Object Agreement and Grammatical Functions: A Re-evaluation

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1 Introduction

One of the fundamental assumptions of the Minimalist Programme, and its predecessor Government and Binding Theory (GB), is that Grammatical Functions such as Subject and Object, whilst they make a great deal of intuitive sense, play no formal role in the grammars that underlie natural language. This assumption is not universally shared, with the degree to which a framework relies on GFs, differing depending on framework. Some frameworks are relatively ambivalent on the matter, such as Head Driven Phrase Structure Grammar (Pollard and Sag, 1994), whereas in others GFs are a deep and fundamental part of the system, for instance Lexical Functional Grammar (LFG) (Dalrymple, 2001) and Relational Grammar (Perlmutter and Postal, 1983).

In contrast to these frameworks, the work handled by Grammatical Functions (GFs) in Minimalism/GB has been shifted to other aspects of the theory, notably structural configurations (see McCloskey 1997 for a detailed overview). Under this view, the properties that appear to derive from a supposed Subject role come instead from the positions in the structure that the subject has passed through.

There is a vast amount of literature that goes to the heart of these questions, far too big for me to even come close to discussing here. However, for the purposes of this paper, I will focus on the claim made in Dalrymple and Nikolaeva (2011) that object agreement in Khanty (also known as Ostyak) is sensitive to the GF of the object.[1] Specifically, their claim, which I will elaborate on in greater detail below, is that there are two types of objects in Khanty which can be distinguished in terms of their GF: Object and Object$_\theta$, and only the former type of object is able to enter into object

[1] Predecessors of this claim can be found in work by Irina Nikolaeva (Nikolaeva, 1999a; Nikolaeva, 1999b; Nikolaeva, 2001).

agreement in the language. The appeal to GFs is supported by the clustering of syntactic properties that accompany object agrement.

This paper is organised in the following way. In section 2 I discuss purported cross-linguistic connections between GFs and agreement, before I look at Khanty and the specifics of Dalrymple and Nikolaeva (2011)'s claim in section 3. In section 4 I show that the agreement facts of Khanty can be handled under a theory without referencing GFs, drawing particularly on an analysis of Differential Object Marking effects in Baker (2015) with some minor additions and changes. However, this leaves a residue of properties to be accounted for, which will be the focus of section 5. I then conclude the paper in section 6.

2 Grammatical Functions and Agreement

2.1 Subject Agreement

As mentioned earlier, the debate surrounding the status of GFs in grammatical theory is far too complicated and long to go into here, but — especially in a volume about agreement — it is worthwhile briefly looking at how the issue relates to agreement. As Corbett (2012) carefully notes, whilst GFs can provide a useful heuristic of determining which elements are able to enter into agreement relations in a language, it is not possible to describe all agreement patterns in terms of GFs. For instance, English looks on the surface like a language where agreement could be characterised as taking place between verb and subject, given that overwhelmingly the subject of the sentence agrees with the verb (assuming that there is verbal agreement). However, there are known instances where agreement between the verb and subject fails, such as in (1), where the plural subject fails to control plural agreement (see Pollard and Sag 1994 for discussion on these types of nouns). Thus, if we would grant that the SUBJECT function exists in the grammar of English, it is not the case that all and only elements with the SUBJECT function enter into verbal agreement.

(1) Human resources is on the phone.

Putting such cases aside, which constitute exceptions to the general rule, the interesting question is whether GFs should be appealed to in the formulation of agreement rules. Moravcsik (1974) and Moravcsik (1978) proposes that the notion of GF plays a role in determining what is able to control agreement in a language and we can formulate implicational statements on the basis of these. In short, Moravcsik states that if there is agreement in a language, subjects are always able to be agreement controllers. If there are two elements that are able to control agreement, it will be subject and object. If there are three, it will be subject, object and indirect Object. Bobaljik (2008) refers to the following as the Moravcsik Hierarchy:

(2) Moravcsik Hierarchy:
Subject > Object > Indirect Object > Adverb

Bobaljik's discussion of the Moravcsik Hierarchy is relevant for our purposes, because, as he discusses in detail, in a language with a Nominative-Accusative case alignment, Moravcsik's hierarchy competes with an alternate characterisation of what determines the agreement controller, namely morphological case. It will generally be the case that in a Nominative-Accusative alignment, the subject is in nominative case whilst the direct object is in accusative case. Thus, we could formulate Moravcsik's hierarchy in these languages in terms of morphological case.

Things become interesting with languages with an Ergative-Absolutive case alignment. In this instance, there is no longer a clear match between GF and morphological case: subjects are sometimes absolutive and sometimes ergative, depending on transitivity. Crucially, Bobaljik shows that there is no language that will agree with an ergative subject, but not an absolutive object. That is, whilst there are languages with agreement that is triggered by only absoultive arguments, and languages where agreement is either with absolutive or ergative arguments, there does not seem to exist a language that will agree only and exclusively with subjects. Thus, framing the rules for subject agreement in terms of morphological case, rather than GF better captures the cross-linguistically attested patterns.

2.2 Differential Object Agreement

The question of whether GFs play any role in the grammar is also important for object agreement as well, due to a proposal by Dalrymple and Nikolaeva (2011) who argue for an analysis of object agreement in Khanty that crucially appeals to GFs, which will be the focus of section 3 onwards in this paper. Their analysis of Khanty forms part of a wider theory of Differential Object Marking (DOM) that is couched in Lexical Functional Grammar, and incorporates the use of GFs. I do not intend to provide a critical discussion of all aspects of Dalrymple and Nikolaeva's proposal — I could not hope to do credit to their work in the space provided here — but I wish to focus on this claim and how it relates to DOM that is expressed through agreement.

Differential object marking refers to the phenomenon where objects are marked with special morphology that signals the object of a sentence fulfils certain conditions, usually related to specificity and definiteness (though not always, see the discussion of Khanty in section 3). The following, from Sakha (Turkic) illustrates. In (3a), the object is specific, and marked for accusative case, whereas in (3b), the object is non-specific and does not recieve case marking.

(3) Sakha, Baker (2015, p. 126)
a. Masha salamaat-y türgennik sie-te
Masha porridge-ACC quickly eat-PAST.3SGS

‘Masha ate the porridge quickly.’

b. Masha türgennik salamaat sie-te
Masha quickly porridge eat-PAST.3SGS
‘Masha ate porridge quickly.’

Differential Object Agreement (DOA) is clearly related to Differential Object Marking and is plausibly the same phenomenon. Dalrymple and Nikolaeva treat it as such, and since I do not wish to take a stance on this here I will follow them in this regard. DOA is seemingly less widely attested than DOM, but attested across various unrelated languages nonetheless. The difference between DOM and DOA is simply that the marking in DOM is realised on the object itself, usually by a case morpheme, whereas in DOA the special marking is carried on the verb by way of an agreement affix. In Ruwund (Bantu, Woolford 2001) verbs will agree with a specific animate object, but not a non-specific one:[2]

(4) Ruwund, Woolford (2001, p. 4)

a. ku-kimb muntu
INF-look.for person
‘to look for a (any) person.’

b. ku-mu-kimb muntu
INF-O-look.for person
‘to look for a/the person’ (with a particular person in mind)

DOM and DOA stand as excellent testing grounds for the existence of GFs, given that they refer specifically to a property of objects, with DOA providing a useful base for testing their role in agreement relations.

GB/Minimalist approaches to DOM, where there is no sense that a function ‘object’ exists, have tended to characterise it as an alternation between different positions for the object in the structure. The idea in brief, is that objects that are marked have moved into a higher structural position, which in turn causes or licenses the marking that they carry. Objects that carry the features that are prototypical of DOM (such as being definite or specific) have been documented to move to a higher position than the indefinite or non-specific counterparts (Diesing, 1992). If marking is then restricted to higher positions, then we expect definite and specific objects to be marked, but indefinites/non-specific objects not. Such movement accounts are supported by instances whereby marking on the object is clearly correlated with a difference in syntactic position, as can be seen in the Sakha data above: Baker notes that the accusative morpheme is obligatory in (3a), where the object appears to the left of the adverb, but impossible in

[2]Woolford notes that object agreement is obligatory with GOAL arguments, which is somewhat in accordance with Khanty below. She gets her examples from Nash (1992, p. 565).

