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Trivial Truths and the Aim of Inquiry

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Take two true propositions:

> grain of sand *x* is so-and-so-many millimetres from grain of sand *y*
>
> stars are formed when massive clouds of molecular hydrogen collapse due to gravity

And put each behind a door. Is Inquiry indifferent to which door she opens? No. Hence (or so we are told) truth is not the goal of inquiry, and not the only thing of epistemic value. Inquiry aims not just for more truth, but for significant or important truth.

The argument is pervasive and influential. And it has the air of being obviously sound, so much so that it is given only impressionistically. Who could deny, after all, that Inquiry would pick the second door? And since she would, it must be more than truth that Inquiry is after. The following passages are typical and convey a sense both of how this 'trivial truths' argument is employed and of how abruptly it is given:

> I think that deep down we do all recognize that truth is not the only thing of epistemic value. Here is an easy demonstration. Take your favorite example of a well-established empirical theory, a theory you believe that we know. Throw in all the evidence on the basis of which we accept that theory. Depending on what theory you selected, this will likely add up to a substantial number of beliefs. Now, compare this set of beliefs with an equal number of [justified true] beliefs about relatively simple arithmetic sums and about assorted elements of one's stream of consciousness. I suspect that most of us would want to say that the first set of beliefs is better, epistemically better, than the

> second set. But the two sets contain the same number of true beliefs. (DePaul, 173)
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> We must not understand the thesis that truth is the basic goal of cognition in too simplistic a fashion. It is often pointed out that if the multiplication of truths were our sole cognitive goal, we could not better spend our time than by memorizing telephone directories. It was to avoid such implications that the focal aim at acquiring true rather than false beliefs was presented with the qualification "about matters that are of interest or importance to us". (Alston, 32)
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> What is the goal of inquiry...? Something like: to get as much interesting and important truth about the world as possible. But the suggestion of uniqueness is misleading, since 'the' goal decomposes into two elements: truth, on the one hand, and interest or importance on the other. Obviously there is potential for tension between the two components, since it is a lot easier to get truths if one doesn't mind the truths one gets being trivial. (Haack, 199)
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> My beliefs [in p1, a trivial proposition, and p2, a non-trivial proposition] are equals when it comes to the truth of their contents, and so they are equals when it comes to satisfying the truth goal, and so they are equals when it comes to the...(pro tanto) epistemic value of true belief.... Nevertheless, it seems that there is some sense in which knowing p2 is a greater achievement than knowing p1, some sense in which the former belief is better than the latter. If so, we shall need an explanation of this: the pro tanto value of true belief cannot do the job. (Hazlett, forthcoming)

There has been no attempt to state the argument precisely or to develop it in detail and with care, and it has met with no objection.[1] It has rather ascended to orthodoxy in a single bound. As Dennis Whitcomb summarizes the now-standard view in the *Continuum Companion to Epistemology*:

> It is better epistemically to know deep theoretical truths about e.g. metaphysics or physics, than it is to know trivial truths such as truths about the number of grains of sand on the nearest beach. Indeed, even if one were to know a lot of trivial truths, and thereby fulfill the epistemic value of having more rather than less knowledge, one's

[1] Michael Lynch (e.g., 2005), among others, has objected to a distinct argument that is superficially similar, which takes as a premise that some truths are not worth knowing at all. This argument is much less persuasive when the value in question is construed as purely epistemic and pro tanto, as opposed to practical or all-things-considered. I think that, despite superficial similarities, this is a very different argument to the one I am focusing on and will not discuss it here.

> epistemic states would still be deficient owing to their triviality. (forthcoming)

In the face of this argument, the challenges are many: If the goal of inquiry is not truth, as epistemologists have long supposed, what is it? What is the difference between trivial and non-trivial truths, and in particular, is the difference tied to, or independent of, our interests and cares? Is a teleological account of epistemic normativity still possible, if truth is but one source of epistemic value? And if so, what shape could it take?

The argument, however, is a bad one, even if it looks good in dim light. The problem is that it rests on an unrecognized but deeply implausible assumption concerning the relation between true sentences and the truths such sentences express. Moreover, there is no clear way to salvage the argument, once the trouble is revealed. It may be that the conclusion it reaches is true, that truth is not the goal of inquiry, or not the only thing of epistemic value. But the trivial truths argument itself is a very long way from establishing this.

