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Negation in Kulina

A double polarity swap

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This study reconstructs the development of a negative existential and a nega-
tive pro-sentence in the Arawan language Kulina (Brazil-Peru). We demon-
strate that the two elements forming the negative existential construction
nowe (hi)ra- are involved in a double polarity swap: (i) an originally neutral
lexical item (the dynamic verb *nowe* 'show') has become negative through
contamination, and (ii) an originally negative element *(hi)ra-*, which was
responsible for the contamination, is bleaching into a semantically neutral
auxiliary. This lexeme *nowe*, with the auxiliary used only optionally, also func-
tions as a negative pro-sentence now. Thus, synchronically we have a negative
pro-sentence that has its origin in a semantically-neutral lexical item. Neither
the source of the negative pro-sentence nor this diachronic path has surfaced
in the literature on negation so far and thus they are instructive from
diachronic and typological perspectives. The hypothesis enriches the litera-
ture on both the Jespersen Cycle and the Negative Existential Cycle.

Keywords: negative existential, negative pro-sentence, semantic bleaching,
diachrony of negation, Jespersen Cycle, Negative Existential Cycle

1. Introduction

It is well known that neutral lexical elements may get contaminated by negation
and end up in the service of negation marking. In fact, contamination is the main
driving force behind the process known as the "Jespersen Cycle" (van der Auwera
2009), which is central in the studies on the formation and renewal of negation
markers (Jespersen 1917; Meillet 1912 [1921]).[1] So far, cases of contamination are

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1. We use the term "contamination" because the process changes the nature of the original
item, and an older meaning gets discontinued. The term also has a good pedigree, as it essen-
tially goes back to Bréal's (1897) *contagion* in an account that antedates both Meillet (1912 [1921])
and Jespersen (1917), and it also enjoys modern usage (e.g. in Nerlich 1990).

mainly documented for the domain of "standard negation," i.e., the negation of main clause declarative sentences with an overt verbal predicate (Payne 1985: 244; Miestamo 2005). To a much lesser degree it has also been described for prohibitive constructions (van der Auwera 2009: 63–64). In the Arawan language Kulina, spoken at the Brazilian-Peruvian border, we have a case of contamination which occurred in an existential construction. We will demonstrate that although this development is reminiscent of the so-called "Negative Existential Cycle" (Croft 1991; Veselinova 2014), the Kulina case does not involve the mechanisms associated with this Cycle. One of the curious outcomes is the development of the negative pro-sentence "no" from a lexeme that was semantically neutral (i.e. non-negative), with no morphological changes. Moreover, a second development took place in the same construction: the negative auxiliary (which, as we argue in this paper, is responsible for the contamination) is itself undergoing a polarity change, but in the opposite direction. The resulting picture is that of a negativity swap between an originally neutral element turned negative and an originally negative element becoming a semantically neutral auxiliary.

The paper is organized as follows. Section 2 gives a brief note on Kulina and its varieties (or dialects); it also introduces the data sources used for this study. Section 3 is devoted to the synchronic picture of negation marking in Kulina: Section 3.1 exemplifies the different types of negation in the language; Section 3.2 summarizes all negation forms in a schematic overview; Section 3.3 singles out those aspects of negation marking that constitute a diachronic puzzle. Section 4 is devoted to reconstructing the diachrony. Section 4.1 proposes a developmental path leading to the current system of negation, 4.2 discusses the double polarity change in the negative existential construction, and 4.3 considers an issue that is left open. Section 5 highlights the typological value of the Kulina case. Section 6 concludes the paper.

2.   The Kulina language and data

Kulina is an Arawan language spoken by about 5,500 people in Brazil and some 300 people in Peru (Dienst 2014: 1). The Arawan language family consists of Paumari, Suruwahá, the Madi language cluster, the Madihá language cluster, and extinct Arawá. Kulina belongs to the Madihá cluster, which is comprised of three mutually intelligible languages: Kulina, Western Jamamadi, and Deni (Dienst 2009a). There are several varieties (or dialects) of Kulina, which are spoken in villages located on the Purus river, in the areas of the Envira river, and the Juruá, Tarauacá, and Jutaí rivers (see also Dixon 1999: 292–293).