(3b), where the object appears to the right of the adverb, suggesting that movement to a higher position does play a role.

A movement approach has been applied to DOA in Woolford (1999) and Woolford (2001), who accounts for this by assuming that objects that show agreement lie in a higher structural position in the clause than objects that don't agree. Woolford's analysis for Ruwund, couched within Optimality Theory, proposes exclusion constraints that prevent objects with certain features from remaining within the VP. For the data in (4b), Woolford propoeses that the object bears the features [+specific,+animate], and that there is an exclusion constraint operative in the language that prevents objects from bearing those features from remaining in VP. Woolford further proposes that objects that have moved to Spec,AgrOP agree with the verb. This, coupled with a general conditions of economy ("move only if you need to"), predicts that only objects bearing these features will trigger agreement. Whilst there are a couple of shortcomings of Woolford's analysis (for instance, it has been to my mind fairly conclusively demonstrated that Spec-Head agreement is not necessary for agreement to take place, see, for instance Long Distance Agreement phenomena, Polinsky and Potsdam, 2001), the general thrust of Woolford's analysis is consistent with a prominent account of DOM taken in GB/Minimalist approaches: high objects get a special marking (only expressed on the verb) by virtue of moving out of the VP domain.[3]

3 Khanty and the Properties of Objects

Khanty (also known as Ostyak) is a Uralic language spoken in Siberia by around 10,000 people (Simons and (eds.), 2018). It is a fairly typical member of the Finno-Ugric branch of the Uralic languages, showing a mix of agglutinative and fusional morphology. There are a variety of different dialects (Nikolaeva, 1999b), but in this paper, all the data comes from Nikolaeva (1999a) and Nikolaeva (2001) and Dalrymple and Nikolaeva (2011), and so I discuss only the northern dialect.

3.1 Object Agreement in Khanty

First I outline the relevant properties that are crucial for the discussion. Khanty has obligatory subject agreement with both intransitive and transitive verbs.

[3]One of the criticisms levied against this type of approach is that evidence that movement takes place is often lacking, or it is difficult to determine (Dalrymple and Nikolaeva, 2011; Baker, 2015), and sometimes there is evidence against such movement having taken place (Kalin and Weisser, 2017). There are a variety of proposals regarding DOM that are not based on the movement account (Bossong, 1991; Aissen, 2003; de Swart, 2007; Keine and Müller, 2014; Kalin, to appear), but a complete overview of the field will take us too far afield from our purpose here. Since my major focus is on the supposed role that GFs play, and I base my account (partly) by appealing to movement, I restrict my attention to this approach.

(5) Dalrymple and Nikolaeva (2011, p. 142)

a. (ma) je:lən o:məs-l-əm
I at.home sit-PRES-1SGS
'I am sitting at home.'

b. (ma) tam kalaŋ we:l-s-əm
I this reindeer kill-PAST-1SGS
'I killed this reindeer.'

Object agreement appears to be optionally available for transitives if we compare (5b) with (6). Note the vowel change in the agreement suffix. Nikolaeva (1999a) claims that in this case, where the object is singular, we can view the agreement morpheme as a portmanteaux that expresses both subject and object agreement.

(6) Dalrymple and Nikolaeva (2011, p. 142)

(ma) tam kalaŋ we:l-s-e:m
I this reindeer kill-PAST-1SGS.SGO
'I killed this reindeer.'

Notably, if the number of the object changes to either plural or dual, then a clear object agreement suffix arises. Only the number of the object is registered on the agreement, not person. The full paradigm of object marking for the verb *we:r* 'make/do' is given in Table 1, with the morpheme carrying object agreement in boldface.[4]

(7) Dalrymple and Nikolaeva (2011, pp. 142-143)

a. (ma) tam kalaŋ-ət we:l-sə-l-am
I this reindeer-PL kill-PAST-PLO-1SGS
'I killed these reindeer.'

b. (ma) tam kalaŋ-ŋəŋ we:l-sə-ŋil-am
I this reindeer-DL kill-PAST-DLO-1SGS
'I killed these two reindeer.'

Nikolaeva (1999a) carefully shows that neither definiteness nor specificity are the relevant factor that controls object agreement in Khanty. This can be seen already in the contrast between (5b) and (6) above, as well as in (8). In both sets of examples, the definiteness and specificity remain constant, but object agreement is not seen in the (a) sentences, but is seen in the (b) ones.

(8) Nikolaeva (1999a, p. 337)

[4]The form of the verb morphology here is $\sqrt{\text{MAKE}}$-PAST-EP-OBJ-SUBJ.

Table 1: The Objective Conjugation in Khanty (Nikolaeva, 1999b)

Subject		Object Number		
Number	Person	Singular	Dual	Plural
Singular	1	we:r-l-**e:m**	we:r-l-ə-**ŋil**-am	we:r-l-ə-**l**-am
	2	we:r-l-**e:n**	we:r-l-ə-**ŋil**-an	we:r-l-ə-**l**-an
	3	we:r-l-ə-**lli**	we:r-l-ə-**ŋil**-li	we:r-l-ə-**l**-ə-lli
Dual	1	we:r-l-**e:mən**	we:r-l-ə-**ŋil**-mən	we:r-l-ə-**l**-ə-mən
	2	we:r-l-ə-**lən**	we:r-l-ə-**ŋil**-lən	we:r-l-ə-**l**-ə-llən
	3	we:r-l-ə-**lən**	we:r-l-ə-**ŋil**-lən	we:r-l-ə-**l**-ə-llən
Plural	1	we:r-l-**e:w**	we:r-l-ə-**ŋil**-uw	we:r-l-ə-**l**-uw
	2	we:r-l-**ə-lən**	we:r-l-ə-**ŋil**-lən	we:r-l-ə-**l**-ə-llen
	3	we:r-l-**e:l**	we:r-l-ə-**ŋil**-al	we:r-l-ə-**l**-al

a. ma năŋ-en/năŋ xot-en wan-s-əm
I you-ACC/your house-2SG see-PAST-1SGS
'I saw you/your house.'

b. ma năn-en/năŋ xot-en wan-s-e:m
I you-ACC/your house-2SG see-PAST-1SGS.SGO
'I saw you/your house.'

The determining factor in object agreement is topicality, according to Nikolaeva (2001). Using corpus data, she shows that object agreement is found overwhelmingly when the object is salient and/or pre-established in the discourse. Furthermore, objects that agree are existentially presupposed by the speaker. This trait can be most easily seen by looking at the class of objects that do *not* control agreement. Objects in focus generally do not control object agreement, as shown in the following, where the object is a *wh*-item (9a), the object serves as the answer to the question (9b) (new information in the sense of Lambrecht 1994), and the object is associated with a focus sensitive particle *only* (9c). All of the objects in these sentences fail to trigger object agreement.

(9) Dalrymple and Nikolaeva (2011, p. 143)

a. u:r-na mati kalaŋ we:l-əs/*we:l-s-əlli
forest-LOC which reindeer- killPAST.3SGS/kill-PAST-3SGS.SGO
'Which reindeer did he kill in the forest?

b. u:r-na tam kalaŋ we:l-əs/*we:l-s-əlli
forest-LOC this reindeer kill-PAST.3SGS/kill-PAST-3SGS.SGO
'He killed the reindeer in the forest.'

c. tamxatl tup wul a:n wa:n-s-əm/*wa:n-s-e:m
today only big cup see-PAST-1SGS/see-PAST-1SGS.SGO

‘Today I only saw the/a big cup.’

Furthermore, non-specific objects do not control agreement. Note that the object in (10) is crucially *not* in focus: focus in Khanty (as in many head final languages) is associated with an immediately preverbal position. In (10), the question word *xalśa* ‘how’ is in focus, but agreement is still not seen between the verb and the object *mu:tra*. Thus, it is not that case that the lack of object agreement correlates with the object being in focus.

(10) Nikolaeva (2001, p. 20)

ma mu:tra xalśa u:ś-l-əm/*u:ś-l-e:m?
I miracle how know-PRES-1SGS/know-PRES-1SGS.SGO

‘How may I know a miracle?’

