

# The Demarcation Problem for Philosophy

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## DEMARICATION

Karl Popper wanted to distinguish science from non-science — a category said to include “logic, metaphysics, and psychoanalysis.” Scientific claims he thought were *falsifiable*, at least in principle; that’s what makes them special. This is apt to seem wrong in both directions. Logical claims, e.g.,  $\varphi$  is *unprovable*, can be falsified. And while scientific hypotheses of certain forms («All Fs are G») may be falsifiable, not so hypotheses of other forms: «Each F eventually becomes G».

## SUBJECT MATTER

Alternatively we might try to characterize science, or particular sciences, in terms of what they’re *about*. Lewis had the idea of analyzing subject matters  $M$  as equivalence relations on worlds; worlds are inequivalent iff they differ somehow where the subject matter is concerned. THE NUMBER OF STARS becomes the relation  $w$  bears to  $w'$  if they have equally many stars. A sentence is wholly about  $M$  iff its truth-value never varies between  $M$ -equivalent worlds.

So, there might be a subject matter  $C$  that grouped worlds on the basis of what results when you mix stuff together (explosion?) and why. Chemistry to a first approximation is the discipline that seeks to identify and systematize truths about  $C$ , that is, whose truth-values never vary within a  $C$ -cell. Biology is the discipline that collects and arranges truths about  $B$ , where worlds are  $B$ -equivalent if they have the same sorts of living things operating on the same sorts of principles.

Not every subject matter will be as amenable to systematic treatment as  $B$  and  $C$ . But those that are, call them *tractable*, give us a way of thinking of science. Science is the genus whose species are the disciplines aimed at the various tractable subject matters.

## WHAT ABOUT PHILOSOPHY?

There is nothing in the subject-matter approach to limit it to *scientific* disciplines. What about philosophy? The difference with science would be, maybe, that philosophy’s subject matter is intractable. Even so there would have to be *something* we could point to as the aspect(s) of reality that the discipline tries to get right.

That’s the first problem: only some ways of carving up logical space are proper objects of philosophical study, and it’s hard to say which ones. You might worry conversely that only some philosophical problems correspond to ways of carving up logical space. Take determinism and free will. What would it even mean for  $w$  to (dis)agree with  $w'$  on how/whether these are to be reconciled? What would it mean for worlds to (dis)agree on whether tables are material as in Locke or collections of ideas as in Berkeley?

These kinds of question are premature, you might think. Just as one doesn’t know, to begin with, which subject matters will turn out to be tractable — which lines of inquiry will get spun off as sciences — one doesn’t know, to begin with, which subject matters will turn to be genuine — which lines of inquiry will come to seem misguided. If the dimensions along which worlds can vary are not immediately obvious, that is is a feature,

It’s not like any old intractable topic will do.

maybe, not a bug; for it is not immediately obvious either which philosophical questions are genuine and which pseudo-

## PARADOX OF INQUIRY

That said, we should at least be open to the possibility that philosophy is not happily characterized in terms of the subject matter(s) it tries to get right. This wouldn't necessarily make subject matter irrelevant to the philosophical demarcation problem. For there is a *different* role subject matter can play here,

Actually we've already hinted at it in saying that it's not obvious in advance what the topics are that are worthy of study; that itself has to be studied. This ought to remind us of a famous old paradox. If before engaging in inquiry we need to settle on a topic, the  $\mu$  we're inquiring into, yet it takes inquiry to find this topic, then we seem to be caught in a circle.

The only way out is for at least *some* topics to be settled on in advance — before anyone is in a position to tell whether they're even tenable as opposed to landing us in contradictions. By the time we find out it's too late; attempts to restore consistency wind up only changing the subject. *This* I'll be saying is what makes for a deep philosophical problem. Examples below.

