

The morphosyntax of participle-incorporating existentials in Inuktitut*

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Abstract: This paper investigates the morphosyntax of an under-studied existential construction in Inuktitut and explores its broader ramifications for noun incorporation in the language. In this construction, a participial verb undergoes noun incorporation into the verb ‘HAVE’, while the nominal pivot of the existential surfaces with oblique case morphology. I argue that ‘HAVE’ embeds (i.e. takes as its complement) a Small Clause consisting of the nominal pivot as the subject and the participle as the predicate. Finally, although the incorporation of participles rather than nouns in Inuit is seemingly exceptionally limited to this particular existential construction, I show that it follows straightforwardly from an analysis of incorporation based on complementation.

Keywords: syntax, morphology, Inuktitut, Inuit, existentials, noun incorporation

1 Introduction

This paper investigates the morphosyntax of a particular existential construction in Inuit, focusing on the varieties of Inuktitut spoken on Baffin Island. As shown in (1a), this construction differs from the standard declarative in (1b) in various ways. In the existential construction, the verbal predicate is a participle and is incorporated into the verb *-qaq* ‘have’ (underlined), and the sole argument of the verb—the nominal pivot of the existential—is marked with MOD (‘modalis’) case (bolded) rather than the typical ABS for subjects. Moreover, verbal ϕ -morphology is an invariant 3S, regardless of the number of the nominal pivot.

(1) *Existentials vs. declaratives in Inuktitut*

- a. pingasu-**nik** anguti-**nik** [tikit-tu]-qaq-tuq
three-MOD man-PL.MOD arrive-PART-have-3S.S
‘Three men arrived.’ or ‘There arrived three men.’
- b. pingasut angutiit tikit-tuit
three.ABS man.PL.ABS arrive-3P.S
‘Three men arrived.’

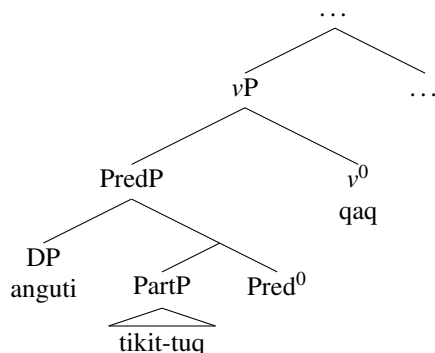
The goals of this paper are twofold. It provides (to my knowledge) the first comprehensive description and analysis of this construction, which is otherwise quite under-studied both in Inuktitut and in the Inuit languages more generally. Moreover, it shows how the analysis of this construction provides novel insights into our understanding of noun incorporation in the language.

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I ultimately propose the structure given in (2). In essence, the nominal pivot and participle are the subject and predicate of a Small Clause (PredP, following Bowers 1993; den Dikken 2006), which, in turn, is the complement of the incorporating verb *-qaq* ‘have.’ I then argue on the basis of this analysis that incorporation in Inuktitut *uniformly* involves syntactic complementation between the incorporating verb and the incorporated element, and explore the deeper theoretical implications of such a view.

(2) *Structure of existential construction*



This paper is organized as follows. In §2, I provide an overview of the morphosyntax of Inuktitut. §3 then summarizes the core properties of the participle-incorporating existential constructions. In §4, I argue that these constructions are best analyzed as containing a Small Clause embedded under a verb of existence. Finally, §5 extends this analysis to the broader phenomenon of incorporation.

2 Overview of Inuktitut syntax

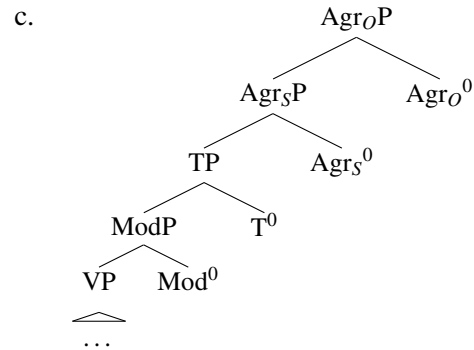
2.1 Basic properties

The Inuit languages, of the Eskimo-Aleut family, comprise a dialect continuum spanning the North American Arctic and Greenland; unless indicated, the data and generalizations provided here represent Inuktitut, the Inuit dialect group spoken primarily in Nunavut, Canada.¹ Inuktitut, like the other Inuit languages, is polysynthetic, with a strict ordering of morphemes within the word, but flexible word order at the sentence level. Verbs are invariably composed of an initial root, followed by a series of (optional) suffixes, and finally ending with ϕ -morphology, (3a-b). Morpheme order obeys the Mirror Principle, with rightwards within a given word corresponding to higher in the syntactic tree. This is often taken to reflect a right-headed syntax, (3c).