There exist five general sources on the grammar of Kulina.[2] The present study is based on the following three grammatical descriptions. Each of the three works focuses on a different Kulina variety:

i.   The Purus variety, spoken on the Purus river in the Brazilian state of Acre, described by Stefan Dienst (2006, 2014). Data were collected between 2002 and 2007. Some information comes from personal communication with Stefan Dienst. We also include some information on the Purus variety spoken on the Purus river in Peru (the department of Ucayali); the data come from personal communication with Cindy and Jim Boyer (cited as Boyer & Boyer; Summer Institute of Linguistics), who worked among the Peruvian Kulina speakers until January 2018.

ii. The middle Juruá variety, spoken on the Juruá river in Brazil, described by Frank Tiss (2004). The exact period of data collection is unknown to us.

iii. The Envira variety, spoken on the Envira river in the state of Acre in Brazil, described by Ruth Monserrat with collaboration of Abel Silva (1986). Data were collected between 1978 and 1984 (Monserrat p.c.). We have access only to parts of this work and some information comes from personal communication with Ruth Monserrat.

Besides these grammatical descriptions, there is a Kulina-Portuguese dictionary by Silva & Monserrat (1984) based on data from different Kulina varieties (Monserrat p.c.), and a comparative list of lexical items by Nies (1976) (the variety of Kulina this source deals with is not specified). These two materials will be referred to only in passing.

With respect to dialectal variation, it is noted in Dienst (2014: 9) that the Purus and the Envira varieties are very similar, while Juruá is more divergent.

3.   A synchronic picture of negation marking in Kulina

3.1   Types of negation

In this section we introduce different types of negation marking in Kulina as it will serve as a basis for our discussion of its diachrony.[3]

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2. Of the five works on Kulina grammar, the following two are unavailable to us: (a) a grammar by Arlene Agnew (1963) carried out within the tagmemic framework; and (b) an unfinished manuscript from 1987 by Patsy Adams. Both works deal with a Peruvian Kulina variety.

3. Adopting a convention commonly used in grammatical descriptions, all examples cited in this paper have the following format: the first line gives an orthographic representation of a

3.1.1   *Standard negation and ascriptive negation*

In the Purus and the Juruá varieties of Kulina, standard negation (i.e., the negation of main declarative clauses with an overt verbal predicate) is expressed by means of negative suffixes that carry a gender distinction: the masculine form *-hara* and the feminine form *-hera* (Tiss 2004: 192; Dienst 2014: 126).

(1)   Purus variety
    ohipeherakhani
    *o-hipa-**hera**-kha-ni*
    1SG-eat-NEG.F-already-DECL.F
    'I haven't eaten yet.'   (Dienst 2014: 126)

(2)   Juruá variety
    ithomeharawi
    *Ø-ithome-**hara**-wi*
    3-play-NEG.M-IMPF.M
    '(He) is not playing.' [Orig.: '(ele) não está brincando']   (Tiss 2004: 197)[4]

In the Envira variety, standard negation can be encoded in two ways. The most common strategy involves the forms *hara/hera*, similar to (1)–(2). However, in Monserrat & Silva (1986: 43) these forms were analyzed as a combination of an

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surface form, the second line shows an underlying form with morphemic segmentation, the latter is aligned with the glosses given on the third line, and the fourth line offers a translation into English. If an example in the original material is not in English (but in Portuguese, in our case), we provide an English translation first, followed by the original phrasing in the square brackets. In Kulina, a surface form can differ from an underlying form due to morphophonemic processes that involve negative markers; all cases that are relevant to our discussion will be addressed in due course.

Furthermore, a note on orthographic representation. The spelling used in the original material on Envira follows an orthography convention designed by the Summer Institute of Linguistics (SIL) of Peru. To ensure consistency, we have adapted the spelling of the Envira examples to the spelling used in the materials on Purus and Juruá. Specifically, this concerns the following cases: in the SIL spelling system /j/ corresponds to /h/; /hu/ corresponds to /w/, and /h/ stands for the glottal stop, which is not written in the new spelling system. All adaptations have been checked with Stefan Dienst (p.c.) and Ruth Monserrat (p.c.).

