

Metrical evidence for cliticization in Nivkh pronouns

Key words: Nivkh, clitics, vowel epenthesis, metrical invisibility, phonologically driven allomorphy

1. Introduction

It is a well-known characteristic of singular person pronouns of Nivkh (Paleosiberian) that they cannot appear in their full (free) form when they serve as the complement of the verb.¹

- (1) *Galik c^hi ŋarma- 'Galik (personal name) waits for you.'
2SG wait for

Rather, pronouns in such cases appear in reduced (bound) forms, i.e. clitics.²

- (2) Galik c^h-ŋarma-

This interpretation is shared by most Nivkhologists (Krejnovich 1934, Hattori 1944, Austerlitz 1959 etc.) and also found to be valid among the contemporary speakers of the language; most speakers judged sentences with the object pronoun in free form as ungrammatical (1). Some of them told me that such a sentence is ambiguous between a reading in which the pronoun is a complement and a reading in which it is the external argument of the predicate (i.e. 'Galik waits for you.' vs. 'You wait for Galik.').

Inconsistency among researchers arises, however, when we observe cliticization of object pronouns to a large subset of transitive verbs that contain the pronominal prefix *i-*, and its allomorph *e-* in their citation forms. Together with verbs beginning with *j-*, which is another allomorph of *i-*, I shall call these verbs *i-transitive verbs* and use *i-* as a cover term for both *e-* and *j-*. These verbs have allomorphs with and without *i-*. The latter allomorph cannot stand alone and obligatorily forms a phonological unit with its complement, so I will designate it the *bound allomorph* in contrast to the *i-allomorph*, which contains *i-* and may stand alone (thereby functioning as the citation form).

The base of the *i-allomorph* and *bound allomorph* could be identical in shape, as the pairs in (5) below illustrate. On the other hand, the pairs in (3) and (4) exhibit deviation which cannot be deduced from regular phonological processes of the language. In short, these allomorphs should be stored in the lexicon, their exact

shape being unpredictable.³

	i-allomorph	bound allomorph	
(3)	a. i-γ-	-k ^h u-	'to kill~'
	b. i-mγ-	-k ^h im-	'to give~'
	c. i-ndə-	-nřə-	'to see~'
(4)	a. e-sp-	-c ^h ev-	'to stab~'
	b. e-v-	-po-	'to take~'
	c. e-zmu-	-smo-	'to like~'
(5)	a. j-amxta-	-amxta-	'to praise~'
	b. j-ərp-	-ərp-	'to close~'
	c. j-əkz-	-əkz-	'to hook~'

As concerns the distribution of these allomorphs, in the simplest case the object replaces the pronominal prefix, as is typical for verbs initiating with *j-*.

(6)	a.	hə nivx	Galik-amxta-	'That person praised Galik.'
		that person	praise	(< j-amxta-)
	b.	hə nivx	p ^h -amxta-	'That person praised himself'
			REF-praise	

For those beginning with *i-* or *e-*, the situation is more complicated; when the object is either a non-pronominal noun phrase (7a), (8a), or a plural pronoun (7b), (8b), the bound allomorph surfaces as the base.⁴

(7)	a.	hə nivx	c ^h o-xu-	'That person killed fish.'
		that person	fish-kill	
	b.	hə nivx	imɣ-k ^h u-	'That person killed them.'
			3PL-kill	

Panfilov (1965: 52-53). In the interpretation of b), on the other hand, the verb has retained its vowel so it can be maintained that the pronoun is a clitic, in parallel with cases other than i-transitive verbs. The vowel is then that of the verb, namely the prefix *i-*. Proponents of this analysis are Krejnovich (1934), Hattori (1962a: 117, 1988/2000: 13), Nedjalkov, Otajna and Kholodovich (1974: 250), Gruzdeva (1998: 51, 53) and Shiraishi (2002). To illustrate this with example (9a) above, the former analysis claims that the morphological boundary should be $p^h\text{-}\gamma\text{-}$ whereas the latter claims it to be $p^h\text{-}i\text{-}\gamma\text{-}$ (or $p^h\text{-}i\text{-}\gamma\text{-}$).⁷

While these two ideas have totally different views on the morpho-syntactic building of singular pronominal object – i-transitive verb construction of the language, this inconsistency has never been recognized, nor has it developed into an extensive discussion among Nivkhologists. In this paper, I will provide phonological evidence that supports the second view, namely, that the retained vowel is part of the verb. Consequently, I maintain that all instances of singular pronominal objects should surface as clitics without exception.

In the next section, I will introduce the first view (based on Krejnovich 1958 and onwards) in detail. I will point out that this view relies heavily on structure-specific stipulations, being unable to explain the unexpected distribution of i-allomorphs in certain contexts. In §3, I will show phonological evidence that supports the hypothesis that singular pronouns appear as clitics in the context under discussion. This hypothesis implies a vacuous interpretation of the pronominal content of *i-*, in concordance with the view of some authors who pointed out that *i-* is only marginally pronominal in Nivkh (Shternberg 1900, Jakobson 1957). I will further argue how such an interpretation of *i-* works well to account for the contexts where i-allomorph appears unexpectedly. Accordingly, we can get rid of Krejnovich's structure-specific stipulations in favor of a grammar with fewer stipulations.

