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□ **Abstract:**

We argue – closely following the insights of Berge (2011) – that the ergative clause structure of the Inuit language is conditioned by information structure properties, more precisely by its topic comment properties. We articulate a formal model where the morphosyntactic properties result from this information structure trigger. Furthermore we show that not only does the model correctly account for the split case and agreement properties of the Inuit language, but also other relevant properties discussed in the literature, i.e., scope properties of objects and aspect. We also argue that objects in this language are introduced through an applicative head (Basilico 2012), after which they either topicalize or get assigned oblique case.

□ **75-100 word bios:**

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# On the morphosyntactic reflexes of information structure in the ergative patterning of the Inuit language<sup>1</sup>

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## X.1 The introduction

The Inuit language<sup>2</sup> is often characterized as an ergative language (Bok-Bennema 1991, Manning 1996, Johns 1992, 2000, 2006, among others). Interestingly, the Inuit language exhibits a case assignment variability which, unlike traditional split ergativity, does not affect argument alignment, but instead concerns which – and how many – arguments trigger  $\phi$ -feature agreement on finite verb. This paper asks what is the nature of the relevant grammatical property, and how does it relate to the agreement properties that result.

This case variability has not gone unnoticed in the current literature. Some proposals attribute the split to aspect, for instance, Bittner (1987), Clarke (2009), Spreng (2006, 2010, 2012), while others to information structure, or scope (Kalmár 1979, Bittner 1994, Bok-Bennema 1991, Manga 1996, Bittner and Hale 1996, Hallman 2008, Berge 2011, among others). All these proposals point out some important property of the observed case variability. Yet, it is not always clear how the proposals derive the morphosyntactic properties of the Inuit language, neither do they provide insight into how these seemingly disparate properties relate to each other.

We argue – closely following the proposal of Berge (2011) – that the ergative clause structure of the Inuit language is conditioned by information structure properties, more precisely by its topic-comment properties. We propose a formal model in which this morphosyntactic make-up directly follows from this information structure trigger. Furthermore we will show that not only does the model account for the morphosyntactic properties of the Inuit language, name split case and agreement properties, but it also subsumes other relevant properties discussed in the literature, i.e., scope properties of objects and aspect. These will be seen to be byproducts of the information structure underlying the ergative split.

Before presenting our argument, we will first provide evidence that the difference between so called singular (also called intransitive) and double (also called transitive) agreement is a

difference of  $\phi$ -agree vs cliticization (Johns to appear pace Compton 2014). We will link this conclusion to the second core observation ( see Berge 2011), namely, that absolutive objects must be topics.<sup>3</sup> More precisely, we will show that they must be (aboutness) topics in the sense of Reinhart (1981) which is a narrower notion of topics than that used in functionalist literature and does not necessarily entail discourse notions such as recency of mention or persistence in subsequent discourse etc.<sup>4</sup> Crucially, this type of topic – which we will call *sentential topic* – is strictly realized at a sentential level and has a dedicated syntactic representation. This move will have several immediate consequences: Since topics have been associated with cliticization (Dočekal and Kallulli 2012), the analysis that double agreement is formed by cliticization, along with the independent analysis of the corresponding argument as sentential topic, provides an explanation for the clitic nature of double agreement (and for double agreement itself). Furthermore, since sentential topics must be at the edge of a phase,<sup>5</sup> we will argue for a VP shell-like (applicative) structure of Inuit ergative clauses as a necessary precondition for objects being marked as topics (Basilico 2003). With this structural distinction in place, we will show that case marking straightforwardly follows from locality and morphological case hierarchy (Marantz 1991), in a way familiar from case alternations in English double-object constructions. Finally, since topics create the illusion of wide scope (Endriss 2009), and have ‘maximization’ properties, this allows us to explain the scope observations and the appearance of an aspect-based split (Borik 2002, Filip and Rothstein 2006, Filip 2008, Ramchand 2008). For reasons of space, portions of our analysis will only be briefly outlined. We hope, however, that the overall structure of the argument will emerge with sufficient clarity.

Aside from this language-specific exploration, our proposal contributes to a more general debate on the nature of cross-linguistic differences in argument alignment. We argue that even though the underlying factors (e.g., agentivity, topic/comment, given/new,...) may vary among languages, once we isolate the critical alignment factor, the rest of the system (locality, movement properties, case assignment properties,...) may be stated in universal terms.

## X.2 The core facts

### X.2.1 Single vs double agreement as marker of ergativity

In the Inuit language, a transitive verb may appear in two distinct patterns: the so-called ergative and the so-called antipassive.<sup>6</sup> They differ not only in their case assignment but also in their agreement properties. As for the case properties, the subject of antipassive is morphologically marked as absolutive, while the object is marked with an oblique case (*mik*). In the ergative pattern, the subject is marked with the so called *relative case*<sup>7</sup> – a term that corresponds to ergative in the description of other ergative languages – and the object as absolutive. Note that while the relative case has an overt morphological realization, absolutive is zero marked. In this chapter we will use the term relative when referring to the case, and ergative when referring to the ergative clause pattern (including case and agreement of the transitive verb).

As for finite agreement, the ergative pattern is associated with an agreement pattern which we will call here transitive double agreement. Unlike its intransitive counterpart, given in (1a), the transitive verb in (1b) inflects for person and number of two arguments, the subject and the object.<sup>8</sup>

(1) *Baker Lake* (Johns 1992, 58-59)

- a. angut          ani-juq  
man-ABS.S walk-PART.3S  
'The man is walking.' (SINGULAR)
- b. arna-up          angut          kuni-ga-a.  
woman-ERG.S man.ABS.S kiss-TR.PART-3S/3S  
'The woman kissed the man.' (TRANSITIVE DOUBLE)

The antipassive pattern (Spreng 2012), sometimes also called semitransitive (Fortescue 1984), triggers an agreement pattern, which we could call transitive single agreement.<sup>9</sup> Abstracting away from other properties of antipassives, the fact that interests us here is that the verb agrees only with the subject. This is seen in example (2) from Labrador Inuttitut.

- (2) Margarita          Kuinatsa-i-juq          Ritsati-mik.  
Margarita.ABS.S tickle-AP-INTR.PART.3S Richard-MOD.S  
'Margarita is tickling Richard.' (transitive singular)

The description of the system is slightly complicated by the fact that the Inuit language is a pro-drop language. As a result, in many instances there is no overt DP, i.e., there is no overt case marking. In addition, the plural of the relative case is homophonous with the plural of the absolutive. Consequently case distinctions are less overt than agreement distinctions, which we contend are central to transitive constructions. Furthermore there appears to be a dialect difference between Eastern and Western dialects of the Inuit language in Canada: while in Western dialects, objects may be overt DPs in either of the two transitive constructions (double or single agreement), in Eastern dialects, the object DP of a transitive double agreement construction is not usually overt.<sup>10</sup> Finally, the ergative pattern is significantly less frequent in Eastern dialects than Western dialects. While we will have nothing to say about the frequency effect, a closer look at the morphosyntactic properties of the double pattern in Section X.2.2. will shed light on why absolutive object DPs might be dropped in one dialect group but not the other.