## GENERALITY/ABSTRACTNESS

Russell seems to be speaking to the question of logic's subject matter when he says it "is concerned with the real world just as truly as zoology, though with its more abstract and general features" (Russell [1993]). He cites this same abstractness and generality in characterizing philosophy at large, Ducasse points out. Philosophical propositions

"Philosophy ... has no special subject-matter which stands to it as other subject matters stand to other special disciplines." (Sellars, *Philosophy & the Scientific Image of Man*)

"Philosophy as Identical to Logic,"  
Ducasse [1941]

may be asserted of each individual thing, such as the propositions of logic," i.e., they formulate "properties which belong to each separate thing, not ... properties belonging to the whole of things collectively" and these properties are to be those that belong not only to each separate thing that exists, but to each that may exist.

Philosophy on this view has a maximally general subject matter, attributing properties purporting to belong to everything whatsoever. Worlds are  $\equiv_{\phi}$  if they agree on which  $F$ s are such that  $\forall x Fx$ .

But, can't one almost always dream up, for two worlds  $w$  and  $w'$ , an artificial  $F$  such that  $\forall x Fx$  holds in  $w$  but  $w'$ ? E.g.  $F = \text{existing in a world with millions of dogs}$ .

Some kind of naturalness restriction will be needed on  $F$ . A natural  $F$  holding universally sounds at first like a natural law, e.g., *nothing moves faster than light*. But, it doesn't make worlds philosophically different that they differ in their natural laws. Worse, it could hold *accidentally* in  $w$  that nothing moves faster than light. Philosophers are NOT interested as a professional matter in the difference between worlds where everything moves only so fast and those where some things move faster.

What if we broadened the quantifiers, as Russell suggests, to cover "each thing that *may* exist"? Worlds would be philosophically unlike on this view when they differed on whether  $\Box \forall x Fx$ . But if differing on  $\forall x Fx$  was too easy, differing on  $\Box \forall x Fx$  is too hard;  $\Box$ -claims hold in all worlds or none.

One *could* try to spin this as a success. What philosophers are *trying* to talk about runs too deep to be represented. It's the kind of thing that has to be shown rather than said. Mysticism and logic make strange bedfellows you might think. Why are they so often

discussed together? Part of the reason might be that both claim to be profoundly informative, and both double down when it seems there might be nothing for them to be informative about.

## WORDS AND THINGS

Russell contrasts his worldly approach with that of “the linguistic philosophy which cares only about language and not about the world.” He gives a slightly bizarre analogy to bring out the contrast. Linguistic philosophy is like

the boy who preferred the clock without the pendulum because, although it no longer told the time, it went more easily than before and at a more exhilarating pace .

This seems to pick up on a passage from Austin: “we need to prise [words] off the world, to hold them apart from it” (Austin [1961], 130). If so though, he has got the intent almost completely wrong. The point of prising words off the world is to “realize their inadequacies and arbitrariness,” after which we’re to “re-look at the world without blinkers.” When we worry about

what we should say when, ...we are looking not *merely* at words ... but also at the realities we use the words to talk about: we are using a sharpened awareness of words to sharpen our perception of, though not as the final arbiter, of the phenomena. (Austin [1961], 130)

A better term, he suggests, is “linguistic phenomenology.” Phenomenologists study representational devices with a view to their import — what they are saying about the world beyond. Russell actually goes in for this kind of thing himself in various places!

Identity is a puzzling thing at first sight. When you say ‘Scott is the author of *Waverly*’, you are half-tempted to think there are two people, one of whom is Scott and the other the author of *Waverly*, and they happen to be the same. That is obviously absurd, but that is the sort of way one is always tempted to deal with identity (“Logical Atomism”)

Russell’s picture of linguistic philosophers as caring about “language and not the world” is off the mark. They care about both. There is still the question of course what aspects of both they or any other philosophers take a professional interest in.

