## Information structure and secondary agreement

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Conditions on verb agreement are often assumed to be definable in purely syntactic terms. In some languages, however, agreement depends on information structure role: the verb agrees with topical arguments, and not with nontopics. We will explore the interaction of discourse roles and agreement with nonsubjects in two languages, Northern Ostyak and Maithili, showing that the verb agrees with the secondary topic in both languages. We present a formal analysis of these patterns within the theory of Lexical Functional Grammar, which allows for a formal representation of discourse roles in information structure as well as grammatical functions.

Transitive verbs in Ostyak show primary agreement with the subject (1a), and may also show secondary agreement with the direct object (1b). Object agreement forms indicate the number (but not the person) of the direct object. There is no verb agreement with arguments other than subject and object. In further glosses, object agreement verbs will be glossed simply as Obj.

- (1) a. ma tam kalan we:l-s-əm I this reindeer kill-Past-1SgSubj 'I killed this reindeer.'
  - b. ma tam kalaŋ-ət we:l-sə-l-am I these reindeer-Pl kill-Past-PlObj-1SgSubj 'I killed these reindeer.'

As shown by Nikolaeva (1999, 2001), secondary agreement in Ostyak depends on the information structure role of the object: in particular, the verb agrees with objects that are secondary topics. Nikolaeva (2001, 26) defines the secondary topic as 'an entity such that the utterance is construed to be ABOUT the relationship between it and the primary topic'. In utterances with a secondary topic, two referents are under discussion, and the utterance simultaneously increases the addressee's knowledge about both of them (Givón, 1984; Polinsky, 1995, 1998; Erteschik-Shir, 1997). Object agreement must be present in a sentence like "I killed it/the reindeer" if it is the answer to a question like "What did you do to this reindeer?".

In contrast, nonagreeing objects in Ostyak are nontopical and share a cluster of semantic and pragmatic properties that are associated with narrow or wide focus. In object questions and answers, agreement must be absent:

- (2) a. mati kalaŋ we:l-əs / \*we:l-s-əlli which reindeer kill-Past.3SgSubj / \*kill-Past-Obj.3SgSubj 'Which reindeer did he kill?'
  - b. tam kalaŋ we:l-əs / \*we:l-s-əlli this reindeer kill-Past.3SgSubj / \*kill-Past-Obj.3SgSubj 'He killed this reindeer.'

Objects under the scope of focus items such as 'only' or 'even' never trigger agreement:

(3) ma tup wul a:n il pa:jət-s-əm / \*pa:jət-s-e:m I only big cup down drop-Past-1SgSubj / \*drop-Past-Obj.1SgSubj 'I dropped only the/a big cup.'

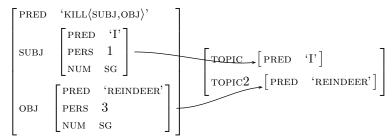
Nikolaeva (1999, 346) provides syntactic evidence to show that agreeing objects exhibit more properties of core grammatical functions than nonagreeing objects. The syntactic differences she discusses can be explained by assuming that the agreeing object is the primary object, the obj in LFG, while the nonagreeing object is the restricted or secondary object objec

(4)	Grammatical	Discourse	Agreement
	function	role	
•	SUBJ	TOPIC	Subject agreement
	OBJ	TOPIC2	Object agreement
	$\mathrm{OBJ}_{ heta}$	nontopic	No agreement

This means that object agreement in Ostyak is in fact determined by the syntactic role of the argument: the verb agrees with the primary object. The appearance of a correlation with the discourse role of the

argument comes about because of the very close alignment between discourse roles and syntactic roles in this language. Primary objects in Ostyak are always associated with the secondary topic role, while secondary objects must be nontopical.

(5) Functional structure for (1b): Information structure:

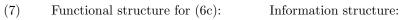


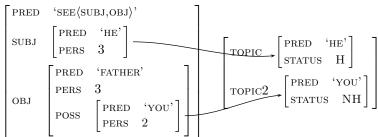
Maithili secondary agreement contrasts strongly with Ostyak: in Maithili, secondary agreement is possible not only for objects, but for possessors of objects, possessors of subjects, and probably other syntactic roles. Agreement depends not on the syntactic role of the argument, but on whether or not it bears the secondary topic role in information structure. Thus, unlike Ostyak, secondary agreement in Maithili is defined purely in information-structural terms.

The Maithili verb agrees with the controlling NP in person and honorific grade: High-Honorific, Honorific (H), Mid-Honorific (MH), and Non-Honorific (NH) (Yadav, 1996). Agreement with the subject is obligatory, and in addition Maithili has optional secondary agreement with a nonsubject NP. The grammatical function of the controller of secondary agreement may vary: in (6a) it is an object (you), in (6b) it is a possessor of the subject (your), and in (6c) it is a possessor of the object (your).

- (6) a. həm to-ra kitab d-əit ch-iəuk I you.NH-Obj book give-Part be-1.2NH 'I gave a book to you (NH).'
  - b. toh-ər babu æl-thunh your.NH father.H came-3H.2NH 'Your (NH) father (H) came.'
  - c. o tora: ba:p-ke dekhalthun he.H your.NH father-Obj saw.3H.2NH 'He saw your (NH) father.'

Stump and Yadav (1988) argue that the principles governing agreement with the nonsubject are pragmatic in nature. We propose to subsume the factors they discuss under the notion of topicality, if topicality is understood as pragmatic saliency, and define secondary agreement as triggered by the secondary topic (TOPIC2). Though Stump and Yadav do not give explicit information about the context of use of sentences with secondary agreement, our analysis predicts that they are used in a context in which the individual referenced by secondary agreement is highly salient (compare Comrie 2003), and the assertion specifies the relation between the referent of the subject of the sentence and this individual. On this view, example (6c) asserts a relation between the referent of the subject 'he' and the addressee—that is, between 'he' and 'you' rather than between 'he' and 'your father'.





Our work shows that processes that are often thought to be driven purely by syntactic structure, such as agreement, can in fact make reference to other levels of structure, but that careful examination is needed to determine whether agreement refers directly to information structure, or only indirectly, by virtue of a tight alignment between discourse roles and grammatical functions.