

2. *The Truth and Something but the Truth* (5/9/12)

"What is only half true is untrue. Truth cannot tolerate a more or less" (Frege [1956]).

PURITANISM ABOUT TRUTH Insisting a thing is good, period, or bad, period, is silly—the pathology of black-white thinking. Insisting it is *true*, period, or false, period, seems forthright and healthy minded. Partial truth makes us uncomfortable. It seems sneaky, unclean...

The notion HAS been used in some bad causes. To downgrade truths—part of the truth can be at most partly true (Bradley). Also, to upgrade falsehoods—they have to get something right to be in the reality-representing business at all (Joachim, inspired by Plato).

They're wrong, or it's a different notion. Partial truth for us is truth of a part. For *S* to be less than the whole truth does not at all suggest that only a part of *S* can be true. Falsehoods need not have true parts. *Everything is shot through with orgones* is completely false. Something important happening in 1066 cannot be the truth in *Columbus discovered America in 1066*, because it isn't part of it, or even implied by it.

Truth-puritanism is wrong, but so what? Why utter falsehoods with true bits in them, rather than just the true bits? "[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 [1979]).

This is a plea for *epistemic* boldness. But one can also hear it as a plea for *semantic* boldness. What if certain truths are best accessed as scattered parts of larger falsehoods? *Accept only pure truths* would be an irrational rule in James's sense. A statement's falsity is tolerated, not for the sake of another's truth, but the sake of the truth in *that same statement*.

"Truths wrapped in larger falsehoods." The construction last time of the part of *S* about BLAH yielded a (potentially) true *proposition*, but not a sentence expressing it. 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 lying is "guilty with an excuse." *Part* of what we said was true; it's not easy to assert just that part; and we did our best to clue you in to which part it was—it's the part about such and such a subject matter.

TRUTH ABOUT BLAH Are you saying that *S* is as good as true, if it's true about the sm under discussion? Not quite. Truth about **m**, considered as a modality, is possibility-like. *S* is true about **m** if it *could* be true where the world's **m**-condition is concerned. If there is nothing to stop *S* being possibly true and possibly false, there is nothing to stop it being true about **m** and also false about **m**. Is that a problem? There are cases and cases.

Case 1. *S* gets no grip on **m**. *#s exist* and *#s don't exist* are both true about **the physical**. No big surprise if an **m** that *S* is not remotely about doesn't decide its truth-value. One would not be using it in the first place. (?Let me tell you about cats; dogs are smart.?)

Case 2. *S* gets a grip. Maybe *S*, $\neg S$ are both deserving. Of a borderline case we might want to say, *It's red & it's not red*. Both conjuncts are true, maybe, about **apparent colour**.

Case 3. *S* gets a grip. Only *S* is deserving. *#protons > 10⁷⁹* is true about **the physical**; it's true in these physical circumstances if we throw in some numbers. That's good. Isn't its negation, though, also true in these circumstances, in the absence of numbers? That would be bad. But hold on. *#protons > 10⁷⁹* presupposes there is the # of protons. It is *false* in numberless worlds, or undefined, due to presupposition failure.

Case 3a. *S* is undefined when its presupposition *P* fails. *The # of protons > 10⁷⁹* can be true in these physical circumstances, but not false.

1 *S* counts as true, when the sm is **m**, if it is true where defined.

Case 3b. *S* is false when its presupposition *P* fails. The question then becomes, is *S* true "but for *P*, in the sense of being false, when it is, only because *P* is false.

2 *S* counts as true, when the sm is **m**, if it is true but for *P*; it holds in all *P*-worlds (and

Melanie Klein on the "paranoid/schizoid" stage of our cognitive development.

Some theories "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...." (Russell [1910])

"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])

A logic of partial truth is developed in Humberstone [2003].

"Loose talk is [sometimes] appropriate. The speaker wants to communicate propositions $P_1 \dots P_n$. They are all derivable as 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 implications that the speaker intends to convey" (Sperber and Wilson [1985])

Given how it looks, it could be either (Ripley [2011]).

there are some) that are **m**-equivalent to our own.

