The Simple Truth

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The truth bi-conditionals are the statements of the form $A \leftrightarrow T[A]$ where A is a sentence, T is a predicate symbol and $[A]$ denotes a name for A (e.g. Gödel code of A). Theories defined in terms of truth bi-conditionals are typically deductively and conceptually simple. As observed already by Tarski, compositional truth principles, such as 'for all sentences A, B: $T[A \wedge B] \leftrightarrow T[A] \wedge T[B]$', are not derivable from the basic bi-conditionals except in trivial cases. Nevertheless, Quine, Horwich and others have proposed that the truth bi-conditionals are all there is to truth. In this talk I present proof-theoretic support for this extreme view and show how remarkably strong systems (both truth- and proof-theoretically) are implicit in very weak truth-theoretic assumptions.