Solving the Problem of Nearly Convergent Knowledge

Chris Tweedt
Christopher Newport University
Social Epistemology 32:4, pp. 219-227 (2018)

Abstract. The Problem of Nearly Convergent Knowledge is an updated and stronger version of the Problem of Convergent Knowledge, which presents a problem for the traditional, binary view of knowledge in which knowledge is a two-place relation between a subject and the known proposition. The problem supports Knowledge Contrastivism, the view that knowledge is a three-place relation between a subject, the known proposition, and a proposition that disjoins the alternatives relevant to what the subject knows. For example, if knowledge is contrastive, I do not simply know that the bird in front of me is a goldfinch; instead, I know that the bird in front of me is a goldfinch rather than a raven or eagle or falcon. There is, however, a binary view of knowledge that overcomes even the Problem of Nearly Convergent Knowledge. I will give this binary view, show that it is motivated by the same considerations that motivate Knowledge Contrastivism, and argue that it avoids problematic consequences for our epistemic lives that Knowledge Contrastivism cannot.

Keywords: contrastive knowledge; Contrastivism; convergent knowledge; disagreement; Skepticism; Mooreanism

If knowledge is contrastive, knowledge is not a two-place relation between a subject and a known proposition—Ksp. Rather, knowledge is a three-place relation between a subject, a known proposition, and a proposition disjoining all of the relevant alternatives—Kspq. For example, if knowledge is contrastive, I do not simply know that the bird in front of me is a goldfinch; instead, I know that the bird in front of me is a goldfinch rather than, say, a raven or eagle or falcon.

According to the primary contemporary defender of Knowledge Contrastivism, Jonathan Schaffer, Knowledge Contrastivism is needed to explain certain data, which is supplied by the Problem of Convergent Knowledge. However, Schaffer’s response to binarists’ proposed solutions to the Problem of Convergent Knowledge can be used to create new and stronger version of the problem: the Problem of Nearly-Convergent Knowledge.
1. The Problem of Nearly Convergent Knowledge

To set up the Problem of Nearly Convergent Knowledge, note that there are at least two questions that one could ask someone who is looking at a goldfinch:

(Q1) Is that bird a goldfinch rather than a raven?
(Q2) Is that bird a goldfinch rather than a canary?

For each of the above questions, there are knowledge-wh sentences that denote the above questions and express that the subject knows the answer to them:

(WH1) S knows whether that bird is a goldfinch rather than a raven.
(WH2) S knows whether that bird is a goldfinch rather than a canary.

Schaffer says that if the binary view is correct, there is one knowledge-that sentence that expresses that the subject knows the answer to both Q1 and Q2:

(Binary 1) S knows that the bird is a goldfinch.

If Schaffer is correct about this, since WH1 and WH2 both express that the subject knows the answer to Q1 and Q2, on the binary view, when S knows WH1, S also knows WH2. That is, WH1 and WH2 are convergent.

It is a problem if WH1 and WH2 are convergent; Schaffer gives four arguments that they are not convergent—that is, that WH1 can be true while WH2 is false. First, answering Q1 is easy, but answering Q2 is harder. It is easier to discriminate between a goldfinch and a raven than it is to discriminate between a goldfinch and a canary. Second, the method used to answer Q1 and the method used to answer Q2 are incommensurate. One involves simply looking; the other involves more-complex bird identification. Third, answering Q2 requires a different level of expertise than answering Q1. Anyone can answer a Q1, but Q2 may require an ornithologist. Fourth, intuitively WH1 and WH2 can have different truth-values. So, knowledge is not binary. Knowledge Constrastivism, however, solves the above problems; according to it, WH1 and WH2 have different truth-values.
A proponent of the binary view might respond that Binary 1 is not the answer to both WH1 and WH2; instead, Binary 2 and Binary 3 are answers to WH1 and WH2, respectively.\textsuperscript{viii}