2. Problems with Krejnovich's view (1958-)

For Krejnovich, it was undisputable that singular pronouns attach as a whole to the i-allomorph. The *i-* is a pronominal prefix *par excellence*, so it ought to drop when another (pro)noun enters as the complement to the predicate.⁸ This viewpoint is explicit in his article in which the allomorphy of i-transitive verbs is illustrated as a paradigm (1966: 41).

- | | | | |
|------|----|----------------------|-------------|
| (12) | a. | i-γ- | 'kill~' |
| | b. | c ^h o-xu- | 'kill fish' |

c. laŋř-k^hu- 'kill seal'

This analysis makes sense regarding the pronominal nature of *i-*. As many researchers described, *i-* refers either to third person singular (Hattori 1944/2000: 121, 1962b: 77, Austerlitz 1967: 101) and/or indefinite person (Krejnovich 1958: 23, 1979: 311) depending on the context.

(13) ɲi e-zmu- 'I like him/someone.'
1SG i-like

Krejnovich related the *i-* to *if*, the free form pronoun of third singular person (see (11)); he insisted that *i-* was formed from *if* (Krejnovich 1937: 93, 1958: 22, 1966: 41).⁹ He assumed the *i-* as the reduced counterpart of *if*, thereby interpreting it as a pronominal object that happened to affix to a subset of transitive verbs (*i*-transitive verbs). Being an object, it is natural that *i-* is interchangeable with other objects. Hence, singular pronominal objects replace *i-* to take its position over as object.

For the proponents of this analysis, it was clear why there was no reduction of pronouns to clitics in this context. Since the base of *i*-transitive verbs (containing *i-*, *e-*) initiates with a consonant cluster (or consist of a single consonant as in *i-ɣ-* 'kill~'), cliticization will end in a (tri-)consonant cluster (e.g. *c^hsp-* instead of *c^he-sp-* (10a)). Yet this can be avoided if the full form could be used in place of clitics (Panfilov 1965: 52).

Again, this explanation makes sense regarding a similar behavior of pronouns in other contexts. In Nivkh, clitics are selected over full pronouns in positions governed by a lexical head (N, P, V), thereby functioning as a possessor (in NP) or a complement (in PP and VP). However, full pronouns appear exceptionally in NPs when the following element (usually the head of the phrase) initiates with a consonant cluster (Krejnovich 1934: 205, 1937: 29, 94, Austerlitz 1959: 106, Panfilov 1962: 157, Hattori 1962b: 87, 1988/2000: 11 etc.).

(14) a. ɲ-mu 'my boat'
b. ɲ-ətək 'my father'
But, c. ɲi-vrə 'my hut'
d. ɲi-fləŋg 'my ash'

The use of full form to avoid tri-consonantal clusters is thus a widely observed property of Nivkh pronouns, and

not unique to object pronouns of *i*-transitive verbs. This (superficially) parallel behavior of pronouns in NPs and VPs has led not few Nivkhologists to describe the allomorphy of pronouns under a single heading (e.g. Austerlitz 1959, Hattori 1988).

Although plausible it may be at first glance, Krejnovich's analysis is not without problems. As we will see, it is too restrictive and therefore forced to appeal to structure-specific stipulations in order to account for the distribution of *i*-allomorphs in a wider context.

First, *i*- and objects are not in strict complementary distribution. In fact, the two co-occur within a sentence when the object is displaced and no longer left-adjacent to the verb. In such a case the stranded verb ought to surface in the *i*-allomorph (Krejnovich 1937: 92-93, Hattori 1944/2000: 122).

- (15) a. *ɲ-ətək liys equr i-γ-* 'My father killed the wolf quickly.'
 1SG-father wolf quickly *i*-kill
- b. *tə bitɣə, if e-v-l?* 'This book, did he take it?'
 this book 3SG *i*-take-Q (Panfilov 1965: 167)
- c. *c^hi sid'-ŋa j-ərsud'?* 'Whom do you pursue?'
 2SG who-Q *i*-pursue (Gruzdeva 1998: 46)
- d. *ɲi nəmr Galik-xe baba Olja-γe, imɲ-ɲʃə-*
 1SG yesterday Galik-COM g.mother Olja-COM 3PL see-
 'Yesterday, I saw them, Galik and g.mother Olja.'

Various syntactic operations cause displacement of objects: topicalization (15b), focusing (15c) or left-dislocation (15d) (Mattissen 2001: 171-175). Of importance is the fact that the stranded verb is not allowed to surface in the bound allomorph. This was also confirmed during my fieldwork; speakers immediately rejected sentences with a stranded bound allomorph.

