

## The Accent Projection Principle: Why the hell not?

Merchant (2002, 2003) notes that many Northern Germanic languages allow prepositions to appear after the *wh*-word in sluicing constructions (1). He calls this phenomenon *Swiping*. In this paper, I propose a phonological output constraint that accounts for two peculiar properties of swiping noted by Merchant (2003): (i) that the stranded preposition must be *accented*, which I define as intonationally prominent, where prominence can be signaled in various ways, including stress, and (ii) that swiping allows *the hell*, while standard sluicing does not (2). I show that this output constraint also accounts for a wide range of non-sluicing syntactic facts in English. I further argue that this constraint must be phonological, and not phonetic, as it accounts for deletion facts in American Sign Language (ASL).

Building on work by Gussenhoven (1984, forthcoming) and others, I assume that accents are calculated based on semantico-phonological domains, which Gussenhoven has called *Focus Domains* (FD). In a given sentence, each FD contains one sentence accent. While the content of most FDs is determined by the speaker, several fixed FDs have been identified in the literature. Displaced *wh*-words are one such fixed FD, as they obligatorily form their own FD, and always carry a sentence accent. In standard sluicing cases, the pronounced sentence ends in the FD of the *wh*-word.

Swiping cases are more complicated, as the pronounced sentence ends in a preposition, and not in the *wh*-word. Given that the *wh*-word is a complete FD unto itself, the preposition must be a member of a separate FD. I propose that in cases with only a single item within an FD, such as swiping, the single item must carry the accent of the FD, otherwise the FD is ill formed. To phrase it slightly differently, every FD must have an accent. I call this the *Accent Projection Principle* (APP). Given that accents are calculated based on a set of language-specific rules (Gussenhoven 1984), and assuming the APP, languages that may assign a sentence accent to a preposition, such as English, may also have an FD that contains only the preposition. In this way, the APP accounts for the fact that the preposition in swiping must be accented.

Similarly, *the hell* must also be a member of a separate FD, and the APP requires that this FD have an accent. As it is similar to other semantic operators such as *only* and *even*, *the hell* cannot carry the accent, therefore in standard sluicing cases such as (2b) the FD is ill formed with respect to the APP. In swiping cases, the stranded preposition may carry the accent, and the FD is well formed with respect to the APP. This account extends to Rosen's (1976) observation that swiping is unacceptable when the preposition is contained in the antecedent (3). Because English disallows repeated elements to carry accent, the repeated preposition is ill formed with respect to the APP.

As a phonological output condition, the APP extends to other phenomena that involve some form of deletion. The APP accounts for the observation that English VP ellipsis is only acceptable when some element (adverb, negation, or object) follows the surviving auxiliary (4). These elements must be accented, as predicted by the APP. The APP also accounts for the fact that repeated, and hence de-accented, material is generally prohibited in English predicates without an adverb or negation (5).

The APP also operates in non-auditory modalities. In ASL, certain constructions such as VP ellipsis and pseudogapping require an obligatory non-manual marker called *head nod* (HN), and are ill formed without HN (6). If other intensifying methods are used, such as exaggerated sign size or intense facial expressions, the HN is no longer required (Liddell 1980). These phenomena receive a direct analysis under the APP if HN is analyzed as a form of accent.

In sum, I have proposed a phonological output condition, the APP, which accounts for Merchant's swiping facts, Rosen's observation, VP ellipsis facts, and certain de-accented constructions in English. I have also demonstrated that the APP must be an abstract phonological principle, and not just a phonetic property of certain constructions, as it accounts for a broad range of deletion facts in ASL. Although my proposal remains neutral with respect to the syntactic analysis of sluicing, the APP effects described above provide indirect support to syntactic analyses of sluicing as deletion. The APP is a phonological output condition that syntactic operations, such as deletion, must respect. Therefore the presence of APP effects in sluicing provides support for analyses that rely on a syntactic operation with phonological effects, such as deletion.

N.B. 1: UPPERCASE signifies accent in English examples. Underline signifies head nod in ASL. IX is a type of pronoun in ASL articulated by pointing with the index finger to a specific region of space.  
 N.B. 2: Examples (1) and (2) are taken from Merchant 2003. Example (3) is from Rosen 1976. Example (6) is from Liddell 1980.

- (1) a. Sluicing: They were arguing about something; God only knows what.  
 b. Swiping: They were arguing; God only knows what ABOUT.
- (2) a. They were arguing, but God only knows what the hell ABOUT.  
 b. \*Somebody broke it, and I want to know who the hell!
- (3) a. \*I'm getting involved in something, and I don't know exactly what in  
 b. I'm getting involved, and I don't know exactly what in
- (4) a. Mary bought a coat today, and Bill did \*(YESTERDAY)  
 b. Mary bought a coat and Bill did \*(NOT)  
 c. Mary bought a coat and Bill DIDn't/\*DID  
 d. Mary didn't buy a coat, but Bill DID/\*did
- (5) a. \*John hit Bill and Mary hit Bill  
 b. John hit Bill and Mary hit Bill TOO
- (6) a. CHASE CAT DOG  
 'As for chasing the cat, the dog did it'  
 b. HAVE WONDERFUL PICNIC. IX BRING SALAD, JOHN BEER, SANDY CHICKEN, TED HAMBURGER  
 'We had a wonderful picnic. I brought the salad, John the beer, Sandy the chicken, and Ted the hamburger'  
 c. MAN BUY CAR IX  
 'The man bought a car, he did'

### Selected References

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