**(Binary 2)** S knows that that bird is a goldfinch and not a raven.

**(Binary 3)** S knows that that bird is a goldfinch and not a canary.

Schaffer replies: although WH1 and WH2 are not convergent, they are *nearly*-convergent.\textsuperscript{ix} Knowledge-wh propositions are nearly convergent if knowing the answers to the questions they denote are a few quick closure steps away from each other. Knowing the answer to Q2 (the question WH2 denotes) is a few quick closure steps away from knowing the answer to Q1 (the question WH1 denotes). Suppose I know that the bird is a goldfinch and not a raven. I know that if the bird is a goldfinch and not a raven, then it’s a goldfinch. I also know that if anything is a goldfinch, it’s not a canary. So I know the bird is not a canary. I know, then, that the bird is a goldfinch and not a canary. So if I know the answer to Q1 (Binary 2), then I need only to use some other propositions I know quite easily (e.g. if something is a goldfinch, it’s not a canary) and go through a few quick logical steps to know the answer to Q2 (Binary 3). Since the answer to Q2 is a couple quick closure steps away from the answer to Q1, WH1 and WH2 are nearly convergent on Kallestrup’s proposal.

The arguments for the non-convergence of WH1 and WH2 also support the non-*near*-convergence of WH1 and WH2. First, it’s harder to know that a bird is a goldfinch rather than a canary than it is to know that a bird is a goldfinch rather than a raven. On the above proposal, however, it’s quite easy to know the former if you know the latter. If you know that the bird is a goldfinch and not a raven, it is easy to go through the closure steps to come to know that the bird is a goldfinch and not a canary. Second, the method used to answer Q1 and the method used to answer Q2 are incommensurate. One involves simply looking; the other involves more-complex bird identification. If, however, on the above proposal, if you do some simple looking to come to know the answer to Q1, you can, by some quick closure steps, come to know the answer to Q2 without doing any complex bird-identification. Third, answering Q2 requires a different level of expertise than answering Q1. *Anyone* can answer a Q1, but Q2 may require an ornithologist. If the above proposal is correct, however, once someone knows the answer to Q1, she can be a non-ornithologist and go through quick closure steps to easily come to know the answers to Q2.
Fourth, intuitively someone should not be able to know the answer to Q2 by knowing the answer to Q1 and then going through some quick logical operations.

Schaffer’s expansion of the argument against a binary view of knowledge is what I have called “the Problem of Nearly Convergent Knowledge.” If any binary view of knowledge is to overcome the problems Schaffer has for it, the answers to Q1 and Q2—and any other questions that can be used to make Schaffer’s arguments effective—cannot be quick closure steps away from each other. \( ^x \)

2. A Solution to the Problem of Nearly Convergent Knowledge

The solution I will present is not, I argue, an ad hoc move to escape the Problem of Nearly Convergent Knowledge with a binary view of knowledge; rather, it is motivated by one of the same concerns that motivate Knowledge Contrastivism. Knowledge Contrastivism is motivated by the idea that the ‘rather than’ (or a similar) locution sets off alternatives so that questions that contain ‘rather than’, like Q1, can be modeled as a multiple-choice question. Schaffer represents Q1 (“Is the bird a goldfinch rather than a raven?”) in the following way.\( ^{xi} \)

(MCQ 1) What bird is that?
   a. It’s a goldfinch.
   b. It’s a raven.

Modeling ‘rather than’ questions after multiple-choice questions is useful for representing the reasoning a subject might undertake in order to come to know the answer to the question. For example, answering MCQ 1 is easy, because to answer it, all one has to do is eliminate option b. In addition, the answer to Q1 should represent what one knows as a result of answering the question, which may involve the elimination of option b, the only relevant alternative, from among the available options. Of course, one can answer Q1 without treating it as a multiple-choice question or without thinking about option b. Nevertheless, the best answer will informatively and non-redundantly indicate what a subject knows as a result of answering the question whose structure is indicated by MCQ 1.