Nikolaeva (2001) and Dalrymple and Nikolaeva (2011) propose that object agreement is mediated by information structure, and in order for an object to show agreement, it must be interpreted as a topic.[5]

Yet, this only holds for objects bearing the THEME role. When the object bears the GOAL or the CAUSEE theta role, then object agreement is always obligatory, irrespective of information structure (clearly shown in (11a) where the causee argument is in focus).[6]

(11) Dalrymple and Nikolaeva (2011, p. 149)

a. xoj xollə-ptə-s-li
who cry-CAUS-PAST-3SGS.SGO
‘Whom did he make cry?’

[5]This is simplifying somewhat. In actual fact, Nikolaeva (2001) argues that agreeing objects are secondary topics, as opposed to subjects which are the primary topic of the sentence. The distinction between primary and secondary topics is relevant for Nikolaeva, 2001 and Dalrymple and Nikolaeva, 2011, since the subject GF is assigned the primary topic role, and thus, a coarse notion of topic is not sufficient to draw the line between elements that control object agreement on the verb or not. Rather, secondary topic is introduced to allow for a distinction between which elements are mapped to OBJECT and which are mapped to OBJECT_θ, see the discussion is section 3.2. This distinction is not immediately relevant to our purposes here, and I refer the reader to the discussion in these works for further elaboration.

[6]In a ditransitive construction with a goal argument, the goal argument will control agreement on the verb when the THEME is unavailable for agreement, such as being in focus. This is because Khanty allows only one ‘primary’ object per clause, in the sense that only one object can be unmarked whilst the other must be an oblique. Khanty thus shows both indirective and secundative alignments in ditransitives (see Haspelmath 2005; Bárány 2015).

b. ma:ne:m zo:lə-ptə-s-li/*xo:llə-pteə-s
I.ACC cry-CAUS-PAST-3SGS.SGO/cry-CAUS-PAST-3SGS
'He made me cry.'

Similarly, when the GOAL argument is the (primary) object, then verbal agreement is obligatory, contrasting it with when the THEME plays the same role. This is observed with the following sentence pair.

(12) Dalrymple and Nikolaeva (2011, p. 148)
a. ma a:n Pe:tra e:lti ma-s-e:m/ma-s-əm
I cup Peter to give-PAST-1SGS.SGO/give-PAST-1SGS
'I gave a/the cup to Peter.'
b. ma Pe:tra a:n-na ma-s-e:m/*ma-s-əm
I Peter cup-LOC give-PAST-1SGS.SGO/give-PAST-1SGS
'I gave Peter a/the cup.'

3.2 Other properties connected to object agreement

In addition to providing the distribution of where object agreement is necessary and where it is impossible, the ability of triggering object agreement is apparently connected to other syntactic properties. For these properties, objects that show agreement show a commonality with subjects that is lacking with objects that do not show agreement. The various properties of objects, and how they compare to subjects are summarised in Table 2. Objects are divided into two categories to reflect the fact that some objects share properties in common with subjects, but other objects do not.[7] I do not wish to go into detail of all the properties here for space reasons, and I refer the reader to Nikolaeva (1999a) for further elaboration. As can be seen, with respect to the phenomena of verbal agreement, control in participial clauses, quantifier float, possessive reflexivisation and possessor topicalisation, subjects and agreeing objects form a natural class to the exclusion of non-agreeing objects.

For instance, both subjects (13a) and agreeing objects (13b) can enter into the possessor topicalisation construction (where the possessor is split from the possessum), whilst non-agreeing objects cannot (13c):

(13) Nikolaeva (1999a, p. 346)
a. imi ijolti lik-əl et-əl nawəriŋ pela
woman always anger-3SG come-PAST.3SGS frog to
The woman, she is always angry with the frog'
(lit: her anger always comes to the frog)

[7] Object 1 can be replaced with OBJECT, and Object 2 with OBJECT$_\theta$, once the reader is familiar with the discussion in section 3.3.

Table 2: Properties of subjects and objects in Khanty

	Subjects	Object 1	Object 2
Verbal Agreement	✓	✓	✗
Control in converbial clauses	✓	✗	✗
Control in Relative Clauses	✓	✗	✗
Control across Clauses	✓	✗	✗
Control in Participial Clauses	✓	✓	✗
Quantifier Float	✓	✓	✗
Control of Possessive Reflexivisation	✓	✓	✗
Possessor Topicalisation	✓	✓	✗

b. Juwan motta xot-əl kăśalə-s-e:m
John before house-3SG see-PAST-1SGS.SGO
'I saw John's house before.'

c. * Juwan motta xot-əl kăśalə-s-əm
John before house-3SG see-PAST-1.SGS
'I saw John's house before.'

I will return to a discussion of these properties in section 5 below, as well as quantifier float and possessive reflexivisation.

3.3 Agreement by Grammatical Function

The challenge posed by the Khanty data as outlined in section 3.1 is clear. Khanty shows a fairly typical DOM pattern since some objects are marked and others are not, but it is a system that is only partially based on topicality. On the one hand, THEMES vary according to their information structure role, whilst on the other, GOALS and CAUSEES must obligatorily control agreement, independently of whether they are topics or not. Furthermore, the ability to control object agreement is linked to a range of other syntactic properties.

The key to the explanation offered by Dalrymple and Nikolaeva (2011) is that objects that agree and ones that do not agree are mapped to different grammatical functions. To do this, they make use of the restricted object function in LFG, which limits the class of elements that can combine with a particular GF to only those bearing a specified thematic role. Dalrymple and Nikolaeva propose that objects in a sentence come in two types. Firstly, there is OBJECT, which is unrestricted in terms of which types of semantic roles can be mapped to it. Secondly, there is OBJECT$_\theta$, which is restricted. Whilst the GF OBJECT is able to be a controller of agreement on the verb, OBJECT$_\theta$ is not (see also Butt and King 1996). The key part of the proposal is that the OBJECT$_\theta$ function is limited to THEMES, whilst the OBJECT function is unrestricted, and

Table 3: Summary of how functions are assigned

Function	Thematic Role	Information Structure
OBJECT	Theme	+Topic
	Patient	+Topic
	Goal	*any*
	Causee	*any*
OBJECT_θ	Theme	−Topic
	Patient	−Topic

places no restriction on the semantic role of the argument that it is mapped to. To make the theory complete there is a birectional relationship concerning THEMES and GF: THEMES that are topical cannot be mapped to OBJECT_θ, and must be mapped to the OBJECT function, and themese that are *not* topical must be mapped to OBJECT_θ, and not OBJECT. Table 3 summarises.

To make this clearer, we will consider a couple of examples. Firstly, consider a monotransitive sentence where there is no object agreement. The object is non-topical, and in keeping with Dalrymple and Nikolaeva's generalisation, it does not trigger object agreement. Since the object is a THEME in this sentence, and is not topical, it will be mapped to the OBJECT_θ function. The f-structure is given in (14b):[8]

(14) Dalrymple and Nikolaeva (2011, p. 142)

a. (ma) tam kalaŋ we:l-s-əm
I this reindeer kill-PAST-1SGS
'I killed this reindeer.'

b.
$$\begin{bmatrix} \text{pred} & \text{'kill<subj,obj}_\theta\text{>'} \\ \text{subj} & \begin{bmatrix} \text{pred} & \text{'pro'} \\ \text{pers} & 1 \\ \text{num} & \text{sg} \end{bmatrix} \\ \text{obj}_\theta & \begin{bmatrix} \text{pred} & \text{'reindeer'} \\ \text{num} & \text{sg} \end{bmatrix} \end{bmatrix}$$

In the corresponding sentence with object agreement, we see that because the object is topical it gets mapped to the OBJECT function.