"True where defined," considered as a modality, is necessity-like. So is "true but for *P*."

Truth about **m** *seems* like all the truth one could want, when the sm is **m**. This formula works well enough that we'll mostly go with it. Sometimes though, to keep ourselves honest, we'll check that *S*, in addition to being true in *an m*-equivalent world, is true in all such worlds where the conditions are right.

STANDARDS OF PRECISION Asked for my height, I say I am 5 foot 9 inches. This is false, though. I am closer to $5' 8\frac{1}{2}"$. To be closer to $5' 8\frac{1}{2}"$ is to be *less than* $5' 9"$; one can't be less than it and it at the same time.

I am 5' 9" sounds right because it is true about **h = height in inches**. *S* is true about **height in inches** if we can make it true, *period*, by adjusting heights in a way that preserves the *n* such that one is closer to *n* inches than any other number of inches. *I am 5' 9"* has the property of being possibly-true-holding-fixed-that-closest-*n*. *France is hexagonal* is true about approximate shape; it could be true, holding fixed the standard shapes closest to true shapes.

I *could* have said that $5' 9"$ is the height in inches closest to my height, or that hexagonal is the standard shape minimizing the area of non-overlap with France. But this is ugly and inconvenient; it requires explicitness about something that is well understood anyway. Better to stick with the first claim and let the part presented as true track the issue under discussion.

That issue may change as the discussion proceeds. Imagine Deb describes herself as $6' 1\frac{1}{4}"$. Why not say $6' 1"$? The simpler statement must be false about the subject matter she means to be addressing, presumably **height to the nearest quarter of an inch**. I will not call myself $5' 9"$ any longer, as this is false about the sm now under discussion.

Why can't I reshrink the issue as easily as Deb expanded it? Speaking to a larger subject matter signals the intention not to keep on ignoring some of what our statements were already about. The party proposing *not* to ignore a truth defeater has the semantic high ground.

APPLIED MATH Imagine we are Kabbalistic rabbis with a peculiar interpretation of Genesis. When God on the fifth day told the animals to *go fo(u)rth and multiply*, he meant there should be four times as many animals on a given day as on the day before. Asked how many animals there should be on the *n*th day, we say, *The number of animals on day n = $3 \times 4^{(n-5)}$* . But, our reading of Numbers suggests that God never got around to creating 3, 4, and 5.

How much should this bother us? If it's enough for Lupoli that Falstaff's testimony is true about his client, it should be enough for us if *The number of animals on day n = $3 \times 4^{(n-5)}$* is true about animals. It should be enough for us if *The rate of star formation is exponentially decreasing* is true about the stars. Etc.

Objection. Your construction of the physical part of the star formula runs essentially through worlds that are partly *non*-physical—worlds with mathematical objects in them. Nominalists and platonists agree that numbers etc are non-contingent; they're either necessary or impossible. If as you say they don't exist here, then they're impossible. There is no world physically like ours in which the star formula is fully true

The rabbis could concede the point on numbers; their expressive purposes are just as well served by schmunbers. Also though, that a thing is overall impossible doesn't mean it's possible where BLAH is concerned. Let it be that Socrates can't exist without {Socrates}, still where *he* is concerned the set might either exist or not. Let it be that 2 can't exist. That's not because of objections raised by the physical world; numbers are possible where not is concerned. Relatively possible worlds are as capable as absolutely possible ones of witnessing the truth of a hypothesis where BLAH is concerned.

INTENTIONAL IDENTITY "Hob believes a witch burned down his barn, and Nob believes that she (that same witch) blighted his mare." One issue is syntactic. The anaphoric "she" seems to require a wide-scope reading; and yet the sentence is true. Another is semantic. Hob's belief and Nob's have a "common focus." That is what the sentence is trying to get at.