Schaffer proposes that the answer to Q1 matches Q1’s multiple-choice structure by encoding all and only the multiple choice question’s options (a., b., …) in the third place of the
knowledge relation. I propose, instead, that our answer matches Q1’s structure by encoding all and only the multiple choice questions’ options (a., b., …) in the antecedent of a conditional in which the target proposition is the consequent. Thus, my proposal is that the answer to Q1 is as follows:

(Binary 4) If the bird is either a goldfinch or raven, then it’s a goldfinch.xii

On the view I propose, the answers to contrastive questions—questions that contain the ‘rather than’ locution—are conditionals whose antecedents indicate the structure of the question by revealing the relevant alternatives, or multiple-choice question options, and whose consequent is the target proposition. Binary 4 thereby indicates the structure of disjunction elimination, which is the process subjects undertake when they eliminate all but one multiple-choice option. When, for example, subjects have eliminated all but one option in a multiple-choice question with three options (a.-c.), they know: given option a. or b. or c., option c is correct.

The solution I have proposed leaves open the possibility that the question asked has more alternatives than is contextually indicated, or that the alternatives are inadequate. For example, if someone were to ask, “Is that a goldfinch or a wave of blue anger?” the question, on both my proposal and Schaffer’s account, is set up as a multiple-choice question:

(MCQ 2) What bird is that?
   a. It’s a goldfinch.
   b. It’s a wave of blue anger.

If one is unsure whether the bird is a goldfinch or a canary, one could still answer a. in MPQ 2 by simply eliminating the absurd option b. and so would know: If that is a goldfinch or a wave of blue anger, then it is a goldfinch.

One may object to the above proposal by asserting that, intuitively, a conditional is not an answer to Q1—the answer is It’s a goldfinch, not a conditional with It’s a goldfinch as the consequent. In reply, I ask: what is the reason for believing that a conditional is not an answer? Perhaps the reason is that in colloquial speech, “It’s a goldfinch,” is usually all that is given in reply to Q1 when it is asked. On the view I have proposed, the antecedent is often elided in colloquial speech, which makes sense, given Grice’s Maxim of Quantity: do not make your
contribution more informative than is required for the current purposes of exchange. The antecedent provides information that is already known in the context in which the question is asked, so to utter it would violate the maxim. As one would expect, the maxim is cancellable in colloquial speech; in contexts where the structure of the question is not clear, or where someone frames the question in an unusual way, the answerer may make explicit the setup of the question in an antecedent. For example, if someone asks a question with an unusual alternative, e.g. “Is that a goldfinch or a wave of blue anger?” one might expect the hearer to answer with a conditional: “If those are my options, it’s a goldfinch.”

The view I’ve proposed overcomes Schaffer’s Problem of Nearly Convergent Knowledge—the answers to Q1 and Q2 are not quick closure steps away from each other. For example, I cannot use any true closure principle to argue from

(Binary 4) If the bird is a goldfinch or a raven, then it’s a goldfinch

to

(Binary 5) If the bird is a goldfinch or a canary, then it’s a goldfinch,
because I might know that the bird is not a raven but not know it is not a canary.

In addition, Schaffer’s arguments for distinguishing between the answer to Q1 and Q2 also apply to the conditionals that, in the view I’ve proposed, are the answers to Q1 and Q2. On the view I’ve proposed, answering Q2 is harder than answering Q1, because it is more difficult to know Binary 4 than Binary 5; to know Binary 4, one needs only to know that the bird is not a raven, whereas to know Binary 5, one would need to know that the bird is not a canary, which is more difficult than knowing that the bird is not a raven. Further, answering Q1 and Q2 does, on the view I’ve proposed, require incommensurate tasks, because different tasks are required to know that bird is not a raven than to know that the bird is not a canary. In addition, answering Q1 and Q2 also requires different levels of expertise, because anyone can know that if the bird is a goldfinch or a raven, then it’s a goldfinch, but not everyone can know that if the bird is a goldfinch or a canary, then it’s a goldfinch. Last, the view I’ve proposed supports the intuition that someone can know the answer to Q1—Binary 4—without knowing the answer to Q2—Binary 5.
The view I have proposed above does not require that all answers to questions or instances of knowledge are conditional in form. Rather, the view I’ve proposed only requires that answers are conditional in form if the corresponding question contains a contrast—a ‘rather than,’ or similar, locution. If there are questions without contrasts, e.g. Is that a goldfinch?, an answer may very well be It is a goldfinch, which is not a conditional. For example, I may just plain know that the bird is a goldfinch rather than merely knowing that it is a goldfinch contrasted with, say, ravens or eagles or falcons.

