Optimality-Theoretic
Lexical Mapping Theory:
A Case Study of Locative Inversion

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ABSTRACT

Locative inversion verbs seem to share the same argument structure and grammatical function assignment (i.e., <th-OBJ loc-SUBJ>) cross-linguistically. This article discusses the nature of argument-function linking in LFG and demonstrates how the Lexical Mapping Theory (LMT) rendered in Optimality-Theoretic (OT) terms, where argument-function linking is governed by universal violable constraints that consistently favor the unmarked function, accounts for locative inversion straightforwardly. Within this OT-LMT, locative inversion is due to a universal morphosyntactic constraint, and language variation in locative inversion is due to the difference in its relative ranking. This account also offers a potential explanation for the markedness of the locative inversion construction.

Keywords: algorithms; case study; semantic matching; very high-level languages

INTRODUCTION

The locative inversion construction, as shown in Figure 1, cross-linguistically has similar characteristics in discourse information packaging, which allows the more familiar information to precede the less familiar information (Ackerman & Moore, 2001b; Birner, 1994; Cheng, 1983; Tan, 1991). Between the canonical construction in Figure 1a and the inverted form of 1b, along with the switch of focus from the locative to the theme, is the change in syntactic function assignment. An example from Chinese is given in the figure. The theme role in Figure 1a is assigned the subject function and locative an oblique function; the canonical linking is, thus, <th-SUBJ loc-OBL>. In the inverted Figure 1b, however, the locative is the subject, while the theme now occupies the object...
This \textit{<th-OBJ loc-SUBJ>} argument-function “mismatch” was first identified and convincingly argued for in locative inversion verbs in Chichewa (Bresnan, 1994; Bresnan & Kanerva, 1989) and in English (Bresnan, 1989; Tan, 1991). Examples in Figure 2 are from Bresnan and Kanerva (1989).

The subjecthood of the inverted locative phrase \textit{tai-shang} “stage-top” in Figure 1b is evidenced by the fact that it is a bare NP and occupies the usual position for subjects. This is further confirmed by the usual raising test. As shown in Figure 3, \textit{tai-shang} “stage-top” is, indeed, the raised subject, while the “demoted” theme in the post-verbal position, also a bare NP, must be recognized as the object (see Figure 3).

Chinese data thus further confirm Bresnan’s (1994) observation that cross-linguistically, locative inversion verbs share an identical argument structure \textit{<th loc>} and the function assignment of the canonical \textit{<th-SUBJ loc-OBL>} in Figure 1a and the inverted \textit{<th-OBJ loc-SUBJ>} in Figure 1b. This article aims mainly to account for the syntactic assignment of the argument roles in locative inversion verbs.

In any syntactic theory that aims at characterizing UG, it would be a considerable compromise to simply leave the syntactic assignment of argument roles to lexical idiosyncrasies (Pesetsky, 1995). This article focuses on how the syntactic as-