- (16) a. **ɲ-ətək liys equr k^hu-* Compare with (15a)

- b. *ətək p^h-oɣla aŋrkur amxta- 'Father praised the child very much.'
 father REF-child very praise (< j-amxta-)

These examples suggest that the bound allomorph surfaces only with the presence of its complement *immediately to its left*. As noted earlier, bound allomorphs cannot surface in isolation. In prosodic terms, this means that they cannot project a Prosodic Word of their own; they need to lean on a phonological host in order to surface (Shiraishi 2002). The above examples show that only complements are appropriate candidates for hosts. When syntactic operations dislocate the complement, however, the bound allomorph loses its host and is no longer allowed to surface. This is exactly the context where the *i*-allomorph appears; being a free form, it is allowed to surface and remedies the situation.

On the other hand, this remedy will make the sentence look as if it had two objects: the displaced NP and the prefix *i*-. Apparently, *i*- in such a context contains no specific semantic content, the displaced NP being the real argument. In other words, the *i*- here is pleonastic, an observation that dates back to Shternberg (1900) (cf. Krejnovich 1937: 91-93, 1958: 22 fn.5, Shiraishi 2002).¹⁰

Previous works have scarcely paid attention to the ungrammaticality of (16), and did not ask why the verb appears in the *i*-allomorph in this context. Krejnovich never made explicit how such a pleonastic usage of *i*- fits into his understanding of *i*-; what the grammatical relationship between the displaced NP and the *i*- on the stranded verb would be. In his article in 1937, he merely pointed to a similar usage of third person pronoun in Classical Nahuatl.¹¹ In subsequent works (1958, 1966, 1979), he referred to *i*- as (*indefinite*) *pronominal indicator of object* ((неопределенный) местоименный показатель объекта).

Second, it still remains unexplained why singular pronouns subcategorize for *i*-allomorphs instead of bound allomorphs, which is the base for non-pronominal and plural pronominal objects.¹² The avoidance of tri-consonant cluster is not the right answer here since if pronouns are allowed to surface in their full form anyway, they could equally well attach to the bound allomorph. However, this is not what actually happens so Krejnovich and many other Nivkhologists are forced to stipulate that singular pronominal objects subcategorize for the *i*-allomorph, while other objects subcategorize for the bound allomorph.¹³ Although this stipulation is assumed tacitly in practically all previous works, no single article has ever questioned this bizarre split behavior of pronominal objects; why do singular and plural pronominal objects attach to different allomorphs of verbs?

Finally, Krejnovich's assumption that *i*- is formed from the full pronoun *if* is dubious. There are two arguments

against this assumption. First, *i-* and the real clitic counterpart of *if*, which we consider to be *iⁿ-* (see (11) above), differ in their phonological behavior; while the latter triggers voicing of the following non-aspirated plosive (17a), the former triggers spirantization (17b), as Mattissen pointed out (2001: 65).

- (17) a. *iⁿ-da-* (< /ta/) 'hit him'
 b. *i-γ-* 'kill~'

In the same morpho-syntactic context, the clitic (*iⁿ-*) retains aspirated plosives intact, suggesting the existence of a floating (latent) nasal, indicated as ⁿ in our transcription.

- (18) a. *iⁿ-q^ha-* 'shoot him'
 b. *iⁿ-t^hu* 'his sledge' (Krejnovich 1937: 38)

This floating nasal is widely observed in the lexicon of the language and is known to trigger voicing of the following non-aspirated plosives but retain aspirated plosives intact (See Shiraishi 2000ab for its phonological implications). Under Krejnovich's view, however, such a difference between *i-* and *iⁿ-* is unexpected. Indeed, he left this difference unexplained.

Second, the *i*-allomorph cannot appear in contexts where its object is contrastively focused (19a, b), whereas *iⁿ-*, the real clitic counterpart of *if*, can (19c).

- (19) a. **liγs j-əkən xuta qaur, i-γ-* 'The wolf didn't kill my brother, but killed HIM.'
 wolf 1SG-brother kill NEG i-kill
 b. **ji Galik amxta qaut, j-amxta-* 'I didn't praise Galik, but HIM.'
 1SG praise NEG i-praise
 c. *j-əkən Galik ηarmata qaur, iⁿ-ηarma-* 'My brother didn't wait for Galik, but for HIM.'
 1SG-brother wait NEG 3SG-wait

The difference above is explainable if we assume that the two bear distinct information features; *i-* is bound to

topic-referents, making it incompatible with focused referents. On the other hand, *i'*- can (and possibly should) be used in focal contexts, which in turn excludes it from non-focal contexts.

In any case, Krejnovich did not seem to be aware of these differences between *i'*- and *i*-. These facts cast doubt on Krejnovich's assumption that *i*- is formed from *if*.¹⁴

In sum, Krejnovich's analysis is based on the dubious assumption that *i*- is derived from *if*, and requires two structure-specific stipulations in order to account for the distribution of the allomorphs of *i*-transitive verbs:

(20) Krejnovich's stipulation on the allomorphy of *i*-transitive verbs

- a. When the complement is displaced from the left of *i*-transitive verb, the latter should appear in the *i*-allomorph.
- b. Singular pronominal complements subcategorize for the *i*-allomorph, while plural and non-pronominal complements subcategorize for the bound allomorph (for *i*-transitive verbs initiating with *i*- or *e*-).