#### X.2.2 Double agreement as cliticization

The intuition behind this and previous accounts is that while an object in the ergative pattern is a core argument and therefore able to relate to the verb directly, an object in the antipassive pattern is an oblique and must be outside of the domain of agreement. The question that interests us here is what structural representation underlies these morphosyntactic configurations. In order to answer this question we start by investigating the morphosyntactic properties of the agreement properties.

Johns (to appear) suggests that objects in the ergative pattern must be salient from the previous discourse. The observation is based on data such as (3) from Labrador Inuttitut. Here we see that the first occurrence of *Kajotta* ‘cup’ as an object appears in the antipassive pattern, (3a) with single agreement. It is only in (3c) that the same object, this time not overtly realized, triggers double agreement on the verb.

(3) *The discourse requirement on double agreement (Labrador):*

- a. John kata-i-juk Kajotta-mik  
John.ABS.S dropAP-INTR.PART.3S cup-MOD.S
- b. amma-lu Kajottak siKumi-mmat,  
also-and cup.ABS.S break-CAUS.3S
- c. âkKi-sima-janga nipi-ti-guti-mmut.  
fix-PERF.-TR.PART. 3S/3S adhere-CAUSE-INSTRUMENT-INSTR.S  
'John dropped the cup and then when the cup broke, he fixed it with the glue.'

Johns (2013, to appear) uses this observation to argue that the transitive double agreement is not a result of  $\phi$ -feature agree.<sup>11</sup> Instead she proposes that object inflection is a clitic, following recent reanalyses of object agreement (Nevins 2011, Preminger 2009, Kramer 2014). Since clitics require some form of saliency – her argument goes – the information structure restriction, demonstrated in (3), immediately follows. Furthermore, an analysis of Inuit object inflection as clitic immediately affords a perspective on the dialect difference introduced in X.2.1 as a familiar difference in clitic doubling (Anagnostopoulou 2006). As Anagnostopoulou shows, languages differ in whether or not the clitic’s full DP associate is overt. In other words, while all clitic languages morphologically realize the clitic, only some realize simultaneously both the clitic and the doubled DP. Thus if we analyze the object agreement as a clitic, we can explain the restriction on overtness of object DPs as a dialect variation in clitic doubling: while Western dialects allow clitic doubling and hence double agreement with overt object DPs, clitic doubling in Eastern dialects is severely limited, so we expect to see double agreement only when there is no overt DP.<sup>12</sup>

We follow Johns’s proposal and provide additional evidence that agreement with the object of the ergative construction contains a clitic (contra Compton 2014).<sup>13</sup> Our argument is based on the discussion of the  $\phi$ -agree versus cliticization in Nevins (2011). Nevins argues that clitics, unlike  $\phi$ -agree, are tense invariant, display gaps in morphological paradigms, are reminiscent of PCC effects, and have omnivorous number. As we will see, even though there are non-trivial issues in determining whether double agreement is tense-invariant, the double agreement pattern in the Inuit language displays the other two properties characteristic of cliticization. An additional

argument will come from the domain of semantic interpretation (Dočekal and Kallulli 2012). Let us start with the question of tense invariance. As Compton (2014) points out, even though there is no tense-sensitivity in the Inuit language, there is a morpho-phonological sensitivity to mood. For example, transitive participial (declarative) mood inflection for 2S/1S is *jar-ma*, while transitive interrogative equivalent is *-vi-nga*. The *ma/-nga* both indicate first person singular object. While for Compton this sensitivity indicates  $\phi$ -agree, we find problems with this argument. First, tense invariance is not a direct by-product of category (pronoun vs agreement). Nevins (2011) indeed argues that clitic-hood needs to be based on syntactic, not on purely morphophonological evidence. For the conclusion about tense invariance to hold, it must be a consequence of which type of element is in closer proximity to T. In languages discussed by Nevins, object clitics which undergo object shift tuck in under the subject in spec,vP. They are higher, but still not as close to T as subjects are. As Compton (2014) points out, however, Mood (not T) is the major clausal category in the Inuit language. Furthermore, as Compton and Pittman (2010) argue, a word in the Inuit language is a phase, bounded by mood at the phase edge. Arguments evacuate before the final phase is completed. Inflectional arguments will therefore adjoin to mood. Assuming Distributed Morphology (Halle and Marantz 1993), at the point at which the form of the object pronoun undergoes morphological insertion, it is adjacent to the mood morpheme. It is therefore not surprising if there is some morpho-phonological sensitivity based on variance between mood morphemes. Because of these complexities, tense variance cannot be used as a determining property for the status of double agreement.<sup>14,15</sup>

Let us now turn to the question of Person Case Constraint (PCC) effects, i.e., a restriction on 1/2 person objects in certain environments (Béjar and Rezac 2003, Rezac 2004, among others). The Inuit language displays systematic person constraints within object marking. This is entirely unexpected if the object marker were a genuine instantiation of  $\phi$ -agree. As observed in Johns (1996), the Labrador dialect indeed displays a restriction on the person marking of the object in the ergative pattern. While 1>3 may be found in both participial and indicative moods, (4), 3>1 is possible only in the indicative mood, as in (5).<sup>16</sup>



(4) a. nigi-jaga  
eat-PART.1S/3S

b. nigi-vaga  
eat-IND.1S/3S  
'I ate it'

(5) a. \*taku-jânga  
see-PART.3S/1S

b. taku-vânga  
see-IND.3S/1S  
'He saw me'

The example in (6), from the South Baffin dialect shows a similar restriction but with a different result. The first example shows a 1>3 transitive participial mood verb form with double agreement. In the second example, however, the \*1>3 prohibition forces a single agreement verb form with the object as an independent pronoun (in fact an antipassive construction).

(6) a. mali-langa-si-jara  
follow-going.to-INCEPT.-TR.PART.1S/3S  
'I am going to follow him.'

b. Jaani uvannit ikaju-ruma-nngit-tuq  
John.ABS 1S.PRO-MOD help-want-NEG.-INTR.PART.3S  
'John does not want to help me.'

Compton (2014) argues against a clitic analysis for verbs based on his claim that possessive agreement, which is closely related to transitive double agreement, shows default agreement in the South Baffin dialect in oblique case environments. Default agreement is a hallmark of  $\phi$ -agree (Preminger 2009), so if we accept that possessive agreement and transitive verb agreement are closely related, this would be an argument against transitive verb agreement having a clitic. The crucial data involving possessives is in (7).