Dorr [2010]

"Suppose I tell John that Mary arrived at 3 o'clock. If John finds out later that Mary didn't arrive at 3 but at fifteen seconds after 3, it would be unreasonable of him to complain 'You said she came at 3!...we have to concede that he is, strictly speaking, RIGHT; when I told him Mary arrived at 3, I said something that was literally false, not true'" (Lasersohn [1999])

"For some reason, the boundary readily shifts outward if what is said requires it, but does not so readily shift inward if what is said requires that. Because of this asymmetry, we may think that what is true with respect to the outward-shifted boundary must be somehow more true..." (Lewis [1979]).

Also, to shift the subject matter from **m** to **m'**, one needs to say something clearly directed at **m'**. This is easily done if **m'** is the larger of the two. *Deb is $6' 1\frac{1}{4}"$* is not addressing itself to **height in inches**; the extra precision is there for a reason. *I am 5' 9" tall* could be directed at either issue.

Actually this is not agreed at all. See Field [1993], Hellman [1989], Hale and Wright [1996], Tennant [1997], Colyvan [2000, 2003], Rosen [2006].

"[A] nonabsolutist picture [of logical space] seems to fit linguistic semantics better than an absolutist one, [meaning] that there is one single maximal set of worlds. If a philosopher could find arguments that in the best metaphysical theory there is indeed a maximal set, that would for the linguist be further confirmation that his enterprise is not metaphysics" (Partee [1996])

Hadn't it better be true, if what it is trying to get at is really so?

That depends on what prevents it from being true. What prevents it, let's say, is how the fire was started: not by a witch. We weren't talking about that! We know that the fire wasn't started by a witch. The common focus, since it is there anyway, must be grounded in later events. If that's right, then the Hob-Nob sentence can be false for all we care; it only needs to be true of **the fire and everything after**. And it is. Nothing has happened since the fire to preclude the possibility that Hob and Nob are focussed on the same witch. One could make our world into one where they are, by plugging a witch in before the fire. (Triviality worries.)

LAWS AND MODELS Galileo discovered that distance fallen grows with the square of the time elapsed. How can that be, when the "discovery" is not really true? A familiar reply: "Laws aren't true *in reality*. They hold in *models* where the complications are absent."

If law-statements aren't true in reality, they shouldn't be silent about it either. It ought to say something about our world that the law holds in worlds w corresponding to the model. Translation schemes have been proposed by which to read real truths $t(S)$ off truths S about w . $t(S)$ might be: S -worlds are embeddable in this one, or our world resembles an S -world; or, our world is such as to make S pretend-true in a story or game. A simple-minded alternative

- S 's truth in another world testifies not to
- i. the total truth here of some other statement, but
 - ii. the partial truth here of S itself.

I take it there is no such separate item as gravitational motion. The apple's fall does not literally have within it a second fall unencumbered by friction. What there may be is a subject matter of **motion due to gravity**, lumping slow-fall worlds with their fast-fall counterparts. Galileo's Law is true of it, if it is true, period, in a counterpart where gravity calls the shots.

One can imagine a no-separate-item view about component forces (electrostatic, gravitational,...). The force on an apple is not really an amalgam of sub-forces duking it out. There can still be a subject matter of **force exerted by slow moving charges**. Coulomb's Law is true about that, by being wholly true in a world with no other forces.

Total force must break down into components somehow. The truth about it can be patched together from the truth in w of Coulomb's Law, in w' of the Law of Gravitation,... We take the electrostatic vector from w and sum it with the gravitational one from w' . This does not have to be seen as "combining forces." It's combining the states of things with respect to smaller subject matters to obtain the state of things wrt a large one.

The truth about force is not simple, but it can be recovered from truths about other subject matters that are simple. Does the same go more generally? This is disputed. Here is a way of thinking about the issue. Let \mathbf{n} = **total nomological circumstances**, meaning, the rule however complicated that constrains instantaneous states and determines evolution from one to the next. The state of things wrt \mathbf{n} would have to be resolvable into the states of things wrt a bunch of \mathbf{n}_k s along the lines of, the quite simple rule that would constrain etc. if nothing interfered. Why should this kind of factorization be possible?