In what follows, I will argue that these two points can be insightfully characterized linguistically and that the stipulations above are redundant. I will argue that the full interpretation of *i*- is suppressed in the above mentioned contexts under the pressure of higher linguistic demands. The discussion leads us to a familiar schema from Optimality-Theory, in which constraints are soft, thus violable.

3. Metrical patterns of diverse object pronoun - predicate constructions

I encountered evidence for the current claim during the sessions with my informants while checking the compatibility of diverse pronominal clitic – *i*-transitive verb constructions. As discussed in the previous section, the split behavior of allomorphs of *i*-transitive verbs has never received linguistic explanation; why do singular and plural pronouns demand different allomorphs of *i*-transitive verbs?

Investigating this point, I found that allomorphy is not as stable as described in the literature. In recent fieldwork, I received information from a total of four speakers that the combination of 'singular person pronominal clitic - bound allomorph' is acceptable.

- (21) a. hə nivx p^h-xu- 'That person killed himself.'
that person REF-kill (compare with (9a))
- b. Galik c^h-sev- 'Galik stabbed you.'
2SG-stab (compare with (10a))

The actual usage of this construction needs further investigation. Most speakers agreed that the ordinary combination 'pronominal clitic - i-allomorph' is better. My guess is that the matter is a phonological one. As mentioned in §1, there is a (syntactic-semantic) demand for pronominal objects to cliticize to verbs (2). Now, when the bound allomorph begins with a consonant, cliticization inevitably creates a consonant cluster at the beginning of a clitic-verb complex (21). However, consonant clusters can be avoided if the alternative allomorph (i-allomorph) begins with a vowel and serves as the host. In support of this claim, when the i-allomorph begins with a consonant (*j-*), the bound allomorph, but not the i-allomorph, is selected: *p^h-amxta-*, but not **p^h-j-amxta-* 'to praise oneself'. The allomorphy of i-transitive verbs thus falls into a familiar case of phonologically driven allomorphy (Kager 1996, Rubach and Booij 2001). Plural pronouns, on the other hand, do not encounter this problem since they lack clitic counterparts.

(22) Inventory of plural pronouns

	free form	clitic
1PL	ɲəŋ	does not exist
2PL	c ^h əŋ	does not exist
3PL	imɲ	does not exist

Surfacing only in their full forms, their phonological shape guarantees that they never create consonant clusters at the beginning of a pronoun – verb complex (Shiraishi 2002).

Now, the relevant verbs for the current discussion are i-transitive verbs whose bound allomorph begins with a consonant cluster. Allomorphy of these verbs are the same as those beginning with a single consonant shown above; i-allomorph when the complement consists of a singular pronoun and bound allomorph when it consists of plural pronoun or non-pronominal NP. Likewise, (phonologically marked) cliticization to the bound allomorph was also attested. The only difference with verbs that begin with a single consonant is that cliticization to the

bound allomorph is accompanied by an epenthetic vowel in order to avoid tri-consonantal clusters (epenthetic vowels are underlined in the examples below).

	type of host →	i-allomorph		bound allomorph	
(23)	a.	if c ^h ində-		b. if c ^h - <u>i</u> -nřə-	'He saw you.'
		3SG 2SG-see		3SG 2SG-see	
(24)	a.	if c ^h ezmu-		b. if c ^h - <u>i</u> -smo-	'He loves you.'
		3SG 2SG-love		3SG 2SG-love	

Thus, superficially, it looks as if the pronoun has attached in its full form to both the i-allomorph and the bound allomorph. However, there is, in fact, a remarkable phonological difference between the two. While accent is placed on the leftmost syllable in the combination 'pronoun – i-allomorph', it is placed on the second from the left in 'pronoun – bound allomorph'.

	type of host →	i-allomorph		bound allomorph
(25)	a.	c ^h índə-		b. c ^h <u>i</u> nřə́-
(26)	a.	c ^h ézmú-		b. c ^h <u>i</u> smó-

It is generally accepted that accent is placed on the leftmost syllable in Nivkh (Austerlitz 1956: 263, Bondarko and Zinder 1962: 85, Panfilov 1962: 21-22, Hattori 1988: 1409). Assuming from this observation that the language's metrical pattern is left-to-right trochaic, 'pronoun – i-allomorph' (25a), (26a) is the one that exhibits ordinary accentuation. On the other hand, 'pronoun – bound allomorph' (25b), (26b) exhibits extraordinary accentuation since here the accent is shifted one syllable to the right. This shift, however, is understandable if the leftmost syllable is an inadequate candidate for carrying accent. Now, there is a cross-linguistic tendency to disfavor epenthetic vowels for the purpose of accentuation (Alderete 1995, 1999, Kubozono 2001, Broselow to appear). So the extraordinary accentual pattern of (25b), (26b) is explainable if the leftmost vowel were epenthetic. The canonical leftmost syllable being an inadequate carrier, the accent shifts further to the right. In prosodic terms, the trochee skips the leftmost syllable and is built further to the right.