¹ Uncited data in this paper were elicited in Iqaluit, Nunavut in August 2016, July 2017, and September 2017, as well as over Skype between October 2017 and May 2019, and represent the varieties of Inuktitut spoken on Baffin Island, Nunavut. While the presence of participle-incorporating existentials has been briefly noted in other Inuit varieties such as Kalaallisut (Bittner 1994; Fortescue 1984), it is unknown at this time whether all of the properties discussed in this paper extend beyond Inuktitut.

(3) *Morpheme order in Inuktitut*

- a. $\sqrt{\text{ROOT}}$ -(suffixes)-AGR
- b. niri-juma-lauq-tara
eat-want-PST-1S.S/3S.O
'I did not want to eat it.'



Inuktitut displays an ergative (ERG-ABS) case patterning, with verbal ϕ -agreement with ERG and ABS arguments, (4a-b). The ergative patterning alternates with an antipassive (ABS-MOD²) case patterning, in which only subject ϕ -agreement surfaces, (4c). Following Yuan (2018), the loss of object ϕ -morphology in (4c) is due to the *case-discriminating* property of the language, in that only ERG and ABS arguments are ϕ -accessible (cf. Bobaljik 2008; Preminger 2014).

(4) *Case and agreement patterns*

- a. Taiviti-**up** surak-tanga **igalaaq**
Taiviti-ERG break-3S.S/3S.O window.ABS
'David broke the window.'
- b. **Miali** ani-qqau-juq
Miali.ABS leave-REC.PST-3S.S
'Miali left.'
- c. **Taiviti** surak-si-juq igalaar-**mik**
Taiviti.ABS break-AP-3S.S window-MOD
'David broke the window.'

2.2 Obligatory incorporation

Noun incorporation in the Inuit languages is typologically unusual, in that it is *obligatory* with a closed class of verbs (underlined throughout this paper) and otherwise impossible with all other verbs; this is shown in (5). This is in contrast to the cross-linguistic profile of noun incorporation, which is generally optional and permitted with a variety of transitive (and sometimes unaccusative) verbs, (6) (e.g. Baker, Aranovich, and Golluscio 2005; Mithun 1984). Following Johns (2007, 2009), obligatorily incorporating verbs in Inuit are *light verbs* (v^0 , i.e. functional elements), while all other verbs are lexical verbs (i.e. contain roots).³

² In addition to its usage in antipassive constructions, we saw in (1a) in §1 that MOD case, *-mik/-nik*, is also used to mark the pivot of the existential construction under investigation, suggesting that this case morphology has multiple functions in the language.

³ As evidence for this distinction, Johns (2007, 2009) observes that incorporating verbs in Inuit are, as a class, semantically underspecified, with few s-selectional requirements. For instance, beyond *-tuq* 'consume' and *-qaq* 'have,' other such verbs include *-u* 'be,' *-taa* 'get,' *-liri* 'do/work on,' and so on. See also Cook and Johns (2009) for broader discussion of affixes vs. stems in Inuit.

(5) *Obligatory incorporation in Inuktitut*

- | | |
|---|---|
| <p>a. sivalaar-tuq-tunga⁴
 cookie-consume-1 S.S
 ‘I am eating a cookie.’
 (cf. *sivalaar-mik tuq-tunga)</p> | <p>b. sivalaar-mik niri-junga
 cookie-MOD eat-1 S.S
 ‘I am eating a cookie.’
 (cf. *sivalaar-niri-junga)</p> |
|---|---|

(6) *Noun incorporation in Mohawk*

- | | |
|---|--|
| <p>a. Wa’-k-hninu-’ ne ka-nakt-a’
 FACT-1SS-buy-PUNC NE NS-bed-NSF
 ‘I bought the/a bed.’</p> | <p>b. Wa’-ke-nakt-a-hninu-’
 FACT-1SS-bed-Ø-buy-PUNC
 ‘I bought the/a bed.’ (Baker 1996)</p> |
|---|--|

