Towards an information structure analysis of ergative patterning in the Inuit language

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X.1 The introduction

The Inuit language 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 what – and how many – arguments trigger $\phi$-feature agreement on finite verb. This paper investigates the question of what exact grammatical property triggers this variability and the corresponding agreement properties.

The case variability has not gone unnoticed in the current literature. Some proposals attribute the split to aspect, for instance, Clarke (2009); Spreng (2006, 2010, 2012), while others to information structure, scope, or incorporation (Kalmár 1979; Bittner 1987, 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 much insight into how these seemingly disparate properties might relate to each other.

We argue that the ergative clause structure of the Inuit language is conditioned by information structure properties, more precisely by its topic-comment properties. We will provide evidence that the topic dimension is the primary trigger of the morphosyntactic make up. Furthermore we will show that other relevant properties discussed in the literature, i.e., scope properties of objects and aspect, are derivative of this information structure characteristics of the ergative split.

In order to execute the argument, we will first provide evidence that the difference between so called singular and double agreement is a difference of $\phi$-agree vs cliticization (Johns to appear contra Compton 2014). We will tie this conclusion to our second core observation, namely, that absolute objects must be (aboutness) topics in the sense of Reinhart (1981), following Berge (2011). Since topics are associated with clitic doubling (Dočekal and Kallulli 2012), these two observations provide an explanation of the clitic nature of the double agreement. Furthermore,
since topics must be at the edge of a phase, 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 similar to case alternation in English double-object constructions. Finally, since topics create an illusion of wide scope (Endriss 2009) and have ‘maximization’ properties, this will allow us to explain the scope observations and the appearance of an aspect-based split (Borik 2002; Filip and Rothstein 2006; Filip 2008; Ramchand 2008).

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 these alignment factors, 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. 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 – 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 case, and ergative when referring to the ergative pattern.

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.

(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 DUAL)

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

(2) Margarita Kuinatsa-i-juk Ritsati-mik.
    Margarita.ABS.S tickle-ANTIPASS.-INTR.PART.3S Richard-MIK.S
    ‘Margarita is tickling Richard.’ (transitive singular)

Labrador (Johns 2001b, 211)

The empirical description of the system is slightly complicated by the fact that the Inuit lan-
guage 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 the 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 in either transitive pattern, in Eastern dialects, the object DP of a
transitive double agreement construction is not usually overt.4 Finally, the ergative construction
is significantly less frequent in Eastern dialects than Western dialects, an effect bolstered by noun
incorporation, where incorporated objects are usually marked only with single agreement (Sadock
1980; Johns 2007). 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 Dual agreement as cliticization
Johns (to appear) suggests based on data from Labrador Inuit that objects in the ergative pattern must be salient from the previous discourse. The observation is based on data such as (3). Here we see that the first occurrence of Kajotta ‘cup’ as an object appears in the antipassive pattern, (3a). It is only in (3c) that the same object, though 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, (as proposed by Merchant 2011 for Aleut, a distant relative of the Inuit language). Instead she proposes that object inflection is a clitic, following much of 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 of the dialect difference introduced in X.2.1 as a familiar difference in clitic doubling (Anagnostopoulou 2006). That is, 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 overt object DPs, there is no clitic doubling in Eastern dialects.

We follow Johns’s suggestion and provide additional evidence that agreement with the object of the ergative construction is a clitic (contra Compton 2014). Our argumentation 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 the morphological paradigm related to PCC effects, and have omnivorous number. As we will see, even though there are non-trivial confounds
with characterizing the double agreement as being 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 version is *-vi-nga*. The *ma/-nga* are both indicating first person singular object. While for Compton this fact indicates ϕ-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 clitichood 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) discusses, 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 phase is completed. Inflectional arguments will therefore adjoin to mood. Assuming Distribution 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 and the object clitic. It is therefore not surprising if there is some morpho-phonological sensitivity based on variance between mood morpheme. Because of these confounds tense variance cannot be used as a determining property for the status of double agreement.

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 the object marking which is entirely unexpected if the object marker were a genuine instantiation of ϕ-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). The restriction on *3>1 is not restricted to the Labrador dialect, as can be seen in (6), examples from South Baffin Inuktitut.