[8] Informational structural roles are not represented in the following, since it is the GF that is crucially linked to object agreement in Khanty. There is a separate level of information structure with mappings to f-structure in Dalrymple and Nikolaeva (2011), that regulates that THEMES when topics are assigned to the OBJECT_θ function, but to the OBJ function when not a topic. For reasons of space I must gloss over this here, but the f-structures are sufficient to make the point. For a fuller treatment, I refer the reader to Dalrymple and Nikolaeva (2011, especially ch. 4)

(15) Dalrymple and Nikolaeva (2011, p. 142)

a. (ma) tam kalaŋ we:l-s-e:m
I this reindeer kill-PAST-1SGS.SGO
'I killed this reindeer.'

b.
$$\begin{bmatrix} \text{pred} & \text{'kill<subj,obj>} \\ \text{subj} & \begin{bmatrix} \text{pred} & \text{'pro'} \\ \text{pers} & 1 \\ \text{num} & \text{sg} \end{bmatrix} \\ \text{obj} & \begin{bmatrix} \text{pred} & \text{'reindeer'} \\ \text{num} & \text{sg} \end{bmatrix} \end{bmatrix}$$

Finally, consider a ditransitive construction. Here, object agreement is obligatory. Note this time though, that the GOAL argument is mapped to the OBJECT function, whilst the THEME is mapped to an oblique argument.

(16) Dalrymple and Nikolaeva (2011, p. 148)

ma Pe:tra a:n-na ma-s-e:m/*ma-s-əm
I Peter cup-LOC give-PAST-1SGS.SGO/give-PAST-1SGS
'I gave a/the cup to Peter.'

(17)
$$\begin{bmatrix} \text{pred} & \text{'give<subj,obj,obl>} \\ \text{subj} & \begin{bmatrix} \text{pred} & \text{'pro'} \\ \text{pers} & 1 \\ \text{num} & \text{sg} \end{bmatrix} \\ \text{obj} & \begin{bmatrix} \text{pred} & \text{'Peter'} \\ \text{num} & \text{sg} \end{bmatrix} \\ \text{obl} & \begin{bmatrix} \text{pred} & \text{'cup'} \\ \text{num} & \text{'sg'} \end{bmatrix} \end{bmatrix}$$

At this point the GFs that are assigned to each of the arguments become crucial. They do so in the formulation of the agreement affixes for Khanty, which refer specifically to the GF. A subset of the rules of agreement are given in (18). (18a) refers to the agreement affix that expresses only agreement with a 1st person singular SUBJECT (applicable to (14a)), (18b) refers to the agreement affix that expresses agreement with a 1st person singular SUBJECT *and* a singular OBJECT (applicable to (15a) and (16)), whilst (18c) refers to the agreement affix that expresses agreement with a dual OBJECT.[9]

[9] See Table 1.

What is crucial is that there is no affix in the lexicon in Khanty that expresses agreement with Object$_\theta$.

(18) a. Agreement specifications for the agreement affix *ɔm*:
(↑ SUBJ PERS) = 1
(↑ SUBJ NUM) = SINGULAR

b. Agreement specifications for the agreement affix *e:m*:
(↑ SUBJ PERS) = 1
(↑ SUBJ NUM) = SG
(↑ OBJ NUM) = SINGULAR

c. Agreement specification for the agreement affix *ŋil*:
(↑ OBJ NUM) = DUAL

3.4 Summary

Given the complexity of the conditions that determine where objects agree, which vary according to both the information structure and thematic interpretation of the argument, the appeal to GFs provides an elegant solution to an extremely complex problem. Notably, the theory is able to provide an analysis as to why the agreeing objects show the syntactic properties that they do and why they cluster with subjects in this regard: agreement is just one syntactic property that is linked to the Object function (and the Subject function) but not the Object$_\theta$ function. The differences between topicalised Themes and non-topicalised Themes is because the former are mapped to Object, whilst the latter are mapped to Object$_\theta$. Furthermore, given that Object$_\theta$ is limited to Themes, we can see why other thematic roles must obligatorily control object agreement irrespective of their agreement structure: they must get mapped to Object.

4 Khanty Agreement without GFs

In this section I present a configurational account of object agreement in Khanty that eschews the use of GFs.[10]

4.1 DOM caused by spell-out domains

As mentioned above, many GB/Minimalist proposals regarding DOM have appealed to a difference in phrase structural position between the objects that are marked (or here, agreed with), and those that are unmarked (not agreed with). Baker (2015) discusses DOM in the context of formulating a version of dependent case (Marantz, 1991), and

[10] A configurational account is also offered in Bárány (2016).

specifically proposing that VP may form a domain where dependent case is evaluated. If we consider once more the Sakha examples, from above, repeated in (19), we see that the difference in marking of the object is dependent on whether the object appears to the right or to the left of the adverb.

(19) Sakha, Baker (2015, p. 126)

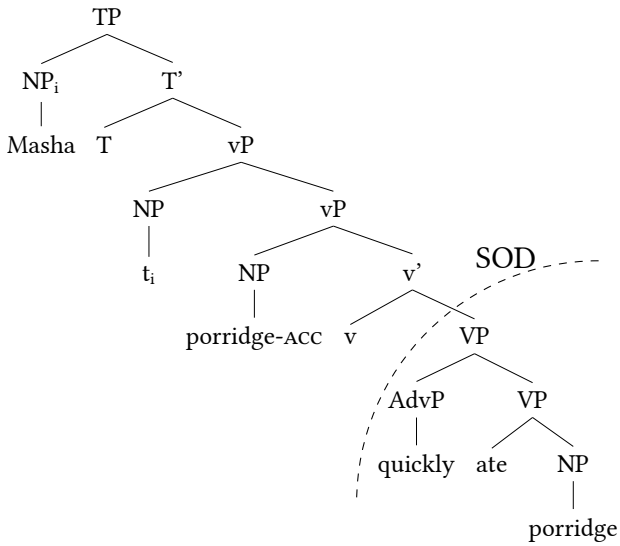
a. Masha salamaat-y türgennik sie-te
Masha porridge-ACC quickly eat-PAST.3SGS
'Masha ate the porridge quickly.'

b. Masha türgennik salamaat sie-te
Masha quickly porridge eat-PAST.3SGS
'Masha ate porridge quickly.'

Baker proposes that here, the accusative case appears on the object in (19a) because the object enters into a dependent case configuration with the subject. According to Baker, dependent accusative case can be assigned only when an argument is c-commanded by another argument within a local domain. In (19a), this happens because the object DP is c-commanded by the subject DP. However, in (19b), though the object DP remains c-commanded by the subject DP, the two are split by a spell-out domain (SOD), that is initiated by the phase head (following the standard view in phase theory that phase heads spell out their complements). Crucial here is that dependent case in Sakha cannot be assessed across a Spell-out boundary, and so when the object remains within VP it is the only argument within its domain, and dependent case is unable to be assigned. However, when it moves to Spec,vP it is c-commanded by another argument in its domain, and hence receives dependent case.[11]

(20) Adapted from Baker (2015, p.126)

[11] Sakha, like Khanty is a verb final language, but I represent the trees throughout this paper as left-headed.



Yet, high movement of objects to receive dependent case cannot be the universal pattern, since there are languages that license a dependent case on all objects, irrespective of specificity, for instance in Cuzco Quechua:

(21) Cuzco Quechua, Baker (2015, p. 146)

Juan wawakuna-man miski-*(ta) qunpuni
Juan children-DAT candy-ACC give.HAB.3sS

Juan gives candy to the children.'

It is unappealing in these cases to assume that *all* objects in these languages move to a high position, so Baker proposes that the permeability of the spell-out domain varies across languages, such that in some languages like Sakha, a spell-out boundary between two arguments will not allow dependent case relationships to be formed. However, in others, the spell-out boundary creates no such inhibition, and arguments that are split by a spell-out boundary can enter into a dependent case relationship.

As to why the spell-out boundary should be permeable in some languages but not in others, Baker offers an explanation based on the notion that phase heads can be either *hard* or *soft*. If a phase head is hard, then the spell-out domain is blocked off for further syntactic operations. On the other hand, if the phase head is soft, the contents remain visible. Effectively, DOM effects can arise in a language due to a spell-out boundary not permitting certain operations, such as case relationships, across one another. In terms of DOM, these effects arise because certain languages have 'hard' boundaries that prevent case configurations being established across them (VP is a case-domain in the terms of Baker). In the following, I propose that we can utilise this distinction

also for agreement, and that — with qualification — object agreement in Khanty can be prevented by a spell-out domain created by a hard v head.

