

## “Schema” in Theories of Truth

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This brief summary of “schema” aims to help novices better appreciate *what a schema is, how it is used*, and *why it is important* for theories of truth. The summary should not be interpreted as replacing original work on “schema;” rather, it is meant to serve as a supplement for students who are unfamiliar with schema in philosophy or mathematics. For a more detailed account, I encourage interested readers to read Corcoran (2006) and Corcoran and Hamid (2016).

### *What is a schema?*

To explain what a schema is let’s begin with two toy examples. **First**, a non-philosophical example. Suppose that you’re baking star-shaped cookies. Sure, you could shape them yourself, but using a star-shaped cookie cutter would provide you with a more efficient means of creating and baking the cookies. The star-shaped cookie cutter serves as a template for the cookie. Just as the cookie cutter is a template for the star-shaped cookie, so too is a schema a template for a philosophic concept.

**Second**, a philosophical example. In an argument where a disjunct is eliminated from a disjunction, the other disjunct follows. If we’re presented with “either *A* or *B*” and “*A*” is false, then “*B*” necessarily follows. Let’s replace the variables, *A* and *B*, with common expressions. Either zebras are reptiles or elephants are mammals. Zebras are not reptiles. Therefore, elephants are mammals. The symbolised form acts as a schema for the specific content.

A *schema* is a complex system composed of a **linguistic template** and a **rule**. The template is a syntactic string composed of significant words, symbols, and placeholders. The rule shows us how to employ the template to specify a potentially infinite multitude of *phrases, sentences, or arguments*, specifies how *placeholders* are to be replaced to produce instances

of the schema, and tells us how the significant symbols are to be understood and whether instances of the schema belong to natural or formal languages.

On this rendering, we may think of the schema as an *ordered triple*. An ordered triple is a set of three elements written in a certain or strict order. Schemas as an *ordered triple* consists of the template, rule, and underlying language that *determine* the set of its instances.

### ***How is a schema used in theories of truth?***

To see how a schema is used in theories of truth I begin with **Tarski's schema T**.<sup>1</sup> Schema T, "... is a true sentence if and only if ...", is composed of eight words and two placeholders represented by ellipses (...). The rule ... requires that the second ellipsis to be replaced by a **declarative sentence of English**, which is a translation of the object-language sentence into what Tarski calls the *meta-language*, and the first ellipsis by a **name** of that sentence in what he calls the *object-language*. Tarski (1933/1983: 155-6) identifies the T-schema with the template, and in his famous article on truth (1944: 344) he explicitly identifies the expression as a 'schema' which is 'not a sentence, but only a schema of a sentence'. A sentence on Tarski's view is a meaningful sentence that says something in virtue of which it has a truth-value (Tarski 1933/1983: 178). So, Tarski uses the word 'sentence' in the way we use the word 'proposition'. His original template was:

*X* is a true sentence if and only if *p*

The **rule** requires that the two placeholders, *p* and *X*, be filled in with a sentence of English and by a name of that sentence, respectively (1933/1983: 155). Tarski's favourite instance of schema T is:

'snow is white' is a true sentence if and only if snow is white.

'Snow is white' is the name of the sentence snow is white. His (1944) article enlists a slightly different string but does so without any new theoretical issues arising. Tarski's (1969) article, however, uses a template-text where the letter *p* is filled in as a place holder on both the left and right side of the schema.

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<sup>1</sup>Be forewarned: this brief summary is about schemas in theories of truth, so this brief introductory remark is not meant to give a comprehensive overview of any of the truth-theories mentioned. If this submission was supposed to be a comprehensive account of Tarski's semantic conception of truth, then more space should have been allocated to, e.g., Tarski's distinction between the meta-language and object-language and how true sentences should be relativised to a language. To omit the details of Tarski's theory is not a bug but a feature of this short summary.

“*p*” is a true sentence if and only if *p*

In this text, the “*p*” is not being used as a quote name for *p*. Surprisingly, Tarski’s formulation of the rule states that ““*p*” is to be replaced on both sides,’ which does use “*p*” as a quote name for *p* (Tarski 1969: 105).

Some have followed Tarski’s lead by identifying the schema with the template (e.g., Goldfarb 2003 & Linsky 1952). Alonzo Church (1956: 149), however, avoids the identification of the two. Notably, there is no substantive difference here to be noted; it’s merely a terminological distinction.

### ***Why is a schema important for different theories of truth?***

**Horwich’s minimalism** identifies the schema with the set of instances and replaces true sentences with propositions. Propositions, in Horwich’s sense, are identified with the truth-conditions or the sense of a sentence. So,  $\langle p \rangle$  is true if and only if *p* or  $\langle \text{grass is green} \rangle$  is true if and only if grass is green. Since different characters stand in for different blanks and since even one notational change produces a different syntactic string in the strict sense, one and the same set of instances may be determined by different scheme-template/side-condition pairings for given a fixed language. This may have led Horwich to write as though the schema is to be identified with the set of instances.

**Quine’s disquotationalism** does not identify the schema with its set of instances in the way that Horwich does; instead, his claim is that when we say “‘snow is white’ is true’ we are only saying indirectly what we can say directly, that snow is white. There’s no more to the truth of “snow is white” than is given by the **T-sentence**: ‘snow is white’ is true iff snow is white. Accordingly, the biconditional is a partial definition of ‘true’. Take all of the sentences of a language and then a list of all corresponding T-sentences to constitute a complete account of ‘true’ for that language.

**Field’s pure disquotationalism** has two important features: (a) one can understand “Utterance *u* is true” only to the extent that one can understand utterance *u* and (b) the claim that utterance *u* is true is cognitively equivalent to *u* as that person understands *u* (Field 1994: 265-66). (b) means that, “To call ‘Snow is white’ disquotationally true is simply to call snow white; hence it is not to attribute it a property that it wouldn’t have had if I and other English speakers had used words differently” (1994: 266). According to Field, disquotational truth need not depend upon how an utterance is used.<sup>2</sup>

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