(4)  
  a. nigi-jaga  
      eat-PART.1S/3S  
  b. nigi-vaga  
      eat-INDIC.1S/3S  
      ‘I ate it’

(5)  
  a. *taku-jaanga  
      see-PART.3S/1S  
  b. taku-vaanga  
      see-INDIC.3S/1S  
      ‘He saw me’

(6)  
  a. Jaani uvannit ikaju-ruma-ningit-tuq  
      John.abs 1s.pro-MIT help-want-neg.-intr.part.3s  
      ‘John does not want to help me.’

  b. mali-langa-si-jara  
      follow-going.to-incept.-tr.part.1s/3s  
      ‘I am going to follow him.’

Interestingly, Compton (2014) suggests that what appears to be PCC, such as (5), is a side-effect of default agreement (Preminger 2009). We argue instead, in accord with Yuan (to appear), that the critical data are an instantiation of a PCC repair, a property consistent with clitics, not agreement (Rezac 2008). Let us go over the argument. As Compton pointed out that there are certain instances of possessive agreement on objects, which according to him and Johns (1992) is partially identical to double agreement. Crucially, in these constructions the 1 person feature is realized as an independent pronoun, (7a), instead of being marked on the head nominal, as in (7b). Note that the nominals in (7) are arguments, more precisely an object.

(7)  
  a. uvanga iksivauta-nga-nit  
      1s.pronoun chair-3poss-ablative
b. iksivauta-ra
   chair-1sPoss/s
   ‘my chair’

Compton argues that the third person possessive marking on the head nominal in (7) is default agreement, a result of a failed first person marking on the verb (Preminger 2009). Given that possessive marking is equivalent to object marking, this leads him to the conclusion that object marking cannot be a clitic.

The default agreement analysis makes a clear prediction. If this indeed were default agreement, the number marking on the nominal head should always be singular. As Yuan (to appear) shows, the third person marking on the head nominal can be plural as well, as in (8) from Yuan (to appear).

(8) qimmi-kka → uvanga qimmi-ngin-nut
    dog-1s/3p  1s  dog-3p-allative
    ‘my dogs’ ‘to my dogs’

Consequently, Yuan argues, 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 can be seen as a repair, a property consistent with clitics, not agreement (Rezac 2008). In summary, there is abundant evidence of PCC effects involving object marking, leading to the conclusion they are clitics.

Let us turn to the third syntactic property associated in Nevins (2011) with object clitic marking, namely omnivorous number, where the same plural marking mark either the subject or the object as plural. While omnivorous number is clear in Aleut (Merchant 2011), a distant relative of the Inuit language, it is not as clear in the Inuit language. However consider the transitive indicative paradigm from Harper (1974) for North Baffin dialects in (9).
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 clitichood by Dočekal and Kallulli (2012); Anagnostopoulou (2006); Kramer (2014), among others. The presence of ϕ-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 clitic.accus.3s read book.the
(11) A: What did Ana do with/to the book?
B: Ana *(e) lexoi librin.  
Anna clitic.accus.3s read book.the
(12) (*I) kishte minj n. gjith. apartamentin. 
themCL.ACC had mice in all apartment.the
‘There were mice all over the apartment.’

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 sort of emphasis. Kramer
(2014, p. 624) suggests that topichood may be 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 construction in the Inuit language has a distinct interpretation from that it would get otherwise. We conclude 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 with 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 provide evidence that objects of the ergative pattern are best characterized as topics (Reinhart 1981), thus following the suggestion made by Berge (2011) for Western Greenlandic. In contrast, objects of antipassive are best characterized as anti-topics (non-topics in Dočekal and Kallulli 2012), i.e., backgrounded elements. 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 morpho-syntactic 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 (13), originally from Bittner
(1987, (40)–(41)), demonstrates this on the relation between an indefinite noun phrase ‘kayak’ and sentential negation. While in the ergative pattern, as in (13a), the absolutive object scopes above negation which results into a specific reading, be it definite, or indefinite, its oblique counterpart in (13b) must be interpreted in the scope of negation. 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 it might equally have arisen from another semantic factor, be it specificity, definiteness, or perhaps givenness modeled as anaphoricity (Kalmár 1979; Manga 1996; Johns to appear).

