# TRUE KNOWLEDGE

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ABSTRACT: That knowledge is factive, that is, that knowledge that $p$ requires that $p$, has for a long time typically been treated as a truism. Recently, however, some authors have raised doubts about and arguments against this claim. In a recent paper in this journal, Michael Shaffer presents new arguments against the denial of the factivity of knowledge. This article discusses one of Shaffer's objections: the one from "inconsistency and explosion." I discuss two potential replies to Shaffer's problem: dialetheism plus paraconsistency and epistemic pluralism. This is not to be understood so much as a criticism of Shaffer's view but rather as a request to develop his very promising objection from inconsistency and explosion further.

KEYWORDS: knowledge, truth, factivity, dialetheism, paraconsistency, epistemic pluralism, Moore's Paradox, Michael Shaffer

In a concise and very neat recent article,[1] Michael Shaffer presents several new arguments against the denial of the factivity of knowledge, that is, against the denial of the following schema:

(Factivity) S knows that $p$ only if $p$.[2]

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[1] Michael J. Shaffer, "Can Knowledge Really Be Non-Factive?," *Logos & Episteme* XII, 2 (2021): 215-226. For related issues see also: Michael J. Shaffer, "Non-Exact Truths, Pragmatic Encroachment and the Epistemic Norm of Practical Reasoning," *Logos & Episteme* III, 2 (2012): 239-259.

[2] Much of the recent discussion of the denial of (Factivity) within epistemology started with Allan Hazlett, "The Myth of Factive Verbs," *Philosophy and Phenomenological Research* 80 (2010): 497-522. However, there have been precursors, for instance in the philosophy of science: See, e.g., Ilkka Niiniluoto, *Critical Scientific Realism* (Oxford: Oxford University Press, 1999), 84-85. Also before Hazlett, Stjernberg proposed to restrict factivity to certain cases in order to deal with Fitch's paradox, the paradox of the knower and other problems: see Fredrik Stjernberg, "Restricting Factiveness," *Philosophical Studies* 146 (2009): 29-48. In reply to Hazlett see: Daniel Nolan, "Non-Factivity about Knowledge: a Defensive Move," *The Reasoner* 2, 11 (2008): 10-11; John Turri, "Mythology of the Factive," *Logos & Episteme* 2, 1 (2011): 141-150; Savas L. Tsohatzidis, "How to Forget that 'Know' is Factive," *Acta Analytica* 27 (2012): 449-459. See also Hazlett's reply to Turri and to Tsohatzidis in: Allan Hazlett, "Factive Presupposition and the Truth Condition on Knowledge," *Acta Analytica* 27 (2012): 461-478. Michael Hannon and Wesley Buckwalter have invoked the idea of "protagonist projection" against Hazlett and others (in Buckwalter's case based on experimental results): See Michael Hannon, "'Knows' Entails Truth." *Journal of Philosophical Research* 38 (2013): 349-366; Wesley Buckwalter, "Factive Verbs and Protagonist Projection,"

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Shaffer discusses those deniers of (Factivity) who claim that one can know some proposition even if it is not strictly true but only approximately true (and thus strictly false).[3] For instance, one can, according to this view, know that the speed of light in the vacuum is 300 000 kilometers per second even if this is strictly speaking false because the speed of light is a bit lower.[4] Shaffer calls this "quasi-factivism about knowledge."[5] The deniers of factivity Shaffer has in mind thus defend the following schema:

(Denial) S knows that $p$ only if $p$ is true or approximates the truth.[6]

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*Episteme* 11, 4 (2014): 391-409. Later, Buckwalter and Turri offered empirical results favoring a different account, the "representational adequacy account", now critical of factivity: See Wesley Buckwalter and John Turri, "Knowledge, Adequacy, and Approximate Truth," *Consciousness and Cognition* 83 (2020): 102950; see also: Wesley Buckwalter and John Turri, "Knowledge and Truth: a Skeptical Challenge," *Pacific Philosophical Quarterly* 101 (2020): 93-101. For another recent defense of non-factivity of knowledge see Adam Michael Bricker, "Knowing Falsely: the Non-factive Project," *Acta Analytica* (forthcoming).

