised mule.

It is plausible that this is a case in which warrant fails to transmit from Z to ¬M. That is, it's plausible that one cannot gain a (new) warrant for ¬M by inferring it from (together with the belief that Z ⇒ ¬M). Moreover it is plausible that the reason why warrant fails to be transmitted in this case is that in order for one to be in a position to know Z (on the basis of the usual sort of visual evidence that provides one with a warrant for Z) one must also be in a position to know ¬M. That is, it is plausible that *failure of warrant transmission is consistent with closure*. Suppose one has warrant sufficient for knowing that Z. Then, if the warrant required for knowing that ¬M is of the same kind as this warrant, what could explain why one cannot acquire a (new) warrant for ¬M by inferring it from Z, together with the knowledge that Z ⇒ ¬M? Only, it seems, that one *already* has warrant for ¬M—because one already has warrant for Z. Thus Wright suggests that in cases of transmission failure it is “built into the diagnosis of transmission failure involved” that they are not counterexamples to closure. (See Wright 2000; Wright 2002; Wright 2003. Also see Tucker 2010a and Tucker 2010b for helpful discussion of transmission principles and their closure counterparts, including an explanation of why transmission failure may occur even while closure obtains.)

The same account of transmission failure can be given in the case of Mary (again, assuming that there is no relevant difference in kind between the warrants involved). Suppose that warrant does not transmit from **F** and  $\mathbf{F} \Rightarrow \mathbf{L}$  to **L**. The explanation for this will be that in order to have warrant sufficient for knowing that **F**, one must already have warrant for **L**; in particular, that one counts as knowing both **F** and  $\mathbf{F} \Rightarrow \mathbf{L}$  only if one counts as knowing **L**. Thus the fact that closure holds explains why one does not get any *new* warrant for believing the conclusion on the basis of the inference.

I do not claim that this is the only possible explanation for transmission failure in this case (assuming, that is, that warrant fails to transmit here). But it is one plausible explanation. The defender of the second anti-closure response must offer another, equally plausible explanation for transmission failure; otherwise, she must explain why closure fails even if warrant is transmitted. It's not clear to me how either explanation will go.

<sup>24</sup>KPW is compatible with (and indeed suggested by) the view that your *reasons* are what you know. For a defense of this claim see Hawthorne 2018.

<sup>25</sup>Here I have in mind the well-known debate between dualists and physicalists over the so-called explanatory gap; see Block and Stalnaker 1999 and Chalmers and Jackson 2001.