NON-EXISTENCE *Pegasus doesn't exist* has a paradoxical, self-undermining, flavor. The empty name makes it untrue. Why is the name empty? Because Pegasus does not exist. *Pegasus does not exist* is untrue because Pegasus does not exist. S is untrue, if it is, because S . Compare *This sentence is false*, *The number of numbers = 0*

Any reason we might have for denying truth to *Pegasus fails to exist* applies also to *Pegasus is not in this room*. Why does it seem true? Well, it is true about us in this room. There is nothing going on in the room to stop Pegasus being somewhere out in the hall, in which case it is true, period. Something *is*, it seems, going on here to block the falsity of *Pegasus is not one of us* = the truth of *Pegasus is one of us*.

Why no one here is qualified for the Pegasus role is hard to say; the reasons are different in different cases. But, every x in the room has properties Q_x such that, even allowing that

Given friction, etc.

Wilde was right, the Queen is not a subject. **The Queen**, however,...

This harks back the distinction last time between observables, the items, and **observation**, the subject matter. A theory answerable to observables should get fusion right. A theory true about **observation** can fill the sun with pop rocks.

Really we need the box-like notion here: true in all no-other-forces worlds just like ours wrt gravitational force. Otherwise *Objects hang in the air* is true about motion due to gravity, since it's true in a world like ours gravitationally but with countervailing other forces.

Lange [2009]
Cartwright [1983]

"The value of a whole must not be assumed to be the same as the sum of the values of its parts" (Moore [1903]). "For most factors, their role in determining the overall moral status of an act cannot be adequately captured in terms of separate and independent contributions that merely need to be added in" (Kagan [1988]).

"What gives us any right to talk that way? ... without being sure of whether Sherlock Holmes was a person, or whether we can speak of hypothetical situations under which 'Sherlock Holmes did such and such' correctly describes the situation, we can say 'none of the people in this room is Sherlock Holmes, for all are born too late, and so on'; or 'whatever bandersnatches may be, certainly there are none in Dubuque.'" (Kripke, 1973).

Pegasus could have turned out to exist, he could not have turned out to be Q_x . The same applies to *Pegasus is nowhere in the solar system*, etc.

Pegasus does not exist is true about the existing things—US. There is nothing in OUR condition to prevent Pegasus from tagging along as a further item. Its negatum is not true about US. *Pegasus is one of us* could not be true in a world relevantly like ours. Suppose it were. Then Pegasus would be you, or me, or the Eiffel Tower, or etc.

Again all these things have properties Q_x such that, granting that Pegasus could have turned out to exist, he could not have turned out to be just like that. If we import these properties into the subject matter **US**, then Pegasus could not have turned out to be one of us, holding fixed the state of things with respect to **US**. He could have turned out to be an *extra* thing, but not to have been one of the things already here. (He's like the number 8 in making an expressive contribution without existing, via what he is supposed to be like.)

PURE MATH Back to being Kabbalistic rabbis, we think it's *false* that *There are primes over 10*. Yet we keep on saying it. How is this OK? It's clear what we should say: the statement has a *part* we do believe, a part that is true in our view, and remains so regardless of issues about abstract ontology.

The problem is to see what the true part might be. Doesn't it follow from the denial of numbers that, as Field says, true-seeming existential claims (*There are primes over 10*) are trivially false, and false-seeming universal claims (*Primes over 10 are even*) are trivially true? That leaves no room for interestingly true parts to larger numerical falsehoods.

I'm not sure it does follow. Is *Primes over 10 are even* just as true as *Primes over 10 are odd*? Yes, if these are *enumerative* generalizations about whatever numbers there happen to be. Standard tests suggest they have some sort of generic force. *Dodos can't fly*. *A body not subject to any force remains in uniform motion*. *Mary handles the mail from Antarctica*.

A body not subject to any force accelerates seems false, even if there are no such bodies, because accelerating is physically unlawful behavior for "them". *Primes over 10 are even* seems false for the same reason; primes aren't like that. They are wrong about how so and so's "should" behave, qua objects of that sort. This again suggests a nomological/generic component in arithmetical claims (Correia [2006]).

That can't be all there is to it. Take *Primes over 10 are plentiful*. It is *right* about how numbers are supposed to behave. Yet it strikes the rabbis as false. This testifies to a *non-generic* component postulating that the kind is instantiated.