4.2 Spell-out domains and Khanty object agreement

Recall from above that the object agreement suffix lies between the tense marker and the subject agreement. For concreteness in what follows, I will assume the following clause structure. AgrS is assumed to be the locus of subject agreement, whilst a functional head FP is assumed to be the locus of object agreement.

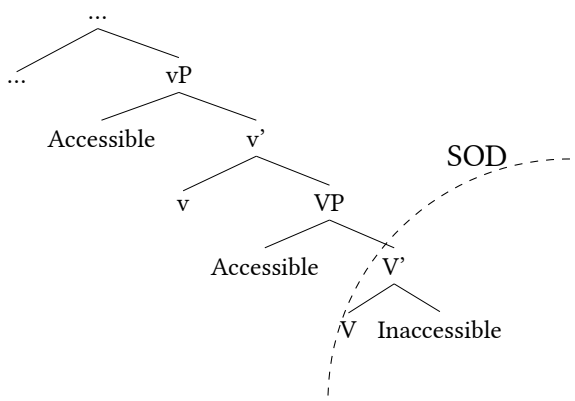
(22) $[_{\text{AgrSP}}$ Subj $[_{\text{AgrS'}}$ AgrS $[_{\text{FP}}$ $[_{\text{F'}}$ F $[_{\text{TP}}$ $[_{\text{T'}}$ T $[_{\text{vP}}$ …]]]]]]]

Following standard Minimalist assumptions (Chomsky, 2000; Chomsky, 2001, *et seq.*), I assume that agreement happens when an Agree relationship is established between the probe and a goal. Furthermore, I will assume that as a syntactic process, an Agree relationship — like Baker's case domains — can be disrupted by a hard spell-out boundary. That is, an Agree relationship is unable to be established across the boundary of a spell-out domain created by a hard phase head. I will assume that the v head in Khanty is such a hard phase head, and as such, the contents of its spell-out domain are invisible to further syntactic operations such as Agree.

However, an important qualification is in order here: Baker (2015) assumes that the *entire* spell-out domain is invisible (i.e. the whole VP). However, he leaves open the option of the edge of the spell-out domain remaining visible.[12] For reasons that will become clear shortly, I will assume that keeping the edge open is the right approach, and thus the specifier position in the complement of a hard phase boundary remains syntactically visible to higher operations, whilst all other elements within the spell-out domain are closed off. To see this graphically, the following tree structure demonstrates the relevant boundary. Important for our purposes is that Agree relationships can be established in any position above the SOD, including Spec,VP. To preview the analysis: objects that undergo agreement have moved above the SOD, whereas objects that do not remain beneath it.

[12] "I suggest that in some languages everything contained in VP is also considered again in CP, whereas in other languages only something that moves out of VP (*or perhaps to the edge of VP*) is carried forward (Baker, 2015, p. 149)." (emphasis mine - PWS)

(23)



Before continuing further, I should offer a short word on case assignment, which I remain agnostic about throughout. Nikolaeva (1999b) notes that for lexical nouns, there are three cases in Khanty: nominative, locative and translative. Pronouns by way of contrast, have three cases: nominative, accusative and locative. Object agreement is crucially disassociated from case, which can be seen when there is a pronominal object. In the following, object agreement is both seen and not seen when the object has accusative case.

(24) Nikolaeva (1999b, p. 65)

ma naŋ-e:n wa:n-s-ə-m/wa:n-s-e:m
I you-ACC see-PAST-1SG/see-PAST-1SGOSG

'I saw you.'

It is clear from such examples that (accusative, at least) case is not intimately connected to agreement in Khanty, and so we should not strive to have them handled by the same mechanism (see Baker 2008, ch 5 for more discussion). However, such data also pose a problem for what I claim: I propose below that object agreement is possible only if the object moves to Spec,VP (or higher). Case assignment must be independent of this restriction, given that objects can remain low, as it does by assumption in (24), but still be able to receive accusative case.

I do not have a fully worked out solution to this issue here, but allow me sketch a possibility.[13] It is possible that the spell-out domains that I propose here are created *after* the point at which case is assigned. Specifically, assuming that phases, and by consequence SODs are created dynamically, rather than being statically fixed (see for instance Bobaljik and Susi Wurmbrand, 2005; Bobaljik and Susanne Wurmbrand, 2013; Bošković, 2014), then the merger of v is in the usual case responsible for both the

[13]Thanks to András Bárány (p.c.) for pushing me to clarify my assumptions regarding case assignment.

determination and creation of the SOD. Thus, at the point at which v is merged into the derivation, there is a small window of opportunity where v could license accusative case on the object, before the SOD is created. To the extent that this is correct, then all that needs to be said is that agreement is not open to the same possibility, in the sense that there must be no possibility for agreement in Khanty to happen before the SOD is created. Given that the head that is responsible for object agreement is high in the structure, then it seems eminently reasonable that the SOD will not be able to remain open at the relevant stage when agreement happens.

4.2.1 Monotransitive constructions

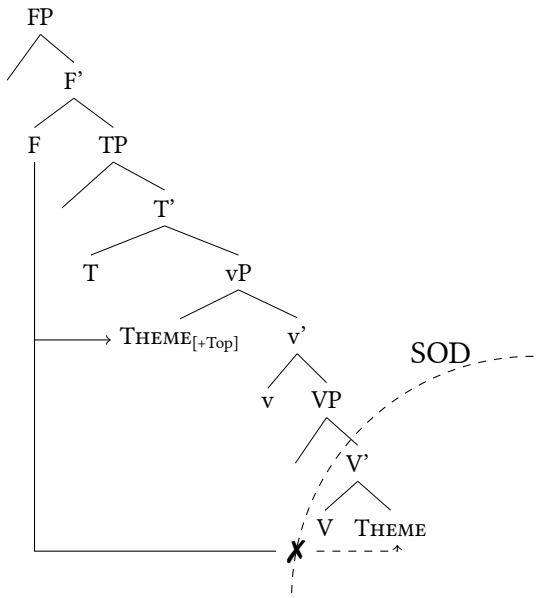
First I will focus on monotransitive constructions involving a Theme object.[14] Recall from above, that the difference between the two here is that object agreement is triggered if and only if the Theme argument is interpreted as a (secondary) topic. I will assume that the Theme is base generated as the complement of V. I further assume that arguments that carry the interpretation of being a topic must move to the left periphery of the lower domain. For convenience here I assume that it raises to the specifier of vP.[15] In the higher position, they are able to be accessed through an Agree relation initiated by F. However, since v is a hard phase head in Khanty, it will create a spell-out boundary that prevents an Agree relation being established across it. Thus object agreement is only possible with a Theme that has moved out of its base position into (at least) Spec,vP.[16] In the tree below, and what follows, a solid arrow indicates an Agree relation.

[14] I assume the same analysis holds for arguments bearing the Patient role.

[15] However, it could well be the case that there are low information structure positions that merge above vP, *c.f.* Belletti (2004) and Belletti (2005). The argument bearing the [+Topic] feature could then be attracted to this head.

[16] Note that it is further needed that Themes cannot move to the edge of VP. Such a movement from the complement to the specifier of the same phrase is widely considered to be too short, and as such would be ruled out through considerations of anti-locality see Abels (2003) and Grohmann (2011) and references therein.

(25)



This difference in the positioning of THEMEs that are interpreted as topics or not is supported by the behaviour of the two regarding floating quantifiers. Nikolaeva argues herself that agreeing objects are VP external and that they do not form a syntactic constituent with the verb based on a variety of tests (see Nikolaeva 1999a and especially Nikolaeva 1999b, pp. 67-69). She further shows that quantifier float is possible with objects that show agreement. In (26a), the quantifier *ăsa* 'all' can appear either to the left of the object, or to its right. In contrast, when object agreement is absent in (26b), the only possible place for the quantifier is to the left of the argument.

(26) Nikolaeva (1999a, p. 345)

a. lŭw (ăsa) anət (ăsa) il pajət-sə-lli
he all cups all down drop-PAST-3SG.PLO
'He dropped all the cups.'

b. lŭw ăsa anət (*ăsa) il pajt-əs
he all cups all down drop-PAST-3SGS
'He dropped all the cups.'

