Knowing That P Without Believing that P

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Abstract:

The standard view in contemporary epistemology is that knowledge entails belief. Proponents of this claim rarely offer a positive argument in support of it. Rather, they tend to treat the view as obvious, and if anything, support the view by arguing that there are no convincing counterexamples. We find this strategy to be problematic. In particular, we do not think the standard view is obvious, and moreover, we think there are cases in which a subject can know some proposition *P* without (or at least without determinately) believing that *P*. In accordance with this, we present four plausible examples of knowledge without belief, and we provide empirical evidence which suggests that our intuitions about these scenarios are by no means atypical.

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Knowing That P Without Believing that P

What is the relationship between knowledge and belief? The standard view in contemporary epistemology is that knowledge entails belief – or at least propositional knowledge does. (Knowing how or knowing wh- might be a different matter.[1]) Necessarily – on the standard view – if one knows that P, one believes that P. This claim is only occasionally argued for; more often, it is treated simply as obvious. However, we the authors don't find the claim obvious. We think that there are cases of determinate, propositional knowledge that either are not cases of belief or are, at most, "in-between" cases of belief in which the subject is on the vague border between believing and failing to believe. In this paper, we present four such cases along with empirical evidence that we are not alone in our unconventional intuitions about those cases. We conclude with some general reflections on the relationship between knowledge and belief.

1. The State of the Literature.

The standard contemporary analysis of knowledge runs as follows. Some subject S knows some proposition P if and only if:

(i.) P;

(ii.) S believes that P;

(iii.) S is justified in believing that P;

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[1] See Price 1969; Hamlyn 1970; though see Stanley and Williamson 2001; Stanley 2010.

and some philosophers would add a further condition (iv.). Dispute tends to center on how to think about condition (iii) and whether some additional condition (iv) is necessary. Conditions (i) and (ii) are often treated as largely uncontroversial.[2]

Proponents of condition (ii) on knowledge – that is, of the view that (propositional) knowledge entails belief – might defend their view in one of two ways. They might present a general argument that shows that knowledge entails belief, or they might challenge those who would deny that knowledge entails belief to present an intuitive counterexample to the thesis – that is, a case of knowledge without belief – and then conclude the truth of condition (ii) from the failure of any opponents of that condition to present convincing counterexamples. The primary strategy in the literature has been the latter, which we will call the *wait-for-counterexamples* strategy (Cohen 1966; Armstrong 1969, 1973; Sorenson 1982; Dartnall 1986; Steup 2001/2006[3]). It is a feature of this strategy that it turns on judgments about the correct classification of hypothetical scenarios as cases of knowledge or belief: There must be no case that is intuitively, or properly, or in the judgment of a well-informed philosopher (here, it seems to us, the methodological assumptions and standards of success become a bit hazy), both a case of knowledge and not a case of belief.

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[2] Recent textbooks and review articles that summarize the literature in this way include, for example, Audi 1998; Steup 2001/2006; Williams 2001; Feldman 2003.

[3] Lehrer 1968 appears to be an important exception, but his positive theoretical argument turns on a premise (premise 3 in Section III) that begs the question against the relevant opponents' views; thus, the force of his article, like most others', rests primarily on his ability to undercut his opponents' putative counterexamples (see Annis 1969; Black 1971; Harker 1980).

The best known putative counterexample to the view that knowledge entails belief is due to Colin Radford (1966).[4] Radford presents a scenario in which a student named Jean feels quite certain that he does not know any English history. But when Jean is asked to provide dates for certain events in English history, such as the death of Queen Elizabeth, he correctly answers most of the questions. This surprises Jean, and Jean concludes that he does actually know some English history. Radford finds it plausible to regard this as a case of knowledge without belief: Jean knew that Queen Elizabeth died in 1603 but he did not believe that she died in 1603.

The standard response to Radford's example is to deny that the case of Jean is a clear case of knowledge without belief (e.g., Lehrer 1968; Armstrong 1969, 1973). Thus, Armstrong argues:

> I do not think that [Jean's case] is one of those clear cases that can be used as a test of philosophical analysis. Rather, we must first develop a theory of the nature of knowledge and belief, basing it on securer evidence, and then see if our theory will accept Radford's case (1969, p. 35-36).