3. The Upshot of the Solution

The proposal above not only provides a binary solution the Problem of Nearly Convergent Knowledge and offers an account of answers to ‘rather than’ questions that reflect what subjects know when they answer those questions; the proposal above also overcomes problematic consequences for our epistemic lives that Knowledge Contrastivism cannot. The first of these consequences occurs in cases of expert disagreement. Suppose, for example, that I am not an expert in bird identification but that, nevertheless, I know the bird in my line of sight is a goldfinch. Suppose also that an expert ornithologist asserts that it is unclear whether the bird is a goldfinch or an exotic canary. If knowledge is binary (non-contrastive), either it is less reasonable for me to believe that the bird is a goldfinch because I have acquired a defeater by hearing the expert’s testimony, or it is reasonable for me to steadfastly maintain that the bird is a goldfinch and, thus, that the expert is incorrect.\textsuperscript{xv} If knowledge is contrastive, however, the expert’s disagreement cannot affect the reasonableness of my belief, or vice versa,\textsuperscript{xvi} because if knowledge is contrastive, I do not simply know that the bird is a goldfinch; I know that the bird is a goldfinch \textit{rather than} a small set of other birds—for example, ravens and very large birds. That knowledge is not impugned by the expert. The expert addresses a different issue; the expert addresses whether the bird is a goldfinch rather than a large set of birds—for example, small birds, including exotic canaries, plus ravens and large birds. The expert \textit{agrees} that, \textit{given a limited range of birds}, the bird is most likely a goldfinch; the expert is asserting that the bird might not be a goldfinch given a wider range of options among which it is more difficult to identify a goldfinch. If Knowledge Contrastivism is true, the expert raises an issue different from mine, and my lack of knowledge with respect to that different issue does not affect whether
or not it is reasonable for me to modify my belief. In addition, my knowledge does not affect whether it is reasonable for the expert to modify her belief.\textsuperscript{xvii}

Contrastivism likewise renders Skepticism and Mooreanism ineffective. Suppose that I, never having considered Skepticism, know that I have hands. Skeptics object, asserting that it is unclear whether I have hands or, instead, just the appearance of a hand due to the possibility that we are all brains in vats or objects in a computer simulation. The skeptic insists that since I do not know that I do not have mere hand images, I do not know whether I have hands. If knowledge is binary, either it is less reasonable for me to believe that I have hands (that’s the skeptical conclusion), or it is reasonable for me to steadfastly maintain that I have hands and, thus, that the skeptic is incorrect (that’s the Moorean conclusion). If knowledge is contrastive, however, the skeptic’s disagreement cannot affect the reasonableness of my belief, or vice versa. If knowledge is contrastive, I do not simply know that I have hands; I know that I have hands rather than, say, wings. \textit{That} knowledge is not impugned by the skeptic. The skeptic addresses a different issue—whether I have hands rather than just images of hands. The skeptic agrees that given the option between hands and wings, I most likely have hands; the skeptic is asserting that I might not have hands given a wider range of options, which includes just images of hands. If Knowledge Contrastivism is true, the skeptic raises a different issue, and my lack of knowledge with respect to that different issue does not affect whether or not it is reasonable for me to modify my belief—so Skepticism is ineffective. In addition, my knowledge does not affect whether it is reasonable for the expert to modify his belief—so Mooreanism is ineffective.\textsuperscript{xviii}

The view I have proposed, unlike Knowledge Contrastivism, is compatible with Mooreanism, Skepticism, and expert challenges to my knowledge. If, for example, I know that a particular bird is a goldfinch, the expert’s challenge can move the rationality of my belief, or, conversely, I might use my knowledge to challenge the expert. Likewise with respect to Skepticism; I might just plain know that I have hands rather than merely knowing I have hands contrasted with, e.g., wings. If I know I have hands, the skeptic’s challenge can move the rationality of my belief or, conversely, I might use my knowledge to challenge the skeptic. Those options are available for the proponent of a binary view of knowledge but not for the Knowledge Contrastivist. We should, then, want a solution to the Problem of Nearly Convergent Knowledge like the one proposed above, which preserves a binary view of knowledge.
In summary, Schaffer argues that Contrastivism is needed to explain certain data; primary among these data is the fact that WH1 and WH2 are not convergent. The Problem of Nearly Convergent Knowledge adds: among the data is the fact that WH1 and WH2 are not even nearly convergent. I have proposed a view that is motivated by the same concerns that motivate Knowledge Contrastivism without a third place in the knowledge relation, and I have argued that the solution I have proposed does, and Knowledge Contrastivism does not, allow experts’ questions and skeptical challenges affect whether novices or ordinary believers know, and vice versa.