## KNOWING WHAT YOU’RE TALKING ABOUT

Having no idea what you’re studying, or talking about, in a field of inquiry certainly *looks* like an obstacle to making progress. Didn’t Russell rely in his work on logic on a view of what he was talking about? That’s not so clear actually. He goes back and forth on this without apparently realizing it. He does say some of the time that logic is about the world in its abstract and general features. Elsewhere though he says of pure mathematics, which for him is a branch of logic, that it has no distinctive subject matter at all. Mathematics consists of

assertions to the effect that, if such and such a proposition is true of anything, then such and such another proposition is true of that thing. It is essential not to discuss whether the first proposition is really true, and not to mention what the anything is, of which it is supposed to be true...[We] take any hypothesis, and deduce its consequences. *If our hypothesis is about anything, and not about some one or more particular things, then our deductions constitute mathematics. Thus mathematics may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true.* (Russell [1917])

It’s beginning to seem, based on this absurdly limited survey, that *if* philosophy aims at getting things right, it is not easy to say what they are, even for a particular branch of

Russell, “Mysticism and Logic,” Wittgenstein, *Tractatus*, Stace, “Mysticism and Logic” (in *Mysticism & Philosophy*).

Quine complains in a similar vein about “Oxford philosophers who take as their business an examination of the subtle irregularities of ordinary language.” (Quine [1960])

Russell, in Gellner [2005])

Attention to words can also focus our attention on worthwhile distinctions: “Our common stock of words embodies all the men have found worth drawing, and the connexions found worth marking, in the lifetimes of many generations; these surely are likely to be more numerous, more sound, since they have stood up to the long test of the survival of the fittest, and more subtle, at least in all ordinary and reasonably practical matters, than any that you or I are likely to think up in our armchairs of an afternoon” (Austin [1961], 130; see also Austin [1962], 63)

“Russell is right about the semantic phenomenology. At least, it is like that for me, too, and even more strongly in other cases (Hesperus and Phosphorus, Superman and Clark, the child and the adult)” (Crimmins [1998])

“People who have been puzzled by the beginnings of mathematics will, I hope, find comfort in this definition, and will probably agree that it is accurate” (Russell [1917])

philosophy like logic. We were too quick perhaps to assume that subject-matter blindness gets in the way of doing philosophy, or making philosophical progress; it doesn't seem to have got in Russell's way in his logical work. If a "guiding" subject matter is one that sets our research agenda in advance, before we decide what we think, then philosophy may not have a guiding subject matter.

## *ABSOLUTE VS PAROCHIAL FEATURES*

Does it have a subject matter at all, even a non-guiding one? Is there something of which philosophy aims to give an accurate account? Bernard Williams is at least wary of the idea. One of his worries harks back to Russell's distinction between abstract, general, necessary features and particular, local, contingent ones.

The distinction Williams focuses on is between absolute features of reality and parochial features. Both are in a good sense really there. But parochial features figure mainly in "our" conception of the world and that of likeminded creatures. One would not expect them to turn up in the worldview of creatures with different sensory/cognitive endowments, different sympathies, or different living arrangements.

Parochial features drop out as we abstract away from these idiosyncrasies, and we are left eventually with the world as it presents itself to a God's eye perspective. The features visible (pun intended?) from this perspective are the ones he calls absolute.

Now philosophers as befits the majesty of the enterprise will start out thinking they want to get the *absolute* features right. The worry is that that makes them little different from scientists. "It is hard to deny that the idea of getting it right"

"Philosophy as a humanistic discipline" and "What can philosophy become?", both in Williams [2006]

"Color is king in our innate quality space, but undistinguished in cosmic circles" (Quine)

which has gone into the self-image of analytic philosophy ... is one drawn from the natural sciences; and that the effects of this can be unhappy. (Williams [2006])

The absolute perspective even if we could achieve it

would not be particularly serviceable to us for many of our purposes, such as making sense of our intellectual or other activities, or indeed getting on with most of those activities.