(7) a. iksivauta-ra  
chair-1S.POSS/S  
'my chair'

- b. uvanga iksivauta-nga-nit  
 1S.PRO chair-3POSS-ABLATIVE  
 ‘from my chair’

In (7a) we see possessive agreement on the head nominal that indicates both features of the possessor and number of the nominal. In (7b) where the nominal is in oblique case, we see a periphrastic construction, but also a third person possessor marking on the head nominal.

Compton claims that this is a default possessor marking, leading to his conclusion that possessor/transitive double agreement cannot involve clitics. While the data are interesting, we do not believe it refutes an analysis of transitive verb agreement as involving clitics. Note that the morphology shown in (7b) does not appear on verbs.

Furthermore, Yuan (2014) provides critical data that shows that (7b) is an instantiation of a PCC repair, a property consistent with clitics, not agreement (Rezac 2008). The default agreement analysis makes a clear prediction. If the third person possessive marking in (7b) indeed is default agreement, the number marking on the nominal head should always be third person singular.

Yuan (2014) shows that the third person marking on the head nominal can be plural as well. The examples in (8), from Yuan (2014), show an absolutive possessed noun on the left, with an oblique case marked possessive on the right. Only the latter has the periphrastic form with possessor inflection *ngit-* on the possessum, indicating not only that it is a possessed form, but that it is a plural possessed form.

- (8) qimmi-kka → uvanga qimmi-ngin-nut  
 dog-1S/3P    1S.PRO dog-3P-ALLATIVE  
 ‘my dogs’    ‘to my dogs’

Consequently, Yuan argues that this is not default agreement but simply the reflex of the possessum features. As a result, Yuan characterizes this construction as a PCC effect where the oblique case blocks co-occurrence with first/second person objects. From this perspective the presence of a first person independent pronoun on the right in (8) can be seen as a repair, a property consistent with clitics, not agreement (Rezac 2008). If possessive forms are relevant evidence to clitics in transitive double agreement, then this evidence supports a clitic analysis of

transitive agreement. In summary, there is ample evidence of PCC effects involving object marking (and also possessor marking), leading to the conclusion they are clitics.

Let us turn to the third syntactic property associated with object clitic marking in Nevins (2011), namely omnivorous number, where the same plural marking may denote either the subject or the object as plural. While omnivorous number is clear in Aleut (Merchant 2011), it is not as clear in the Inuit language. However consider the partial transitive indicative paradigm from Harper (1974) for North Baffin dialects in (9).

(9)

Subject	Object	3S	3D	3P
3S		vaa or vanga	vaangik	vait or vangik
3D		vangak	vaangik	vangik
3P		vaat or vangat	vaangik	vait or vangit

In (9) we see that the regular third plural marker for nominals *-(i)t* marks not only the 3plural of the object in 3/3p *-vait* (singular subject) but also the plural of the 3plural agent in 3p/3s *-vaat* (singular object). Thus the Inuit language shows some evidence of omnivorous number, supporting the clitic analysis.

Our final argument supporting the clitic nature of object marking in the Inuit language is that its presence is associated with a special meaning. This property has been acknowledged as a diagnostic of cliticness by Dočekal and Kallulli (2012), Anagnostopoulou (2006), Kramer (2014), among others. The presence of  $\phi$ -agree never relates to special meaning. For example in Albanian, as Dočekal and Kallulli (2012, p. 117) show, the object of a verb requires clitic doubling in contexts where a topical interpretation exists, as in (10)–(11). At the same time, clitic doubling is prohibited in contexts where the object of the verb is not topic, as in (12). Note that this example involves existential ‘have.’

(10) A: Who read the book?

B: Ana \*(e) lexoi librin.  
Anna CL.ACC.3S read book.the

(11) A: What did Ana do with/to the book?

B: Ana \*(e) lexoi librin.  
Anna CL.ACC.3S read book.the

(12) (\*I) kishte minj n. gjith. apartamentin.  
CL.ACC.3P had mice in all apartment.the  
'There were mice all over the apartment.'

The data from the Labrador dialect that parallel Dočekal and Kallulli's examples (10)–(12) demonstrate the topic status of the absolutive objects. As we can see in (13), if the object is a topic, the agreement pattern is ergative (double agreement) and there is no overt DP.<sup>17</sup>

(13) A: kina iKalu-mmik iga-sima-jong?  
who.ABS fish-MOD.S cook-PERF-INTR.PART.INTERR.3S  
'Who cooked the fish?'

B: Peta iga-sima-janga.  
Peter.ABS cook-PERF-TR.PART.INTERR.3S/S  
'Peter cooked it.'

At the same time we see that definite DPs which are not topics are found in the antipassive (single agreement), as in (14).

(14) A: Su-sima-jong Sally?  
what.do-PERF-INTR.PART.INTERR.3S Sally  
'What did Sally do?'

B: Sally atua-tsi-sima-juk alla-mik.  
Sally.ABS read-AP-PERF-INTR.PART.3S book-MOD.S  
'Sally read the book.'

Since the Labrador dialect does not favour clitic doubling, a topic with an overt DP will also be in the antipassive (single agreement), as can be seen in (15).

(15) A: kina Kuki-nni-jong nanu-mming?  
who.ABS shoot-AP-INTR.PART.INTERR.3S polar.bear-MOD.S.INTERR  
'Who shot the polar bear?'

B: Davide Kuki-nni-juk nanu-mmik  
David.ABS shoot-AP-INTR.PART.3S polar.bear-MOD.S  
'David shot the polar bear.'

Kramer (2014) shows that clitic doubling in Amharic is related to special meaning as well. It can be found with *wh*-words but only if *d*-linked, and is also found as a sort of emphasis. Kramer (2014, p. 624) suggests that topichood may be an underlying factor, but acknowledges that more fieldwork is needed.

The Inuit ergative construction is also known to have a special meaning. The exact nature of the meaning difference and the structure underlying has varied. It has been attributed to specific (Manga 1996), wide scope (Bittner 1987, 1994), given (Kalmár 1979, Johns to appear), and topic (Berge 2011). The exact semantic nature of the double agreement pattern will be discussed in section X.2.3 but for now it suffices to say that, that unlike objects of transitive verbs which do not bear special nominal interpretation as a result of being transitive objects, the nominal in absolutive case in the ergative pattern in the Inuit language has a distinct interpretation from that it would get otherwise. We conclude that the semantic properties of the double object agreement yet again point in the direction of a clitic, not  $\phi$ -agree.

To summarize, we have shown that the object markers in the Inuit language clearly display all the characteristics of object clitics. This conclusion supports Nevins (2011, p. 967) tentative contention, based on a suggestion by Woolford, that in all languages displaying agreement with both subject and object, object agreement should be reanalyzed as a pronominal clitic.