Arithmetical claims φ come out with two parts: *Numbers are φ* , and *There are some*. Nominalists are putting the first part forward, but not the second. Or they are putting the whole thing forward as true-about-a-certain-subject-matter, the Sosein of numbers rather than their Sein. Mathematicians in their professional capacity are arguably doing the same.

REGULATIVE IDEALS Our main loyalty in the Jamesian scenario is to the truth within; the larger falsehood is tolerated for its sake. It could in principle go the other way. There could be cases where our main loyalty is to the larger falsehood.

How would it go? Our thinking might be regulated by problematic principles—ones that cannot hold in full generality. A just-so story about how this could come about. In the beginning, we laid down principle P as definitive of some concept. Space had not yet opened up, at that time, between P 's eventual subject matter \mathbf{o} , and its ostensible subject matter $\mathbf{m} \leq \mathbf{o}$. P was made definitive of the concept despite holding only of \mathbf{m} . P retains its hold on us because

It has a clarity and simplicity that is lacking in weaker principles.

Weaker principles are unmotivated.

Things go better if we're *trying* to live up to P than really living up to P -.

Nothing weaker gives proper guidance; P - would have us abandon reachable goals.

Where a goal is not reachable, one should feel appropriate regret.

Names lack descriptive content! Two claims. There are no conditions such that

x can't be N without satisfying them.
 x cannot be N if it does satisfy them.

The second is less plausible. A thing cannot be Pegasus if it is just like me.

"The topic is US?!" The name in N is P is topical if the implied question is, *What about N ?*, focal if it is *What is P ?* "[T]o what question is ... *John exists* a felicitous answer? I think it is *Who/What exists?*..." [Not, *What about John?*] The topic is: what exists..." Note, *John exists and so does Harriett* is better than *John exists and writes poetry*. *John* is a better candidate for focal stress in *John exists* than *exists*. *John EXISTS* sounds quite unnatural (Atlas [1988], Gundel [1985])

This machine crushes up oranges and removes the seeds (the machine is never used); *Aliens come from outer space*, *Tab A fits in slot B* (on a cereal box which is thrown out); *The Speaker of the House succeeds the Vice-President* (from Carlson and Pelletier [1995]).

ADVERBS *Primes over 10* are invariably odd. INDEFINITES A prime over 10 is odd. STATIVE/PROGRESSIVE **Primes over 10 are odd and bothering me lately*. NATURAL/ACCIDENTAL *A prime over ten is in the news a lot lately. CATEGORICAL: *Any prime over 10 or right triangle is odd or Pythagorean

Existential claims not excluded. *Bees form colonies with a Queen served by worker bees and drones*.

Truth is *supposed* to satisfy the T-scheme ($T[A] \leftrightarrow A$). Newly discovered *A*'s show it can't. Attempts to carve out a satisfiable weaker principle as "all we really wanted" have failed. The original principle does hold of **ground-level truth**. Back in Eden, the *T*-principles were made definitive of the concept of truth. They seemed sustainable then, since they hold of ground-level truth, and we had no notion of a larger truth-y subject matter than that. Even today we don't want to abandon it, for reasons of the sort listed above. (Kripkean kibbutz.)

Predicates like "red" are supposed to be applicable on the basis of casual observation. "This is a very fundamental fact about their senses, whose sacrifice would be possible only at great cost" (Wright). 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." This gives us the premises of a forced march Sorites argument:

x is red
 if *x is red*, so is *x'*

 if *x⁽ⁿ⁻¹⁾ is red*, so is *x⁽ⁿ⁾*
x⁽ⁿ⁾ is red

The intermediate conditionals can't be right. The problem is to say why they *seem* so right. Supervaluationism allies itself with a sharp boundary claim that seems *wrong*. Contextualists say that the adjacent pairs we *focus* on cannot differ in "color"; the switcheroo is always elsewhere. Are we really so confused as to think that a line one can't point to just isn't there? Epistemicism says that we can't *know* any of the premises to be false, given a margin of error constraint on knowledge. That one can't know $\neg P$ doesn't tell us why it seems that *P*.

