A Semantic Definition of Truth for a Primitive Language L
(Using English as a metalanguage)

I. Conditions of Adequacy
1. The definition must satisfy convention T:

\[ s \text{ is true in } L \iff p \]

where for “s” is substituted a specification of any sentence and that sentence itself is substituted for “p”

2. The definition must use no semantic notions

II. Vocabulary of L
1. Names

“Bill”, “Betty”, “Sam”

2. Predicates

“is tall”, “is fat”, “is drunk”

3. Logical constants

“&”, “or”, “not”, “if…then”

III. Formation Rules
1. Atomic sentences are formed by prefixing a name to a predicate, e.g. “Bill is tall”

2. Molecular sentences are formed by combining sentences with logical constants. Molecular sentences may be composed of atomic sentences or other molecular sentences, e.g., the two atomic sentences “Bill is tall” and “Sam is fat” can be combined to form the single molecular sentence “Bill is tall and Sam is fat”.

IV. Definition of truth for atomic sentences

Stage 1. An atomic sentence is true iff the object referred to by the name satisfies the predicate. Thus,

“Sam is fat” is true iff Sam is fat.
Atomic sentences thus satisfy convention T.

Stage 2. Define “refers” and “satisfies” by recursion, i.e., by listing all of the cases individually. Thus,

e refers to o iff

(e = “Bill” and o = Bill) or

(e = “Sam” and o = Sam) or

(e = “Betty” and o = Betty).

An object o satisfies a predicate p iff

(o is fat and p is “is fat”) or

(o is tall and p is “is tall”) or

(o is drunk and p is “is drunk”).

The definition of ‘refers” and :satisfies” now eliminates any semantic terms from the definition of truth; and we have satisfied the second condition of adequacy for atomic sentences.

VI. Definition of truth for molecular sentences.

Define the truth conditions for each logical constant in terms of the truth of the atomic sentence in the usual way, e.g.,

“p & q” is true iff “p” is true and “q” is true.

Now since truth for molecular sentences is defined in terms of truth for atomic sentences, and truth of atomic sentences is defined in terms of reference and satisfaction, and reference and satisfaction are eliminated by a recursion, we now have satisfied all of the conditions of adequacy. We have a definition of truth which satisfies condition T, and which uses no semantic terms.