On the assumption that quantifier float is created when the noun moves away and strands the quantifier (see Sportiche 1988; McCloskey 2000; Boskovic 2004) but the position to the right indicates either lack of movement or pied piping of the quantifier, then these data support the account of movement to a higher position. In (26a) the quantifier is either pied piped with, or left behind by the object when it moves to Spec,vP. However, when there is no movement of the object as in (26b) the quantifier cannot appear to the right of the noun, since there is no step of movement that will

strand the quantifier in the original place.[17]

4.2.2 Ditransitive constructions and Causees

I now turn attention to Goal arguments. Recall that they obligatorily trigger object agreement when they bear the primary object role in the clause (secundative alignment). Regarding the clause structure of Goal arguments in Khanty, I assume that ditransitive constructions in Khanty are formed through a high applicative head (ApplH) (Pylkkännen, 2008) which introduces the goal argument. On this approach, the Goal is introduced in the Specifier of ApplHP.

(27) $[_{vP} \ldots [_{v'}\ v\ [_{ApplHP}\ \textsc{Goal}\ [_{ApplH'}\ ApplH\ [_{VP}\ [_{V}\ V\ \textsc{Theme}\ ]\ ]\ ]\ ]\ ]\ ]$

Above, we said that Themes can only trigger object agreement when they are topics, and forced to leave their base position to lie in a position outside the SOD created by v. With the addition of ApplHP, VP is no longer the complement of v, and the spell-out domain becomes every node dominated by ApplH', as shown in (28).[18] This draws a line between Goals and Themes: as the former are introduced in specifiers, whereas the latter are introduced as complements of V. If we adopt this, then we keep the insight that agreement is impossible with non-shifted Theme arguments since they are within a lower spell-out domain, the edge of a spell-out domain is visible, and hence Goals will be accessible for agreement.[19]

[17] A point should be made here about Theme objects that are in focus, which recall never trigger object agreement. Khanty is an SOV language which has a preverbal focus position, such that elements that are in focus lie immediately before the verbs. This is a fairly common pattern in SOV languages, as Nikolaeva (1999a) notes, and for this I will follow the proposal of Şener (2010) for Turkish, which Şener proposes that this type of language is derived through foci staying *in situ*, and all other elements moving out of the way. Thus, a Theme that is in focus will not move to the left periphery of the lower domain, and hence be unavailable for agreement.

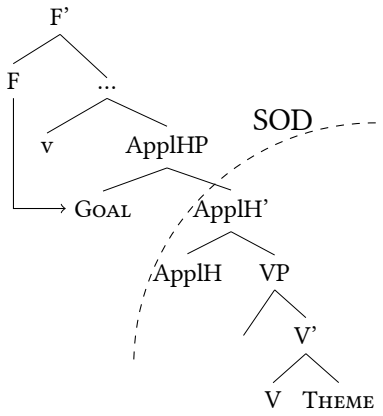
[18] Note that to save space, irrelevant projections in the tree are omitted here.

[19] For readers who are uncomfortable with the proposal that the edge of the spell-out domain should remain accessible, and that what should be inaccessible ought to be the entirety of what undergoes spell-out (and there are clear conceptual reasons for thinking that this would be the case), there is another option. We could assume that in Khanty ApplHP is a phase in itself (McGinnis, 2001), and stipulate the following condition, which would effectively void the spell-out domain status of ApplHP (assuming that phasehood takes preference when (i) applies).

(i) A head X cannot head both a phase and a spell-out domain.

This would retain the benefit that v is a hard phase head in Khanty, and always determines that its complement is a spell-out domain. However, there is a loophole just in case that the complement of a phase head is also a phase, and then it would cease to be a spell-out domain. ApplHP fits exactly this, whereas since VP is not a phase head, it will always be a spell-out domain. Yet there are various questions as to why something like (i) should hold in the grammar.

(28)



Finally, we turn to causee arguments, which again obligatorily trigger object agreement. Following Pylkkänen (2008) once more, I assume that in causative constructions, there is a CausP that introduces the causation. Furthermore, I assume that Caus is endowed with an EPP feature that requires something to move into its specifier. Note then that even for verbs that are unaccusative, this means that the internal argument will raise out of the VP and be in a position whereby it can trigger agreement. This arguably relates to the verb *cry*. Dalrymple and Nikolaeva show, even when a causee argument is in focus, it will trigger object agreement.

(29) Dalrymple and Nikolaeva (2011, p. 149)

xoj xo:llə-ptə-s-li
who cry-CAUS-PAST-3SGS.SGO

'Whom did he make cry?'

The structure for (29) is identical as the one given in (28), only ApplHP is replaced by CausP, whose specifier is filled by *xoj*, making it accessible for agreement.

4.3 Summary and discussion

In this section I have offered an analysis of the object agreement pattern in Khanty that neither appeals to GFs, nor assumes that there is one given position in the clause that triggers object agreement. I will discuss the first point in the next section. The second point I believe is an interesting step forward. As noted above, one of the criticisms levied against movement approaches to DOM is either finding evidence for the movement, which is not a problem here, but often it is difficult to define the class of elements that would move to a given position. If there is a single characteristic, then it is possible that all elements sharing that feature are attracted to a certain position. If not however, then one is always open to the charge of arbitrariness.

Khanty shows exactly this problem, where it is difficult to generate an exact natural class of elements that trigger object agreement on the verb. For instance, if one would only look at Themes, one could argue that there is a topic position that all agreeing objects lie in. However, whilst Nikolaeva (2001) argues that goals are more prototypically topical than Themes, and are mapped to the secondary topic role when the direct object is not a topic, such an approach runs into an issue when we consider that focussed causees trigger object agreement. It seems unlikely that something can be both a focus and a topic at the same time, and so it cannot be the case that topicality is the sole feature that is responsible. However, under the approach discussed here we do have a link: all elements that trigger object agreement lie either at the edge, or outside the spell-out domain that is caused by v. Since v is a hard phase in Khanty (by assumption), then anything which is within this lower domain will not be able to enter into an Agree relation with F, and object agreement is impossible.

5 A Residue of Object Properties

Up to this point, our interest has been in showing that one can analyse object agreement in Khanty without employing GFs. However, simply showing that *agreement* in Khanty can be handled without GFs does not do justice to the approach of Dalrymple and Nikolaeva (2011). Recall from Table 2 above that the arguments that control object agreement on verbs share a number of properties with subjects. This paints them in contrast with objects that do not control agreement on verbs, which do not share these properties. The strength of Dalrymple and Nikolaeva's approach is that it provides an analysis for why this should hold: agreement is just one of the factors that is linked to the subject and Object GFs, but not linked to Object_θ.

Before concluding the paper, it behoves me to discuss these somewhat.[20] Since I only have the data for these with relation to Theme arguments, I will only discuss these, but I do not see anything that would prevent them from carrying over to goals and causees too. In the previous section, I suggested that we can understand the facts of Quantifier Float, given that topicalised Themes are compelled to move into a higher position in the structure than non-topic Themes.

This leaves us with two syntactic properties left, both related to possession. Firstly, Nikolaeva (1999a) shows that agreeing objects, like subjects, can control possessive reflexivisation, but non-agreeing objects cannot.

(30) Nikolaeva (1999a, p. 344)

a. aśi pŏx-əl reskə-s-li
father son-3sg hit-past-3sgS.sgO
'The father$_i$ hit his$_i$ son.'

[20] I will not discuss control in participial clauses, and must leave this for future research.

b. ittam sărt kŭtpe-l ewəlt mŭw-na lăskə-s-li
this pike middle-3SG from ground-LOC throw-PAST-3SG.SGO
'He threw this pike$_i$ to the ground (holding it) in the middle (in its$_i$ middle).'

c. aśi xot-əl-na pŏx-əl want-əs
father house-3SG-LOC son-3SG see-PAST-3SGS
'The father$_i$ saw his$_i$ son$_k$ in his$_{i/*k}$ house.'

