## Prosodic Asymmetry in English Modification

Michael Wagner. Cornell University.

Modifiers vs. Arguments. Gussenhoven (1983a), Krifka (1984), Selkirk (1984), Jacobs (1992), Truckenbrodt (1993) observe that while arguments tend to form a single accentual domain together with an adjacent predicate (1a), modifiers tend to phrase separately (1b). This has been experimentally tested in Gussenhoven (1983b) and Birch and Clifton (2003), and taken to be an argument that semantic information (argument vs. modifier) plays a direct role in the mapping to prosody. This paper presents parallels in the prosody of modification and predication that suggest a different interpretation of the data.

Asymmetries in Modification and Predication. One class of modifiers show the following asymmetry: If a modifier precedes the modifiee, i.e. its argument (Modifier-Argument Order, 'MA-Order'), it receives an independent accent domain on a par with the accent domain of the modifiee (but may be rhythmically reduced); if it follows the argument or part of it (AM-Order), it is prosodically subordinated, i.e. it receives a realization with a substantially reduced pitch range and is effectively affixed to the preceding prosodic domain of the argument. Relevant Cases in English are sentential modifiers that attach high (e.g. wide-scope 'again' (2), frame setting locatives, and many others). Predicates show a similar asymmetry: If a predicate precedes its complement ('VO-order'), it is phrased into its own accentual domain (but may be rhythmically reduced); if it follows its complement or part of it ('OV-order'), the two are phrased together and the predicate is prosodically subordinated. Secondary Predication and Modification. A second type of predication ('secondary predication') involves predicates that follow their argument and fail to subordinate. Examples are depictive secondary predicates. A common analysis of secondary predication is that the argument of the functor is not the complement of the predicates but c-commands an empty category in the complement position. The predicate is adjoined. The two types of predication show different syntactic properties. An analogous pattern can be observed for certain modifiers ('secondary modification'): They follow their modifiee and they fail to subordinate prosodically. Examples are low sentence final adverbials in English, postnominal NP modifiers, and parasitic gaps. This latter type of modifier also shows a different set of syntactic properties (as evidenced by c-command and coordination tests, (cf. Pesetsky, 1995; Phillips, 1996; Nissenbaum, 2000; Larson, 2005). The modifiee is not the complement of the modifier, but c-commands and binds an empty category in the complement position of the modifier.

**New Generalization**. The observations point to the following conclusion: Not modifiers and arguments should be compared, but modifiers and predicates. Regular Modification and Predication show parallel asymmetries: the functor is subordinated when following the argument. In cases of secondary predication and secondary modification, the functors do not subordinate and obligatorily form an independent prosodic domain.

**Proposal.** The paper proposes a recursive syntax—phonology mapping algorithm that accounts for the asymmetries. I explore and compare two implementations: one that makes use of the semantic functor/argument distinction in negotiating the prosodic relation between sisters constituents; the second is purely syntactic and posits that non-secondary predication with OV-order is derived by movement from underlying VO, and non-secondary modification in AM-order is derived by moving the from underlying MA. Prosody reflects the derivational history (following the derivational approach to nuclear stress in Bresnan (1971)). The paper discusses some issues that arise in deciding between these two options.

- (1) Argument vs. Predicates: Gussenhoven (1983a)
  - a. Case A: Predicate followed by Argument: One Accent Domain can be Formed
    - i. We repair radios.
    - ii. They are catching *fish*.
- b. Case B: Predicate followed by Modifier: Always Two Accent Domains
  - i. She sings *beautifully*. (Modifier)
- ii. I distrust noone. (Quantifier)
- (2) Prosodic Asymmetry for Repetitive Again
  - a. Agàin, sómebody ópened an emérgency door.
  - b. Agáin somebody opened an emergency door. (focus on adverb)
  - c. Sòmebody opened an emérgency door, again. (neutral)
  - d. [Sòmebody opened an emèrgency door] agáin. (focus on adverb)
- (3) VO and OV-Asymmetry in English
  - a. They painted the wall.
  - b. They painted the wall (focus on predicate).
  - c. They wanted to have the walls painted.
  - d. They wanted to have the walls painted. (focus on predicate)
- (4) Secondary Predicate Susan was riding her bike drúnk/without her senses.
- (5) Secondary Modifier Susan sang beautifully/in the shower/at 3 pm.

## References

- Birch, Stacy, and Chuck Clifton. 2003. Effects of varying focus and accenting of adjuncts on the comprehension of utterances. MS. SUNY Brockport and UMass Amherst.
- Bresnan, Joan. 1971. Sentence stress and syntactic transformations. Language 47:257–81.
- Gussenhoven, Carlos. 1983a. Focus, mode, and nucleus. Journal of Linguistics 19:377-417.
- Gussenhoven, Carlos. 1983b. Testing the reality of focus domains. Language and Speech 26:61–80.
- Jacobs, Joachim. 1992. Neutral stress and the position of heads. In Informationsstrukur und Grammatik, ed. Joachim Jacobs, Linguistische Berichte Sonderheft 4, 220–244. Opladen: Westdeutscher Verlag.
- Krifka, Manfred. 1984. Fokus, Topik, syntaktische Struktur und semantische Interpretation. Universität Tübingen.
- Larson, Richard K. 2005. Sentence final adverbs and scope. In Proceedings of NELS 34, ed. Keir Moulton and Matt Wolff. Stony Brook.
- Nissenbaum, Jonathan D. 2000. Investigations of covert phrase movement. Doctoral Dissertation, MIT.
- Pesetsky, David. 1995. Zero syntax. experiencers and cascades. Cambridge, Ma: MIT Press.
- Phillips, Colin. 1996. Order and structure. Doctoral Dissertation, MIT.
- Selkirk, Elisabeth O. 1984. Phonology and syntax. the relation between sound and structure. Cambridge, Ma.: MIT Press.
- Truckenbrodt, Hubert. 1993. Syntax vs. phonology: Which gets the stress right? Ms. MIT.