For those purposes we need concepts and explanations which are rooted in our more local practices, our culture, and our history, and these cannot be replaced by concepts which we might share with very different investigators of the world. (Williams [2006])

Is Williams saying goodbye here to the kind of grand-scale, abstract, necessitarian philosophy we get from Russell? Yes and no. Necessity need not always be something we hope to find "out in the world" when conducting a super-general survey of events. There's a quite different kind we bump up against in ourselves as surveyors:

various of our ideas and procedures can seem to be such that we cannot get beyond them, that there is no conceivable alternative. (Williams [2006])

There seems no alternative e.g. to predicating features of things, or tracing objects through time, or seeing the world as colored or shot through with causal relations, or wondering what would have happened if so and so.

## *CURSE AND BLESSING*

Certain ways of thinking force themselves on us, not because the world cries out to be conceived those ways, but because that's how we roll. We cannot help but see external objects as colored, or valuable; we cannot help but look for patterns and read significance into them; we cannot help but form expectations about the future, and wonder why things went this way rather than that, and what's a fair distribution of goods.

Part of Williams's point is that philosophy wants to get *this* stuff right, too. Even if certain questions are forced on us more by cognitive/social constraints than the world, that doesn't make them philosophically uninteresting. But he's making a deeper point too.

The capacity to operate in natural-seeming ways is *mostly* a blessing. A regress would threaten if every procedure had to be evaluated on the basis of some other, more basic procedure. But it's also a curse. Because if a procedure gets us in trouble, it is not clear how we are to get ourselves out.

Stroud, "Inference, Belief, and Understanding"

The curse and blessing aspects go hand in hand. The scripts that make life possible, in their ordinary application, cause trouble when taken too far. Ordinarily it makes sense to ask why, and to seek causes. Otherwise if something unexpected happens, we'll feel free to write it off as uncaused. But again, you can take it too far; the whole history of the world wasn't caused. Ordinarily it makes sense not to scoff at possible sources of error. Taken too far, this leads to skepticism and then madness.

An example from Moss [2013]. Wondering what would have happened if we'd chosen differently is good policy on the whole. But we continue to do it even when there's no possible answer, not even an unknowable one. You offer me a bet based on the outcome of an indeterministic coin toss. I reject it and the coin isn't tossed. I can't help but wonder if the coin would have come up tails (I always pick tails), had it been tossed. Silly, right? If the toss was chancy, there is no fact either way. Still, this kind of thinking runs deep in us and it's not clear we could manage without it.

Moss: *I doubt this coin would land heads each time if I were to flip it one million times. But of course, you never know for sure until you try.*

## HERMENEUTIC PHILOSOPHY

Now we are getting closer to a kind of philosophy that isn't, or not primarily, about getting things right. A lot of philosophical problems go like this: On the one hand, we can't help but think that X. And yet X cannot be maintained in full generality, at least not together with Y which seems just as compulsory. Kripke is hinting at this kind of perplexity, when he gives his collected papers the name *Philosophical Troubles* (Kripke [2011]). But it goes back to Wittgenstein and much earlier.

The kind of philosophy that grapples with basic predicaments is not the whole of our field. But it seems in many ways the oldest and deepest. And we can count on it always to *be* there. Our predicaments, almost by definition, remain as the special sciences are spun off. One could call it the *perennial* philosophy if that name were not already taken

Grappling with a predicament need not always be a matter of dissolving it or fighting free of it. The first step is gaining some kind of perspective on how it arises. Leonard Cohen has a line that captures this: *I've been where you're hanging, I think I can see how you're pinned*. Hermeneutic philosophy is the kind that offers to hold us up before the mirror so we can see how we're pinned. The possibility/desirability of getting unpinned is then a further question.

By T. H. Huxley. Another nice label, "problematic" philosophy, is taken too (Bergson).

A philosophical intervention has two main parts, on this proposal. The philosopher first presents us with a model of how someone *could* wind up in a certain sort of jam. (Subject matter has a role to play here; that's for later ) We're invited next to consider whether we ourselves might not be the jammed up someone.

