Giorgos Spathas, University of Utrecht, No syntax for focus-marking

Aim A theory of focus examines the correlation of the prosodic properties of an utterance with the informational status of its parts; i.e. the alignment of the semantico-pragmatic and phonological components of the grammar. Since Jackendoff (1972), this alignment is usually taken to be mediated by syntax through the use of F(ocus)-markers. This paper makes a crucial step in minimizing the role of syntax by arguing that (i) there are no syntactic rules affecting the distribution of F, and (ii) the relevant economy condition should be defined in semantic rather than syntactic terms. **The data** I focus on the distinction between the VPs in (1) and (2). Whereas a response to (1A) allows either a single-accent (1B1) or a a double-accent (1B2) variant, a response to (2A) requires a double-accent variant. **Some syntax for F-marking** Like Selkirk (1996) before him, Schwarzschild (1999) assumes the *Basic F-Rule* in (3). Furthermore, he argues for a focus theory that (i) uses a single information-structural notion, that of *Givenness* in (4), ((5) introduces an informal procedure for building Existential F-Closures) (ii) requires that every constituent is checked for Givenness, i.e. that every constituent is a *focus domain (FD)*, as in (6), and (iii) assumes the economy principle *Avoid-F* in (7). This set of assumptions predicts the syntactic structures in (8) and (9), for the VPs in (1B) and (2B) respectively. (6) requires that all nodes in (8) are F-marked. Notice that although (8) also satisfies (4)/(6) as a possible structure for (2B), it is ruled out by (7), since (8) contains three F-nodes, whereas (9) only contains two. (8) correctly predicts the accent pattern in (1), since both (1B1) and (1B2) respect the Basic F-Rule. The same is true, however, for (9); the Basic F-Rule cannot explain why single-accent is available for (8) and not for (9). This leads Schwarzschild to assume a syntactic distinction between F- and Foc-nodes, as in (10). The syntactic structures for (1B) and (2B) are, then, the ones in (11) and (12) respectively. (3) is replaced by (13). (13) is satisfied by (1B1/2). It is also satisfied by (2B2), but not by (2B1); *praised* is Foc-marked but unaccented. **No syntax for F-marking** I propose an alternative explanation of the contrast between (1) and (2) that requires no syntax for F-marking. I assume that F-markers are freely assigned on syntactic nodes and are only constrained by Givenness and economy; i.e. I dispense with the Basic F-Rule and Foc-marking. The main innovation is a modification of (6). I assume that not all constituents are checked for Givenness (i.e. that not all constituents are FDs), but that only *cyclic nodes* are, as in (14). Cyclic nodes are root nodes of constituents that are Spelled-Out (as in Chomsky 2001). Assuming that the VP is a cyclic node, the syntactic structures that satisfies (14) for (1B) is the one in (15). In the case of (2B), both (15) and (16) satisfy (14). AvoidF, then, favours (15) over (16). If, however, both (1B) and (2B) correspond to (15), there is no way to account for their prosodic differences. To remedy that, I follow Sauerland (2005), Wagner (2005) in assuming that the economy principle should be defined in terms of Maximize Presupposition, as in (17). (17) favours (16) over (15) since $\exists R \exists x \exists y. R(x)(y)$ asymmetrically entails $\exists P \exists x. P(x)$. So, (15) corresponds to (1B) and (16) to (2B). On the phonology side, the two structures are interpreted by the stress assignment rules of *Complement Prominence* (cf. Gussenhoven 1984, Selkirk 1996, among many others), in (18), and *Focus Prominence*, in (19), respectively. Both (1B1) and (1B2) satisfy (18) since it is known that in a series of pitch accents the right-most one is perceived as the most prominent (Wagner 2005). (19) forces both *praised* and *Helen* to receive pitch accents, as in (2B2). (1B) and (2B) are, thus, prosodically differentiated because F-marking is involved in the latter but not the former, a move only possible under (14) and (17). **Cyclic Domains** I provide independent evidence in favor of (14) over (6), on the basis of the prosody of the VP in (20B). Since *Zelda* is Given and *praised Zelda* is not, (6) forces the syntactic structure in (21). According to (19)(or, indeed, any version of it), however, (21) corresponds to the infelicitous (20B1). The problem with (21) is that *praised* and *Zelda* are both FDs, so that one is F-marked and the other is not. If, instead, the VP *praised Zelda* is the only relevant FD, as required by (14), the only option is to F-mark the VP-node, as in (22). (18), then, applies within the VP generating the felicitous (20B2). I also provide evidence that other nodes that have been argued to be cyclic nodes, like complex DPs and sentences, are FDs. Wagner (2005), Kratzer and Selkirk (2007), provide independent evidence that the domain of application of stress assignment rules that are not sensitive to F-marking (like, e.g., (18)) should be equated with the syntactic cycle. My