To see the problem, start by considering a second case, in which we again put two true propositions behind the doors, but they are:

> Affan has a daughter
>
> Affan has a daughter and a son

Inquiry would again prefer the second door, since it is epistemically better, surely, to know that Affan has a daughter and a son than to know only that he has a daughter, supposing, as we have, that he has both a daughter and a son. But this, we could all agree, would not show that Inquiry cares for anything other than truth. After all, what is behind the second door in this scenario is truth—just more of it. Not a proposition that is *more true*, for it is just as true—perfectly true—that Affan has a daughter as it is that he has a daughter and a son. Rather, a proposition that is *more truth*, in the sense that if you know that Affan has a daughter, but I know that Affan has a daughter and a son, then I know more than you.[2] Inquiry would prefer the second door, but that is no threat to the claim that what Inquiry wants is truth—the more the merrier.

But wait, one wants to say: This has nothing to do with the original argument. In this new scenario we have put *two* true propositions

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[2] More truth, not more of the truth. The latter is a claim about ratio, the former about absolute quantity. I think these amount to the same thing since how much is true is necessarily fixed and unchanging. But there is no need to argue that here.

behind the second door: first, that Affan has a daughter, and then, in addition, that Affan has a son. As an objection to the trivial truths argument it is mere sleight of hand, since it rolls two propositions into one. There is one truth behind each door, sure; but not *merely* one truth. What we need to compare are atomic truths, not complex truths such as that Affan has a daughter and a son.

This response is correct to insist that if we set out to determine whether the aim of inquiry is more truth, and we do so by comparing pairs of true propositions with an eye to seeing whether inquiry is indifferent toward learning one rather than the other, we had better be sure that each proposition is the same amount of truth. And it is correct to insist that we cannot be sure that each is the same amount of truth merely by noting that each is one truth, in the sense that every true declarative sentence expresses *a* truth. But the response is wrong to think there is an important difference between this new scenario, concerning truths about Affan and his children, and the original scenario, concerning truths about sand and stars. We have no reason to think that what is behind any of the doors is an atomic truth.

What distinguishes the first scenario from the second is not that there is sleight of hand in the second scenario, but that there is sleight of hand in the *first* scenario. In the second scenario, there is no attempt to hide the fact that the proposition that Affan has a daughter and a son is one truth but not merely one truth. Just the opposite: the surface grammar of the English sentence used to express that proposition makes it obvious that there is more than one truth there. What would be deceptive would be to express a complex proposition in a way that makes it look as if it is just one truth, which is exactly what happens in the original scenario.

Consider again the pair of truths put behind the two doors in that scenario:

> grain of sand *x* is so-and-so-many millimetres from grain of sand *y*
>
> stars are formed when massive clouds of molecular hydrogen collapse due to gravity

Is it plausible that either of these is an atomic truth? The word 'and' does not appear in either sentence. Nonetheless, it is not hard to see, once your attention is drawn to the question, that there is complexity here. Some of it is revealed in surface grammar, although not in as obvious a way as would be the case if each proposition were expressed in a sentence that employed the word 'and'. Behind the second door, for instance, are the truths that stars are formed, that

they are formed from clouds of molecular hydrogen, that they are formed from clouds of molecular hydrogen that have collapsed, and so on. The English sentence that was in fact used to express the proposition does not employ the word 'and', but there are many English sentences that do employ 'and' that could have been used instead. The same holds for the first proposition, expressed originally by the sentence 'grain of sand *x* is so-and-so-many millimetres from grain of sand *y*'. On the most natural way to read what that sentence expresses, the same proposition could have been expressed by the distinct sentence '*x* is a grain of sand and *y* is a grain of sand and *x* is so-and-so-many millimetres from *y*'. But that makes it three truths, not one. And there is further complexity that, while not quite revealed in surface grammar, is revealed by a straightforward expansion of it. For instance, doesn't '*x* is a grain of sand and *y* is a grain of sand and *x* is so-and-so-many millimetres from *y*' really mean '*x* exists and *y* exists and *x* is a grain of sand and *y* is a grain of sand and *x* is so-and-so-many millimetres from *y*'? But that would be five truths, not three. So how many truths are behind that door? One, three, five, or some other number?

In light of these problems, one might think a simple adjustment is in order. A careful look at the grammar of a sentence should reveal how much complexity there is, and in running the trivial truths argument we should be sure that we are not using sentences that are grammatically or syntactically complex, either blatantly or less obviously so. But there is a greater and more intractable problem that this simple adjustment leaves untouched: much complexity does not concern surface grammar at all.

