

II. Plain-language Project Summary

Sentences containing the copula *be* are central to grammar. Higgins 1973 distinguished four types of copula sentences in English: predicational ('John is a teacher. '), specificational ('The teacher is John. '), identificational ('That is Mary Smith. ') and identity ('Cicero is Tully. '). Some recent analysts argue that specificational sentences should be derived from predicational sentences via predicate fronting. Others maintain that specificational sentences are a type of identity sentence. The resulting 'inverse analysis' versus 'equative analysis' are in competition.

We hypothesize that different languages may require different analyses. In a pilot study, Hedberg & Potter 2010 argued that Thai supports the equative analysis because it uses a copula distinct from the predicational one in reversible identity and specificational sentences. However, Schneider-Zioga & Hedberg (submitted) argue that in reverse specificational sentences in Kinande, a similarly distinctive copula actually marks focus while the post-copular argument is morphologically marked as predicative, thus supporting the inverse analysis. The present grant will enable us to investigate the syntax and semantics of Thai in more depth to confirm whether it supports the equative analysis.

This research will contribute to an ongoing larger project aimed at developing a detailed questionnaire for investigating the syntax and semantics of copula sentences universally.

III. Project Description

Objectives

1. Investigate the copula system in Thai and related languages spoken in Thailand, Vietnam, Laos, and India.
2. Get a complete picture of the copula systems in those languages by applying our copula questionnaire to the languages, while at the same time developing the questionnaire so as to make it more complete and usable.
3. Obtain enough detail on the grammatical systems of the languages to be able to develop a syntactic and semantic analysis using generative theory; in particular, to ascertain whether an equative or inverse analysis of specificational sentences best applies in the languages.

Context. Higgins 1973 distinguished four types of copular sentences in English, with the two connected nominals in each case classified as shown in (1). There is currently a great deal of controversy with regard to the syntactic and semantic analysis of the four types of copular sentence, and on whether the typology can be collapsed into a simpler system.

(1)	Sentence type	Pre-copular phrase	Post-copular phrase	Example
	Predicational	Referential	Predicational	John is a teacher.
	Specificational	Superscriptional	Referential	The teacher is John.
	Identificational	Referential	Identificational	That is Mary Smith.
	Identity	Referential	Referential	Samuel Clemens is Mark Twain.

For example, there are two competing accounts in the literature for the distinction made by Higgins between predicational and specificational copular sentences. The ‘inverse analysis’ (e.g. Moro 1997, den Dikken 2006) posits that specificational sentences are generated from predicational ones via inversion of the clause-final predicate to initial position. Context is crucial in identifying the particular meaning of the copula utterance. Thus, Mikkelsen 2005 points out that in English, specificational sentences with the superscriptional phrase in subject position, such as (2A1), have a fixed topic+focus (i.e. given+new) information structure; while sentences with the arguments in the other order, such as (2A2) and (3A4) have flexible information structure. On the inverse account, (2A2) is a predicational sentence like (3A4) but with subject focus.

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| <p>(2) Q: Who is the winner?
 A1: The winner is JOHN.
 A2: JOHN is the winner.</p> | <p>(3) Q: What is John?
 A3: #The WINNER is John. [# = inappropriate]
 A4: John is the WINNER.</p> |
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By contrast, the competing ‘equative analysis’ (e.g. Heycock & Kroch 1999) posits that both nominals in specificational sentences such as (2A1) are referential. Following Kuno & Wongkhamthong 1981, Hedberg & Potter 2010 show that specificational sentences such as (2A1) and predicational sentences such as (3A4) surface with different copulas in **Thai**. Crucially, sentences such as (2A2), which they term ‘reverse specificational,’ occur with the same copula as (2A1). They argue that such reversibility is evidence for the **equative** nature of specificational sentences in Thai, and assume that (2A2) has the same meaning as (2A1).

In current research, the applicant, in collaboration with Patricia Schneider-Zioga of California State University at Fullerton, argues that facts from the African Bantu language

Kinande support the **inverse** analysis of specificational sentences in that language. Like Thai, Kinande exhibits two different morphemes for connecting two nominals in copular sentences; and reverse-specificational as well as specificational sentences exhibit one morpheme, while predicational sentences exhibit the other morpheme. However, just as in predicational sentences, the second nominal in reverse-specificational sentences is marked as a syntactic predicate. The difference is only that the subject is focused. We argue that den Dikken's 2006 inverse-analysis theory of relators and linkers successfully explains all of the Kinande data under the assumption that those categories are realized in topic and focus positions located in the left periphery of the sentence.