(27) a. pronoun – i-allomorph: canonical placement of foot

{c^híndə}- {c^hézmú}-

b. pronoun – bound allomorph: foot skips epenthetic vowel

c^h_í{nřǎ́}- c^h_í{smó́}-

Accordingly, we must conclude that in (25b), (26b) the pronoun is not in its full form for if this were the case there would be no hesitation in putting the accent on the leftmost syllable. Since this is not what actually happens, we maintain that the pronoun is a clitic, augmented with an epenthetic vowel.

At this moment we are left with the question which is precisely the topic of this paper; what is the leftmost vowel in (25a), (26a)? Is it part of the pronoun or part of the verb? Since the vowel here bears accent, it is obviously not epenthetic. Is it then part of the pronoun? At first glance, this seems to be a viable interpretation because it enables us to explain the metrical difference with (25b), (26b), on the grounds that the pronoun here is in its full form and therefore metrically visible. However, there is a critical defect in such a view. In fact, it claims that when a pronoun attaches to a verb that begins with a consonant cluster, avoid the rise of tri-consonant cluster by a) making use of the full form instead of a clitic, or b) epenthesizing a vowel to the clitic. The choice of remedy, however, is entirely arbitrary and we are again left to appeal to a structure-specific stipulation, which states, choose strategy (a) when the host is an i-allomorph, and choose strategy (b) when it is a bound allomorph. Obviously, such a claim explains nothing. It fails to explain why the allomorphs host pronominal elements the way they are (and not the other way around, for instance). However, if the vowel is not part of the pronoun, nor epenthetic, what is it?

In fact, we are left with a single hypothesis, namely, that the vowel is part of the verb. This hypothesis contains a number of merits. Being part of the verb, nothing prevents it from being accented, so its metrical difference with (25b), (26b) is explainable. Accordingly, we can also maintain that the pronoun is a clitic and therefore adhere to the claim that all instances of singular pronominal complements are clitics. In addition, there is no need to appeal to a morpho-syntactic stipulation to account for the observed pattern of allomorphy of i-transitive verbs (20b). Since epenthesis is the only strategy to avoid tri-consonant clusters under this claim, it follows naturally that allomorphy is phonologically driven, a familiar pattern for i-transitive verbs in general as already discussed above. Without need for any additional grammatical device, the proposed analysis simplifies the

overall construction of the grammar to a great deal. For these reasons, I conclude that the dubious vowel is part of the verb, not of the pronoun.

This conclusion has crucial implications for another problem discussed in the previous section, namely, the pleonastic usage of *i-* (20a). Recall that in contexts where *i-* appears pleonastically, its pronominal content is not realized, the displaced NP being the real argument of the verb. In other words, the pronominal content of *i-* is suppressed by the displaced NP. Even though, the verb is forced to surface in the *i*-allomorph since the alternative choice, bound allomorph is not allowed in the absence of a phonological host.

Crucially, the allomorphy here is not driven syntactically. This is obvious from the lack of agreement between the displaced NP and *i-*.¹⁵

- (28) a. p^h-oɣlagu maŋgur j-ar- 'To feed the children with a lots of foods.'
 REF-children much i-feed (Savel'eva and Taksami 1970: 501)
- b. ɲ-ətək hə oɣla-ɣu p^h-rəv-ux j-amxta- 'My father praised these children in his house.'
 1SG-father this child-PL REF-house-LOC i-praise

In both sentences, the *i*-allomorph co-occurs with a plural antecedent that disagrees in number with *i-*. These examples make it extremely difficult to identify *i-* as an agreement marker, say, of topic-anaphora agreement (in the sense of Bresnan and Mchombo 1987), or clitic-doubling. But this lack of agreement is explainable if the *i*-allomorph surfaces solely for phonological reasons.¹⁶

Now, it is a short step to link this suppressed usage of *i-* in pleonastic contexts with the other extraordinary usage of *i-* seen above; the cliticization of singular person pronoun to the *i*-allomorph. In both cases, the pronominal content of *i-* is not realized, the real argument be the displaced NP in the former, and the pronominal clitic in the latter case. The examples in (28) tell that the suppression of *i-* is tolerated; it fares better than, a) to realize a bound allomorph without a phonological host, b) to create tri-consonant clusters at the beginning of a clitic-verb complex, or c) to attach a full pronoun to the verb. The *i*-allomorph is called on to remedy these situations in exchange for its pronominal content. This is exactly the point which connects the two contexts where the *i*-allomorph appears rather unexpectedly: the displacement of NP complements and cliticization of pronominal clitics. This is a crucial generalization on the distribution of *i-* which might be seen as being unrelated,

superficially.