[3] Is there symmetry such that corresponding to approximate truths which are strictly false we also have approximate falsehoods which are strictly true? Would all strict truths (or only some?) constitute approximate falsehoods? And what should one say about Chuck who is a borderline case of "bald" as well as of "not bald"? Are both statements – "Chuck is bald" and "Chuck is not bald" – neither strictly true nor stricly false but both approximately true and approximately false? I can only raise these questions here but would like to suggest that one should not attribute a 4-valued logic to the quasi-factivist (*strictly true*, *strictly false*, *approximately true*, *approximately false*) or even a fuzzy logic (see Lofti Zadeh, "Fuzzy Sets," *Information and Control* 8 (1965): 338-353). Nothing forces the quasi-factivist to go this way – and they better don't go this way in order to avoid unnecessary complications for their account. See also fn.10 below.

[4] To be sure, the claim here is not that one can know that the speed of light is *roughly* 300 000 kilometers per second; this would be strictly speaking true and constitute "strict" knowledge. There is all the difference between knowing approximately that $p$ and knowing that approximately $p$; neither entails the other (though depending on what exactly "approximately" means, they might be compatible with each other).

[5] See Shaffer, "Can Knowledge Really," 218.

[6] We don't have to discuss here what exactly "approximation" means. – If one takes being strictly true as an extreme, ideal case of approximation, one can simplify the above and just claim the following:

(Denial*) S knows that $p$ only if $p$ approximates the truth.

This seems to be Shaffer's choice. To be sure, Shaffer also remarks that "all approximate truths are false" (Shaffer, "Can Knowledge Really," 220). But this would mean, given that approximate truth is considered to be necessary for knowledge, according to the quasi-factivist (see Shaffer, "Can Knowledge Really," 218-219), that one cannot know strict truths (nor know of a strict falsehood that it is false – an assumption which Shaffer needs later: see Shaffer, "Can Knowledge Really," 220). This, however, would be very implausible. Hence, charity demands that we take Shaffer to

I take Shaffer's most serious objection to this denial to be the one from "inconsistency and explosion."[7] Suppose, as (Denial) allows, that can know some proposition $p$ which is strictly false but approximately true. Then a subject S can be in the following predicament:

(1) S knows that $p$,

and

(2) S knows that $p$ is false.[8]

Given some principle of closure according to which S can come to know something on the basis of competent inference from something (else) they know,[9] and given the plausible principle (also known to the subject, we may assume) that $p$ is false iff not-$p$, we can get from (2) to the following, too:

(3) S knows that not-$p$.

A small step (given (1), (3) and knowledge closure under conjunction introduction) finally leads to the following:

(4) S knows that ($p$ and not-$p$).

This is worrisome because we would have to attribute inconsistent beliefs to S, in particular beliefs in contradictions. Assuming (in conformity with classical logic) that contradictions are false, and given (Denial), the quasi-factivist lacks any good reason to criticize S for holding inconsistent beliefs: If one can know falsehoods, then why not contradictions? And if one's belief in some contradiction constitutes knowledge, then what can be wrong with holding it, even if it is inconsistent? Lacking any other reason to oppose inconsistency in general, adherents of (Denial) are thus facing a serious problem. And how could they oppose inconsistency in general if their own position allows for it in so many cases – in all cases of knowledge of approximate truth and strict falsehood?[10]

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favor a broader notion of approximate truth or knowledge allowing for strict truth or knowledge as an extreme case. For the sake of simplicity of the discussion that follows, I will stick with (Denial) instead of (Denial*) here and use the more narrow notion of approximate truth which excludes strict truth. Nothing substantial depends on this difference here.

[7] Shaffer, "Can Knowledge Really,", sec.3.

[8] "False" means "strictly false" here.

[9] See, e.g., Peter Baumann, "Epistemic Closure," in *The Blackwell Guide to Epistemology*, eds. John Greco and Ernest Sosa (Oxford: Blackwell, 1999), 187-205.