For at least Inuktitut, Yuan (2018) shows that incorporated objects are *not* structurally reduced, contrary to the received view of incorporated objects both across Inuit and cross-linguistically (cf. Baker 1988; Barrie and Mathieu 2016; Compton and Pittman 2010b; Johns 2007; Sadock 1980). Incorporated elements—including the verbal participles under investigation in this paper—display the same range of syntactic and semantic behaviour as their non-incorporated (standalone) counterparts. For instance, consider (7), which shows that incorporation in Inuktitut need not be detransitivizing. Rather, incorporated objects may trigger object ϕ -morphology and participate in ergative case frames, on par with standalone ABS objects.⁵

(7) *Inuktitut noun incorporation is not necessarily detransitivizing*

- | | |
|---|---|
| <p>a. Ulak ujami-<u>liu</u>-qqau-juq (piu-ju-mik)
 Ulak.ABS necklace-make-REC.PST-3S.S beautiful-PART-MOD
 ‘Ulak made a (beautiful) necklace.’</p> | <p>b. Ula-up ujami-<u>liu</u>-qqau-janga (piu-juq)
 Ulak-ERG necklace-make-REC.PST-3S.S/3S.O beautiful-PART.ABS
 ‘Ulak made this (beautiful) necklace.’</p> |
|---|---|

This paper will not provide a full analysis of obligatory incorporation in Inuktitut and Inuit more generally; rather, the contribution of this paper is to broaden the empirical domain of what *may* undergo incorporation, and provide new and useful generalizations for future research.

2.3 Participle-incorporating existentials

In contrast to noun incorporation, the existential construction under discussion features the incorporation of a *verbal participle*. This is illustrated by comparing possessive and existential usages of *-qqaq* ‘have.’ In (8a), a possessive construction, the possessee, a nominal, is incorporated into the verb; the possessee in this construction is moreover modified by a MOD-marked verbal participle.

⁴ That the object is indeed incorporated is indicated by the occurrence of certain phonological processes, which take place between morphemes within words but not across word boundaries. Here, the final consonant of the object *sivalaaq* ‘cookie’ is lenited, realized as [ɣ] before the incorporating verb *-tuq* ‘consume.’

⁵ Additionally, ABS objects in the Inuit languages are known to be obligatorily interpreted as specific or wide scope, in contrast to their MOD (antipassive) counterparts (Bittner 1994; Bittner and Hale 1996a,b; Manga 1996; Spreng 2012; Wharram 2003; Yuan 2018). This effect is also seen in (7b). See also Yuan (2018) for further evidence that incorporated nominals in Inuktitut are not structurally reduced.

However, in (8b), an existential construction, it is the participle that is incorporated into the verb, and the nominal pivot is MOD.

(8) *Possessive vs. existential constructions*

- | | |
|---|---|
| <p>a. aupak-tu-mik nunasiuti-<u>qaq</u>-tuq
 red-PART-MOD car-have-3S.S
 ‘(S)he has a red car.’
 <i>Unavailable</i>: ‘There is a red car.’</p> | <p>b. nunasiuti-mik [aupak-tu]-<u>qaq</u>-tuq
 car-MOD red-PART-have-3S.S
 ‘There is a red car.’
 <i>Unavailable</i>: ‘(S)he has a red car.’</p> |
|---|---|

I now highlight three morphosyntactic properties of this construction, summarized below. Together, these properties will motivate the Small Clause structure shown in (2).

(9) *Three properties of participle-incorporating existentials in Inuktitut*

- a. The nominal pivot and the verbal participle are both structurally lower than the existential verb, though the pivot c-commands the participle.
- b. Participle-incorporation is otherwise impossible outside of the context of existentials.
- c. For some speakers, the nominal pivot displays a case/agreement alternation.

Evidence for (9a) comes from the fact that the verb *-qaq* ‘have’ imposes a Definiteness Restriction on both the possessee in a possessive construction and the pivot in an existential (e.g. Milsark 1974); in both cases, the nominal cannot be definite, (10).⁶ As it is well-established that possesseees are c-commanded by the verb of possession (e.g. Freeze 1992), the same can be concluded for the nominal pivot in (10b).

