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Multiply Quantified Internally Headed Relative Clause in Japanese: A Skolem Term Based Approach

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Abstract

This paper presents an analysis of Internally Headed Relative Clause (IHRC) construction in Japanese within the framework of Combinatory Categorial Grammar [Steedman 2000]. Shimoyama [1999] argues that when an IHRC appears within the scope of a universal quantifier, the interpretation of the IHRC exemplifies E-type anaphora and that the LF representation of the IHRC should have a variable bound by the quantifier in the matrix clause. To accommodate this argument Shimoyama posits a free variable of a functional type to which the bound variable is applied, and whose denotation is determined by the context-dependent assignment function. However, since there is in principle no limit to the number of quantifiers in the matrix clause (and accordingly that of bound variables in the IHRC), the semantic type of the free variable would be highly ambiguous if the IHRC occurs within the scope of multiple quantifiers. The current analysis assumes that the interpretation of IHRCs exhibits an instance of generalized Skolem term [Steedman 2005], a term whose denotation varies with the value of bound variables introduced by scope-taking operators, but which is interpreted as a constant in the absence of such operators. This paper provides a straightforward account for the semantics of the construction without invoking the complexities of the type ambiguity of free variables.

Keywords: Combinatory Categorial Grammar, Generalized Skolem Term, Internally Headed Relative Clause, Japanese, Quantification

1. Introduction

This paper presents an analysis of Internally Headed Relative Clause (IHRC) construction in Japanese paying particular attention to the effect of quantification on its interpretation. (1)

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