4.   A brief note on aspectual markers and their glossing in the respective grammatical descriptions is in order. For the feminine gender, all three varieties (Purus, Juruá and Envira) have one and the same aspectual suffix *-ni*. For the masculine gender, Juruá has the form *-wi* (Tiss 2004: 118), whereas in Purus and Envira the aspectual suffix is *-i* (Dienst 2014: 108, Monserrat & Silva 1986: 43). Note that the aspectual markers are analyzed and glossed as "declarative" markers for Purus (Dienst 2014: 108) and as "imperfective" markers for Juruá (Tiss 2004: 118). For examples from Envira, which are not glossed in the original, we adopt the gloss "declarative", since the Purus and Envira varieties are very similar (Dienst 2014: 9).

auxiliary/copula *ha* (and its alternate *he* in the case of the feminine gender) and a negative suffix *-ra* (compare (1) and (3a)). This difference in the analysis is relevant, as it contributes to the diachronic picture of negation markers in Kulina, and we will come back to this later on. The other strategy to encode standard negation involves the negative suffix *-ra* directly on the verb (3b); however, its use is much less common (Monserrat & Silva 1986: 43).

(3)   Envira variety
   a.   *ohipa   herapa*
        o-hipa **he-ra**-*pa*
        1SG-eat AUX.F-NEG-PST
        'I did not eat'/'I haven't eaten (yet).' [Orig.: 'não comi (agora)']
   b.   *ohiperai*
        *o-hipa-**ra**-i*
        1SG-eat-NEG-DECL.M
        'I do not eat.' [Orig.: 'eu não como: não sou comedor']

(Monserrat & Silva 1986: 43)

There are two main verb categories in Kulina: dynamic and stative. These labels are semantic and reflect a difference in meaning between most of their members. However, these two categories are primarily distinguished not on semantic, but on syntactic and morphological grounds (Dienst 2009b, 2014: 95, 159–161). All verbs – dynamic and stative – are divided into inflecting and non-inflecting ones (cf. Tiss 2004: 122–123; Dienst 2014: 95). And thus negation markers occur either on the verb itself (in case of inflecting verbs), as in (1)–(2), or on an auxiliary, which is obligatory with non-inflecting verbs, as in (4). Kulina has three auxiliaries/copulas: *na-, ha-,* and *hira-.* Their function is not completely parallel among the three varieties.[5]

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5. The auxiliary/copula forms *na-* and *ha-* are likely to go to Proto-Arawan (see Dixon 1999: 300). The form *na-* is a widely applicable auxiliary in all three Kulina varieties, and occurs both with dynamic and stative verbs (Dienst 2014: 95, 141; Tiss 2004: 119; Monserrat p.c.). In Envira and Juruá, but not in Purus, *na-* can also function as a copula, viz. the predicate in identificational clauses involving two nominals (Monserrat & Silva 1986: 30; Tiss 2004: 119). With regard to the form *ha-*: it functions both as an auxiliary and a copula in all three varieties. As for *hira-*, we have information only for Purus and Juruá. In Purus, *hira-* is an auxiliary, which is limited in use to 10 stative verbs. In Juruá the form *hira-* is analyzed as a negative copula, where it is productive and widely used. The divergent polarity of *hira-* will be a central issue in Section 4.2.1.

(4) Purus variety
     ethe khi onaharapa
     *ethe khi o-**na**-**hara**-pa*
     dog see 1SG-AUX-NEG.M-PST
     'I didn't see the (male) dog.'   (Dienst 2014: 83)

One can notice that the lexical verb *hipa* 'eat' has the status of an inflecting verb in the Purus variety (1), whereas it is presumably both inflecting and non-inflecting in Envira (3a)–(3b). While the ability to function both as inflecting and non-inflecting was characteristic of most (or even all) verbs in Proto-Arawan (Dixon 1999: 300), these examples could be indicative of a different kind of development. Specifically, observing the way standard negation is marked in Purus and Juruá (1)–(2), it is possible to conjecture that the form *ha/he* in Envira is losing its auxiliary status and becoming part of the morphological composition of negation markers. We will discuss this in Section 4.1.

Clauses that contain a nominal or an adjectival predicate are introduced with a copula in Kulina (Dienst 2014: 232; Tiss 2004: 119; Monserrat & Silva 1986: 30). We refer to negation of these types of clauses as "ascriptive negation" (following Veselinova 2013: 110). Formally, however, ascriptive negation is encoded by the same means as standard negation in Kulina, i.e., *-hara* 'NEG.M'/*-hera* 'NEG.F'; although in this case, it is the copula 'be' that carries a negative marker (5).