(10) *Nominal pivot subject to Definiteness Restriction*

- | | |
|--|--|
| <p>a. *uuminga uqalimaagar-<u>qaq</u>-tuq
 DEM.MOD book-have-3S.S
 Intended: ‘I have this book.’</p> | <p>b. #Jaani-mik [tikit-tu]-<u>qaq</u>-tuq
 Jaani-MOD arrive-PART-have-3S.S
 ‘Someone named Jaani arrived.’
 <i>Unavailable</i>: ‘Jaani arrived.’</p> |
|--|--|

At the same time, the nominal pivot c-commands the material within the incorporated participle. This is illustrated below using negation. While the pivot—a bare nominal in (11a)-(12a) and an NPI in (11b)-(12b)—may be interpreted within the scope of sentential negation, as in (11), it obligatorily outscopes negation internal to the participle, as in (12).⁷

(11) *Nominal pivot narrow scope relative to matrix negation*

- | | |
|--|---|
| <p>a. inung-mik [qai-ju]-<u>qa</u>-nngit-tuq
 person-MOD come-PART-have-NEG-3S.S
 ‘No one came.’</p> | <p>($\neg > \exists$)</p> |
| <p>b. ilinniarti-mik atausir-mig=luunniit [saqi-ju]-<u>qa</u>-lau-nngit-tuq
 student-MOD one-MOD=NPI show.up-PART-have-PST-NEG-3S.S
 ‘Not a single student showed up.’</p> | <p>(<i>NPI-licensing</i>)</p> |

⁶ The nominal moreover cannot be a strong quantifier, omitted here for space considerations. See (15a) later in this paper for an example.

⁷ On NPIs formed with the enclitic *=luunniit*, see Bittner (1994, pp. 141–144) and Yuan (2018, pp. 69–71).

(12) *Nominal pivot wide scope relative to participle-internal negation*

- a. inung-mik [qai-**nngit**-tu]-qaq-tuq
 person-MOD come-NEG-PART-have-3S.S
 ‘Someone didn’t come.’ (∃ > ¬)
- b. *ilinniarti-mik **atausir-mig=luunniit** [saqi-**nngit**-tu]-qa-lauq-tuq
 student-MOD one-MOD=NPI show.up-NEG-PART-have-PST-3S.S
Intended: ‘Not a single student showed up.’ (No NPI-licensing)

Turning now to the second property, given in (9b) above, the incorporation of a participle into the verb complex is crucially limited to this particular existential construction. We already saw earlier that the possessive reading of *-qaq* ‘have’ is unavailable when the incorporated element is participial rather than nominal, suggesting that participle-incorporation cannot be used to form possessives. The exceptionality of participle-incorporation in existentials is further illustrated in (13), which shows that participle-incorporation is similarly impossible with other verbs that otherwise trigger noun-incorporation. To circumvent this restriction, speakers often instead opt to incorporate a nominal proform, which may be modified by the participle, (13b).⁸

(13) *Participle-incorporation generally impossible*

- a. *[**aupak-tu**]-taa-ruma-junga
 red-PART-get-want-1S.S
Intended: ‘I want to get something red.’
- b. **aupak-tu-mik** **pi-taa**-ruma-junga
 red-PART-MOD PRO-get-want-1S.S
 ‘I want to get something red.’

Finally, although the nominal pivot is marked with MOD case in the examples shown so far, some speakers also permit the pivot to surface as ABS, (14); when ABS, the pivot may be cross-referenced by subject ϕ -agreement, which need not be invariant 3S.⁹

(14) *Nominal pivot can be ABS*

- a. **pingasut angutiit** [tikit-tu]-qaq-**tuit**
 three.ABS man.PL.ABS arrive-PART-have-3P.S
 ‘Three men arrived.’
- b. **unuq-&uta** [taqa-ju]-qaq-**tugut**
 many-CTMP.1P.S tired-PART-have-1P.S
 ‘Many of us (lit. we being many) are tired.’

Crucially, an ABS pivot is still subject to the Definiteness Restriction, (15a), in contrast to typical ABS subjects, (15b). This reveals that ABS pivots are, like their MOD counterparts, base-generated in a position c-commanded by *-qaq* ‘have.’ Moreover, the ability for nominal pivots to surface as ABS at all allows us to see that these nominals are arguments of the incorporated verbal participle, not adjuncts. This is worth clarifying because MOD case is often used to mark adjuncts (e.g. instrumentals) in Inuit.