Acknowledgements
[Redacted for blind review.]

Notes


ii Although Jonathan Schaffer is the primary contemporary defender of the view, the view has roots as far back as J.L. Austin (1946) and Fred Dretske’s relevant alternatives epistemology (1971). In his 1946, Austin asserts that we can come to know a bird is a goldfinch by providing enough reason to rule out the alternatives that are “within reason, and for present intents and purposes,” (84) without ruling out all the alternatives. Using the goldfinch example, Austin argues that we can know the bird is a goldfinch by describing its behavior and markings without being able to rule out that the bird is stuffed. Later, Dretske claims that a subject only knows a proposition relative to a set of alternatives, which he calls “contrasts.” Dretske also states that when the set of contrasts changes, the subject no longer knows what the subject originally knew. For Dretske’s view, see Dretske (2000), (1970), and (1981), and see Blaauw (2008), 229, for a brief summary of the challenges to Dretske’s view and the difference between Dretske’s view and contemporary Knowledge Contrastivism.

iii See Schaffer 2012, 414. Earlier, Schaffer makes the more modest claim that his view is more natural given the data. (Schaffer 2007b, 392’ 2005, 244). On the other hand, Schaffer himself is clear about the virtues of a binary view of the knowledge relation, calling the binary view “intuitively plausible and theoretically elegant.” (Schaffer 2007b, 386) It seems, then, that with respect to naturalness or elegance, the binary view is initially preferable to Knowledge Contrastivism, but since Schaffer believes the binary view is incompatible with the data, Knowledge Contrastivism is more natural.

iv The new problem is created by using Jonathan Schaffer’s reply to Kallestrup’s proposed solution to the Problem of Convergent Knowledge. Kallestrup responds to the Problem of Convergent Knowledge in Kallestrup 2009; Schaffer responds in Schaffer 2009.

vi I have rephrased Schaffer’s formulations of the questions and the resulting answers from his formulations in his 2005, 241, and 2007b, 348, which were not contrastive but were rather disjunctions.

vi Schaffer claims that this fourth point is confirmed experimentally (2007b), 390 and footnote 11, and in Schaffer and Knobe (2012).

vii Kallestrup (2009) and Jonathan Kvanvig (2013) propose this view.

ix See Schaffer 2009 for this reply, though the reply is not explicitly formulated into the new problem.
It is worth adding that any solution to the Problem of Nearly Convergent Knowledge must entail that if one instance of knowledge is ternary, all instances of knowledge are ternary. Baumann (2008) argues against the view that if there is one instance of knowledge that is three-place, then every instance of knowledge is three-place, and Schaffer (2012, 413-4) replies persuasively. A similar Schaffer-style response could be given to Buenting (2008), who argues that in some, but not all, cases a ternary knowledge relation reduces to a binary one.

The correct target proposition must be among the alternatives. Using the multiple-choice question analogy, multiple-choice questions that indicate the structure of the question being asked need to have the correct answer among its options. (The term “target proposition” was introduced by Morton and Karjalainen (2008), 273, and refers to the main object of the attitude, which here is the correct answer to the multiple-choice question and the consequent of the conditional I propose is the answer to contrastive questions.)

In his 2008, van Woudenberg proposes this binary view as a way of responding to other arguments for Contrastivism, and in that issue, his position is represented by Blaauw (2008) as the view that that all known propositions are conditionals whose antecedents contain the disjoined alternatives (“[T]he knowledge relation has the following form: ‘s knows that if proposition in the consequent. So, the fact that most of the uses of the contrastive phrase are not met can be explained, and the account I’ve proposed can explain even the use of the contrastive phrase when 1-4 are met. A similar Schaffer style response could be given to Buenting (2008), who argues that the known proposition is sometimes, but not always, a conditional.