(13) a. qajaq atur-unnaar-paa
    kayak.ABS use-no_longer-IND:3E/3A
    \exists [x \text{ is a kayak } \& \neg (\text{he uses } x)]
    \text{ABS: } \exists > \neg

    b. qaanna-mik atur-unnaar-puq
    kayak.INS use-no_longer-IND:3A
    \neg \exists [x \text{ is a kayak } \& \text{he uses } x]
    \text{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. However, as these Canadian Inuit examples in (14) demonstrate, this prediction is not borne out. Thus the fact that non-scoping items may appear with both case marking is entirely unexpected under the genuine scope hypothesis. The explanation of the appearance of wide scope must lie elsewhere.

(14) a. qimmiq taiviti-mit kii-si-qqau-juq
    dog.ABS David.INS bite-AP-PAST-IND:3A
    ‘A dog bit David.’

    b. qimmiq uvanuit kii-si-qqau-juq
    dog.ABS me.INS bite.-AP-PAST-IND:3A
    ‘A dog bit me.’

10
c. qimmiq ataata-nit  
      ki-si-qqau-juq
  dog.ABS father-my.INS bite-AP-PAST-IND:3A
  ‘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) pointed out, although absolutive case often reflects definite or anaphoric meaning, absolutive object DPs can also appear in out of the blue contexts, as in (15), an example from Kalaallisut (Bittner 1987, (12)), taken from the Gospel according to Matthew in the New Testament.

(15) figiqussuar-lu aqqusirmup sania-niit-tuq taku-gamiuk
      fig.tree(abs)-and road-erg. its.side-loc.-intr.3s see-when3R/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 had 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 (mik) 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 (14) make the same point.

We conclude that neither a genuine scope analysis, nor ones based on definiteness, or discourse saliency analysis are empirically accurate. Instead we propose that absolutive objects are (aboutness) topics, thus following the analysis proposed in Berge (2011). However, before we demonstrate the validity of this hypothesis on the data, we find it useful to first outline what we mean by 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 ways of information
packaging (the following formulation is based on Endriss 2009). (i) the factual level, which distinguishes what is said (the comment) from what this comment is about (the topic of the utterance); (ii) the hearer-related level, which differentiates between things that are new to the hearer (the rheme) and things that are already known (the theme); and (iii) the speaker-related 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); Endriss (2009, among others) that a sentence topic is what a sentence is about. From the semantic point of view, this means that for something to be a 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 from the predication over such an anchored item. 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 into an appearance of wide scope and/or specificity, often associated with topics. Also, the notion of referential address often coincides with familiarity/discourse saliency. Crucially though, this notion is equally compatible with indefinites and other non-salient elements such as quantifiers.

We are now in a position to come back to our Inuit data. Recall that we have seen that absolutive objects take wide scope (though oblique objects may take wide scope as well), and we have also seen that though absolutive objects tend to be definite and discourse salient, they can be novel as well, as in the example in (15).

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. 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 (16) 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).

(16) 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 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 (13) and (14), respectively. Furthermore, even though comment is often new information, it is compatible with a given/discourse salient elements as well, as long as the given element is not the sentential topic. This prediction is borne out as well, as seen in (17). 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, it gets demoted to a non-topic position and even though it is clearly discourse-salient/given, it appears as an oblique object.

(17) a. pita-up quiq-qau-ngit-tanga natsiq
    peter.ERG shoot-PAST-NEG-IN:3E/3A seal.ABS
    ‘Peter didn’t shoot a seal.’
    qimat-si-qqau-juq pita-mit qukiuti-nga-nit saku-li-gasua-liq-tillugu

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 topics.

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    ‘Peter didn’t shoot a seal.’
    qimat-si-qqau-juq pita-mit qukiuti-nga-nit saku-li-gasua-liq-tillugu
flee-AP-PAST-IND:3A peter.ABL gun-his.INS cartridge-make-try-PROG-PART:4A

‘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. This finding is compatible with the idea that oblique objects are comments, while absolutive objects are topics, as the speaker/hearer is more often the topic of a sentence than being demoted to the comment part.