⁸ On these proforms, see Compton and Pittman (2010a).

⁹ Marking the pivot with MOD case seems to be the more preferred way to express these constructions, for all speakers consulted. However, the ABS option was spontaneously produced in elicitations by two speakers. Further research will help identify the conditions that govern this alternation.

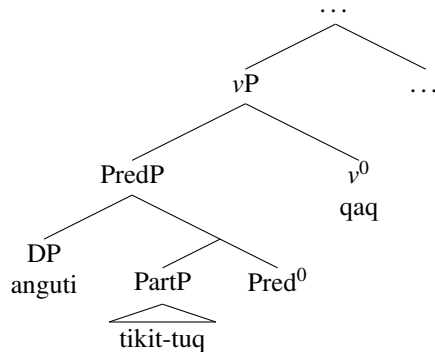
- a. ***tamarmik angutiit** [tikit-tu]-**qaq-tuit**
all.ABS men.ABS arrive-PART-have-3P.S
Intended: ‘All the men arrived.’
- b. **tamarmik angutiit** uqalimaagar-**qaq-tuit**
all.ABS men.ABS book-have-3P.S
‘All the men have books.’

In the rest of this paper, I propose an analysis of participle-incorporating existential constructions that captures these properties.

3 A Small Clause analysis: Pseudo-relatives

I propose that the incorporating verb *-qaq* ‘have’ embeds a Small Clause, comprised of the nominal pivot as the subject and the participle as the predicate, respectively. The posited structure is repeated as (16) below. As I demonstrate, this structure captures the properties described in the previous section. Moreover, as independent evidence, I show that participle-incorporating existentials in Inuktitut display parallels with *pseudo-relative constructions*, a subtype of Small Clauses found cross-linguistically.

- (16)
- Structure of existential construction in Inuktitut*



3.1 Properties of pseudo-relatives

Pseudo-relatives are constructions that superficially resemble relative clauses but have the structure of Small Clauses (Cinque 1995; Moulton and Grillo 2015; Rafel 2000). Thus, in the Italian examples in (17), the embedded clause is not a relative clause modifying the nominal, but rather a predicate of the nominal. Moreover, the gap within the relative clause is a null PRO, controlled by the nominal. Cross-linguistically, pseudo-relatives are most often discussed as occurring as complements of perception verbs, though they may also occur in existentials.¹⁰

¹⁰ Pseudo-relatives are often translated into English as ACC-ing gerunds. That these constructions are not true relative clauses, i.e. do not involve \bar{A} -movement, is evidenced by the fact that they are compatible with definite nominals like proper names (which cannot be modified by restrictive relative clauses). Moreover, in many languages, the choice of complementizer is distinct from that normally used in relativization contexts.

(17) *Pseudo-relatives in Italian*

- a. Ho visto [Gianni_i [che PRO_i correva]]
I.have seen Gianni that ran.IMPf
'I saw Gianni running.' (Moulton and Grillo 2015)
- b. C'è [qualcuno_i [che PRO_i fuma]]
there.is someone that smoke.PRS
'There is someone that smokes.' (Costa, Fernandes, Vaz, and Grillo 2016)

To show that participle-incorporating existentials in Inuktitut are pseudo-relatives, I first establish that the participial verbal morphology is also used in complements of perception verbs and in true relative clauses. This is somewhat morphologically obscured in Inuktitut, but can be seen more clearly in other Inuit varieties such as Kalaallisut (West Greenlandic), (18).¹¹

(18) *Participial morphology in Kalaallisut*

- a. [sinit-**tu**]-**qar**-puq
sleep-PART-have-IND.3S.S
'There are (people) sleeping' (Fortescue 1984)
- b. taku-aa aalla-lir-**suq**
see-IND.3S.S/3S.O leave-INCP-PART.3S.S
'He saw him leaving.' (Fortescue 1984)
- c. miiqqat [sila-mi pinngar-**tut**]
children.ABS outdoors-LOC play-PART.3P.S
'the children who are playing outdoors' (Bittner 1994)

I now turn to the structural parallels between the existential construction in Inuktitut and pseudo-relatives cross-linguistically. In pseudo-relatives, the nominal must be interpreted as the subject of the embedded verb, (19). Following Cinque (1995), this restriction follows from the control structure posited above: the embedded clause, the predicate, contains a null PRO in subject position.