(5) Purus variety
     owapi   osonaa   oheherani
     *owa=pi   osonaa   o-ha-**hera**-ni*
     1SG=TOP.F Kashinawa 1SG-be-NEG.F-DECL.F
     'I am not a Kashinawa.'   (Dienst 2014: 126)

It should be noted that when the subject is a third person, the copula *ha-* takes the prefix *to-* in affirmative clauses; however, under negation, both the prefix *to-* and the copula are omitted (Tiss 2004: 136, *passim*; Dienst 2014: 233).[6] Thus, as can be seen in (6)–(7), the negation marker occurs all by itself taking the declarative marker. For the Envira variety we only have an example with the third-person subject, and the construction is structurally identical to (6)–(7).

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6. For Purus, Dienst (2014: 229) analyzes the prefix *to-* in the copula clauses as marking the third person singular, either masculine or feminine. For Juruá, Tiss (2004: 136) reports a *to-* prefix on the copula, but he analyzes it as an habitual marker.

(6) Purus variety
    oza   imeni bote herani
    *oza   ime-ni bote Ø-Ø-**hera**-ni*
    house big-F   very 3-be-NEG.F-DECL.F
    'The house isn't very big.'   (Dienst 2014: 233)

(7) Juruá variety
    poa Madiha harawi
    *poa Madiha Ø-Ø-**hara**-wi*
    he   Madiha 3-be-NEG.M-IMPF.M
    'He is not a Madiha.' [Orig.: 'ele não é Madiha']   (Tiss 2004: 193)

3.1.2 *Derivational negation*

All Kulina varieties have a negative suffix *-ra.* We have already mentioned it as part of the marking of standard negation and even as the sole exponent in Envira (3b). For Juruá, the marker *-ra* is referred to as a "negation suffix creating antonyms" (Tiss 2004: 194)[7] and for Purus, *-ra* is analysed as a "derivational suffix" (Dienst 2014: 152).

Example (8) from Juruá shows how *-ra* added to a stative verb "distant" gives the antonym "close".

(8) Juruá variety
    wahira
    *wahi-**ra***
    distant-NEG
    'be close' [Orig.: 'ser perto']   (Tiss 2004: 194)

In Purus, the suffix can occur on both dynamic and stative verbs, turning them into semantic opposites, which are always stative (Dienst 2014: 83, 152). This is illustrated in (9), where the dynamic verb *wati* 'talk' takes the negative *-ra*, yielding an equivalent of the English "non-talking." It is considered to be a derivational negative marker, since the inflectional negation would occur on the auxiliary (Dienst 2014: 152). Stative verbs derived with the suffix *-ra* express a negated statement that is generally true, and have a functional equivalent of saying "never" in English (Dienst p.c.).

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7. The original material contains the following formulation in Portuguese: "O suffixo negativo -ra deriva de verbos primários verbos antônimos" (Tiss 2004: 194).

(9) Purus variety
     wapima watirakhiri   nai
     *wapima wati-**ra**-khiri Ø-na-i*
     all   talk-NEG-PL 3-AUX-DECL.M
     'Nobody (ever) talks.' Or 'Everybody is taciturn.'   (Dienst 2014: 198)

Some stative verbs with the suffix *-ra* can be considered as lexicalized, since they
are attested only as a derived form but not as a free form. One example is in (10):
synchronically there is no free form *pota-* 'big'; however, there is a stative verb
potera 'small', as well as adjective forms *potahari/potaharo* 'greater M/F',[8] which
only occur in names of animals and plants (Dienst 2014: 168). This allows for a
segmentation of the stative verb *potera* 'small' into the root *pota-* and the negative
marker *-ra* (Dienst 2014: 152).

(10) Purus variety
      awi   potera   tani
      *awi   *pota-**ra** to-na-ni*
      tapir big-NEG 3-AUX-DECL.F
      'The tapir is small.'   (Dienst 2014: 153)[9]

At this point we must note that a morphophonemic process of vowel raising takes
place in Kulina caused by the derivational negative marker *-ra* (among some other
suffixes). Specifically, the suffix *-ra* raises the vowel /a/ in a syllable preceding it
to either /e/ or /i/ (Dienst 2014: 38). In (10) we see this in the surface form *potera*,
where the vowel /a/ became /e/. The process of vowel raising caused by the suffix
-ra occurs in all three varieties: it is discussed for Purus in Dienst (2014: 38), noted
briefly for Juruá in Tiss (2004: 194, *passim*), and it is also in line with the relevant
data found in Monserrat & Silva (1986). We will return to the issue of vowel rais-
ing in Section 4.