To this objection, Radford replies that "perhaps it *is* a clear case" (1988, p. 499, emphasis in original).

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[4] Others who deny that propositional knowledge entails belief include Woozley 1953; Black 1971; Margolis 1972; Annis 1977; Ring 1977; Harker 1980; Lewis 1996 (in passing); Shope 2002; Schwitzgebel forthcoming. Williamson 2000 argues that belief is not conceptually prior to knowledge, but nonetheless asserts that knowledge entails belief. We set to one side views on which the necessary attitude in condition ii is "acceptance" rather than belief such as Lehrer 1989 and Cohen 1992.

It is not evident how to adjudicate this dispute by the traditional methods of armchair philosophy. We appear to have an intuition stalemate. Or maybe it's not a stalemate, since a large majority of epistemologists appear to be on Armstrong's side, and thus we can dismiss Radford's intuitions as aberrant? Against this idea, Radford suggests that

> perhaps the explanation [of other philosophers' different intuitions] is that this is not the kind of case which they had in mind when they learned, digested, and in their turn explained the classical analysis of knowledge in terms of justified true belief. A restricted diet of examples has fed their essentialism... (ibid.).

If Radford's diagnosis is correct, we should expect ordinary English speakers not trained in philosophy not to share the standard view. There should be cases – including cases like Jean's – that ordinary speakers will classify as knowledge but not as belief. This prediction can, of course, be empirically tested.

We believe that soliciting non-philosophers' judgments about such cases is worthwhile not because we believe that philosophical disputes generally admit of resolution by appeal to the intuitions of ordinary English speakers. Rather, our aim is a modest one: We hope only to undermine the accusation that our view – which accords with Radford's – is clearly counterintuitive by showing that it is, at least, not unusual. Thus, we hope to force those who hold that knowledge entails belief to develop a more substantial argument for their view than the wait-for-counterexamples strategy. Putative counterexamples are available; people's judgments about them are, we hope to show, divided; and thus, a more theoretical approach to the question, based less in the denial of counterexamples, is necessary.

2. The Scenarios.

We designed four scenarios that we regard as plausible cases of knowledge without belief, and we presented these scenarios to students at the University of Wisconsin, Madison. The scenarios appear verbatim below. To be clear: We don't expect that most readers of this article will share our judgments about these scenarios. The scenarios are not intended to be compelling to philosophers trained in – warped by? – the mainstream tradition in analytic epistemology. We suspected, however, that ordinary English-speaking undergraduates would, like us, tend to attribute knowledge but not belief.[5]

Each student received just one scenario, with just one question at the end of it, asking whether the protagonist knows, or alternatively believes, the proposition in question. The only difference between the belief and knowledge scenarios was the substitution of "believe" for "know" in the prompt question at the end of each scenario. Each version of each scenario was given to exactly thirty participants.

(1.) The unconfident examinee (modified from Radford 1966):

Kate spent many hours studying for her history exam. She's now in class taking the exam. Everything's going quite well, until she comes to the final question. It reads, "What year did Queen Elizabeth die?" Kate had reviewed this date many times. She had even recited the date to a friend just a few hours earlier. So, when Kate sees that this is the last question, she feels relieved. She confidently looks down at the blank space, waiting to recollect the answer. But before she can

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[5] One empirical precedent for our expectation is a small literature in educational psychology examining students' opinions about the relationship between knowledge and belief, when asked in the abstract: Alexander and Dochy 1995; Alexander et al. 1998; Moggioni, Riconscente, and Alexander 2006; Boldrin and Mason 2009.

remember it, the teacher interrupts and announces, "Alright, the class session is almost over. You have one more minute to finalize your answers." Kate's demeanor suddenly changes. She glances up at the clock, now flustered and worried. "Oh, no. I can't perform well under this kind of pressure." Her grip tightens around her pencil. She strains to recall the answer, but nothing comes to her. She quickly loses confidence. "I suppose I'll just have to guess the answer," she says to herself. With a sigh of disappointment, she decides to write "1603" into the blank space. This was, in fact, the correct answer.