(19) *Subject gaps only in Italian PRs*

- a. Ho visto [**Luigi** [che __ salutava Maria]]
I.have seen Luigi that greet.IMPf Maria
'I saw Luigi greet Maria.'
- b. *Ho visto [**Luigi** [che Maria salutava __]]
I.have seen Luigi that Maria greet.IMPf
Intended: 'I saw Luigi that Maria greeted.'

Participle-incorporating existentials in Inuktitut also display a subject-only restriction. As illustrated throughout (20a-c), the nominal pivot may be understood as *any type of* ABS *subject* of the participle—whether subject of an intransitive, antipassive, or passive—despite the fact that it surfaces with MOD case. Note also in (20b) that the nominal pivot is able to bind a subject-oriented possessive anaphor, *-mi*, within the antipassivized object. Crucially, (20d) shows that it may not

¹¹ In Inuktitut, the verbal morphology found in these contexts ("participial mood") happens to be the default declarative mood morphology. Conversely, in Kalaallisut, the participial and declarative morphemes are distinct, as declarative sentences are generally marked with the indicative mood.

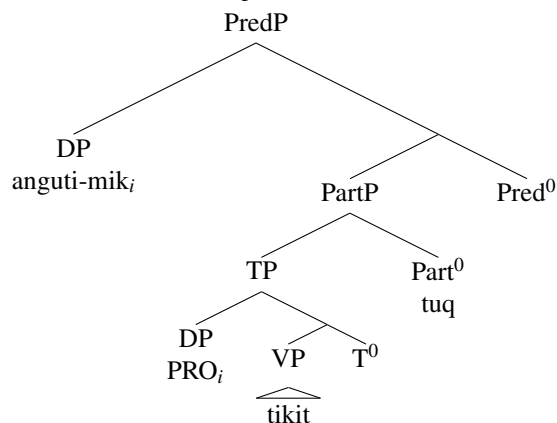
occur in a construction in which it would be construed as an ABS object.

(20) *Subject-only restriction in Inuktitut existentials*

- a. **anguti-mik** [sinik-tu]-qaq-tuq
man-MOD sleep-PART-have-3S.S
'There sleeps a man.'
- b. **pani-mik** anaana-mi-nik [iqi-ti-ju]-qa-lauq-tuq
daughter-MOD mother-POSS.REFL-MOD hug-AP-PART-have-PST-3S.S
'A daughter_i hugged her_i mother.' (subject of antipassive)
- c. **igalaar-mik** [surak-ta-u-ju]-qaq-tuq
window-MOD break-PASS.PART-be-PART-have-3S.S
'A window was broken.' (subject of passive)
- d. ***sivalaar-mik** [niri-juma-ja]-qaq-tuq
cookie-MOD eat-want-TR.PART-have-3S.S
Intended: 'There is a cookie that someone wants to eat.' (*object)

The contrast between (20a-c) and (20d) is crucial, since ABS subjects and ABS objects are known to pattern together in the Inuit languages in other respects, for instance in true relativization contexts (Creider 1978; Johns 1992; Murasugi 1997; Yuan 2013).¹² As discussed by Bittner (1994); Bittner and Hale (1996a), however, control constructions in Inuit are subject-oriented, thus differentiating between ABS subjects and objects. A structure illustrating the hypothesized relationship between the pivot and its associated PRO is given in (21).

(21) *Control in Inuktitut pseudo-relative*



Additional support for the present analysis comes from the fact that, unlike true relative clauses, pseudo-relatives are temporally dependent on the matrix clause and thus cannot mismatch in tense, (22). In (23), we see that the same generalization holds in Inuktitut. The tense morphology in the participle must either match that in the matrix clause or be omitted altogether.¹³

¹² Interestingly, ERG subjects are not possible pseudo-relative gaps in Inuktitut. While this is a puzzle that I leave for future research, one possibility is that this is because relative clauses containing an ERG subject gap are ineffable in the language (Yuan 2013).

¹³ Note that, in (23a), the participial-internal tense morpheme is semantically vacuous, given that the interpretation of the construction is identical to that in (23b).

