

## Discriminate and Conflate: Two Classes of English Non-Bridge Verbs

There is an extraction asymmetry between so-called bridge and non-bridge verbs in English. While extraction from bridge complements is free, extraction of most adjuncts, PPs, and non-referential arguments from non-bridge complements is degraded or ungrammatical. Among non-bridge verbs, factive verbs take complement clauses that represent a presupposition, while manner-of-speaking (m-o-s) verbs do not. The following are relevant examples of a bridge (1), a factive (2), and an m-o-s (3) verb:

- (1)
  - a. Who<sub>i</sub> did Ron say that Frank watched  $t_i$  with binoculars?
  - b. How many pounds<sub>i</sub> did Ron say that the binoculars weighed  $t_i$ ?
  - c. With which binoculars<sub>i</sub> did Ron say that Frank watched Liliana  $t_i$ ?
  - d. How<sub>i</sub> did Ron say that Frank watched Liliana  $t_i$ ?
- (2)
  - a. Who<sub>i</sub> did Ron confirm that Frank watched  $t_i$  with binoculars?
  - b. \*How many pounds<sub>i</sub> did Ron confirm that the binoculars weighed  $t_i$ ?
  - c. \*With which binoculars<sub>i</sub> did Ron confirm that Frank watched Liliana  $t_i$ ?
  - d. \*How<sub>i</sub> did Ron confirm that Frank watched Liliana  $t_i$ ?
- (3)
  - a. Who<sub>i</sub> did Ron whisper that Frank watched  $t_i$  with binoculars?
  - b. \*How many pounds<sub>i</sub> did Ron whisper that the binoculars weighed  $t_i$ ?
  - c. \*With which binoculars<sub>i</sub> did Ron whisper that Frank watched Liliana  $t_i$ ?
  - d. \*How<sub>i</sub> did Ron whisper that Frank watched Liliana  $t_i$ ?

Despite the similar constraints on extraction, there are both semantic and syntactic reasons to treat factive and m-o-s verbs distinctly. As noted above, presupposition of the complement clause is a defining characteristic of factive verbs, while m-o-s verbs are characterized instead by semantic complexity. On the syntactic side, complementizer deletion, passivization, and extraposition behave differently with factive verbs than with m-o-s verbs:

- (4)
  - a. ?Ron confirmed/regretted/admitted he had given Frank the binoculars.
  - b. That Ron gave Frank the binoculars was confirmed/regretted/admitted by all.
  - c. It was confirmed/regretted/admitted that Ron gave Frank the binoculars.
- (5)
  - a. \*Ron whispered/snorted/hissed he had given Frank the binoculars.
  - b. \*That Ron gave Frank the binoculars was whispered/snorted/hissed by all.
  - c. \*It was whispered/snorted/hissed that Ron gave Frank the binoculars.

Many accounts of factive complements (Kiparsky & Kiparsky, 1970; Melvold, 1986; de Cuba 2002) propose extra syntactic structure to explain the observed opacity. It is also possible, though, to capitalize on existing structure to identify the critical difference between bridge and factive verbs, while still capturing the extraction asymmetries. If it is the nature of the verb itself, rather than the complement clause, that is responsible for these asymmetries, then a likely place to look for the mechanism blocking extraction is the matrix clause. Given current Minimalist assumptions that movement exists only to check uninterpretable features, and that only phase heads may be implicated in driving movement, then matrix *v* is the logical locus of distinction between bridge and factive verbs. Facts from Tagalog (Rackowski & Richards, 2005), Hungarian (Den Dikken, 2005), and Germanic support an analysis whereby factive *v*, which unlike bridge *v* carries a [+spf] feature related to specificity, establishes an Agree relationship with the complement CP, and this relationship is responsible for both syntactically encoding the semantic notion of presupposition and blocking extraction of non-referential constituents. The constraints on extraction can be tied to the proposal that [+spf] on factive *v* discriminates; only referential constituents may serve as goals. Therefore, extraction of non-referential constituents from factive complements is blocked, and the asymmetries are explained. This proposal is given more support by the observation that the referential/non-referential distinction applied to extraction of arguments (Cinque, 1990) can be carried

over to apply to adjuncts as well. Extraction of referential adjuncts from factive complements is grammatical, compared to extraction of non-referential adjuncts:

- (6) a. \*How<sub>i</sub> did Ron regret/confirm/admit that he came home  $t_i$ ?  
b. Which way<sub>i</sub> did Ron regret/confirm/admit that he came home  $t_i$ ?

The semantic complexity of m-o-s verbs makes a conflation account (Hale & Keyser, 2002) appropriate for this class of non-bridge verbs. Under such an account, extraction targets a CP associated with the conflated noun, rather than the derived verb. At first glance, this analysis seems to run afoul of the Government Transparency Corollary (Baker, 1988), which predicts that any complement of the conflated noun should become the derived complement of the verb, leaving unexplained the observation that passivization of sentential complements of m-o-s verbs is not available. However, a distinction between nouns that have argument structure and nouns that do not (Grimshaw, 1990) explains the apparent contradiction. Specifically, nouns that take sentential complements behave like simple event or result nouns, which do not take arguments. This explains why passivization fails; the CP is not the complement of the conflated noun, and cannot therefore become the derived complement of the verb under Baker's GTC. This account is consistent with Kayne's (1981) analysis of m-o-s complements as higher than indirect objects. It is also consistent with Cinque's distinction between strong and weak islands, identifying m-o-s complements as strong islands. As such, m-o-s complements are predicted to be considerably more opaque to complement PP extraction than are factive complements:

- (7) a. ?To which students did they regret that they gave the scholarship?  
b. \*To which student did they groan that they gave the scholarship?

**Conclusion:** Despite very similar patterns of constraints on extraction from their complement clauses, there are both semantic and syntactic reasons to analyze factive and manner-of-speaking verbs as two distinct sets of non-bridge verbs. For factive verbs, an account relying on a matrix *v* feature related to specificity captures the extraction asymmetries noted between referential and non-referential constituents without introducing any new syntactic structure. Thus, extraction is linked to referentiality for both arguments and adjuncts. This account is in line with Minimalist assumptions about movement, and it is further supported by data observed in Germanic languages, Hungarian, and Tagalog. This cannot however be the analysis for m-o-s verbs, which may instead be explained as instances of conflation. Despite their similarities to factive verbs, there are important differences, such as passivization and extraction of complement PPs, which support a conflation account.

#### **Partial List of References:**

- Baker, M. (1988). *Incorporation*. Chicago: University of Chicago Press.  
Cinque, G. (1990). *Types of  $\bar{A}$ -Dependencies*. Cambridge: MIT Press.  
de Cuba, C. (2002). *A phase-derivational analysis of limited embedded V2 in mainland Scandinavian*.  
Qualifying Paper: Stony Brook University, Stony Brook, NY.  
Dikken, M. den (2005). When Hungarians Agree (to Disagree) – The Fine Art of ‘Phi’ and ‘Art.’  
Grimshaw, J. (1990). *Argument Structure*. Cambridge: MIT Press.  
Hale, K, Keyser, J (2002) *Prolegomenon to a Theory of Argument Structure*. Cambridge: MIT Press.  
Kayne, R. (1981). “ECP Extensions.” *Linguistic Inquiry* 12, 93-133.  
Kiparsky, P. & Kiparsky, C. (1970). Fact. In *Progress in Linguistics*, Manfred Bierwisch & Karl  
Heidolph (eds.), 143-173. The Hague: Mouton.  
Melvold, J. (1986). Factivity and Definiteness. Manuscript, MIT  
Rackowski, A. & Richards, N. (2005). “Phase Edge Extraction: A Tagalog Case Study.” *Linguistic Inquiry* 36. 565-599.