This generalization is, however, not tenable under the view where full pronominal interpretation of pronouns is compulsory. In contrast, the present analysis is based on the assumption that pronouns need not be fully interpreted. The Optimality-theoretic concept of violable constraints incorporates this assumption directly into formalization. In fact, the idea that pronominal content is suppressed under higher linguistic demands has antecedents in OT-literature; the present hypothesis is reminiscent of an OT-analysis of expletives (Grimshaw and Samek-Lodovici 1995, 1998). However, not every pronoun is an appropriate candidate for suppression; languages choose elements with minimal lexical content as expletives (Samek-Lodovici 1996). It is no coincidence that English chooses *it* and Nivkh *i-* for this purpose. OT captures this fact in one of its fundamental principles; *Minimal violation*, constraints are violable but violation is minimal (McCarthy and Prince 1993: 4). This principle ensures that the third person singular element is a better candidate for an expletive than, say, the reciprocal prefix *u-*, or R-expressions like *Galik*. The difference between English and Nivkh is that in the former expletives surface for syntactic reasons whereas in the latter phonology is the crucial factor. Concerning such properties common to expletives, I assume a single constraint to be operative both in English and Nivkh:

(29) FULL-INTERPRETATION: Lexical conceptual structure is parsed.

Failed by uninterpreted lexical material.

(Samek-Lodovici 1996, Grimshaw and Samek-Lodovici 1995, 1998)

This constraint penalizes every instance of *i-* that is used pleonastically, be it the displacement of complements or cliticization of pronominal clitics.

Constraints that induce the violation of FULL-INT are presented below. I begin with contexts with displaced complements. As mentioned above, the bound allomorph of *i*-transitive verbs is prosodically deficient and cannot project Prosodic Word of its own.

(30) *[bound allomorph]_{PWd}: A bound allomorph cannot project PWd of its own.

(Selkirk's *(Pro)_{PWd} (1995), slightly revised)

The actual form of this constraint would be something as *[*k^hu-*]_{PWd} 'to kill ~' since it is impossible to tell from the phonological shape whether a verb is an *i*-transitive verb (Krejnovich 1966: 44, Shiraishi 2002).¹⁷ It is a matter of

their make-up in the lexicon. All bound allomorphs of *i*-transitive verbs are subject to this constraint by definition.

As noted above, bound allomorph forms phonological unit only with its complement. The alignment constraint below ensures this principle; any instance of a bound allomorph forming a phonological unit with a non-complement marks a violation of this constraint, assuming that adverbs and PPs occupy positions outside of VP.

- (31) ALIGN (XP, L, PPh, L): Align the left edge of a maximal projection with the left edge of a Phonological Phrase.

We obtain the desired output for pleonastic contexts by ranking FULL-INT below these constraints.

(32)

	*[bound allomorph] _{PWD}	ALIGN (XP, PPh)	FULL-INT
a. [OBJ] _{PWD} [Adv] _{PWD} [bound allomorph] _{PWD}	*!		
b. \leftarrow [OBJ] _{PWD} [Adv] _{PWD} [i-allomorph] _{PWD}			*
c. [OBJ] _{PWD} [Adv bound allomorph] _{PPh}		*!	
d. [OBJ] _{PWD} [Adv i-allomorph] _{PPh}		*!	*

On the other hand, when the complement stands immediately to the left of the verb, the *i*-allomorph candidate loses because of the additional FULL-INT violation. This is expected since the grammar allows the pleonastic use of *i*- only at a certain cost.

(33)

	*[bound allomorph] _{PWD}	ALIGN (XP, PPh)	FULL-INT
a. [OBJ] _{PWD} [bound allomorph] _{PWD}	*!		
b. \leftarrow [OBJ bound allomorph] _{PWD}			
c. [OBJ] _{PWD} [i-allomorph] _{PWD}			*!
d. [OBJ i-allomorph] _{PWD}			*!

Turning now to contexts where pronominal clitics attach to the *i*-allomorph, I assume the following constraints.

- (34) a. *COMPLEX: No tri-consonantal clusters.
- b. HEAD-DEPENDENCE: No accent on epenthetic vowels.
Alderete (1995, 1999, slightly simplified)
- c. IDENT-CASE: Case specifications in the input match case specifications in the output.
Grimshaw's PARSE CASE (1997, 1999)
- d. DEP: No epenthesis.
- e. ALIGN (PrWd, L, Foot, L): Align the left edge of a Prosodic Word with the left edge of a foot.

For simplicity's sake, I will formulate *COMPLEX so as to penalize only tri-consonantal clusters. HEAD-DEPENDENCE is a correspondence type of faithfulness constraint, which penalizes every candidate in which the head of a prosodic constituent (foot, in the case at hand) lacks a corresponding counterpart in the input. Since epenthetic segments are not existent in the input by definition, every instance of an epenthetic vowel located in a prosodic head will incur a violation of this constraint.