## THOU ART THE MAN

The distinction is illustrated by an Old Testament parable about King David. David generally pleased the Lord but this time “The Lord was *displeased* with what David had done.” What he’d done is obtain Bathsheba as his umpteenth lover by the device in part of getting her husband killed in battle. Displeased, the Lord sent down a moral instructor down to teach David a lesson.

“There were two men, one rich and one poor. The first had very large flocks, but the poor man had only one little ewe lamb.... One day, a hungry traveler came to the rich man, but he was loath to take anything from his own flocks to prepare a meal for the guest; so he took the poor man’s lamb instead ....” David flew into a rage: “The one who did this deserves to die! He shall pay four times over, because he did such a thing and showed no pity.” And Nathan said to David, “*Thou art the man!*” (2 Samuel 11:2 12:72)

Nathan helps David see how he’s sinned, not how he’s pinned. But the basic idea is the same. The philosopher starts by telling a story; they invite us to try it on for size, pointing out that we *would* be confused in much the way we are, if things had played out as in the story. So, maybe they did play out that way. This is what I’m calling *hermeneutic* philosophy. Subject matter has a crucial role to play in it it turns out.

## DIRECTED TRUTH

Nelson Goodman made an important point about truth-telling. That someone’s testimony is (i) *false*, and (ii) *about Jones*, does not mean the testimony was (iii) *false about Jones*. (The false bits all concerned Smith.) This is an example of directed truth, or truth where a subject matter is concerned.

Goodman, “Truth About Jones”

The great thing about directed truth from a hermeneutic perspective is that it lets us tell in some cases a story about how we’re pinned. How does it come about that we see no alternative to statements *A*, *B*, and *C*, when we know full well that they cannot be true together?

*A*, *B*, and *C* are supposed to be about *M*—that’s their intended subject matter; they are all true about *M*, maybe analytically so; truth about *M* suffices (for *M*-directed statements) for truth.

This kind of story does not unpin us. We can still see no good alternative to *A-C*. But it shows that our predicament is not just an unforced error. Philosophical problems are sometimes at least, like blind spots, reflective of a system working as it should.

The question is *why* our statements can’t be wholly about their intended subject matter—why their truth-values have to be sensitive to distinctions not contemplated by *M*. The short answer is that the world may be unkind; It may contain situations such that *A-C* cannot be true about *M* together. That kind of situation was not on the cards when the language was introduced and assigned a subject matter.

## FALSE, BUT PARTLY TRUE

Frege hated the notion of partial truth: “What is only half true is untrue. Truth cannot tolerate a more or less.” He is not the only one. To insist that a thing must always be *good*, period, or *bad*, period strikes us as pathological. Insisting it is *true*, period, or *false*, seems forthright and healthy minded. Partial truth is sneaky, one feels, the last refuge of a scoundrel, unclean.

Yablo [2014], Felka [2018]

The notion HAS been used in some disreputable causes. Idealists (Bradley) used it to *lower* the status of full-fledged truths; if *A* is only part of the truth, then it is only partly true, which is bad. Realists (Plato) have used it to *raise* the status of full blown falsehoods. A belief can't be *wholly* false, or it would lack content altogether.

What *we* have in mind by partial truth is hopefully not so disreputable. Partial truth is truth of a part, more or less, where parts are obtained by restricting the whole to a certain subject matter. *S* is true about *m* if what it says about *m* is true, meaning that *S* is any rate not false in *w* because of how matters stand *m*-wise there. Officially

*S* is true about *m* in *w*, iff  
what *S* says about *m* is true outright in *w*, iff  
*S* is true outright in a world like *w* where *m* is concerned.

OK but why utter falsehoods that are true about *m*, rather than just the bit about *m* (which is wholly true)? There might be various reasons but we'll focus on two: one, relatively straightforward, from James, the other deep and mystical, going back to Kant.