Did Kate know that Queen Elizabeth died in 1603?

yes   no   (circle one)

(2.) *The absent-minded driver* (modified from Schwitzgebel forthcoming):

Ben receives an email informing him of a bridge closure on his normal route to work. He becomes mildly annoyed and says to himself, "Now I'll have to turn on Russell Street and go all the way down to Langdon Avenue."

So, the next morning, Ben wakes up early and quickly gets ready for work. He makes it out of the house with plenty of time to make the drive. Pleased with the success of his early departure, he decides to listen to one of his favorite albums and enjoy the long drive. By the time Ben is approaching Russell Street, where he should turn, he is enthusiastically tapping his fingers to the music, not paying much attention to where he is going, and he drives right past Russell Street, continuing on his normal route to work. Thus it's only a matter of time

before Ben will reach the closed bridge and have to drive all the way back to Russell Street. Nevertheless, Ben just keeps on tapping his fingers to the music and continues to drive towards the closed bridge.

Does Ben know that the bridge is closed?

yes   no   (circle one)

(3.) The prejudiced professor (modified from Schwitzgebel forthcoming)*:*

Juliet is a university professor. Unfortunately, she is also prejudiced against student athletes. In her classes, she calls more often on non-athletes than athletes, and she interprets the comments of the former more charitably. When two soccer players, Brett and Bernard, come to visit her in office hours, she treats them patronizingly, explaining the basic concepts of the course in a very rudimentary manner, failing to recognize the sophistication and intelligence behind their questions. They leave, and shortly after, two students with no involvement in school sports enter. Juliet immediately launches into a high-level discussion, generously assuming the students' command of the elementary material. When Bernard writes the best essay in the course, revealing the intelligence that a neutral observer would have recognized in his previous remarks, Juliet is surprised. All of this is typical of her.

However, Juliet also repudiates all forms of prejudice. She openly affirms that students involved in athletics are just as capable as non-athletes. In fact, she has it on excellent authority that this is the case: Her chair just completed a study

showing that the two groups perform equally well in their philosophy classes. Intrigued by this study, Juliet even reviews her own records and finds that, on average, the athletic students had actually performed better than the other students. But, in spite of all this, Juliet's prejudice remains. She continues to treat her athletic students as if they are less intelligent than her other students.

Does Juliet know that her athletic students are as capable as her other students?

yes   no   (circle one)

(4.) The freaked-out movie-watcher:

Susan loves to watch old horror films. She finally convinces her friend Jamie to watch one with her. It's an old horror film that Susan actually considers to be quite funny, due to its unrealistic plot. The film begins with a group of astronauts who discover alien life on another planet. The aliens look somewhat like bumblebees, but they are dark-green and about two feet in length. The astronauts capture one of these creatures and bring it back to Earth. Once they have it on Earth, it manages to escape and starts laying numerous eggs. The eggs need water to hatch, so the creature lays the eggs in sink faucets. Thus, whenever people turn on their sink faucet, hundreds of newly hatched alien creatures fly out and begin to attack them.

During one of these attack scenes, Susan notices that Jamie is a bit tense. Susan remarks, "This isn't bothering you, is it? Come on, you should be laughing at this movie. Look how unrealistic it is." Jamie responds, "Yes, of course it's

unrealistic. But it's still scary. I just don't like these types of movies. They frighten me. Can't we just watch something else?" "Well, I suppose," Susan says. Susan then turns off the movie, and they quickly get ready for a second trip to the movie store.

On the way out, Susan stops. "Hold on for a second. I'm thirsty. Let me grab a glass of water." Susan walks over and begins to turn on the sink faucet. Suddenly, Jamie shouts, "No! Don't do it!" The words come out of Jamie's mouth before she even has time to consider what she's saying. Jamie then looks over and sees that it's only water coming out of the faucet.

Did Jamie know that only water would come out of the sink faucet?

yes   no   (circle one)

We also created two control scenarios – one which we judged to be a clear case of both belief and knowledge (a man watches a tree fall over in his back yard, and participants were asked whether the man knows/believes that the tree fell over) and one which we judged to be a clear case of neither belief nor knowledge (a woman is about to receive a $20 late charge for a bill after her payment was lost in the mail, and participants were asked whether the woman knows/believes that she will be receiving this late charge). As another control condition, we created a *false-P* version of the unconfident examinee scenario (Kate writes "1613" instead of "1603"). Since "think" is often used in ordinary English to ascribe what philosophers would call beliefs, we also asked "think" versions of each of the four main scenarios – identical to the above scenarios except that "think" replaced "know" in the prompt question.