An anonymous referee also raised the following objection: one can know the conditional that I propose is the answer to a contrastive question (if p or q then p) without having the relevant contrastive knowledge (p rather than q). This happens when the subject 1) knows that if p or q, then p, 2) has no opinion whether p or q, and 3) has no opinion whether p, and 4) has no opinion whether q. When the subject meets conditions 1-4, on most genuine uses of the contrastive phrase, the subject does not know that p rather than q. For example, for G.E. Moore to know that if it’s a goldfinch or a wave of blue anger, it’s a goldfinch.

Nevertheless, on most uses of the contrastive phrase, a subject does not know p rather than q when the subject meets conditions 1-4 above. One explanation for this fact is that it is rare that subjects meet conditions 1-4 above. In most cases in which we say that a subject knows p rather than q, the subject plainly knows p or believes that the alternatives presented to them are relevant alternatives. If a subject plainly knows p, the subject can know p rather than q easily—if S knows p, then S knows that if p or q, then p. Further, if the subject believes that the alternatives presented to the subject (or those taken for granted in a given context) are relevant alternatives, the subject can easily make an inference to come to believe the proposition in the consequent. So, the fact that most of the uses of the contrastive phrase may be explained, and the account I’ve proposed can explain even the use of the contrastive phrase when 1-4 are met.

Another reply one could make, but which I do not endorse: one could hold that knowledge does not require the kind of belief that is transparent to the subject upon their reflection (or perhaps knowledge does not require belief at all), in which case one could believe the use of the contrastive knowledge phrase to carry a false implicature; because it is a common mistake to think that knowledge requires belief, it is also a common mistake to assume that knowing p rather than q requires believing p, q, or their disjunction.

I have assumed that the reasonability of one’s belief can be defeated on further evidence and that another’s testimony provides evidence. Without these assumptions, even a proponent of binarity might hold a view that fails to meet the desiderata in this section, or, alternatively, hold that the outcomes in this section are not, in fact, desiderata. I set aside these considerations in this section, since it is a prevalent belief that the reasonability of one’s belief can be defeated on further evidence and that another’s testimony provides evidence, as evidenced by debates in the literature on disagreement and skepticism.

This implication is a result of a Contrastivist desideratum, “epistemic modesty,” in which those with a smaller contrast class in the third place of the knowledge relation cannot thereby come to know the contradictory of those with a larger contrast class. What closure principles Contrastivism is entitled to and whether they yield epistemic
modesty is a point of contention. Kvanvig (2007), (2008) and Hughes (2013) argue that they do; Kelp (2011) argues that they do not.

The fact that the expert’s challenge fails to move the rationality of the novice’s belief is due the falsity of an inference rule, Expand-\(q\), which is required for the expert’s challenge to affect the novice’s rationality. According to the rule, when a proposition \(q_1\) contains disjuncts that are a proper subset of the set of disjuncts contained in \(q_2\), \(Kspq_1 \rightarrow Kspq_2\). Contrapositively, \(\neg Kspq_2 \rightarrow \neg Kspq_1\). Since the expert does not know that the bird is a goldfinch rather than a set of alternative birds that is larger \(q_2\) than the set of birds against which the novice knows that the bird is a goldfinch \(q_1\), the expert’s failure to know that the bird is a goldfinch would result in the novice’s failure to know only if the experts’ failure to know \(\neg Kspq_2\) entailed the novice’s failure to know \(\neg Kspq_1\). As shown above, it does not, because Expand-\(q\) is false. See Schaffer 2005, 262-3.

Jonathan Schaffer (2005) is explicit about the failure of Skepticism and Mooreanism as described in the above paragraph. According to Schaffer, Skepticism or Mooreanism would be effective only if the following were true: “(C3’) If Moore doesn’t know that he’s handed rather than envatted, then he doesn’t know that he has hands rather than stumps.” He then reiterates that “C3’ is false—just because ‘Hands or vat-images of hands?’ falls beyond Moore’s discriminatory range does not imply that ‘Hands or stumps?’ does too.” (264)
Bibliography