The constraint IDENT-CASE deserves special mention. This constraint is intended to restrict the distribution of full pronouns. As mentioned in the previous section, full pronouns have a very restricted distribution in Nivkh since clitics are given priority in lexically governed positions. In fact, the occurrence of full pronouns is rare outside of the following three contexts: a) as a subject, b) under focus (see fn. 2) and c) within NPs when the following element begins with a consonant cluster (14). In addition, Nivkh allows for a zero-pronoun, making the appearance of full pronoun in a) even scarcer. The rare occurrence of full pronouns in contrast with clitics is known from the literature (e.g. Austerlitz 1959: 103). Recall that we have already dismissed the idea that pronouns attach in their full form to the i-allomorph.

In order to formalize these facts, I assume that full pronouns are specified for the nominative case, whereas clitic pronouns are unspecified for case. The clitics exhibit freer distribution since they are unspecified for case features. The grammar excludes full pronouns from the complement of transitive verbs, assuming that the latter assigns accusative case to its complement. Clitics will not, however, take over the role of full pronouns in subject position since clitics cannot project their own PrWd by definition. Adjunction to the PPh projected by VP is prohibited either by virtue of ALIGN (XP, L, PPh, L). In this way, IDENT-CASE reflects the intuition of Nivkh

speakers who refused sentences with a fully-fledged object pronoun, as shown in §1.¹⁸

Constraints (34a-c) outrank FULL-INT. The anti-epenthesis constraint DEP is ranked lower in order to allow vowel epenthesis to repair tri-consonantal clusters. The alignment constraint (34e) should also ranked lower in order to account for the skipping of foot from the leftmost syllable.

The upper half of the tableau (35) illustrates the evaluation of candidates with the i-allomorph as base, the lower half those with the bound allomorph as base.

(35)

2SG + ində- -nřə-	*COMP	HEAD-DEP	IDENT- CASE	DEP	FULL-INT	ALIGN (PrWd, L, Ft, L)
a. c ^h í-ndə-			*!			
b. c ^h í-ində-			*!		*	
c. c ^h -í-ində-					*	
d. c ^h í-nřə-			*!			
e. c ^h -í-nřə-		*!		*		
f. c ^h -nřə-	*!					
g. c ^h -í-nřə-				*		*

As mentioned earlier, speakers prefer 'clitic – i-allomorph' to 'clitic – bound allomorph'. As already discussed, this preference is grounded phonologically; clitics choose i-allomorphs in order to avoid consonant clusters. This means that expletives cost less than epenthetic vowels. The ranking between DEP and FULL-INT can now be established (though this is not an absolute ranking as the observed variation tells).

(36)

2sg + ində- -nřə-	*COMP	HEAD-DEP	IDENT- CASE	DEP	FULL- INT	ALIGN (PrWd, L, Ft, L)
a. c ^h -í-ində-					*	
b. c ^h -í-nřə-				*!		*

This ranking does not do harm to the already-established ranking since DEP and FULL-INT do not conflict within the evaluation of candidates sharing the same base (35).

Finally, a note from the history of Nivkh linguistics; the step taken in this paper is reminiscent of Jakobson's analysis of *i-* as a prothetic vowel. Jakobson claimed that in the contemporary Nivkh *i-* has "ceased to act as a pronominal object and was reinterpreted as a prothetic vowel... (1957: 89)." In fact, his analysis is a step further than the current one which still admits the pronominal function of *i-*. Jakobson drew his conclusion solely from the internal reconstruction of transitive verbs. According to him, the attachment of *i-* to transitive verbs was once obligatory in contexts where objects are not named explicitly (as in citation forms). Later, a phonological rule of *i*-deletion swept the *i-* out from this position, except for in contexts where the loss of *i-* would lead to a phonologically marked structure: a consonant cluster (*e-zmu-*) or a syllable with an empty onset (*j-amxta-*). It is in this sense that Jakobson called the *i-* a prothetic vowel. This analysis explains elegantly the origin of *i*-transitive verbs.

Considering the marginal role of *i-* as a pronominal element, this analysis extends well to the pleonastic contexts discussed in this paper. Unfortunately, Nivkhologists did not pay much attention to this Jakobson's stimulating insight, and left it unevaluated till the present day (the only exception I am aware of is Austerlitz 1977).

Though insightful it may be, Jakobson's claim appears to be too loose and fails to account for certain uses of *i-* (Shiraishi 2002). In the first place, it is counter-intuitive that *i-* is a contentless prothetic vowel in any context; speakers are quite convinced that *i-* is third person singular referring. Second, not all speakers accepted sentences which lack agreement between the displaced NP and the stranded *i-* (28). Two speakers pointed out that such a sentence is ungrammatical because it lacks agreement in number (37a). They insisted that the correct sentence is the one with agreement (37b).

- (37) a. **ɲ-ətək eɣa-ke liys-ke i-ɣ-* 'My father killed the cow and wolf.'
 1SG-father cow-COM wolf-COM i-kill
- b. *ɲ-ətək eɣa-ke liys-ke imŋ-k^hu-*
 3PL kill

If we are to respect the judgment of these speakers, we cannot identify *i-* as a pure prothetic vowel, *pace* Jakobson. The current analysis, on the other hand, leaves open a way to deal with this data through constraint-ranking; a forced agreement in the one case and the suppression of the pronominal content of *i-* in the other. But before we put forward the discussion, we need a more detailed description of the phenomenon; whether these speakers exhibit agreement in any type of sentence (15). This is the task of next research.