The just-so story says we *mean* to be talking about a subject matter that lies fully open to view: **RED**. Undetectable shifts shouldn't change its extension. *x''''* and *x'''''* can be turned by an undetectable shift into patches of the same colour. One is RED, indeed red, iff the other is. But then the same should hold of *x''''* and *x'''''*.

- (1) The conditionals address the issue of **what is red**.
- (2) This was *meant* to be the same issue as **what is RED**.
- (3) They seem true because they *are* true about **RED**, their proper subject matter.
- (4) This doesn't make them true, period, because **red** and **RED** are not the same.

The false premises seem true, because it is true of the issue we properly take it to address.

But, what is to stop us evaluating the conditionals by the lesser standard of truth about **what is RED**, a standard they all meet? "A standard they all meet" can be read in two ways: separately—each meets the standard—or together—their conjunction. Consider these in turn.

If they meet the standard together, we're in trouble. Truth-about-**m** satisfies single premise closure. If *A* is possible-holding-fixed-the-world's-**m**-condition, its consequence *B* is as well. The following is a consequence of the conditionals together: if *x* is red, *x⁽ⁿ⁾* is red. This is false about **RED**, since it's false in any observationally equivalent world. Fortunately the premises are not true about **RED** together. Their conjunction is not possible-holding-fixed-color-appearances.

If separately, we might seem still in trouble. The truth of each premise implies the truth of the absurd conclusion: *x⁽ⁿ⁾* is red. That's *plain* truth, however. Truth-about-**m** does not satisfy multi-premise closure. That *A* could be true in actual **m**-conditions, and *B* as well, doesn't show that *A&B* could be true in actual **m**-conditions. *I'm 5'9"* is true about **height in inches**. So is *I'm 5' 8 3/4"*. *I'm both* is not true about **height in inches**.

Not all slippery slope paradoxes are observational—Wang's paradox of small numbers. *Small* is a manifest, or "nothing is hidden," predicate, in this sense. There are not supposed to be unobvious reasons why it would or would not apply. There would have to be unobvious reasons if the boundary would fall in any particular place. Put "manifest smallness" (**SMALL**) in place of "observational redness" (**RED**).

The worlds are Kripke's fixed points, be they gappy and the glutty. Actuality is the minimal fixed point generated by the actual non-semantic facts. Worlds are **g**-equivalent if *T*-less sentences have the same truth-value in them. $T[A] \leftrightarrow A$ is true about **g** in *w* if there are fixed points ground-level equivalent to *w* in which $T[A] \leftrightarrow A$ is true. This condition is amply met. $T[A] \leftrightarrow A$ is true in every fixed point in which it has a truth-value at all (and there always are some). What if *L* is the Liar: $\neg T[L]$? $T[L] \leftrightarrow L$ and $T[L] \leftrightarrow \neg L$ come out *both* true about **g**. Both are true in all f.p.'s where they have a truth-value at all.

Nobody is taken in by Berkeley when he says that unobserved objects are impossible, since any attempt to imagine them brings them under observation. We are supposed to have jumped to a similar conclusion ourselves about color boundaries.

Why not the same? One is a partition and the other not (due to the intransitivity of indiscriminability). Also we know by the sorites argument that the conditionals cannot all be true about red, whereas they *are* all true about observational red.

True _{RED}	Premises true	Premises \Rightarrow Conclusion
Separately	Yes	No
Together	No	Yes

NEXT TIME: Partial truth comes in two flavors. There's the diamond-like notion of a sentence that *could* be true with no change in the world's **m**-condition. There's the box-like notion of a statement *A* that is true but for its implication *B*.

If *A* is true but for *B*, one might expect there to be a pure truth in the neighborhood, obtained by cutting *A* back so that it no longer implies *B*. The operation here is logical subtraction. It's a powerful operation, and not unpopular, but a perilous operation too. What is left if you subtract from a man's raising his arm the fact that his arm went up? Or if you subtract true belief from knowledge, or etc?

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