Finally, we asked forty participants an abstract question about the possibility of knowledge without belief. Half of the participants received the following version of that question:

> Some philosophers have argued that a person can't know that something is true unless that person believes that it is true. Other philosophers have argued that it is possible to know that something is true without believing that it is true. Both sets of philosophers have portrayed their views as consistent with the common sense opinions of ordinary non-philosophers. So we want to know what you think. Can someone know that something is true without believing that it is true?
>
> Please select one response by checking the box next to it:
>
> [   ] Yes, someone can know that something is true without believing that it is true.
>
> [   ] No, someone cannot know that something is true without believing that it is true.

The remaining twenty participants received essentially the same abstract question but with the order of the philosophical positions reversed (beginning "Some philosophers have argued that it is possible to know that something is true without believing that it is true").

The exact wording of all materials is available online at http://faculty.ucr.edu/~eschwitz/SchwitzAbs/KB.htm.

3. Results.

Results for the four main scenarios were similar (within statistical chance) and so they are merged for analysis. Of the 120 respondents who received "know" versions of those scenarios, 90 (75%) answered "yes" the subject does know. But of the 120 respondents who received "believe" versions of those scenarios, only 42 (35%) answered "yes" the subject does believe.[6] These percentages are statistically significantly different both from each other and, in both cases, from 50%.[7] Thus, as predicted, a majority of respondents attributed knowledge in these scenarios, while only a minority attributed belief. Figure 1 displays the main results.

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[6] The breakdown by scenario was unconfident examinee 26/30 know, 11/30 believe; absent-minded driver 20/30 know, 15/30 believe; prejudiced professor 19/30 know, 7/30 believe; freaked-out movie-watcher 25/30 know, 9/30 believe (χ^2 analysis by scenario, p = .09 and .16, respectively).

[7] Two-tailed two-proportion and one-proportion z tests, all $p \leq .001$. 95% confidence interval for the knowledge question 67.3% to 82.7%; for the belief question 26.5% to 43.5%.

FIGURE 1: Percentage of respondents attributing knowledge or belief to various scenarios (error