A second, related on-going project is the investigation of copular sentences in **Okanagan** Salish, an aboriginal language of British Columbia, which the applicant is engaged in in collaboration with John Lyon, a post-doctoral fellow in the Linguistics Department at Simon Fraser University. At this point, we believe that Okanagan supports the **equative** analysis of copular sentences in that language. Lyon 2013 argues that Okanagan exhibits only two types of copular sentence: predicational and equative. He offers a semantic account of the two types of sentence. Predicational sentences are reversible and consist of a semantic predicate directly linked to a referential argument. There are no specificational sentences in the language, thus ruling out the operation of any transformational rule of predicate inversion. Specificational meanings seem to be expressed through equative sentences in which a referential expression occurs first, followed by a more abstract expression that is linked to the referential expression through a covert equative copula. We are currently testing the range of meanings of both types of sentence. Okanagan, like many languages, contains no overt verbal copula.

It is crucial to subject Thai to the type of close investigation that the current research is undertaking with Kinande and Okanagan. Thai (and also, reportedly, Laotian and Vietnamese) is a language with two overt copulas that seem to pattern along equative analysis predictions, but that is what we initially thought as well about Kinande until we found out that the apparent equative copula is in fact a focus marker.

This project represents an extension of the applicant's 30-year research program on cleft and pseudocleft sentences ('It is coffee that I like' and 'What I like is coffee'), which are complex copular sentences that link a referring expression to a nominalized or subordinate clause. Not all languages allow cleft and pseudocleft sentences, but it is believed that all languages allow simple copular sentences. Simple copular sentences pose plenty of puzzles of their own that deserve to be investigated in their own right. We will be interested, however, in how the simple copular sentence systems in the languages we investigate extend into clefts and pseudoclefts.

Methodology. The team is currently developing a detailed questionnaire that can be used to investigate the copular systems of any language. We know from our study of English, Kinande and Okanagan as well as what we know so far about Thai, that we need to come up with tests to distinguish the different types of copular sentence, and the tests need to present a relevant context for each of the uses. We also know that we need to elicit subtypes of the four types of sentence. For example, identity sentences that relate two proper names behave differently in languages like Russian, Hebrew and Scots Gaelic in identity-establishment sentences such as 'Samuel Clemens is Mark Twain' and in role-play sentences like 'Laurence Olivier is Hamlet'. The proper name expressing a role is treated as a predicate rather than a referential expression in those languages, while the pen name is treated as a referential expression. We also know that we need to investigate several aspects of the grammatical systems of the particular languages. Word order, case, and agreement marking are critical variables, as well as the existence in the

languages of definite and indefinite articles. Also crucial are the pronominal systems: English distinguishes personal pronouns like ‘he’ and ‘she’ from demonstrative pronouns like ‘this’ and ‘that’ and normally does not allow the latter to refer to human beings. However, demonstrative pronouns are exceptionally used to refer to people in identificational sentences like the third sentence in (1) above, thus allowing for a special, abstract type of reference in English. As a consequence, languages like Okanagan that use demonstrative pronouns regularly to refer to humans may lack a distinct type of identificational copular sentence.

The questionnaire will elicit basic descriptive facts about the languages in a way that is theory-neutral. However, after conducting the questionnaire survey on key languages, we will interpret the descriptive facts in terms of contemporary syntactic and semantic theory so as to settle theoretical issues. The syntactic framework that we have adopted in our study of Kinande and will continue to adopt is mainstream generative syntax in the tradition of Chomsky 1981 and his Principles and Parameters framework. The semantic theory that we have adopted for our study of Okanagan and will continue to adopt is formal, compositional semantics in the tradition of Heim & Kratzer 1998. In particular, we will classify the various arguments in copular sentences into well-established semantic types such as entities (type $\langle e \rangle$), predicates (type $\langle e, t \rangle$) and individual concepts (type $\langle s, e \rangle$). We hypothesize that only those three semantic types will be needed, and the questionnaire will be designed to tease apart those three semantic types.

V. Bibliography

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