(22) *No tense mismatches in Italian PRs*

***Vedo** [Maria [che __ **correva**]]
 I.see.PRES Maria that run.IMP
Intended: ‘I see Maria that was running.’

(23) *No tense mismatches in Inuktitut existentials*

- a. anguti-mik [tiki-**qqau**-ju]-**qa**-**qqau**-juq
 man-MOD arrive-(REC.PST)-PART-have-REC.PST-3S.S
 ‘There arrived a man (earlier today).’
- b. anguti-mik [tikit-tu]-**qa**-**qqau**-juq
 man-MOD arrive-PART-have-REC.PST-3S.S
 ‘There arrived a man (earlier today).’
- c. *anguti-mik [tiki-**lauq**-tu]-**qa**-**qqau**-juq
 man-MOD arrive-PST-PART-have-REC.PST-3S.S
Intended: ‘There was (earlier today) a man who had arrived.’

3.2 Explaining the properties of participle-incorporating existentials

The properties listed in (9) may be readily explained by the Small Clause analysis developed above. First, concerning the Definiteness Effect imposed on the nominal pivot, (9a), the incorporating verb *-qaq* takes the entire Small Clause as its complement; as a result, the pivot is within the scope of the verb of existence. The scopal properties of the nominal pivot relative to operators such as negation also follow from this analysis. If the pivot is the antecedent of a null PRO in Spec-TP in a control clause, as in (21) above, this explains why it obligatorily scopes over participle-internal negation, but not sentential negation.

Moving on to the property in (9c), recall that the pivot may surface with ABS case (and control subject ϕ -agreement) for certain speakers. I propose that, while the pivot is uniformly generated as the subject of a Small Clause, it may optionally undergo movement to matrix Spec-TP, depending on whether Spec-TP is already filled by a 3S expletive subject.¹⁴ If Spec-TP is occupied by the expletive, the expletive is cross-referenced by the subject ϕ -morphology and the nominal pivot remains in situ and is marked with MOD case.¹⁵ However, certain speakers permit raising of *the pivot itself* to Spec-TP in lieu of Merging an expletive; in such contexts, the pivot is ABS, on par with other ABS subjects in the language, and able to be targeted by ϕ -agreement. The ability for pivots to undergo A-movement (leaving behind the participle) is consistent with the Small Clause analysis proposed above. Consider (24), which displays a comparable effect:

(24) *A-movement of the subject of a Small Clause*

- a. We saw [_{SC} **Mary** sleeping].
- b. **Mary** was seen [_{SC} <Mary> sleeping].

The idea that nominal pivots of existentials may occupy multiple positions in the syntax is not novel;

¹⁴ See Yuan (2018, pp. 211–216) on the existence of expletives and, concomitantly, an EPP requirement in Inuktitut.

¹⁵ In Yuan (2018, pp. 234–241), I argue that certain instances of MOD case in Inuktitut expone a countercyclic—or perhaps postsyntactic—Last Resort case assignment mechanism. It is plausible that this is one environment in which Last Resort licensing is required.

see also McCloskey (2014) for a similar alternation in Irish.

4 Implications for incorporation

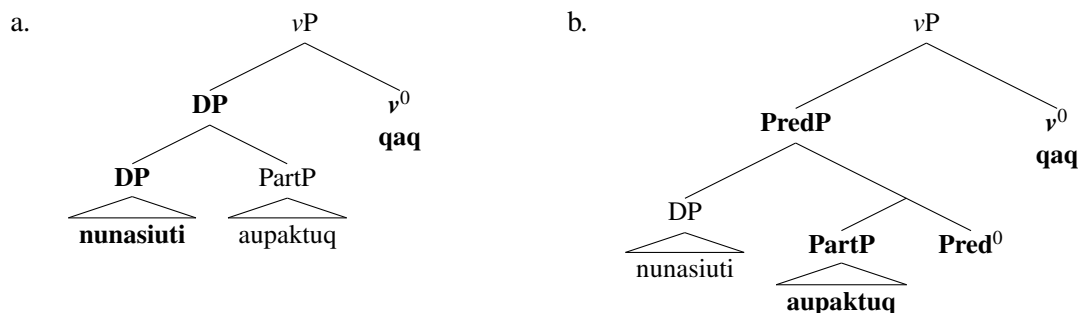
Finally, I address the property given in (9b), i.e. why participle-incorporation is limited to this particular construction (and, relatedly, why the nominal pivot itself does not undergo incorporation into the verb *-qaq*). The relevant contrasting data are repeated as (25):