bars indicate one-proportion 95% confidence intervals)
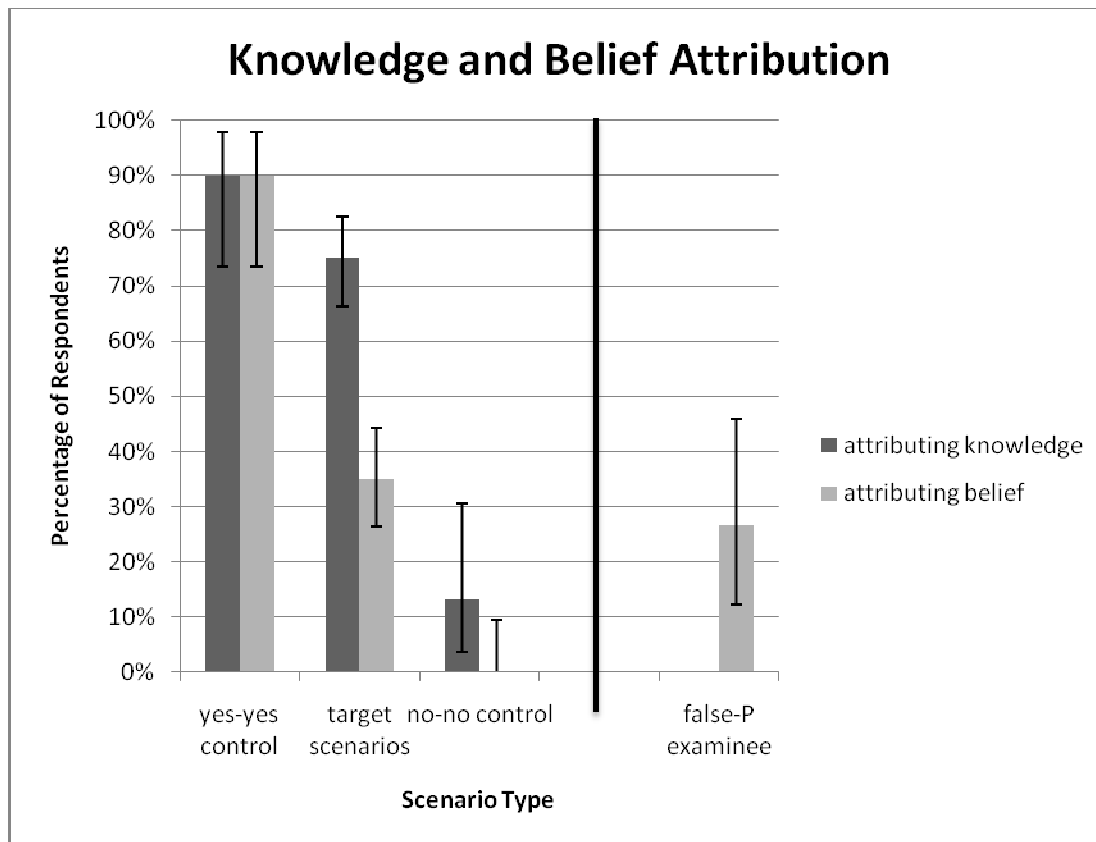
In the yes-yes control condition, 27/30 (90%) of participants answered "yes" to the knowledge question and 27/30 (90%) of participants answered "yes" to the belief question. In the no-no control condition, 4/30 (13%) answered "yes" to the knowledge question and 0/30 (0%) answered "yes" to the belief question (not a statistically significant difference[8]). Participants were marginally more likely to answer "yes" to the yes-control knowledge question (90%) than to the knowledge question about the four main scenarios (75%), and they were significantly less likely to answer "yes" to the no-control belief question (0%) than to the belief question about the four main scenarios (35%).[9]

For three of the scenarios, the proportion answering "yes" to the "think" question (39%) was similar to the proportion answering "yes" to the "believe" question in the four main scenarios; but for the unconfident examinee, the proportion answering "yes" (77%) was more similar to the proportion answering "yes" to the "know" question in the four main scenarios.[10] In the false-P unconfident examinee scenario, 27% of participants attributed belief, approximately the same percentage as attributed belief in the true-P version of that scenario.[11] On the abstract

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[8] Fisher's exact test, two-tailed, p = .11.

[9] Fisher's exact tests, two-tailed, p = .09 and p < .001 respectively.

[10] Unconfident examinee 23/30 think; absent-minded driver 13/30; prejudiced professor 8/30; freaked-out movie-watcher 14/30 (χ^2 including all four, p = .001; χ^2 excluding unconfident examinee, p = .24). One possibility is that in the unconfident examinee scenario participants do not interpret "think" to mean "believe", but rather something closer to "guess".

[11] Fisher's exact test, two-tailed, 8/30 false-P believe vs. 11/30 true-P believe, p = .58; vs. 26/30 true-P know, p < .001.

question about the possibility of knowledge without belief, respondents' opinions were about evenly split, with 21/40 (53%) of participants asserting that someone can know that something is true without believing that it is true.

The pattern of results thus confirmed our expectations: A majority of respondents ascribed knowledge in our four main scenarios, but only a minority ascribed belief. We do not assert that a majority of respondents have intuitions in conformity with our view that knowledge does not entail belief, but only that a substantial proportion do, perhaps about half: In the abstract, opinion on the question was divided evenly, and the pattern of responses to the individual scenarios is also consistent with divided opinion on the issue.

The control questions speak against various possible competing interpretations of the main results. The near-ceiling and near-floor responding on the yes-yes and no-no scenarios suggests that participants are willing to endorse "yes" or "no" to either question when the scenario clearly calls for it. The similar pattern of response to the "think" versions (except in the case of the unconfident examinee) suggests that the overall results are not best explained by ordinary speakers using the term "believe" in a special way that is in tension with the more commonly used term "think". The results of the yes-yes control and false-P control suggest that the pattern of responding on the main questions is not best explained by a pragmatically-driven unwillingness to ascribe belief when knowledge is also present.