3.1.3 *Existential negation*

We now consider how negative existentials are encoded, i.e., how one expresses
that there is no something or other. Ample information on this issue is only avail-
able for the Purus variety. For Juruá and Envira the information on existentials is
limited. We discuss the three varieties in this order.

In Purus there is a positive existential verb *ani* 'exist, be present', but it does
not occur in negative constructions (Dienst 2014: 235). A negative existential is
expressed with a specialized construction: the stative verb *nowe* 'non-existent,

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8. *-hari* and *-haro* are suffixes encoding gender, respectively M and F (Dienst 2014: 97).

9. We use the star before *pota-ra* indicating that this is a reconstructed form.

absent' plus the auxiliary *(hi)ra-* (Dienst 2014: 148). The full form of the auxiliary *hira-* occurs only when the subject is first or second person or when the noun class prefix *ka-* is required (Dienst 2014: 149).[10] However, Dienst (2014: 235) argues that the most natural context expressing non-existence is with third-person subjects, not with first- or second-person subjects. And since the third-person subject has zero marking, provided it is not a member of the *ka-* noun class, the construction for 'there is no X' surfaces as *nowe ra-* (Dienst 2014: 149). This is illustrated in (11)–(13).[11]

(11) *bani nowe rahari*
      *bani **nowe** **Ø-ra**-hari*
      meat absent 3-AUX-NAR.M
      'There is no meat.'   (Dienst 2014: 149)

(12) *nowe   rai*
      ***nowe** **Ø-ra**-i*
      absent 3-AUX-DECL.M
      'There is none.'   (Dienst 2014: 236)

(13) *pasho   khazapa   nowe rai   sisipe*
      *pasho   Ø-kha-za=pa   **nowe** **Ø-ra**-i   sisipe*
      water(F) 3-move.SG-TC=TOP.M absent 3-AUX-DECL.M blackfly(M)
      'When it's raining, there are no blackflies.'   (Dienst 2014: 235)

In the context of first- or second-person subjects, the construction encodes absence rather than non-existence, as in (14); and *nowe hira-* in (15) has the pragmatic effect of expressing non-identity (see Dienst 2014: 235), i.e., 'It wasn't me' ~ 'I was not there'. Because of this meaning, examples (14)–(15) are less relevant for us; however, they show that the auxiliary *(hi)ra-* and the form *ra-,* when used with third-person subjects, are forms of one and the same auxiliary.

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10. If a noun belongs to the *ka-* class, the verbal predicate takes the prefix *ka-*. Dienst (2014: 86) notes for Purus that the *ka-* class is relatively small, without any clear semantic motivation behind the grouping, except that all *ka-* class nouns have non-human referents. The fact that the *ka-* class includes no nouns with human referents explains that the prefix *ka-* does not occur on the auxiliary with first- or second-person subjects. In the Juruá variety of Kulina the *ka-* class also exists, but with somewhat divergent characteristics and membership (see Tiss 2004: 55).

11. Note that Dienst (2014) glosses the lexeme *nowe* in a number of ways, i.e., 'absent', 'non-existent', 'not.be', 'not.exist', depending on the type of example. However, in all instances it is glossed as a negative lexeme. All examples of negative existentials in Dienst (2014) represent synchronic data, and synchronically, there is no evidence that the Purus speakers would perceive this lexeme as non-negative (Dienst p.c.). We adopt a single term 'absent' for the sake of consistency.

(14) *nowe ohirani*
      nowe *o-**hira**-ni*
      absent 1SG-AUX-DECL.F
      'I'm not here.'   (Dienst 2014: 148)

(15) *owapi   nowe ohirapa*
      *owa=pi   **nowe** o-**hira**-pa*
      1SG=TOP.F absent 1SG-AUX-HPST
      'It wasn't me.'   (Dienst 2014: 235)

The *(hi)ra-* auxiliary has a limited use: it is attested only with 10 stative verbs in Purus, among which is the verb *nowe* 'absent' (Dienst 2014: 148). Though we have seen *-ra* as a marker of negation, according to Dienst (2014: 148), in contemporary Purus the *(hi)ra-* is not negative. The glosses used in the examples thus reflect its current status.