### X.2.3. The case for topics

The fact that objects in the ergative and antipassive pattern are not semantically equal has not gone unnoticed in the literature on the Inuit language and other ergative languages. In this section we follow Berge (2011) and her analysis of Western Greenlandic and argue that objects in the ergative pattern are best characterized as topics. More precisely, we will argue that absolutive objects which Berge refers to as *locals topics* correspond to (aboutness) topics in the sense of Reinhart (1981). We will call these topics *sentential topics* in order to indicate that unlike their broader counterpart, they have a designated clause-bound syntactic representation. Thus our notion of sentential topic will be strictly used as a label for the part of a structure the sentence is about, instead of the broader notion of topic often used in the functionalist literature (*global*

*topics* or *non-topics* in Berge’s terminology).<sup>18</sup> In contrast, objects of antipassive are best characterized as anti-topics (non-topics in Dočekal and Kallulli 2012), i.e., backgrounded elements.<sup>19</sup> In section X.3 we will show that not only this characterization is empirically more accurate than other previously suggested characterizations but it also straightforwardly derives the core morphosyntactic properties of the Inuit case and agreement system we investigate here. Bittner (1987) and following work observed that absolutive objects in the Inuit language, unlike their oblique counterparts, take wide scope. The example in (16), originally from Bittner (1987, (40)–(41)), demonstrates this on the relation between an indefinite noun phrase ‘kayak’ and sentential negation. In the ergative pattern, as in (16a), the absolutive object scopes above negation, which results in a specific reading. In contrast, whether definite or indefinite, its oblique counterpart in (16b) must be interpreted within the scope of negation (‘He/she doesn’t use a kayak anymore’). While this fact is undisputed it is not clear what underlying grammatical property is responsible for the scopal interaction. Note the contrast could be a result of a genuine wide scope, but but equally it might have arisen from another semantic factor, e.g. specificity, definiteness, or perhaps givenness modeled as anaphoricity (Kalmár 1979, Manga 1996, Johns to appear).<sup>20</sup>

- (16) a. qajaq atur-unnaar-paa  
 kayak.ABS use-no\_longer-IND.3S/3S  
 $\exists$  [x is a kayak &  $\neg$ (he uses x)] ABS:  $\exists > \neg$
- b. qaanna-mik atur-unnaar-puq  
 kayak.MOD.S use-no\_longer-IND.3S  
 $\neg\exists$ x[x is a kayak & he uses x] INS:  $\neg > \exists$
- [Hallman (2008, (10))]

Let us have a closer look at the hypothesis that the difference between absolutive and oblique objects is indeed based on a genuine scope interaction. If the semantic contribution of the oblique case is narrow scope, then we expect that non-scoping elements such as proper names, personal pronouns, or rigid designators, such as ‘my father,’ should always appear only in absolutive case as they obligatorily scope over the type of scope operators Bittner bases her argument on.<sup>21</sup>

However, as these Canadian Inuit examples in (17) from Hallman (2008) demonstrate, this

prediction is not borne out. Thus the fact that non-scoping items may appear with both case markings is entirely unexpected under a genuine scope hypothesis. The explanation of the appearance of wide scope must lie elsewhere.

- (17) a. qimmiq taiviti-mit kii-si-qqau-juq  
 dog.ABS David.MOD.S bite-AP-PAST-PART.3S  
 ‘A dog bit David.’
- b. qimmiq uvannit kii-si-qqau-juq  
 dog.ABS me.MOD.S bite.-AP-PAST-PART.3S  
 ‘A dog bit me.’
- c. qimmiq ataata-nit kii-si-qqau-juq  
 dog.ABS father-my.MOD.S bite-AP-PART-IND.3S  
 ‘A dog bit my father.’

Hallman 2008, (51)

Could definiteness or givenness, modeled as discourse anaphoricity (Schwarzschild 1999), be a possible explanation, as suggested in Kalmár (1979), Manga (1996), Johns (to appear)?

Interestingly, as Hallman (2008) points out, although absolutive case often reflects definite or anaphoric meaning, absolutive object DPs can also appear in out of the blue contexts, as in (18), an example from Kalaallisut (Bittner 1987, (12)), taken from the Gospel according to Matthew in the New Testament.

- (18) figiqussuar-lu aqqusirnup sania-niit-tuq taku-gamiuk  
 fig.tree.ABS-and road.ERG its.side-LOC-PART.3S see-when.3R/3S  
 ‘and as he saw a fig tree standing at the side of the road’

The ‘figtree’ in absolutive case is a new entity in the discourse, assuming the English translation is a guide. This is unexpected if absolutive objects have to be discourse salient. In other words, notions such as given/new, discourse salient etc. do not seem to provide an accurate description of the facts. Neither does the distinction between definiteness and indefiniteness, at least not in the sense assumed for English (see the discussion in Hallman 2008). Furthermore, as Compton (this volume) argues, oblique case (MOD) cannot be equated with indefinite properties since it is found on names of objects in some dialects and it is found on names under some circumstance in all

dialects. The examples given above in (17) make the same point.

We conclude that neither a genuine scope analysis, nor ones based on definiteness or discourse saliency are empirically accurate. Instead we propose that absolutive objects are sentential topics, following the core proposal of Berge (2011). However, before we demonstrate the validity of this hypothesis, we find it useful to first outline what we mean by sentential topics, as there has been a significant amount of confusion about the semantic contribution of topics and how they relate to notions such as givenness or discourse saliency.

As pointed out by Molnár (1993), there are in principle three distinct levels of information packaging (the following formulation is based on Endriss 2009). (i) a level that distinguishes what is said (the *comment*) from what this comment is about (the *topic* of the utterance); (ii) a level that differentiates between things that are new to the hearer (the *rheme*) and things that are already known (the *theme*); and (iii) a level where the utterance is divided into what is important or relevant from the speaker's viewpoint, i.e. the *focus*, and what is not as important and thus constitutes the *background*.

We concur with Reinhart (1981), Molnár (1993) and Endriss (2009), among others, that a sentential topic is what a sentence is about.<sup>22</sup> Thus this is a notion that strictly operates at the sentential level and may be directly encoded in the morphosyntactic representation. From the semantic point of view, this means that for something to be a sentential topic, it needs to be associated with a referential address which in and of itself is associated with the common ground. The common ground association may come about in two distinct ways: either the item is already in the common ground, or its existence needs first to be asserted, and then added to the common ground. The final interpretation results once predication takes place over the anchored item.<sup>23</sup> A side point, which is going to be important in section X.3 is that when the address is being established, a 'maximized' interpretation is necessary (Endriss 2009).