These data clearly fit in with our approach here. Since there is no object agreement in (30c), this is indicative of it being the case that the THEME object not having moved. *Pŏx-əl* therefore cannot serve as the binder of the reflexive pronoun in the locative, because it does not c-command it. In contrast, in (30b), the binding relationship is fine because *sărt* has moved higher in the clause, and can bind the possessive in the locative.

The second aspect of possession to consider is possessor topicalisation. Recall that agreeing objects, like subjects, can enter into a possessor topicalisation construction, whilst non-agreeing objects cannot. Descriptively, the possessor topicalisation construction in Khanty involves the possessor being split from the possessum, as can be seen in the following ((31)=(13b,c))

(31) Nikolaeva (1999a, p. 346)

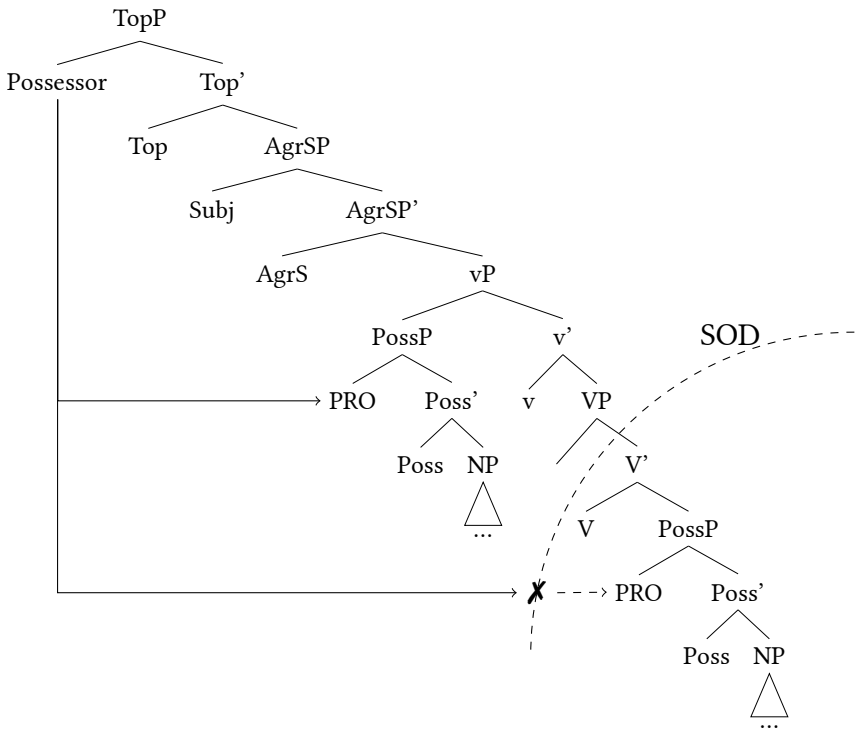
Juwan motta xot-əl kăśalə-s-e:m/*kăśalə-s-əm
John before house-3SG see-PAST-1SGS.SGO/see-PAST-1.SGS

'I saw John's house before.'

External possession in this way is exhibited in a range of languages (see the papers in Payne and Barshi, 1999a), and has invited a range of proposals regarding how it should be accounted for, specifically whether the external possession construction is derived from the regular possessive construction through a raising or a control type analysis (see Deal, 2013 for an overview). I will assume a control analysis here, whereby the external possessor controls (through AGREE) a PRO that is in the canonical position for possessors. Specifically, I assume that possessor topicalisation constructions involve the merging of an element in a left-peripheral position, which I take to be (high) Spec,TopP, and this element serves as the binder of PRO.[21]

[21] Payne and Barshi (1999b) take external possession to be instances when the possessor assumes a core sentential function, as in the German possessor raising constriction (Hole, 2005). However, they note that there are instances of topics that act as external possessors, and so I will assume here that external possession is not limited to adding an extra core argument to a verb. It is of course possible that the external possessor is not in fact generated directly in Spec,TopP, but rather is merged in an *affectee* position in the spine, before raising to Spec,TopP. I leave this matter for future research.

(32)



For objects, however, much depends on the position of the object. I assumed above that topic marked objects move out of the VP. PRO is properly licensed since the AGREE relation can succeed. However, note that if PRO is part of an object that has remained low, then it will unable to be controlled, and the derivation crashes, see the tree in (32).

Whilst assuming the prolepsis account for this construction may seem a bit *ad hoc*, there is in some evidence that is suggestive at least that it may be on the right track. Nikolaeva (1999a, p. 345) notes that possessives in Khanty are formed with the possessor to the left of the head noun. When the possessor is a possessive pronoun, then there is agreement between the possessor and the possessum, with an affix on the possessum that realises the person and number of the possessor. When the possessor is a lexical noun, then the order of the possessor and the possessum remains the same, but the agreement is not realised. I take this to mean that when the possessor is a pronominal element (by which I mean less than a fully lexical R-expression), agreement between the two is obligatory, but not possible when the possessor is a lexical noun. Crucially, in possessor topicalisation, Nikolaeva shows that agreement is *obligatory*, which could be taken in evidence of the presence of PRO in Spec,PossP. Thus, we have seen that the current approach can also handle the divergence in behaviour between agreeing objects related to quantifier float, possessor reflexivisation and possessor topicalisation.

(33) a. nǎŋ jernas-en ‘your dress-2SG’
b. lŭw jernas-əl ‘his/her dress-3SG’
c. Maša jernas ‘Masha’s dress’
d. * Maša jernas-əl *intended*: ‘Masha’s dress.’

6 Conclusions

The aim of this paper has been to examine whether it is possible to analyse the facts of Khanty object agreement in a system that does not resort to employing GFs. The aim is thus relatively modest, but touches upon key theoretical questions as to what the grammar has, and what it does not have, access to. I hope to have shown in the discussion in section 4 that it is possible to capture the facts of agreement in an approach that eschews GFs. In doing so, I made qualified use of how DOM effects can arise proposed in Baker (2015), namely that a hard phase boundary can create a domain low in the structure such that syntactic operations cannot cross it. All objects that lie structurally above this boundary cause agreement on the verb, and ones that lie beneath do not.

However, what I also have hoped to have shown is that this approach also allows us an account that links together the other syntactic properties of agreeing and non-agreeing objects. Linking all of the properties together was a major part of the elegance of Dalrymple and Nikolaeva’s account and any reanalysis of the Khanty data should strive for this too. I hope to have convinced the reader that it is not necessary to appeal to GFs to do this: but rather the distinction between OBJECT and OBJECT$_\theta$ need not be taken to be a theoretical primitive, but falls out from a difference in phrase structure.

There are of course, few if any implications for LFG: it does not in any way show the LFG account to be wrong. I do not claim that the current approach should be seen as better than Dalrymple and Nikolaeva’s approach (nor, I hope, worse), and the analysis given here will do little to sway anyone one way or another on the question of the status of GFs in the grammar. As noted at the outset, that problem deserves, and has attracted, a far larger discussion, and presumably will for many years to come. But, I hope that this offering at the very least shows that the complicated facts of Khanty, on close inspection, offer little in favour of evidence for GFs.

Abbreviations

ABS = absolutive, ACC = accusative, CAUS = causative, DAT = dative, DOA = Differential Object Agreement, DOM = Differential Object Marking, DL = dual, EP = epenthetic vowel, ERG = ergative, GF = Grammatical Function, HAB = habitual, INF = infinitive, LFG = Lexical Functional Grammar, LOC = locative, NOM = nominative, NEG = neg,

O = object agreement, OBL = oblique, PL = plural, PRES = present, S = subject agreement, SOD = Spell-out domain, SG = singular,

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References

Abels, Klaus (2003). "Successive Cyclicity, Anti-Locality, and Adposition Stranding". PhD thesis. Storrs, CT: University of Connecticut.

Aissen, Judith (2003). "Differential object marking: Iconicity vs. economy". In: *Natural Language and Linguistic Theory* 21.3, pp. 435–483.

Baker, Mark (2008). *The syntax of agreement and concord*. Cambridge: Cambridge University Press.

— (2015). *Case: Its Principles and Parameters*. Vol. 146. Cambridge Studies in Linguistics. Cambridge: Cambridge University Press.