(25) *Possessive vs. existential constructions*

- | | |
|---|---|
| <p>a. aupak-tu-mik nunasiuti-<u>qaq</u>-tuq
 red-PART-MOD car-have-3S.S
 ‘(S)he has a red car.’
 <i>Unavailable</i>: ‘There is a red car.’</p> | <p>b. nunasiuti-mik [aupak-tu]-<u>qaq</u>-tuq
 car-MOD red-PART-have-3S.S
 ‘There is a red car.’
 <i>Unavailable</i>: ‘(S)he has a red car.’</p> |
|---|---|

I propose that incorporation—whether of nominals or of participles—uniformly requires *syntactic complementation* between the verb and its incorporated element. The apparent rarity of participle-incorporation is due to the fact that participles in Inuktitut typically occur as modifiers (adjuncts) of nominals, as in (25a), rather than as complements of some other element. However, in the existential construction under investigation, the complement of the verb is a Small Clause (PredP), whose head, Pred^0 , takes as its complement the participle. The structures of (25) are given in (26), with the bolded material indicating what undergoes incorporation.

(26) *Structure of possessive vs. existential constructions*



This paper abstracts away a particular analysis of incorporation, though see Yuan (2018, 2019) for a postsyntactic approach making use of a Merger operation between contiguously selected heads that is consistent with the facts shown here. Regardless, this generalization makes an important prediction, namely that non-complements, e.g. specifiers and modifiers, are *never* able to undergo incorporation.

This prediction is borne out. For instance, Carrier (2016) shows that, in double object constructions in Inuktitut, both internal arguments are c-commanded by the verb, with the indirect object c-commanding the direct object. Yet, as (27) shows, only the direct object is able to incorporate into the verb, even though the indirect object is structurally closer to the verb. This follows straightforwardly under the present approach: if the indirect object and direct object are the specifier and complement of an applicative projection, respectively (Pylkkänen 2008), then only the latter, the direct object, may incorporate into the verb.

(27) *Only the direct object incorporates in DOCs*

- a. Miali-up Diane **ujami-liuq**-taa
Miali-ERG Diane.ABS necklace-make-3S.S/3S.O
'Miali made Diane a necklace.'
 - b. *Miali-up **Diane**-liuq-taa ujami-mit
Miali-ERG Diane-make-3S.S/3S.O necklace-MOD
Intended: 'Miali made Diane a necklace.'
- (Carrier 2016)

Similarly, nominals that may generally undergo incorporation when serving as arguments may not undergo incorporation if they serve as modifiers of other nominals. This is illustrated in (28) with *guulu* 'gold.'

(28) *Nominal modifiers may not undergo incorporation*

- a. **guulu-taa**-ruma-junga
gold-get-want-1S.S
'I want to get some gold.'
 - b. *ujaming-mik **guulu-taa**-ruma-junga
necklace-MOD gold-get-want-1S.S
Intended: 'I want to get a gold necklace.'
- (cf. *guulu-mik ujami-taa-ruma-junga*)

In sum, the notion of complementation is crucial to incorporation in Inuktitut, and furthermore explains the limited distribution of participle-incorporation. A question that remains unaddressed at this point is *why* specifiers and adjuncts (modifiers) cannot incorporate into the verb, i.e. why they do not intervene between the verb and the incorporated complement (cf. Bobaljik 1994). Nonetheless, the generalizations that emerge here clearly show that syntactic structure can affect morphological conditions on word-formation, thus presenting directions for future research.

5 Conclusion

This paper has described and analyzed a particular kind of existential construction in Inuktitut, in which a verbal participle is incorporated into the verb of existence, *-qaq* 'have.' I have shown that, in this construction, *-qaq* 'have' embeds a Small Clause, whose subject is the nominal pivot of the existential and whose predicate is the participle; participle-incorporation arises due to the complementation relationship between the verb and the Small Clause.

More broadly, the discussion of participle-incorporating existentials sheds new light into the morphosyntax of incorporation in Inuktitut. Participle-incorporating existentials reveal that complementation is a crucial syntactic prerequisite for incorporation.

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