The crucial point for us is that topics must be associated with a referential address, i.e., they are modeled as an address for the context update. The consequence of this is that topical material cannot be interpreted in the predicative part of the sentence. As Endriss (2009) carefully explores,



this results in an appearance of wide scope and/or specificity, often associated with topics. Note that the notion of referential address often coincides with familiarity/discourse saliency but it is not identical. Thus this narrow notion of topicality is compatible with indefinites and other non-salient elements such as quantifiers. In contrast, the broader notion of topics, often used in the functionalist literature, requires topics to be recently mentioned, persistent in subsequent discourse etc., and as a result is not a good fit for the data we investigate here.

We are now in a position to come back to our Inuit language data. Recall that we have seen that absolutive objects take wide scope (although oblique objects may take wide scope as well), and we have also seen that although absolutive objects tend to be definite and discourse salient, they can be novel as well, as in the example in (18).

While this example was problematic for the hypothesis that absolutive objects are discourse salient or given, the example is consistent with the object being a topic. Under such analysis, ‘figtree’ may be understood as ‘cataphoric,’ i.e., being a sentential topic, with the rest of the utterance being its comment (see also Berge 2011, who describes an example of double agreement as cataphoric). A topic analysis will allow absolutive objects to be new, but only if the rest of the utterance predicates over them (predicates of appearance on the stage etc. or noteworthy in the sense of Ionin 2006). The English example in (19) demonstrates this type of interaction: strictly speaking, the definite DP *this guy* is discourse new, however, the demonstrative form indicates that the definite DP is going to be commented upon (see Ionin 2006 for a more detailed discussion).

- (19) I entered the subway and there was this guy.
- a. #I was lucky to find a seat and I read a book until we reached my station.
  - b. He immediately started talking to me.

In the same way, the fact that the ‘figtree’ will and must play a role in the narrative is indicated through the presence of absolutive case. To summarize, we argue that all the facts we have seen so far are compatible with absolutive objects being sentential topics.

What about oblique objects? According to Berge (2011) they are anti-topics. What that means is

that they are part of the comment structure of an utterance. If this is correct, we expect that they will take narrow scope, unless their lexical content will make them scope outside of the predicative structure. This is precisely what we have seen in (16) and (17), respectively. Furthermore, even though comment is often new information, it is compatible with a given/discourse salient element as well, as long as the given element is not the sentential topic. This prediction is borne out as well, as seen in (20). Here, ‘Peter’ is the subject of the first sentence, i.e., a global topic if we were to use the terminology of Berge (2011). However, in the following utterance, ‘Peter’ occupies a non-topic position and even though it is clearly discourse-salient/given, it appears as an oblique adjunct.

- (20) a. pita-up qukiq-qau-ngit-tanga natsiq  
 peter.ERG shoot-PAST-NEG-PART.3S/3S seal.ABS  
 ‘Peter didn’t shoot a seal.’
- b. qimat-si-qqau-juq pita-mit qukiuti-nga-nit  
 flee-AP-PAST-PART.3S peter.ABL gun-his.MOD.S  
 saku-li-gasua-liq-tillugu  
 cartridge-make-try-PROG-CONJ.4/3S  
 ‘It fled from Peter while he was trying to put a cartridge in his gun.’

Hallman 2008, (46)

To summarize, all these properties are compatible with the topic/comment distinction. Further supporting evidence for this conclusion comes from Murasugi (2014). Murasugi conducted a behavioral study showing that 1/2 person objects are more likely to be in absolutive case than in oblique case.<sup>24</sup> This finding is compatible with the idea that oblique objects are comment, while absolutive objects are topics, as the speaker/hearer is more often the topic of a sentence than the comment.

### X.3 Putting the pieces together

Let us summarize what we have learned so far. First, the Inuit language exhibits an information-structure driven case and agreement split. More precisely, the object of a transitive structure may be in absolutive or oblique case. If it is in absolutive case, then the object must be a sentential topic. If it is in oblique case, then the object must be in the comment part of the

structure. Other semantic effects associated with absolutive objects, such as wide scope or the tendency to be definite or discourse salient, are a direct consequence of sentential topics being associated with a referential address. Furthermore, we have shown that if the object is sentential topic, then it triggers double agreement on the verb. Crucially, the object marker is not a morphological exponent of  $\phi$ -agree (pace Compton 2014). Instead, it is a nominal clitic, adjoined to the verbal complex. In this section, we will use the sentential-topic analysis of absolutive objects to explain the inflectional properties and case properties of the Inuit split.

As for double agreement, our findings confirm other proposals that argue that clitic doubling is always conditioned by information structure, including object markers on verb (Anagnostopoulou 2006, Kramer 2014, among others). Specifically, we follow the proposal made in Dočekal and Kallulli (2012) who argue that only sentential topics trigger clitic doubling.<sup>25</sup> Thus under the clitic analysis of the verbal object marker, the fact that only absolutive objects trigger double agreement is unsurprising, since all absolutive objects are sentential topics. This conclusion also straightforwardly derives another fact, namely, the dialectal difference between Eastern and Western dialects. As we discussed in section X.2.1, while in Western dialects objects may be overt in either transitive pattern (ergative or antipassive), in Eastern dialects, the object DP of a transitive double agreement construction is not usually overt. As Anagnostopoulou (2006) and work cited there shows, there is indeed a large body of cross-linguistic and dialectal variation in the domain of clitic doubling which affects whether or not the full DP is overt. We argue that the dialectal variation attested in the Inuit language dialects can be subsumed under this common variation in the domain of clitic doubling. We thus conclude that the topic analysis of absolutive objects captures not only their semantic properties, but it also provides an insight into the agreement split and the nature of dialectal variation associated with it.

We will now turn to the more fundamental question underlying the current discussion, asks what it is about absolutive objects that requires them to be interpreted as sentential topics. We argue that this property is another direct consequence of their semantic import, that is of their requirement to be associated with a referential address. Specifically, we argue that the referential

requirement forces sentential topics to be at the edge of a phase since otherwise they would not be accessible to the interpretive module (Chomsky 2000, 2001, 2013, among others). The associated XP movement changes locality properties for the purposes of case assignment, and in turn yields a change in the morphological realization of direct objects.