[10] (4) attributes a syntactically inconsistent belief to S. In order to attribute semantic inconsistency, we have to assign truth-values to both "$p$" and "not-$p$." The latter is strictly true, but the former is only approximately true (and strictly false). If we were to accept approximate truth and

There is, according to Shaffer an additional problem for (Denial). Given explosion, that is, the logical principle that anything follows from a contradiction,[11] a subject who believes for some particular proposition $p$ that ($p$ and not-$p$), and who can acquire new knowledge on the basis of competent deduction from that contradictory belief, could come to know any proposition. Shaffer takes this to say that the subject could know everything and acquire omniscience.[12] However, I think Shaffer should not and need not go that far. I think he only can and only needs to claim that any proposition could be known by the subject (but the subject could not know every proposition out of the infinite set of propositions, given the limits of a human subject's minds and given finite time for making inferences).[13]

All this constitutes a very forceful result and objection against the quasi-factivist. There are at least two potential replies to Shaffer's problem for (Denial). I am presenting these replies not as criticisms of Shaffer's view but rather as a request to develop the objection from inconsistency and explosion a bit further.[14]

First, one could embrace dialetheism[15] and claim that some contradictions are true. This would make it possible to accept inconsistent beliefs and thus respond to the objection from inconsistency. What could be wrong with believing something inconsistent but true? Especially if one could even know it, even in conformity with (Factivity)? I suspect that Shaffer is not in favor of this way out, also because dialetheists typically don't accept just any inconsistency: It is hard to see how they could allow for an inconsistency like "The speed of light in the vacuum is 300 000 kilometers per second and it is not 300 000 kilometers per second."

Closely related to this is the dialetheist response to the threat of explosion: paraconsistency.[16] The basic idea is that at least some contradictions do not allow for explosion and derivation of just anything. However, it would be hard to argue for a

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approximate falsehood as truth values (in addition to strict truth and strict falsehood), then we would have to accept truth value gluts in some sense: propositions that are both true and false (in the above case: the latter conjunct perhaps also approximately true). We would thus land directly in quasi-dialetheist territory (see below; see also fn.3 above). However, if we stick with bivalence, we get a straight contradiction and semantic inconsistency.

[11] See Shaffer, "Can Knowledge Really," 221.

[12] See Shaffer, "Can Knowledge Really," 221-222.

[13] So, instead of the stronger claim "For any proposition, the subject knows it" only the weaker claim "For any proposition, it is possible for the subject to know it" would follow (and even "It is possible for the subject to know every proposition" would not follow).

[14] I understand that the brevity of Shaffer's article precluded going into the discussion of such replies.

[15] See, e.g., Graham Priest, "What Is so Bad about Contradictions?," *The Journal of Philosophy* 95 (1998): 410-426.

[16] See, e.g., Priest, "What Is so Bad."

restriction of explosion that could be useful to supporters of (Denial). Even if one can prevent explosion in some cases (like the case of the Liar paradox), one would still have to show that, say, "The speed of light in the vacuum is 300 000 kilometers per second and it is not 300 000 kilometers per second" or any other odd and ordinary contradiction does not allow for explosion either. This would commit one to a very radical and implausible view according to which explosion never or almost never can happen. Alternatively, one could try to find some non-arbitrary way of drawing a principled distinction between pairs of strict falsehoods and approximate truths that allow for some explosion and pairs of strict falsehoods and approximate truths that don't allow for explosion. But then it would be very hard, to say the least, to prevent some ordinary contradictions on the "legal" side of this dividing line from "exploding." The supporters of (Denial) thus face a dilemma here if they try to restrict explosion: A complete or almost complete restriction is implausible and a partial restriction is of no use to them. And one certainly does not want to draw no such distinction because then we would end up with disastrous, unlimited explosion, again. I suspect that Shaffer doesn't want to adopt any such strategy involving dialetheism or paraconsistency but I wonder why exactly.

The second way out of Shaffer's objection from inconsistency and explosion might be more attractive to the defender of (Denial). It is epistemic pluralism about knowledge:

> (Pluralism) There is more than one knowledge relation: for instance, knowledge of strict truths ("knowledge-s") and knowledge of approximate truths and strict falsehoods ("knowledge-a").[17]

According to (Pluralism), we would have to replace (1)-(3) above (relating to some proposition $p$ which is strictly false but approximately true) by the following:

> (1*) S knows-a that $p$
>
> (2*) S knows-s that $p$ is false
>
> (3*) S knows-s that not-$p$.

There won't, however, be a replacement for

> (4) S knows that ($p$ and not-$p$).

Neither

> (4') S knows-a that ($p$ and not-$p$)

Nor

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[17] – and perhaps some additional knowledge relations: see below.