Russell, in the course of answering a question that followed on some remarks he had made on negative facts, provides a nice example of the problem:

> Question: Do you consider that the proposition 'Socrates is dead' is a positive or negative fact?
>
> Mr. Russell: It is partly a negative fact. To say that a person is dead is complicated. It is two statements rolled into one: 'Socrates was alive' and 'Socrates is not alive'. [215]

Set aside the negative versus positive facts issue; the exchange demonstrates that it is not obvious, even when we restrict ourselves to sentences that are atomic in form, when we are dealing with merely one true proposition and when with two or more, packaged up as one. When we consider the proposition that Affan has a daughter and a son—or, more precisely, when we consider that proposition expressed

in those words—complexity shows up in surface grammar. But as Russell's reply reminds us, the absence of conjunctive structure in the language used to express a proposition is not a reliable guide—not even close to a reliable guide—to the complexity of the proposition expressed. As Russell put it elsewhere in the same course of lectures, natural languages do not "show at a glance the logical structure of the facts asserted or denied", and they cannot "if they are to serve the purposes of daily life". [198]

The error is easy to make. Recall how easy it was to think that:

> Affan has a daughter and a son

is two truths—that Affan has a daughter, and that Affan has a son. But we need only compare the first of these truths:

> Affan has a daughter

with this one:

> Affan has a child x and x is female

to see that the truth is not so simple.

What these remarks make apparent is something we have known all along, even if, in thinking about trivial truths and the aim of inquiry, we have found it easy to forget. Atomicity of vehicle is one thing, atomicity of content quite another. If this were not the case, it would be mysterious how someone who knows that John is a bachelor knows more than someone who knows merely that John is male. Or why a German who knows that *Hannover erzielt den Anschlusstreffer* doesn't know just half as much as an American who knows that Hannover scored a goal and that the goal brought Hannover within one point of being tied with their opponent. We see a word or linguistically atomic predicate and assume that, when it is said truly of an object, we have one truth. But every word brings a sea of truths with it. What is it to be a daughter? Or to be molecular hydrogen? Or to be a massive cloud of the stuff collapsing due to gravity? As Wittgenstein put it in his notebooks, "words are like the film on deep water". (May 30, 1915)

Let me emphasize that the worry pressed here does not rest on the assumption that every natural language predicate decomposes into some number of atomic predicates or, more generally, on the assumption that every truth of the sort expressed in everyday sentences of natural language decomposes into some number of truths. I, for one, am

skeptical of that, although I think it more easily ridiculed than refuted. Rather, all we need to accept is that we have not been offered reason to think the individual truths contrasted in giving the trivial truths argument are the same amount of truth, and thus no reason to think Inquiry's preference for one over the other is a preference for something other than more truth. The implicit assumption is that each is one truth, so knowing each adds the same amount of truth to the stockpile. But that would be a reasonable assumption only if each were a single truth in more than name only.

To put the worry more generally, it seems obvious, upon reflection, that ordinary sentences of natural language, when true, contain more or less truth, and how much truth they contain does not supervene on surface grammar. Moreover, it would be a miracle indeed if an arbitrarily chosen true sentence of English contained as much truth as some other arbitrarily chosen true sentence of English. A sentence is not a well-behaved measure. Sentences are rather like mouthfuls: just as you cannot measure how much whisky you have by passing the bottle around the room and counting how many swigs before the bottle is empty, you cannot measure how much truth you have by counting the the number of sentences you use to express it. It is actually much worse than this, since at least the swigs are going to be roughly similar—the smallest swig and the largest swig won't vary by more than one order of magnitude, say, try as one will. But natural language shows profound, almost infinite, compressibility.

What the trivial truths argument we have been considering needs, if it is to be successful, is a clear example of two truths, where each is the same amount of truth as the other, and where knowing the one truth is epistemically better than knowing the other. And to get that, we need a well-behaved measure on the truth expressed by true sentences. In current presentations of the argument we are offered *no reason at all* to think the sentences used to express the truths express the same amount of truth. The implicit idea seems to be that the absence of superficial conjunctive structure guarantees or at least makes reasonable the assumption that each is exactly one truth—not two or more truths "rolled into one". But that idea is attractive only when it hides in the shadows.[3]

[3] Early versions of this work were presented at the epistemology research group at the University of Edinburgh and to the Metaphysical Society at Trinity College Dublin. I am grateful to both audiences for generous and interesting discussion.

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