### "AN IRRATIONAL RULE"

"A rule of thinking which would absolutely prevent me from acknowledging certain kinds of truth if those kinds of truth were really there, would be an irrational rule." James intended this as a plea for *epistemic* boldness. But one can also hear it semantically. What if certain truths were best accessed as parts of larger falsehoods? *Accept only (pure) truths* would then be an irrational rule in James's sense. Where James had in mind the falsity of one statement tolerated for the sake of another's truth, here we have a statement's falsity tolerated for the sake of the truth of, or in, *the very same statement*.

"Truths wrapped in larger falsehoods." One way to access them is as what *A* says about a subject matter *m* of interest, defined above as the set of worlds *m*-similar to *A*-worlds. This yields a (potentially) true *proposition*, but not a true sentence expressing it. The only *sentence* around is *A*. One can *specify* the intended proposition and *endorse* it, but there is no obvious way to *assert* it.

What other option have we but to put the sentence forward in a quasi-assertional spirit? Our plea to the charge of falsifying matters is "guilty with an excuse." *Some* of what we said was true; it's not easy to assert just the true bits; and we did our best to clue you in to which bits they were—the ones about such and such a subject matter.

### REGULATIVE IDEALS

Our main loyalty in the Jamesian scenario is to the truth within; the containing falsehood is tolerated for its sake. But other scenarios are possible where our loyalty is to the larger falsehood.

A just-so story: *P* to hold in full generality should be true, obviously, where its *actual* subject matter *p* is concerned. But it may not have been clear to begin with what that *was*. Space had not yet opened up between *P*'s "intuitive" *sm* *m* (which *P* does get right) and what ultimately winds up controlling its truth-value. *P* retains its hold on us (despite holding only of *m*) because

It has a clarity and simplicity that is lacking in weaker principles *P*-.  
Weaker principles are unmotivated.

Some "have tacitly assumed...that all our beliefs are true.... They have then had to add a postscript explaining that what we call error is really partial truth. If we think it is Tuesday when it is really Wednesday, we are at least right in thinking that "it" is a day of the week. If we think that Columbus discovered America in 1066, we are at least right in thinking that something important happened in that year...And so on" (Russell [1910]).

Something important happening in 1066 cannot confer partial truth on *Columbus discovered America in 1066* because it isn't part of it, or even implied by it.

James [1979]

"The conceptual scheme of physical objects is [likewise] a convenient myth, simpler than the literal truth and yet containing that literal truth as a scattered part." (Quine [1948])

"Loose talk is appropriate in the following... circumstances. The speaker wants to communicate to her hearer a certain set of propositions  $P_1 \dots P_n$ . They are all quite easily derivable as logical or contextual implications of a proposition *Q* whose truth she does not believe and does not want to guarantee. The best way of conveying this information may be to express the single proposition *Q*, as long as the hearer has some way of selecting those of its logical and contextual implications that the speaker intends to convey, and ignoring the others" (Sperber and Wilson [1985])

Subject matters are relations on worlds, but not necessarily equivalence relations.  $w \approx u$  iff *w* and *u* are alike where *m* is concerned.  $\approx_m$  could be an equivalence relation, a similarity relation, or something weaker. What makes  $m \leq p$  is that *m*-similar worlds are *p*-similar.

Our interests are better served by *trying* to live up to *P* than living up to *P*-.  
 Nothing weaker gives proper guidance; *P*- would have us abandon reachable goals.  
 Even if a goal is not reachable, one should feel appropriate regret .

Considerations like these provide a non-Jamesian, vaguely Kantian motive for trafficking in statements that are not 100% true. Now some examples attempting to illustrate how attention to subject matter can help us understand in a non-self-hating way why we keep on getting into certain messes.