Rizzi (1997, 2004), Grohmann (2003), among others, established that topic-like interpretations, including contrastive topics,<sup>26</sup> move to CP, i.e., the edge of the CP phase. Interestingly, there is evidence that even within vP, topics must move to the phase edge as well. This has been most convincingly shown for German by Frey (2000) and related work. Furthermore, we know that even if topics stay lower in the structure, they must move to the edge of its phase at LF (see, for instance, Polinsky and Potsdam (2001) for intriguing evidence from long-distance agreement). The question is why this should be so. We argue that the obligatory movement to the edge of the phase is a direct consequence of topics requiring to be associated with a referential address. We argue that since the referential address is created through anchoring to the common ground in the interpretive component (CI), topic movement makes items accessible to minimal search by the CI component at the point of Transfer (Chomsky 2008, 2013, Narita 2011, cf. von Stechow 2004).<sup>27</sup> While in languages like English, if there is more than one argument sentential topics coincide with grammatical subjects, and consequently, the relevant locality domain is CP, in the Inuit language sentential topics coincide with objects, and consequently the relevant locality domain for establishing referential anchoring is vP.<sup>28</sup>

This conclusion raises a non-trivial issue. If we take seriously the semantic analysis of sentential topics such as that of Endriss (2009), then sentential topics are first anchored, and then they are predicated upon by the rest of the structure. If sentential topics were anchored at CI before CP is built (which follows from vP being sent to Transfer), and only then are they predicated upon, the resulting derivation would be counter-cyclic. We argue that the solution lies in an intuition that underlies much of previous and existing research on ergative languages, namely, the idea that ergative systems are at some level of abstraction passive or unaccusative structures (Fillmore 1968, Hale 1970, Marantz 1984, Bok-Bennema 1991, Johns 1992, among others). Technically, what

this amounts to is that an ergative subject is not merged in the same position as that of the external argument in nominative/accusative systems. The reason is that either *v* is entirely missing (Nash 1995, 1996), or it is defective (Bok-Bennema 1991, Johns 1992, Alexiadou 2001). We can rephrase this conclusion in terms of phases and their Transfer (Chomsky 2001, 2008).<sup>29</sup>

(21) Absolutive topic generalization:

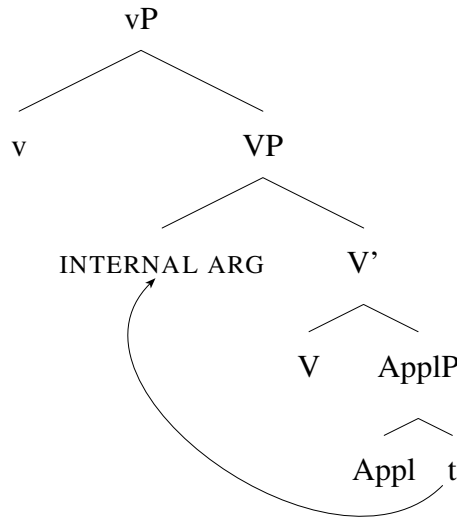
For an internal argument to be minimally searchable and anchored to the common ground, it must be sent to Transfer at the propositional level (CP), i.e., vP phase is not sent to Transfer prior to the completion of CP.<sup>30</sup>

Note that this conclusion is complicated by the fact that, according to some authors, the lower structure of the transitive clause in the Inuit language is not a familiar vP of nominative/accusative languages, but either an applicative<sup>31</sup> or a nominalized structure (Johns 1992 and much following work, cf. also Alexiadou 2001 and this volume).

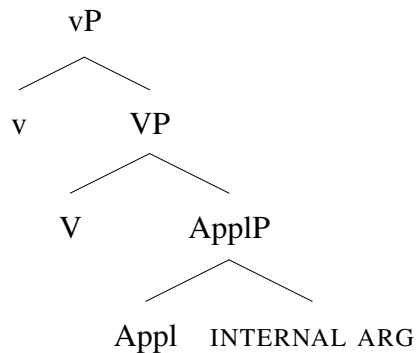
Recall that to achieve the topic/comment sentential partition, the topic must be asserted and the comment subsequently must be predicated over it. According to some authors, it is this very partition that underlies the distinction between so-called categorical andthetic statement distinction (Kuroda 1972, Ladusaw 2000, Basilico 2003, among others). Here we adopt the view advocated in Basilico (2003), namely, that the topic/comment structure requires a syntactic partition (see Diesing 1992 and following work for the idea that semantic partitions map directly on syntactic structure). As Basilico points out, while the topic interpretation of a subject can be achieved by raising the subject from vP to TP, it is not immediately clear how to create the same syntax-semantics partitioning effect with an object. We argue that for an internal argument to be interpreted as a sentential topic, it must raise from its base-generated position to a higher functional projection within the same phase – analogous to the raising of subjects. We further argue that for such a movement to be possible, the internal argument cannot be merged within a simple VP projection. Instead, the VP part of the structure must be more complex in order to facilitate the required raising. We follow a suggestion made in Basilico (2012) and argue that the

internal argument is merged in an applicative-like structure. More precisely, the internal argument is merged as a sister of a low applicative head (Pylkkänen 2002). If the internal argument is not a sentential topic, then it remains within the applicative projection. If, however, it is to obtain a sentential topic interpretation, it must raise to the specifier of VP – analogous to the raising of topical subjects from the specifier of vP to the specifier of TP. The trees in (22) schematize the basic structural distinction between the ergative and the antipassive pattern. Note that the truncated structure does not provide a direct representation of the nominalized character of the vP/VP part, neither does it contain higher functional projections, such as MoodP and TP.<sup>32</sup>

(22) a. Ergative pattern:



b. Antipassive pattern:



What does this structural difference entail for case assignment? We argue that the structural difference is similar to that of Dative shift in English. If the object remains within the applicative projection, its case is determined by the applicative head. The result is an oblique case (MOD). In contrast, if the internal argument raises to the spec,VP, it can be assigned case by whatever the appropriate structural case assigner is.<sup>33</sup> As a result, the internal argument surfaces as absolutive.

(23) The Dative shift analogy

- a. Give money to him. ~ antipassive pattern
- b. Give him money. ~ ergative pattern

Note that we assume a Distributed-morphology style of case assignment (Marantz 1991); that is,

the morphological realization of case reflects the morphological-case hierarchy, and hence only indirectly the underlying syntactic structure. Furthermore, after the internal argument raises out of the applicative projection, it must trigger cliticization within the higher functional complex.

The proposed analysis thus straightforwardly ties the information-structure properties of the Inuit structures and their case realization. Before we conclude, we will shortly return to a couple of outstanding properties, namely, aspectual properties of the ergative and antipassive structures, and dialectal differences in terms of what type of DPs may appear in the antipassive structure.

It has been suggested that the ergative vs antipassive split is aspect-based (Clarke 2009, Spreng 2006, 2010, 2012). Even though a careful investigation of this suggestion extends far beyond this chapter, we would like to suggest that the role of aspect is secondary, and in fact it relates to the topic/comment distinction we argue for here. See also Berge (2011).

There is a large body of syntax-semantics literature that makes a connection between aspect, more precisely telicity,<sup>34</sup> and some form of definiteness (Borik 2002, Basilico 2008, Krifka 1998, Filip and Rothstein 2006, Filip 2008, Ramchand 2008). The basic intuition can be approximated by a comparison of English and Czech strictly incremental verbs (Filip 2008), as can be seen in examples (24) and (25). The readings in (24a)–(25a) are atelic, they are neutral as to whether or not the event in question was completed, e.g. we don't know if all the apples were eaten. On the other hand, the readings in (24b) and (25b) are associated with a telic interpretation, i.e., all the apples were eaten.

