Compositional Asymmetry and the Functional Principle
A Theme from Keenan

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Introduction

In this squib we return to some points made in Chung and Ladusaw 2006 about evidence for compositional asymmetry in homage to Ed Keenan’s long and influential career of bringing formal semantic theory together with the analysis of Austronesian languages. In that paper, we present evidence from Chamorro for elaborating the inventory of modes of semantic composition. Here we put this notion of compositional asymmetry in the context of a tradition rooted in Keenan’s early work.

1 Keenan’s 1974 Functional Principle

Keenan 1974 argues that structural parallels across constructions can be recognized as reflections of underlying logical analysis that divides each construction into a functional expression and its argument. The Functional Principle states a referential asymmetry that gives primacy to the argument over elements in the functional expression: “The reference of the argument expression must be determinable independently of the meaning or reference of the function symbol; functions which apply to the argument however may vary with the choice of argument (and so need not be independent of it)” (Keenan 1974: 298).

Under Keenan’s analysis, subjects of clauses, heads of restrictive relative clauses, and possessors in possessive constructions are analyzed as the argument to a functional expression. Patterns of pronominalization, scope, and agreement are viewed as grounded in the “referential independence” of the argument expression. This independence is broadened beyond simple referring expressions, as in the case of heads of restrictive relative clauses: “By ‘head NP’ we mean whatever NP in surface specifies the domain of objects that the restricting function applies to” (Keenan 1974: 307, note 1).

We view the Functional Principle as an early illustration of the value of grounding explanations of cross-linguistic generalizations in the formal analysis of the interface of syntactic structure with compositional semantic interpretation.

Chung and Ladusaw 2004 (hereafter C&L) develops an approach to semantic composition in which arguments can compose with predicate expressions without fully semantically saturating those predicates. To highlight the role of semantic incompleteness in the patterning and interpretation of various syntactic structures, C&L elaborates the inventory of available semantic composition operations beyond simple Function Application to include operations that combine property contents. Here we discuss Restrict, which composes a predicate with the property content of an indefinite, and

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Modify, which is used for predicate modification.

In Chung and Ladusaw 2006, we discuss data from Chamorro, an Austronesian language of the Mariana Islands, that show that the domain specification and narrowing induced by Restrict and Modify have asymmetrical effects. Here we discuss the asymmetrical interpretation of doubled objects in incorporation and relate it to Keenan’s Functional Principle.

2 Object Incorporation in Chamorro

C&L examines object incorporation in Chamorro in some detail. This construction is formed from the verbs of possession (gäi- ‘have’ and täi- ‘not have’), which select two arguments: one corresponding to the possessor and the other to the possessed. The possessor argument is linked to the subject; the possessed (internal) argument is linked to an obligatorily incorporated object. In (1), the incorporated object is bracketed.

1. Hayi gäi-[patgun]?
   who? WH[nom].agr.have-child
   ‘Who has a child?’

This incorporated object can be doubled by an independent DP, illustrated by the italicized DP in (2).

2. Hayi gäi-[patgun] si Carmen?
   who? WH[nom].agr.have-child Carmen
   ‘Whose child is Carmen? (lit. Who child-has Carmen?)

Under the C&L analysis, the verb of possession in both (1) and (2) is combined with the incorporated object using the operation Restrict. The property denoted by the incorporated object specifies the domain of the possessed but does not fully saturate the possessive predicate. This is what allows the referential extra object to saturate the predicate, with the entailment that Carmen is drawn from the domain specified by the incorporated object.

The extra object in incorporation can itself be a property-denoting indefinite DP, as illustrated in (3):

3. Kao gäi-[atungu’] médiku?
   Q agr.have-friend doctor
   ‘Does she have any doctors as friends? (lit. Does she friend-have doctors?)

The concern of Chung and Ladusaw 2006 is to show that even though both the incorporated object and the extra object are property-denoting expressions that are composed with the predicate using Restrict, the order of composition matters. In brief, friend-having doctors means something different from doctor-having friends. It is the incorporated object that determines the relationship between the possessor and the possessed and this does not change with the narrowing of the domain property expressed by the extra object.
3 The persistence of the domain argument

These doubled objects in incorporation can provide a way of testing the relevance of Keenan’s Functional Principle (FP). Given that the possessive predicate is a functional expression and the incorporated object is its argument, the FP would demand that the incorporated object be “referentially independent.” But once combined with the possessive predicate, the incorporated object is contained in a functional expression that in turn takes as its argument the extra object, which the FP would likewise demand be referentially independent.

The FP can be viewed as predicting the asymmetrical interpretation of the construction, under the assumption that the independence of the incorporated object (in the sense intended by the FP) persists even though this argument is part of a larger functional expression. The domain specified for the possessive relation remains the domain that is narrowed through further modification. The fact that this argument becomes part of a larger functional expression does not make it available to vary with the extra object.

It may be that this referential independence is limited to constructions in which a domain is specified and subject to further modification. Reflexive and reciprocal arguments are certainly referentially dependent upon arguments that enter the semantic composition later. As noted in Chung and Ladusaw 2006, these cases are reminiscent of the conservativity of determiners, in the sense of Keenan and Stavi 1986 (p. 275).

Conclusion

It is always fruitful to talk with Ed.

References


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