As for the Juruá and Envira varieties of Kulina, the following picture emerges. Tiss (2004: 198–199) discussed briefly what he refers to as the "negative verb" *nowera-*. In all examples this verb occurs with aspect markers that differ according to gender: *-ni* 'IMPF.F' or *-wi* 'IMPF.M', rendering such verb forms as *nowerani*, 'there is no, not have [F]' or *nowerawi* 'there is no, not have [M]' (16)–(17).

(16) *pokha ozaza,   aba aniwi?   nowerawi*[12]
      *po-kha oza-za,   aba Ø-ani-wi?   **Ø-nowera-wi***
      3-POSS house-LOC fish 3-have-IMPF.M 3-NEG-IMPF.M
      'Is there fish in his house? – No, there is not.' [Orig.: 'Na casa dele há peixe? – Não há.']   (Tiss 2004: 199)

(17) *ponipe   tikha ini?   nowerani*
      *poni-pe   ti-kha ini   **Ø-nowera-ni***
      she-TOP.F 2-POSS grandma 3-NEG-IMPF.F
      'Is she your grandma? – No (, she is not).' [Orig.: 'Ela é tua avó ? – Não (, ela é não).']   (Tiss 2004: 198)

However, in all examples these forms serve the function of a negative pro-sentence rather than a negative existential. A diachronic link between a negative existential and a negative pro-sentence has been argued for in earlier works (see Veselinova 2014 and Croft 1991), and thus these examples are not surprising. But from the available data we cannot conclude with confidence that *nowera-* encodes negative existence, too. There are also some differences in the analyses of Tiss (2004) and Dienst (2014). Tiss (2004: 198) treated the form *nowera-* as one

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12. Note that Tiss (2004) glosses *nowera-* as 'neg' (for 'negative'), so we maintain the original glossing in these examples.

grammatical word, and thus the morpheme *ra* is not seen as a shortened form of the auxiliary *(hi)ra-* for third-person subjects (different from Dienst 2014). Also, Tiss (2004) considers *nowera-* to be a defective verb, which cannot take the first- or second-person inflection.[13] These differences in the analyses were also pointed out in Dienst (2014: 235), who explicitly noted that the use of the verb *nowe* is just rare with subjects other than third person and that this might have been the reason for Tiss (2004) to have regarded the verb as defective.

Despite the fact that the morpheme *ra* in *nowera-* was not seen by Tiss (2004) as a shortened form of the auxiliary *(hi)ra-* (with third-person subject, as suggested in Dienst 2014), Juruá does have a form *hira,* too. This *hira* is analyzed in Tiss (2004: 194) as an "antonym" of the copula, i.e., as composed morphologically of the copula *ha-* and the negative suffix *-ra.*[14] It is used to encode "habitual negatives" (Tiss 2004: 102, 194–195), which might be a functional approximation of a negative existential. The construction involves a verbal nominalization followed by *hira* (18–19). In pseudo-English, such sentences seem to mean 'VERB-ing is not there'. That the form is *hira,* instead of the expected *hara,* is due to the phonological process of vowel raising caused by the suffix *-ra* (Tiss 2004: 194), which was noted above. Example (19) contains an adjectival concept 'long', which is encoded by a stative verb that is nominalized.

(18) *zokhee   tihirani*
      *zokhe-e   ti-**ha-ra**-ni*
      kill-NMZ 2-be-NEG-IMPF.F
      'You never kill anything.' [Orig.: 'Você nunca consegue matar nada.']
                                                                    (Tiss 2004: 195)

(19) *tikha   dahoni araboe   kahirani*
      *ti-kha   dahoni arabo-**e**   Ø-ka-**ha-ra**-ni*
      2-POSS canoe   long-NMZ 3-NCL-be-NEG-IMPF.F
      'Your canoe is not long.' [Orig.: 'Sua canoa não é comprida.']   (Tiss 2004: 195)

Finally, turning to the Envira variety, little is known about existential negation. Monserrat (p.c.) notes the following two forms which encode the semantics of 'there is no; not have' ("não tem") (20).