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 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 oblique 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 (contra Compton 2014). Instead, it is a nominal clitic, adjoined to the verbal complex. In this section, we will investigate how the topic analysis of absolutive objects explains the agreement 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. Thus under the clitic analysis of the verbal object marker, the fact that only absolutive objects trigger double agreement is unsurprising, since only 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, in Eastern dialects, the object DP of a transitive double agreement construction is not usually overt. As Anagnostopoulou (2006) and the work cited there show, 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 the 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, which asks what it is about sentential topics that makes them to be realized as absolutive objects. We argue that this property is indeed 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, inter alia). 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,11 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 anchoring to the common ground happens at 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 Fintel 2004). While in languages like English, sentential topics coincide with grammatical subjects, and consequently, the relevant locality domain is CP, in the Inuit language sentential topics are objects, and consequently the relevant locality domain for establishing referential anchoring is vP.

This conclusion raises a non-trivial issue. If we take seriously the semantic analysis of sentential topics such as that of Endriss (2009), sentential topics are first anchored and only 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 were predicated upon, the resulting derivation would be counter-cyclic. We argue that the solution lies in an intuition that has underlined much of 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 at the same position as the external argument of the nominative/accusative systems. The reason being that \( v \) is either 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).

(18) 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.

Note that this conclusion is complicated by the fact that according to some authors the lower sentential structure in the Inuit language is not a familiar vP of nominative/accusative languages but either an applicative, 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 must be predicated over it. According to some authors, it is this very partition that underlies the distinction between so called categorical and thetic 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, such an argument must raise from its base-generated position to a higher functional projection within the same phase – analogically 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 accommodate the required raising. We follow the 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 – analogically to the raising of topical subjects from the specifier of vP to the specifier of TP. The trees in (19) 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.
What does the structural difference mean for case assignment? We argue that the structural difference is analogical 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 (mik). In contrast, if the internal argument raises to the spec,VP, it can be assigned case by whatever the appropriate structural case assigner is. In turn the internal argument surfaces as absolutive.

(20) The Dative shift analogy
   a. Give money [to him],  ~ antipassive pattern
   b. Give [him] money.  ~ ergative pattern

Note that we assume Distributive morphology style of assignment (Marantz 1991). That is, for us
absolutive on the subject in the antipassive pattern is syntactically distinct from absolutive of the object in the ergative argument. Only the morphological realization coincides as it is dependent on morphological case hierarchy.\textsuperscript{19} Furthermore, after the internal argument raises out of the applicative projection, it can trigger cliticization within the 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 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.

There is a large body of syntax-semantics literature making a connection between aspect, more precisely telicity,\textsuperscript{20} 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 the examples in (21)–(22) demonstrate. While the reading of (21a)–(22a) is atelic, i.e., it remains agnostic as to whether or not the event was completed (i.e., whether or not there might have been any apples left), the reading in (21b)–(22b) is associated with a telic interpretation, i.e., all the apples were eaten.

\begin{align*}
(21) & \quad a. \text{ Peter ate apples.} \\
& \quad b. \text{ Peter ate the apples.}
\end{align*}

\begin{align*}
(22) & \quad a. \text{ Petr jedl jablka.} \\
& \quad \quad \text{ Petr ate.IMPERF apples} \\
& \quad \quad \text{ ‘Peter ate apples.’} \\
& \quad b. \text{ Petr snědl jablka.} \\
& \quad \quad \text{ Petr ate.PERF apples} \\
& \quad \quad \text{ ‘Peter ate the apples.’}
\end{align*}

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 the object 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 semantic denominator. We follow Filip and Rothstein (2006); Filip (2008) and argue that the common denominator is best modeled in terms of maximization of the event/the direct object. Note furthermore that for an event to be maximized it must be first mapped to a scale. In fact, Basilico (2012) proposes independently that it is the scalar properties of events what underlies the formation of antipassives in the Inuit language.