proposal, then, further unifies the behavior of all principles that determine prosody by claiming that the domains of evaluation of Givenness should also be equated with the syntactic cycle. **Conclucions** I have taken two steps in simplifying the alignment of prosody and information structure by eliminating syntactic rules that affect the distribution of F-marking and adopting an economy principle based on Maximize Presupposition. In the resulting framework, F-markers on syntactic structures do nothing more than to provide the basis for building Existential F-Closures. In the last section of the talk I discuss the possibility of building Existential F-Closures based on prosodic rather than syntactic representations. Such a mechanics would allow the total elimination of F-marking and a model of grammar in which phonoly and semantics/ pragmatics talk to each other without the mediation of syntax, as in the model of, e.g., Reinhart (2006).

(1)   A: What did Bill do?   (2)   A: Bill dissed Sue.

       B1:   Bill praised HELEN.   B1:   No, Bill praised HELEN.   #

       B2:   Bill PRAISED HELEN.   B2:   No, Bill PRAISED HELEN.

(3)   An accented word is F-marked.

(4)   An Utterance U counts as *Given* iff it has a salient antecedent A and i. modulo $\exists$-   type shifting, A entails the Existential F-closure of U, ii. if U is of type e, A and U corefer.

(5)   Replace F-marked phrases in U with variables and existentially close the result, and raise to type *t* by edxistentially closing unfilled arguments.

(6)   If a constituent is not F-marked, it is Given.

(7)   F-mark as little as possible, respecting Givenness.

(8) $[_{VP}$ praised$_F$ Helen$_F]_F$ (9) $[_{VP}$ praised$_F$ Helen$_F]$

(10)   A *Foc*-node is an F-node that is not immediately dominated by another F-node.

(11) $[_{VP}$ praised$_F$ Helen$_F]_{Foc}$ (12) $[_{VP}$ praised$_{Foc}$ Helen$_{Foc}]$

(13)   Foc-marked material must be accented.

(14)   Cyclic nodes must be Given.

(15) $[_{VP}$ praised Helen$]_F$ (16) $[_{VP}$ praised$_F$ Helen$_F]$

(17)   If α and β are syntyacftic representations of an Utterance U that are both   Given, and the Existential F-closure of α asymmetrically entails the Existential F-closure of β,   pick α.

(18)   If A and B are elements in a cycle, and A is a functor and B its complement, B is more prominent that A.

(19)   F-marked nodes receive pitch-accents.

(20)   A: What did Helen's father do?   (21) $[_{VP}$ praised$_F$ Helen$]_F$

       B1:   He PRAISED Helen.   #   (22) $[_{VP}$ praised Helen$]_F$

       B2:   He praised/ PRAISED HELEN.

Selected References: Gussenhoven, C. 1984. *On the Grammar and Semantics of Sentence Accents*. Foris, Dordrecht. **Kratzer, A. and E.Selkirk. 2007**. Phase theory and prosodic spell-out: the case of verbs. *The Linguistic Review* 24, 93-135. **Schwarzschild, R. 1999**. GIVENness, AvoidF and other constraints on the placement of accent. *Natural Language Semantics* 7:141-177. **Selkirk. E. 1996**. Sentence Prosody: Intonation, Stress and Phrasing. In J. A. Goldsmith (ed.), *The Handbook of Phonological Theory*. Blackwell, London. **Reinhart, T. 2006**. *Interface Strategies*. MIT Press. uistic Inquiry 30, 97-119. **Wagner, M. 2005**. Prosody and recursion. MIT Dissertation.