4. The Capacity-Tendency Account.

Proponents of the traditional view may wonder what an account of knowledge that doesn't require belief might look like. One potential attraction of the traditional view – that knowledge entails belief – is that its hypothesis about the relationship between knowledge and

belief can be used in an attractively simple analysis of the nature of knowledge. Merely to reject this approach to knowledge, without having anything to replace it, may be unappealing. David Annis writes:

> The problem is that philosophers who have attacked the entailment thesis have not offered an account of the relation of knowledge and belief which would explain our basic reaction. Well-entrenched tenets, be they scientific or not, are rarely rejected, even if they involve persistent anomalies, unless there is a competing alternative to fill the void (1977, p. 217).

Therefore, we think it worthwhile to briefly consider one alternative approach, which we call the *capacity-tendency account.* Gilbert Ryle summarizes the view in *The Concept of Mind:*

> Epistemologists are apt to perplex themselves and their readers over the distinction between knowledge and belief.... Part of this embarrassment is due to their supposing that "know" and "believe" signify occurrences, but even when it is seen that both are dispositional verbs, it has still to be seen that they are dispositional verbs of quite disparate types. "Know" is a capacity verb, and a capacity verb of that special sort that is used for signifying that the person described can bring things off, or get things right. "Believe", on the other hand, is a tendency verb and one which does not connote that anything is brought off or got right (1949, p. 133-134).

Although Ryle does not explicitly carry this view to what seems to us its natural conclusion – that one can have the capacity without the tendency – others do: Joseph Margolis suggests that knowledge involves "one's *capacity* to provide the right information in the right way" while belief involves "the likelihood that one would perform appropriately if one were asked to" (1972,

p. 78, emphasis in original); Shope proposes to analyze knowledge "avoiding the belief/acceptance condition" (i.e., condition ii in Section 1 of this article) and instead adding a condition that links knowledge with a particular type of power or capacity (2002, p. 53-55). Just as, in the case of knowing how, one might have the capacity to juggle six balls (and thus know how to do it) without the tendency to succeed in most of one's attempts, so likewise, we suggest, Juliet has the capacity to act on her well-grounded information that her student athletes are equally capable even if she lacks the tendency to act on that information; Ben has the capacity to recall the bridge's closure even if he tends to forget about the closure; similarly for Kate and Jamie, although the lack of the tendency in their cases may be fairly short-lived.

We suggest that in the four cases at hand (at least if they are fleshed out in intuitively plausible ways: e.g., with the assumption that Kate answered "1603" due to the right kind of trace from earlier learning) the relevant capacity, whatever it is, is clearly present and thus, on the capacity-tendency view, they qualify as clear cases of knowledge. Whether the relevant tendency is also present is less clear – the subjects' dispositions are divided; the cases might best be regarded as vague or "in-between" cases on a dispositional approach to belief (Schwitzgebel 2001, 2002, forthcoming, see also Price 1969). One can't have a capacity to succeed, it seems, without at least a bit of the corresponding dispositional tendency to succeed. If our central four cases are clear instances of knowledge and vague instances of belief, that would harmonize nicely with one aspect of our empirical results: The percentage of subjects attributing knowledge in the four main scenarios was not too far from the percent attributing knowledge in the yes-yes control scenario (75% vs. 90%), while there was a larger and more statistically significant gap between the percent attributing belief in the four main scenarios and the percent attributing belief in the no-no control scenario (35% vs. 0%). If scenarios of this sort are vague or in-between

cases of belief, that could also explain Armstrong's and others' sense that they are not *clear* cases of knowledge without belief.

If philosophers regard it as prima facie obvious that knowledge entails belief and adopt a philosophical strategy of waiting for a clear counterexample before abandoning that view, they may take comfort in never finding such a counterexample. However, the empirical evidence just presented suggests that it is not prima facie obvious that all instances of knowledge are also instances of belief; and unclear cases might justifiably be regarded as an important type of evidence – especially if there is a philosophical view that predicts the existence of unclear cases – rather than merely as cases to be dismissed in developing a philosophical theory.[12]

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