(4") S knows-s that ($p$ and not-$p$)

will do because *knowing-a* does not entail *knowing-s* nor does *knowing-s* entail *knowing-a* (they are incompatible with each other). No conjunction introduction can lead to (4') or to (4'). There will thus be no inconsistency (no contradiction believed) and therefore also no threat of explosion.

Pluralism of this sort (a relative of but distinct from epistemic contextualism[18]) would also offer a solution to the "Moorean objection" Shaffer raises:[19] (1) and (2) entitle S to claim something of the following form:

(5) I know that $p$ but $p$ is false.[20]

This clearly is infelicitous, and one can imagine an argument to the effect that the infelicity is a semantic one, leading to a contradiction.[21] However, given the pluralism above, all the subject could claim here is something of the form

(5*) I know-a that $p$ but $p$ is false.[22]

For instance, someone could make the following claim:

(6) I know in an approximative way that the speed of light is 300 000 kilometers per second but that is strictly speaking false.

And something like this doesn't seem infelicitous at all any more.[23]

One can wonder, however, what reason the pluralist can give us still to call what they call "approximate truth" "truth" and still to call what they call

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[18] See, e.g.: Stewart Cohen, "How to Be a Fallibilist," *Philosophical Perspectives* 2 (1988): 91-123; Keith DeRose, "Contextualism: An Explanation and Defense," in *The Blackwell Guide to Epistemology*, eds. Greco and Sosa, 187-205.

[19] See Shaffer, "Can Knowledge Really," sec.5. The remaining objection Shaffer offers concerns the safety view of knowledge (see Shaffer, "Can Knowledge Really," sec.4). However, I think this objection has less force because the safety view is very controversial anyway, and for independent reasons.

[20] Alternatively: (5') I know that $p$ but not-$p$.

[21] Defenders of (Denial) could object that a semantic explanation using (Factivity) would be question-begging: One would use (Factivity) – which is under discussion here – in order to derive "$p$" from the first conjunct of (5) as well as "$p$ is false" from the second conjunct of (5); from the latter one would derive "not-$p$" and then finally put "p" and "not-p" together via conjunction introduction in order to get a contradiction. The contradiction would thus explain the infelicity but only by using the controversial (Factivity). However, defenders of (Factivity) could argue back that the possibility of giving the best explanation of the infelicity of (5) is the semantic one involving (Factivity). This would then give independent support for (Factivity) rather than constitute a case of question-begging.

[22] Keeping in mind that "false" means "strictly false" here.

[23] Again: Knowing in an approximate way that $p$ is different from knowing that approximately $p$.

"approximate knowledge" "knowledge." As long as no independent reason is given, this way out is under suspicion of being ad hoc and of constituting a stretch of the semantics of "truth" and "knowledge." Apart from that, what could keep the pluralist from also calling luckily true guesses "knowledge" ("knowledge-l")? What could keep them from starting a huge "inflation" of the set of knowledge relations, perhaps even admitting just anything (any belief?) to the realm of knowledge? It seems much better to replace talk about approximate knowledge by talk about "knowledge-like" states which do not amount to knowledge but are still interestingly close.[24]

I wonder what Shaffer has to say about possible ways out of his inconsistency-and-explosion problem discussed above, especially the pluralist proposal. Answers to the above questions can strengthen his already strong position even further.[25, 26]

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[24] – as suggested to me by Michael Shaffer in private communication.

[25] I guess we should also wait for Shaffer's forthcoming book *Quasi-Factive Belief and Knowledge-like States*. – A final side remark. A much more radical form of a denial of factivity says that all falsehoods (including those that are not even approximately true) can be known. Accordingly, knowledge does not require truth. If the "radical denier" also accepts Colin Radford's claim that knowledge does not require belief (see Colin Radford, "Knowledge – By Examples," *Analysis* 27 (1966): 1-11) as well as Crispin Sartwell's claim that knowledge does not require anything beyond truth or belief (see Crispin Sartwell, "Knowledge Is Merely True Belief," *American Philosophical Quarterly* 28 (1991): 157-165), then one ends up with the claim that knowledge does not require anything (one could, of course, still say that knowledge requires knowledge but this would be trivially empty). Thus, one gets a different kind of "explosion:" The word "knowledge" would apply to everything and thus not refer to knowledge anymore.

[26] I would like to thank Michael Shaffer for discussion and comments.