Between disquotation and compositionality. A formal study of axiomatic truth.

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The talk is an introduction to one of the central problems of a new research project "Truth: between disquotation and compositionality", conducted by the speaker in the Department of Philosophy, University of Warsaw. Our primary goal is to introduce the audience to the formal methods which can be used to scrutinize questions of entirely semiotic nature and to get some feedback about the correctness of the proposed explications.

The project investigates two different kinds of principles for the notion of truth: the disquotational scheme and the compositional clauses. The former consists uniquely of the sentences of the form

P("A") if and only if A.

The collection of such clauses (for sentences of some language $\mathcal{L}$) provides a minimal requirement for a predicate P to serve as a notion of truth for $\mathcal{L}$. They (are often said to) enjoy a status of analytic truths. According to the disquotationalism they also fix the meaning of truth and fully characterise its content. The distinctive feature of the second type of principles is that they show how the truth of complex sentences depends on the truth of its constituents. An example of such a principle is

For all sentences A,B, P("A and B"), if and only if P(A) and P(B).

Such clauses are usually more expressive than mere disquotational sentences. Crucially, they enable the derivation of the full disquotational scheme from a finite list of conditions. However, they do not seem to share a privileged epistemological status of T-biconditionals.

In the talk we shall study the following basic question:

Is every finite theory of truth compositional?

In order to even hope for obtaining the definite answer to it we shall introduce the formal apparatus of axiomatic truth theories. We shall carefully introduce various types of disquotational and compositional theories of (typed and self-referential) truth. We explain their basic formal properties and discuss how they match our original intuitions. Secondly, we shall present a formal explication of when a theory of truth should be called compositional and give some evidence for its plausibility. Finally, we arrive at a purely formal translation of our basic question.