4. Conclusion

While most previous works have not asked why object pronouns of singular person attach in their full form to *i*-transitive verbs, the current analysis addressed this question by providing a linguistic explanation to prove that what might be seen, at first glance, as a full form is, in fact, a clitic. This conclusion captures the intuition of not few Nivkhologists (listed in §1) who convincingly put a morpheme boundary between the clitic and the prefix (*i-*, *e-*) of *i*-transitive verbs. Although never defended in the literature, the present work attempted to reflect this intuition of these linguists into discussion. From the discussion, we drew the conclusion that no structure-specific morpho-syntactic stipulation is needed to account for the observed alternation (augmentation) of pronominal clitics since this follows naturally from the phonological regulations of the language.

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Abbreviations

Adv	adverb	PL	plural	VP	verb phrase
COM	comitative	PPh	phonological phrase	XP	maximal projection
LOC	locative	PP	postpositional phrase	1	first person
N	noun	PrWd	prosodic word	2	second person
NEG	negative	Q	question particle	3	third person
NP	noun phrase	REF	reflexive		
OBJ	object	SG	singular		
P	postposition	V	verb		

¹⁰ We will see in the next section that *i-* cannot be an agreement marker either.

¹¹ I owe the identification of the language and its original source (Humboldt 1836/1959) to Johanna Mattissen.

¹² Leaving aside verbs beginning with *j-* for the moment.

¹³ For instance, Hattori set up different conjugation paradigms for the two allomorphs: *nominal conjugation* and *pronominal conjugation* (1944/2000: 121).

¹⁴ Another difference between the two is that *if* makes reference to human beings only, whereas *i-* can refer to animals and non-animate objects as well (Panfilov 1962: 230).

¹⁵ Not all the speakers accepted these sentences. I return to this point later.

¹⁶ From a morpho-syntactic point of view, the function of *i-* comes closer to that of a transitivity marker (Jakobson 1957: 88-89, Mattissen 2001: 177): *i-zvi-* 'to prepare~' vs. *cvi-* 'to be ready'. Such a path of development is not unknown; in Tok Pisin (a New Guinea Neo-Melanesian Pidgin), the compulsory use of accusative pronoun *him* (from English) on transitive verbs had the consequence of turning it into a transitive marker, making it obligatory even in citation forms (Givón 1976: 168, 1984: 377).

(i) har-im 'hear' cf. harharim 'listen carefully'

(ii) pait-im 'beat, fight' cf. paitpaitim 'beat very hard'

This does not fully extend to the case of Nivkh, though. Unlike this *im*, *i-* of Nivkh is not obligatory but appears only when the complement is not readily available to the verb, as seen above. The paraphrase of a transitive sentence below is unacceptable in Nivkh since the bound allomorph obligatorily takes over the position of *i-* allomorph when the object and verb are adjacent to each other.

(iii) em i-har-im John 'He heard John.'

him he-hear-him John (structurally equals candidate c. in tableau (33) below)

¹⁷ Most of the *i-* transitive verbs are deducible from their shape, though. See the discussion below.

¹⁸ The other two contexts where full pronouns appear can be treated in a similar fashion. The correlation of focus and full pronoun is well-known cross-linguistically (Givón 1984, Bresnan and Mchombo 1987, Bresnan 1997).

The third context, however, requires explanation. Within a NP, the repair-strategy to avoid tri-consonant clusters is the full pronoun (14), not vowel epenthesis in contrast with VPs. This asymmetry can be dealt with by splitting IDENT-CASE into IDENT-CASE [GENITIVE] and IDENT-CASE [ACCUSATIVE] and rank the former lower than DEP (only relevant constraints are represented in the tableau below):

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ニヴフ語代名詞の接語化についての韻律的証拠

ニヴフ語の目的語単数代名詞は他動詞に接続する際接語化し、音韻論的自立性を失うことは古くから知られている。この規則には一見例外と思われるケースがある；単数代名詞が接頭辞 *i-*, *e-* で始まる他動詞に接続する場合である。先行研究はこの場合について 1) 他動詞の接頭辞(*i-*, *e-*)が脱落し目的語代名詞が自立語として他動詞に接続する、2) 目的語代名詞の母音が脱落し接語として他動詞に接続する（他動詞の接頭辞は残る）という二通りの見解に分かれている。本稿はこの問題に対し 2) の立場をとらなければ説明のつかない韻律現象があることを指摘する。また 1) の立場では説明の困難であった *i-*, *e-* で始まる他動詞の異形態交替が 2) の立場をとることで言語学的に説明可能となることを指摘する。これらの議論により本稿は目的語単数代名詞が一見自立語のまま他動詞に接続しているように見える場合でも実際には接語化していると結論付ける。