- (24) a. Peter ate apples.  
b. Peter ate the apples.
- (25) a. Petr jedl jablka.  
Petr ate.IMPERF apples  
'Peter ate apples.'  
b. Petr snědl jablka.  
Petr ate.PERF apples  
'Peter ate the apples.'

When we closely look at these examples, we see that in Czech the grammatical source of the telic



interpretation is the perfective marking on the verbal morphology. Even though the English translation indicates that the object is to be interpreted as definite, the noun phrase itself does not have any definiteness marking. In other words, the aspectual marking in Czech and the definiteness marking must have the same – or a very similar – semantic denominator. We follow Filip and Rothstein (2006) and Filip (2008) and argue that the common denominator is best modeled in terms of the maximization of the event/direct object. Note furthermore, that for an event to be maximized, it must be first mapped to a scale. In fact, Basilico (2012) proposes that it is the scalar properties of events which underlie the formation of antipassives in the Inuit language.

How does this relate to topics? According to Endriss (2009), a sentential topic requires a maximized interpretation, irrespective of whether it involves a definite, indefinite or quantifiers..<sup>35</sup> We suggest that it is this very property that drives the telic interpretation of the ergative pattern and yields an imperfective-like interpretation of its antipassive counterpart. This is similar to the English telic effect involving the maximization interpretation of the definite argument which we observed in (24b). In other words, there is a direct connection between topical interpretations and aspect, a relation which likely underlies the aspectual properties attested in the Inuit patterns. We thus conclude that the topic analysis subsumes the aspect analysis, and consequently, a direct reference to aspect is unnecessary.

The last remaining issue has to do with dialectal variation in the domain of oblique DPs that may appear in the antipassive construction. While in the Western Inuit dialects and Western Greenlandic, the antipassive construction requires the DP in oblique case (MOD) to be indefinite – or more precisely it excludes referential DPs, there appears to be no such restriction in the Eastern Canadian dialects. We find this reminiscent of restrictions on Scandinavian Object Shift (Thráinsson 2001 and literature cited there). Object Shift is A-movement of certain object DPs to the specifier of vP. Even though Object Shift somewhat resembles A-scrambling in Germanic and Slavic languages, it seems to be structurally more restricted (Holmberg 1986, 1999). Furthermore, while some Scandinavian languages allow Object Shift only of pronouns (for

example, Danish), others (e.g. Icelandic) allow optional movement of full definite DPs as well. Finally yet other varieties (for instance, some Norwegian dialects, Nilsen 1997) additionally allow Object Shift of indefinites. Furthermore, languages differ as to whether they allow just Object Shift or whether they extend it to allow semantically-motivated movement (A-scrambling), as in Icelandic. In contrast, there are languages, such as English that allow topic movement to the left periphery, but their semantic movement within vP is restricted only to certain ditransitive verbs. The full exploration of this possible connection however awaits future research.

To summarize, we have argued that the most adequate characterization of absolutive objects in the ergative pattern in the Inuit language is in terms of sentential topics. Even though our analysis has not fully explored all consequences of this hypothesis, we have shown how it derives the major morphosyntactic properties of the ergative and the antipassive pattern, and we have sketched how the topic analysis ties together various seemingly independent observations about the nature of the split, i.e., its information structure properties, scope properties, and aspectual properties. Even though more work needs to be done, especially in the domain of dialectal variation, the proposed analysis raises various issues about the nature of ergative languages in general. First of all, we suggested that there is a connection between the passive-like properties of the Inuit language and the necessity for the vP phase not to be sent to Transfer prematurely, if the internal argument is to be interpreted as a sentential topic. One question that immediately arises is what is the trigger and what is the consequence. The other question is whether a similar connection might hold in other ergative languages. Another conclusion with possible consequences for other ergative languages is that the topic interpretation might be the source of certain aspectual interpretations associated with the split. Aspect is a common property associated with ergative splits in general, and it is possible that the proper characterization of these splits indeed lies elsewhere. Before one jumps too quickly to this conclusion though, it is important to keep in mind that aspectual splits tend to involve re-alignment of arguments, which is not what we see in the Inuit language. In other words, aspectual distinctions in this language do not condition whether we get ergative or antipassive patterning. If the connection to other types of ergative splits is real, it is not trivial. Yet

in our mind it is worth exploring in future research, as is the relation to nominalized structures, only touched upon here.

## Notes

<sup>1</sup>We want to express our appreciation to Elizabeth Cowper and especially to Judith Aissen for comments and suggestions on this paper. We also wish to thank Katie E. Winters and other Nunatsiavut Inuit for data. Thanks also to SSHRC for funding this research project in a grant (435-2015-0979) to Johns, Kučerová and Lampe and a grant (435-2012-1567) to Kučerová.

<sup>2</sup>The Inuit language is a branch of the Eskimo languages of the Eskimo-Aleut language family. There are four major dialect groupings: Inupiaq, Western, Eastern and Greenlandic. The majority of linguistic work has been on the Kalallisu (West Greenlandic) dialect. Throughout this paper we will refer to the Inuit language rather than use the term Inuit, as some do. Inuit is literally ‘people’ inu(k)-it person-plural. We follow the Nunavut government in our usage.

<sup>3</sup>Berge argues that absolutive subjects can also be topics but we focus here on absolutive objects which are uniquely associated with double or transitive agreement. Related ideas, that some sort of discourse familiarity is relevant, are found in Kalmár (1979) and Manga (1996).

<sup>4</sup>Berge (2011) refers to this type of topic as *local topics* and distinguishes them from *global topics*, which are persistent across a wider domain of discourse.

<sup>5</sup>Our analysis is framed within the phase theory of Minimalist program (Chomsky 2001, 2008, 2013, among others). A phase in this theory refers to a syntactic derivational unit which is in a technical sense syntactically and semantically complete. The notion thus roughly corresponds to the notion of *cycle* in the earlier stages of generative grammar.

<sup>6</sup>By antipassive we refer both to transitive verbs which require an antipassive morpheme to show intransitive agreement and to transitive verbs that do not require such a morpheme to show intransitive agreement.

<sup>7</sup>Formally, the morphological form of relative case is identical to possessive case found in the nominal domain.

<sup>8</sup>Abbreviations: ABS = absolutive case; ACC = accusative case; AP = antipassive; CAUS = causative; CL = clitic; CONJ = conjunctive mood; D = dual; ERG = ergative case; INTERR = interrogative intonation; interrIMPERF = imperfective; INCEPT = inceptive; IND = indicative mood; INTR = intransitive; INSTR = instrumental case; INSTRUMENT = instrument affix; LOC = locative; MOD = modalis case; NEG = negation; P = plural; PART = participial mood; PERF = perfective; POSS = possessive; PRO = pronoun; PROG = progressive; R = reflexive; S = singular; TR = transitive; 1 = 1st person; 3 = 3rd person.