Bárány, András (2015). "Differential object marking in Hungarian and the morphosyntax of case and agreement". PhD thesis. Downing College, University of Cambridge.

— (2016). *On the syntax of Ob-Ugric object agreement*. Talk at Language Documentation and Linguistic Theory.

Belletti, Adriana (2004). "Aspects of the low IP area". In: *The Structure of CP and IP*. Ed. by Luigi Rizzi. Oxford Studies in Comparative Syntax. Oxford University Press.

— (2005). "Extended doubling and the VP-periphery". In: *Probus* 17, pp. 1–35.

Bobaljik, Jonathan D. (2008). "Where's phi?" In: *Phi-theory: phi-features across modules and interfaces*. Ed. by Daniel Harbour, David Adger, and Susanna Béjar. Oxford Studies in Theoretical Linguistics. Oxford: Oxford University Press, pp. 295–328.

Bobaljik, Jonathan D. and Susanne Wurmbrand (2013). "Suspension across domains". In: *Distributed Morphology today: Morphemes for Morris*. MIT Press.

Bobaljik, Jonathan D. and Susi Wurmbrand (2005). "The Domain of Agreement". English. In: *Natural Language and Linguistic Theory* 23.4, pp. 809–865.

Boskovic, Zeljko (2004). "Be Careful Where You Float Your Quantifiers". In: *Natural Language and Linguistic Theory* 22.4, pp. 681–742.

Bošković, Željko (2014). "Now I'm a phase, now I'm not a phase: On the variability of phases with extraction and ellipsis". In: *Linguistic Inquiry* 45.1, pp. 27–89.

Bossong, Georg (1991). “Differential object marking in Romance and beyond”. In: *New analyses in Romance linguistics*. Ed. by Douglas A. Kibbee and Dieter Wanner. John Benjamins, pp. 143–170.

Butt, Miriam and Tracy Holloway King (1996). “Structural topic and focus without movement”. In: *On-line proceedings of the LFG96 Confernce*. Ed. by Miriam Butt and Tracy Holloway King.

Chomsky, Noam (2000). “Minimalist inquiries”. In: *Essays on minimalist syntax in honor of Howard Lasnik*. Ed. by Roger Martin, David Michaels, and Juan Uriagereka. Cambridge, MA: MIT Press, pp. 89–155.

— (2001). “Derivation by phase”. In: *Ken Hale: A life in language*. Ed. by Michael Kenstowicz. Cambridge, MA: MIT Press, pp. 1–52.

Corbett, Greville G. (2012). “Grammatical relations in a typology of agreement systems”. In: *Argument structure and grammatical relations*. Ed. by Pirkko Suihkonen, Bernard Comrie, and Valery Solovyev. Amsterdam: John Benjamins Publishing Company, pp. 37–54.

Dalrymple, Mary (2001). *Lexical Functional Grammar*. Vol. 34. Syntax and Semantics. San Diego: Academic Press.

Dalrymple, Mary and Irina Nikolaeva (2011). *Objects and Information Structure*. Cambridge: Cambridge University Press.

De Swart, Peter (2007). “Cross-linguistic variation in object marking”. PhD thesis. Nijmegen: Radboud Universiteit Nijmegen.

Deal, Amy Rose (2013). “Possessor Raising”. In: *Linguistic Inquiry* 44.3, pp. 391–432.

Diesing, Molly (1992). *Indefinites*. Cambridge, MA: MIT Press.

Grohmann, Kleanthes (2011). “Anti-Locality: too close relations in grammar”. In: *The Oxford handbook of linguistic Minimalism*. Ed. by Cedric Boeckx. Oxford, pp. 260–290.

Haspelmath, Martin (2005). “Argument marking in ditransitive alignment types”. In: *Linguistic Discovery* 3.1, pp. 1–21.

Hole, Daniel (2005). “Reconciling “possessor” datives and “beneficiary” datives — towards a unified voice account of dative binding in German”. In: *Event arguments: foundations and applications*. Ed. by C. Maienborn and A. Wöllstein. Tübingen: Niemeyer, pp. 213–242.

Kalin, Laura (to appear). “Licensing and differential object marking: the view from Neo-Aramaic”. In: *Syntax*.

Kalin, Laura and Philipp Weisser (2017). *Asymmetric DOM in coordination and why this is fatal for movement-based approaches*. Manuscript.

Keine, Stefan and Gereon Müller (2014). “Differential Argument Encoding by Impoverishment”. In: *Scales and hierarchies: a cross disciplinary perspective*. Ed. by Ina Bornkessel-Schlesewsky, Andrej Malchukov, and Marc Richards. Berlin: De Gruyter Mouton, pp. 75–130.

Lambrecht, Knud (1994). *Information structure and sentence form: Topic, focus and the mental representation of discourse referents*. Cambridge: Cambridge University Press.
Marantz, Alec (1991). "Case and Licensing". In: *Proceedings of ESCOL '91*. Ed. by G. Westphal, B. Ao, and Hee-Rahk Chae. Cornell Linguistics Club, pp. 243–253.
McCloskey, James (1997). "Subjecthood and Subject positions". In: *Elements of grammar: A handbook in generative syntax*. Ed. by Liliane Haegeman. Dordrecht: Kluwer, pp. 197–235.
— (2000). "Quantifier Float and *Wh*-Movement in an Irish English". In: *Linguistic Inquiry* 31.1, pp. 57–84.
McGinnis, Martha (2001). "Variation in the phase structure of applicatives". In: *Linguistic Variation Yearbook* 1, pp. 105–146.
Moravcsik, Edith (1974). "Object-verb agreement". In: *Working papers on language universals* 15, pp. 25–140.
— (1978). "Agreement". In: *Universals of human language*. Ed. by Joseph H. Greenberg. Vol. IV. Stanford: Stanford University Press, pp. 331–374.
Nash, Jay (1992). "Aspects of Ruwund grammar". PhD thesis. University of Illinois at Urbana-Champaign.
Nikolaeva, Irina (1999a). "Object agreement, grammatical relations and information structure". In: *Studies in Language* 23, pp. 331–376.
— (1999b). *Ostyak*. München: Lincom Europa.
— (2001). "Secondary topic as a relation in information structure". In: *Linguistics* 39, pp. 1–49.
Payne, Doris L. and Immanuel Barshi, eds. (1999a). *External Possession*. Typological Studies in Language. Amsterdam/Philadelphia: John Benjamins Publishing Company.
— (1999b). "External Possession: What, where how and why". In: *External Possession*. Ed. by Doris L. Payne and Immanuel Barshi. Amsterdam/Philadelphia: John Benjamins Publishing Company.
Perlmutter, David and Paul Postal (1983). "Toward a universal characterization of passivization". In: *Studies in Relational Grammar*. Vol. 1. University of Chicago Press.
Polinsky, Maria and Eric Potsdam (2001). "Long-distance agreement and topic in Tsez". In: *Natural Language and Linguistic Theory* 19.3, pp. 583–646.
Pollard, Carl and Ivan Sag (1994). *Head driven phrase structure grammar*. Chicago, Il: The University of Chicago Press.
Pylkkänen, Liina (2008). *Introducing Arguments*. Cambridge, MA: MIT Press.
Şener, Serkan (2010). "(N)on-peripheral matters in Turkish syntax". PhD thesis. Storrs, CT: University of Connecticut.
Simons, Gary F. and Charles D. Fennig (eds.) (2018). *Ethnologue: Languages of the world, twenty-first edition*. Online version: http://www.ethnologue.com.

Sportiche, Dominique (1988). “A theory of floating quantifiers and its corollaries for constituent structure”. In: *Linguistic Inquiry* 19.2, pp. 425–451.

Woolford, Ellen (1999). “Animacy Hiearchy Effects on Object Agreement”. In: *New Dimensions in African Linguistics and Languages*. Ed. by Paul Kotey. Trends in African Linguistics. Africa World Press, pp. 203–216.

— (2001). “Conditions on object agreement in Ruwund (Bantu)”. In: *The UMass volume on indigenous languages*. Ed. by E. Benedicto. Vol. 20. University of Massachusetts Occasional Papers in Linguistics. Amherst, MA: GLSA.