How does this relate to topics? According to Endriss (2009), sentential topics require a maximized interpretation, irrespective of whether they are definites, indefinites, or quantifiers.\textsuperscript{21} 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, similarly to the telic effect of the maximization interpretation of definite internal arguments in English (21b). In other words, there is a direct relation between topical interpretations and aspect, a relation which is likely to underlie 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 (mik) to be indefinite – or more precisely it excludes referential DPs, as far as we know there is no such restriction in the Eastern Canadian dialects. We do not have a satisfactory answer to this variation and we would like to suggest that it is 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 is reminiscent of 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 allow optional movement of full definite DPs as well (Icelandic), and others (for instance, some Norwegian dialects,
Nilsen 1997) also allow Object Shift of indefinites. Furthermore, languages differ as to whether they allow only Object Shift or whether they might allow semantically-motivated movement (A-scrambling) more extensively, as, for example, Icelandic. In contrast, there are languages, such as English that allow topic movement to the left periphery but their semantic movement in vP is restricted only to certain ditransitive verbs. It is possible that the variation attested in the Inuit language is related to the type of variation attested in other types of semantically-driven A-movement. The full exploration of this idea however needs to await future research.

To summarize, we have argued that the empirically 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 basic morphosyntactic properties of the ergative and the antipassive pattern, and we have sketched how the topic analysis ties together various seemingly contradictory 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 questions about the nature of ergative languages in general. First of all, we suggested that there is a connection between the passive/unaccusative-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 direct source of certain aspectual interpretations associated with the split. Aspect is a common underlying property of 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. If the connection to other types of ergative splits is real, it is not be trivial. Yet in our mind it is worth exploring in future research, as is the relation to nominalized structures,
only touched upon here.
Notes

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2See also Kalmár (1979) and Manga (1996).

3Formally, the morphological form of relative case is identical to possessive case found in the nominal domain.

4This distinction is not absolute and requires more research. See (Johns to appear) for more details.

5Though in section X.2.3 we will disagree with Johns (to appear) on her information-structure characterization of objects in the ergative pattern.

6Berge calls them local topics, a notion related to the notion of theme in the Prague school terminology. This is to contrast absolutive objects to ergative subjects which she characterizes as ‘global topics’, a notion closer to Schwarzschild (1999)’s notion of givenness. We leave the status of the subjects aside here. As for the local topics, we strictly use Reinhart’s notion of (aboutness) topics as we are not aware of any empirical difference between these two notions and since Reinhart’s formalization – more precisely we will adopt the formal implementation of Endriss (2009) – is easier to implement within the generative framework we assume here. We refer the interested reader to Hajíčková et al. (1998) for an attempt to reconcile these two distinct generative traditions in semantic terms.

7Similar 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).

8The distinction between topic and comment thus syntactically corresponds to the distinction between thetic 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.

9For a formal implementation see Endriss (2009, p. 245).

10Dočekal and Kallulli (2012) closely follow the formalization proposed in Endriss (2009). The core of their argument comes from the observation that only quantifiers that can be mapped on a minimal witness set can function as sentential topics – and consequently can be clitic doubled. No other information-structure dimension, e.g., familiarity etc., provides the right cut.

11Note that even though contrastive topics by name resemble sentential topics semantically they are quite different as they bring about focus interpretation. See, for instance, Kučerová and Neeleman (2012) for syntactic consequences of the additional semantic import.

12For the readers not familiar with the latest in Minimalist program, minimal search is the current 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.

13 Note that if an internal argument is to be interpreted as a sentential object 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.

14 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.

15 Meaning there is no \( v \) at all, or it is defective.

16 For a recent discussion of applicatives see Carrier (2014).

17 Notice that our applicative structure introduces an internal argument of the direct object sort, unlike high applicatives proposed for indirect objects in the Inuit language (Carrier 2014). Though we do not fully understand the relation between nominalizations and applicative structures, we suspect that the reason why the Inuit language has only high applicative structure for indirect objects is because there is a competing low applicative structure which introduces direct object.

18 It is possible that the corresponding case assigned is \( v \). However, since \( v \) is defective, it depends on the implementation of defectiveness whether or not it might act as a case assigner.

19 Note that the external argument is always assigned structural case.

20 Though the terms perfectivity and telicity may coincide, they are distinct concepts (Giorgi and Pianesi 2001). While perfectivity denotes an 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.

21 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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