<sup>9</sup>We will continue to use the term antipassive to refer to constructions with subject/object but only single agreement.

<sup>10</sup>This distinction is not absolute and requires more research. See (Johns to appear) for more details.

<sup>11</sup>A combination of *pro* and  $\phi$ -agree analysis was proposed by Merchant 2011 for Aleut, a distant relative of the Inuit language.

<sup>12</sup>Interestingly, this entails that Labrador Inuttitut is no longer ergative by definition, since transitive clauses and ergative patterning are not equivalent.

<sup>13</sup>Though in section X.2.3 we will disagree with Johns (to appear) on her information-structure characterization of objects in the ergative pattern.

<sup>14</sup>There are additional issues; for example while double agreement of independent moods resembles possessive agreement found on possessums, double agreement of dependent moods resembles possessive agreement found when the possessor is itself possessed, as in (26) from the Labrador dialect.

(26) anêna-ma            nasa-ngit  
      mother-POSS. 1S/3S hat-3S/P  
      ‘my mother’s hats’

Finally subject agreement varies between single and double agreement, so it is not inconceivable that this could affect object form.

<sup>15</sup>The reader may have noticed that double agreement is not always clearly segmentable into subject and object at the morpho-phonological level, unlike some other languages where object agreement has claimed to be clitic (Kramer 2014). We do not view this as an issue, given that we rely on syntactic evidence, following Nevins (2011). Merchant, in his analysis of Aleut, describes the portmanteau effects of clitics, citing similar effects in Basque (Arregi and Nevins 2008).

<sup>16</sup>The indicative mood and the participial mood are very close semantically, with the indicative mood usually adding a sense of vividness. Where the participial mood is grammatically prohibited, the indicative mood is used in its place, but without the vividness.

<sup>17</sup>Note that names often do not reflect relative case, but this is not important, as our claim focusses on the single/double agreement distinction.

<sup>18</sup>Berge’s notion of local topic is related to the notion of theme in the Prague school terminology. The notion of global topic, which Berge uses to characterize objects in the ergative pattern, is closer to Schwarzschild (1999)’s notion of givenness. As for aboutness/sentential topics, we use Reinhart (1981)’s formalization – more precisely we will adopt the formal implementation of Endriss (2009) – because it is easier to implement within the generative framework we assume here. We refer the interested reader to Hajičová et al. (1998) for an attempt to reconcile these two distinct generative traditions in semantic terms. As for the information status of subjects, we refer the reader to Berge (2011)’s description.

<sup>19</sup>Similar claims have been made by other authors for other ergative languages, mostly in the functionalist tradition (Dixon 1972, Blake 1976, Du Bois 1987, Mallinson and Blake 1981, Authier and Haude 2012, among others).

<sup>20</sup>Hallman (2008) proposes that the transitive object is either anaphoric or introduces new arguments because an NP in absolutive case a) has existential assertion, rather than supposition, and b) a uniqueness presupposition

<sup>21</sup>The logic of this argument crucially relies on Fox (2000)'s notion of *scope economy*. (See also Fox 1995, Reinhart 1995, 2006.) According to Fox, nominal expressions can undergo a scope-taking operation, only if the scope-taking structural change (be it quantifier raising or something else) yields an interpretation that would not be available otherwise. Since here, the interpretation associated with the wide scope is already available in situ, there is no reason for a structural change to take place. One could argue that there is another feature present in the structure that is in and of itself independent of wide scope; however, we prefer the simpler analysis presented in the main text.

<sup>22</sup>The distinction between topic and comment thus syntactically corresponds to the distinction betweenthetic and categorical statements (Kuroda 1972, Ladusaw 2000, Basilico 2003, among others). We will return to this distinction in section X.3, where we discuss the syntax of topics.

<sup>23</sup>For a formal implementation, see Endriss (2009, p. 245).

<sup>24</sup>This finding needs to be compared with seemingly contradictory restrictions, such as those in (4)–(6).

<sup>25</sup>Dočekal and Kallulli (2012) closely follow the formalization proposed in Endriss (2009). The core of their argument comes from the observation that only a very specific type of quantifiers (for the semantically savvy reader, only those that can be mapped on a minimal witness set) can function as sentential topics – and consequently can be clitic doubled. Crucially, no other information-structure dimension, e.g., familiarity etc., correctly identifies the right group of quantifiers.

<sup>26</sup>Note that even though contrastive topics by name resemble sentential topics, semantically they are quite different, as contrastive topics bring about focus interpretation. See, for instance, Kučerová and Neeleman (2012) for syntactic consequences of the additional semantic import.

<sup>27</sup>Minimal search is the current Minimal Program formalization of the idea that syntactic objects are accessible to further operations only if they appear at the edge of their local domain, cf. the Phase Impenetrability Condition of Chomsky (2000) or the concept of specified subject in the GB framework. The main difference is that the minimal search allows for feature interactions across modules, i.e., not only between syntactic domains. See Narita (2011) for an extensive exploration of consequences of this very property.

<sup>28</sup>Note that if an internal argument is to be interpreted as a sentential topic in nominative/accusative languages, the structure often undergoes a significant change to yield the necessary alignment. For instance, in English, topical internal arguments are typically realized as subjects of passives, while in languages like German or Czech they are A-scrambled to the edge of their local domain. See, for example, Kučerová (2007) and references cited therein.

<sup>29</sup>Note that a similar generalization underlies Compton and Pittman (2010)'s proposal that for the purposes of the morpho-phonological mapping, CP is the smallest accessible domain in the Inuit language.

<sup>30</sup>Meaning there is no *v* at all, or it is defective.

<sup>31</sup>For a recent discussion of applicatives see Carrier (2014).

<sup>32</sup>Notice that our applicative structure introduces an internal argument of the direct object sort, unlike high applicative-

tives proposed for indirect objects in the Inuit language (Carrier 2014). Though we do not fully understand the relation between nominalizations and applicative structures, it may be that the reason that the Inuit language has only high applicative structure for indirect objects is because there is a competing low applicative structure which introduces direct object.

<sup>33</sup>It is possible that the corresponding case assigner is *v*. However, since *v* is defective, it depends on the implementation of defectiveness whether or not it might act as a case assigner.

<sup>34</sup>Though the terms perfectivity and telicity may coincide, they are distinct concepts (Giorgi and Pianesi 2001). While perfectivity denotes the inclusion of the event time in the topic time – using the terminology of Klein (1994) and the denotation of Paslawska and von Stechow (2003) and others, – telicity determines whether the actual event has been completed.

<sup>35</sup>The main contribution of Endriss (2009) is that she models topicalized quantifiers to a minimal witness set representation, i.e., the maximal set of which a certain property must hold.

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