### MESS 1: SORITES PARADOX

Predicates like “red” are supposed to be applicable on the basis of casual observation. Observationality means that “The look of an object decides its colour,” with the consequence that “any pair of objects indistinguishable in point of colour must satisfy the condition that any basic colour predicate applicable to either is applicable to both” (Wright) This gives us the crucial premises of a Sorites paradox:

*x* is red (true, because *x* is a ripe tomato)  
 if *x* is red, so is *x'*  
 if *x'* is red, so is *x''*  
 .....  
 if *x<sup>n-1</sup>* is red, so is *x<sup>n</sup>*  
*x<sup>n</sup>* is red (false, *x<sup>n</sup>* is an orange)

These intermediate conditionals cannot all be right, because they take us from a truth to a falsehood. The hermeneutic problem is to say why they *seem* so right. Do existing theories make this comprehensible?

*Epistemicism* says we cannot *know* any of the premises to be false, given a margin of error constraint on knowledge. That we can't know them to be false hardly explains why we see no alternative to their truth.

*Supervaluationists* say we confuse  $\forall y (y \text{ is red} \supset y' \text{ is red})$  with  $\forall y (y \text{ is definitely red} \supset y' \text{ is not definitely not red})$  But why should *this* be driving our judgments? Rather than the definite *falsity* of  $\forall y (y \text{ is red} \supset y' \text{ is red})$ ?

*Contextualists* say the pairs we are *attending* to cannot differ in “color”; the switcheroo is always elsewhere. Do we really doubt the existence of lines that cannot be made salient? If so, then *Things never differ non-saliently* should seem plausible.

Sorites conditionals seem undeniable because *feel* ourselves, and *mean*, to be talking about a subject matter that lies fully open to view; Lewis calls it OBSERVATION. It groups worlds together which look the same to casual observers. Each of the premises is true about **observation**. For every *y* and *y'*, there is an observationally indistinguishable pair *y*, *y'* that are *precisely* the same in color, so that the one is red just if the other is.

- (1) The conditionals in fact address the issue of THINGS' COLORS.
- (2) This is *supposed* to be the same issue as THINGS' O-COLORS.
- (3)  $red(y) \supset red(y')$  seems true because it *is* about O-COLORS, the intended sm.
- (4) This doesn't make it true, period, because  $COLOR \neq O-COLOR$ .

“This is a very fundamental fact about their senses, whose sacrifice would be possible only at great cost” (Wright, 348).

Think of all the things we can't know to be false!

“Definitely” goes with truth in all admissible interpretations.

Compare Berkeley: unobserved objects are impossible, since unimaginable, since any attempt to imagine them brings them under observation.

O-COLOR is not an equivalence relation (due to the intransitivity of indiscriminability). The conditionals cannot all be true about COLOR, by the Sorites argument; they by definition *are* all true about O-COLOR.



Each of the premises seems true for the best possible reason; it *is* true of the issue (O-COLOR) that we understandably take it to address. What is not true even about O-COLOR is their conjunction; there is no single observational duplicate of our world in which adjoining color patches really stand or fall together redness-wise.

Note the tragic aspect. If not for sorites sequences there *could* be observational color predicates. Who knew back in Eden that the life would be unkind in this way? Colors clumped up nicely and observability seemed like a great constraint. Only later did the world begin to play tricks on us. Even now we are most often in Eden-like situations, with big gaps between the reds and the oranges. Lots to gain and little to lose by sticking with the original subject matter.

## MESS 2: SEMANTIC PARADOX

Truth was *supposed* to satisfy the *T*-scheme. The Liar show that it can't. Attempts to carve out a satisfiable weaker principle as "all we really wanted" have failed. The original principle holds, though, of  $F =$  the UNDERLYING FACTS OR NON-SEMANTIC FACTS.

What subject matter is that? Worlds are Kripkean fixed points: assignments of truth-values giving each *S* the value it deserves, given the values of its components:

- (A) *w* verifies (falsifies) *Fa* iff *Fa* is true (false) in the underlying model
- (N) *w* verifies (falsifies)  $\neg S$  iff it falsifies (verifies) *S*
- (D) *w* verifies (falsifies)  $S \vee S'$  iff it verifies *S* or *S'* (falsifies both *S* and *S'*)
- (U) *w* verifies (falsifies)  $\forall x \varphi(x)$  iff it verifies each  $\varphi(n)$  (falsifies some  $\varphi(n)$ )
- (T) *w* verifies (falsifies)  $T^{\ulcorner} S^{\urcorner}$  iff it verifies (falsifies) *S*.

