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Comments on “Facts about the Slingshot” by Gregory Landini

Valia Allori

This paper is very technical, so I will start my comments with a reconstruction of the arguments presented. Only at the end of this I will say what I think. I apologize in advance for any misinterpretation that I might have done. If I did, it was, of course, entirely unintentional.

There is an argument against the correspondence theory of truth that, because of its combined simplicity and devastation, has been named the slingshot argument.

According to the correspondence theory of truth a sentence is true iff there is a fact corresponding to it. In order to make sense, it seems that this theory must be able to differentiate between facts. The slingshot arguments, if sound, establish that every true sentence corresponds to the same fact, and therefore the corresponding theory of truth is doomed to failure.

In his paper, Gregory argues that the slingshot argument is unsound.

Let me just recapitulate what the argument says and my understanding of Gregory's argument against it. I will talk only about Davidson's first version, for simplicity. The comments I will make will nonetheless apply to both versions.

Let [p] be a shortcut for the locution “the fact that p”.

Then it seems reasonable to assume that:

- 1) if two sentences p and q are identical, then [p]=[q]
- 2) if p and q describe the same thing (are co-denoting), then [p]=[q]
for example: given S= “Cicero wrote Philippicae Oratione” and R=“Tully wrote Philippicae Oratione”, then [Cicero wrote Philippicae Oratione]=[Tully wrote Philippicae Oratione]
- 3) if p and q are logically equivalent sentences, then [p]=[q]
for example: S'= “ Plato=x: (x=Plato & S)” is logically equivalent to S, so [S]=[S']

Assumption number 2) is what Gregory calls the assumption of “constitution”: it amounts to say that the facts containing an object do not depend on the description provided. They play no role in determining the truthmaker of a statement;

Assumption 3) is what has been dubbed “sLog” (substitution under logical equivalence): logically equivalent sentences have as truth makers the same facts. Or: logically equivalent sentences can be substituted *salva veritate*.

Note that this formulation of sLog is not the exactly same as the one given by Greg in his presentation, which is the following: “logical truths, being necessary, aren't made true by contingent fact and logical truths have no bearing on the truth of empirical statements”. In the original formulation of his paper, Greg starts with the version of sLog that I presented above (“logically equivalent sentences have as truthmakers the same facts”), and assumes it is equivalent to the one presented here in terms of logical truths. I will make a comment about that later.

These assumptions seem pretty innocent but they are sufficient to unleash the slingshot. Here it is:

1) given a true sentence R, we can construct the a logically equivalent sentence R' as follows:

“{x:x=x&R}={x:x=x}” ;

2) we can do the same for another true sentence S;

3)&4) The logical equivalence between R and R', and between S and S' makes it the case that [R]=[R'] and that [S]=[S']

5)&6) if both R and S are both true, also R' and S' are true

7) Observe now that R' and S' just differ with in another by the presence of R and S respectively; also, because the truth of a fact does not depend on the description provided, the two sentences correspond to

the same fact, so that we have that $[R']=[S']$; because of the logical equivalence between R and R', we have $[R]=[S']$;

8) Because of this and because $[S]=[S']$, we have that $[S]=[R]$

.... and here is the slingshot: every true sentence corresponds to the very same fact...

In formulas:

- 1) " $R = \{x:x=x \& R\} = \{x:x=x\}$ " is a logical truth
let $R' = \{x:x=x \& R\} = \{x:x=x\}$
- 2) " $S = \{x:x=x \& S\} = \{x:x=x\}$ " is a logical truth
let $S' = \{x:x=x \& S\} = \{x:x=x\}$
- 3) $[R']=[R]$ [sLog, 1]
- 4) $[S']=[S]$ [sLog, 2]
- 5) $R \& S$
- 6) $R' = S'$ [5, logic]
- 7) $[S']=[R]$ [Const, 6,3]
- 8) $[S]=[R]$ [4,7, identity]

If one adopts Russell's theory of description, in which definite descriptions are quantifiers and not singular terms, the argument does not go through because of scope fallacy. For this reason, the slingshot argument has been taken by some as an argument for Russell's theory of descriptions. But Russell's theory is not universally accepted, so if one wants to go attack the slingshot without resorting to it, the only two other options seem to be the following:

- a) challenge the truth of sLog
- b) challenge the truth of Const

But these two principles seem reasonable and Greg says that they should be embraced by the friends of facts. Gregory argues there is another way: the locution "the fact that p" is to blame.

Let us come back to the slingshot. The problem, says Greg, is in step 7, in which we identified the facts corresponding to logically equivalent sentences (that is, we identified $[S']$ with $[R]$ with the justification that the identity between the statements S' and R is true). But how do we know what the truth maker of S' really is? How do we know that it is the same fact that makes R true? After all, we just know that they happen to have the same truth value; we do not know what *makes* them true.

So we should ask the question: what make a statement true? If we focus on empirical statement, Greg says, one can assume, naturally enough, that the truth makers of true empirical statements are *physical* facts. That is, it is the collection of physical objects, properties and relations. Greg uses free logic to exactly spell out what it means.

But we forgot something crucial: why do we say "the fact p"? This is misguided, says Greg, the locution is not innocuous, since there is no guarantee there is just one fact! Most likely, there is more than one fact. If one drops the locution "the fact that p" and re-write the slingshot in terms of the physical fact(s) that make p true, then the error of the slingshot is obvious: there is no unique fact, so the deduction cannot go through.

All right, so far I have just done some reconstruction, hopefully a not too mistaken one.

My comment is very simple, and probably very naïve.

The first time I have seen the slingshot argument, my immediate reaction was to blame sLog. sLog

seems a very fishy assumption: logical equivalent sentences have the same truth value, but to say that they also have the same referent is begging the question! In fact, we do not know what their referent is, we do not know what makes them true, so we do not know whether their referents are identical. Also, in assuming that they have the same truth maker, it seems to me that we are implicitly assuming that there is a single fact that corresponds to them. But we do not know there is just one fact, there could be many. So I would say that to modify sLog is the solution to the puzzle.

Greg instead said that the right way to go is to drop the locution “the fact that p” and keep sLog.

What is troublesome is that the motivations that both Greg and I are providing for our claims (that are distinct) are identical: the argument wrongly assumes that there is only one fact. Since our proposed solutions are different (I propose to abandon sLog, Greg proposes to abandon the locution “the fact that p”), but the argument is the same, there must be something wrong here. Probably in my reasoning, but I would like to understand what is going on a little better.

It is my impression that what Greg is doing is what I am doing, namely modifying sLog. Here is why: In his presentation Greg's sLog reads as follows: “logical truths are not made true by contingent facts”. Greg presents it as if the two formulations are equivalent, but it is not so clear to me that they are. Greg's sLog seems to be far less controversial than the sLog that I presented: it just talks about the role of logical truths as truthmakers of empirical statements, namely they have no role. And that seems right to me. While it does not say much about what to do in case of logically equivalent sentences that are made true by more than one fact (which was my trouble with sLog).

So if I am not mistaken, the sLog that the friends of fact should fear is NOT Greg's sLog, but mine. So, what is happening is that Greg is indeed modifying sLog, contrarily to what he is claiming.

Is it really so? In any case, thanks for the great paper!