The actual world @ is the *minimal* fixed point above the actual non-semantic facts as recorded in the ground model. But there are lots of other ground models for each one a huge pile of worlds (fixed points) above it. Worlds are **FACTUALLY** equivalent if they share a ground model. *S* is true in *w* where the **FACTS** are concerned iff it's true outright in a world **FACTUALLY** equivalent to *w*.

And now here's the cool thing: *T*-biconditionals are *always* true where the **FACTS** are concerned, no matter what the **FACTS** are. They hold in that sense necessarily just as Tarski said. For take any ground model you like,  $T^{\ulcorner} A^{\urcorner} \equiv A$  holds in the maximal fixed point above that model, the one assigning as many truth-values as possible.

Just-so story: Back in Eden, before Pilate asked "What is truth?" and Epimenedes made that a difficult question to answer, the principle  $T^{\ulcorner} A^{\urcorner} \equiv A$  was made definitive of the concept. There was no reason *not* to make it definitive.  $T^{\ulcorner} A^{\urcorner} \equiv A$  does hold (necessarily and without exception!) of the **FACTS**. And we had no notion back then of a larger subject matter than that.

## MESS 3: FALLIBILISM AND TRUTHLIKENESS

Our chances of coming up with a wholly true (but still interesting) scientific theory are low, according to Popper; hence the emphasis on falsification rather than verification in his own approach to the demarcation problem. What we can perhaps hope for is a series of ever truthier theories, ones with more and more "verisimilitude."

His proposal was that theory *X* has as much verisimilitude as theory *Y* if (I) "the truth in *X*" (its true entailments) entails the truth in *Y*, and (II) the falsity in *Y* (its false entailments) entails the falsity in *X*. This turns out to have unintended results e.g., if *X* and *Y* are false and logically independent, neither is truthier than the other.

True-about-M is a kind of  $\diamond$ : *S* could have been true given how matters stand *M*-wise. It's not closed under conjunction for the same reason that  $\diamond P, \diamond Q$  don't imply  $\diamond(P \& Q)$ .

Eklund [2002].

Kripke [1975]

The underlying model: a classical model of the *T*-free part of the language.

This will be so even if *A* is the Liar sentence *L*. "But  $T^{\ulcorner} L^{\urcorner} \equiv \neg L$  is also true where the **FACTS** are concerned." So it should be, it's of the form  $A \equiv \neg \neg A$ .

Even today we hesitate to weaken the schema, for reasons of clarity, simplicity, motivation, etc. Better to retain it than ditch it for something less gripping and worthy of regulative respect.

*X* alone entails  $Y \supset X$ , *Y* alone entails  $X \supset Y$ .

Worse maybe, no amount of true content can compensate for a smidgen of falsity. Genesis says, *...And there was light*. True but not a huge home run in the history of science. Modern physics ought to outscore *There was light*. Yet it doesn't due to clause (II). *There was light* lacks false entailments, so its false entailments can't entail those of physics.

Subject matter can help with this kind of problem. Modern physics may not be true about everything subject matter, but it is true about a lot! Say we think of "the truth (falsity) in X" not as the truths it entails, but the topics it treats of correctly. If we look at the topic *There was light* gets right, physics gets it right too! It shouldn't count against X that it misdescribes the odd topic that Y wasn't even aware of.

## LESSONS IF ANY

Philosophy is as much about seeing how we're pinned as finding the truth. Aboutness sheds less light than one might have hoped on truth-seeking philosophy. But it sheds more than one might have thought on the subjects seeing-how-we're-pinned side.

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