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13. Tiss (2004: 198) states the following: "O verbo nowera é defectivo quanto às pessoas, pois não permite prefixos de 1a ou 2a pessoa. Quando nowera refere-se ao falante ou ao ouvinte, emprega-se, portanto, o morfema Ø- da 3a pessoa." [Our translation: The verb *nowera* is defective in the sense that it cannot take the first- or second-person prefixes. When the verb *nowera* refers to the speaker or the hearer, it takes the third-person prefix Ø-.]

14. In the original: "antônimo do verbo copulativo *ha*" (Tiss 2004: 194).

(20)   *nowerai/nowerani*

'there is no, not have [M]'/'there is no, not have [F]'   (Monserrat p.c.)

Formally, these examples are almost identical to the ones from Juruá in (16)–(17), with a minor difference in the masculine form of the aspect marker: *-i* in Envira vs. *-wi* in Juruá. Since we do not have examples of these forms in a clause, we cannot draw any conclusions on their use as negative existentials. In the Kulina-Portuguese dictionary by Silva & Monserrat (1984:103), the forms in (20) are given as negative pro-sentences. And thus they seem to be not only formally but also functionally similar to (16)–(17) from Juruá.

3.1.4   *Privative negation*

We now address the way privatives are expressed, i.e., statements encoding '(being) without X'. We have information only for the Juruá and Purus varieties.

In Juruá, a construction for privatives[15] involves a nominal element followed by *hira*, which Tiss (2004:195) analysed and glossed as the negative copula (copula *ha-* and negative *-ra*), as in (18) and (19). However, as Tiss noted, the form *hira* in this function is always realized in its full form (2004:195).

(21)   *sao hirani,*   *da   neherani*   *aba ikawariwi*
       ***sao Ø-ha-ra**-ni,*   *da   Ø-na-hera-ni*   *aba i-kawari-wi*
       salt 3-be-NEG-IMPF.F give 3-AUX-NEG.F-IMPF.F fish 3OBJ-cook-IMPF.M
       'Without salt, one can't cook fish.' [Orig.: 'Sem sal, não dá para cozinhar peixe
       (…para peixe ser cozinhado).']   (Tiss 2004:195)

In Purus, the meaning 'without' is analyzed by Dienst (p.c.) as involving the lexeme *hira* 'empty' (22). The lexeme *hira* is a verb, since it takes a non-finite verb ending *-e* (which raises the stem-final /a/ to /e/) (Dienst p.c.).[16] In (23) *hira* is not used in a privative sense, but carries its literal meaning 'empty'.

(22)   *asoka hiree*   *okaarini*   *kape*
       *asoka **hira**-e*   *o-kaari-ni*   *kape*
       sugar empty-NFIN.F 1SG-cook-DECL.F coffee
       'I'm making coffee without sugar.'   (Dienst p.c.)

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15.   Tiss (2004:195) uses the terms "negative instrumental" or "negative comitative"; compare the original description in Portuguese: "O […] uso de *hira* serve para parafrasear o papel semântico do instrumental negativo ou do comitativo negativo de um nome (sujeito de *hira*). Isto é, tendo apenas um substantivo simples como sujeito (sem ser derivado verbal), *hira* significa "(ser) sem." [Our translation: The use of *hira* with a nominal encodes negative instrumental or negative comitative. That is, when the subject is a nominal (i.e. with no verbal derivations), *hira* means '(being) without'.]

16.   The suffix *-e* is analyzed for Juruá as nominalizer; we keep the original glossing.

(23) *ehedeni mathonideni   hirani*
      ehedeni matho-ni-deni **hira**-*ni*
      child   neck-F-PL   empty-DECL.F
      'The girls aren't wearing necklaces.' Lit. 'The girls' necks are empty.'

<div align="right">(Dienst p.c.)</div>

According to Dienst (p.c.), the verb *hira* 'empty' is unrelated to the auxiliary *(hi)ra-* in Purus, despite the similar morphology and, as will be argued in Section 4.2.1, the originally negative semantics of the auxiliary *(hi)ra-*. In Dienst's view (p.c.), the verb *hira* 'empty' is a cognate to the verb *hira* 'be bad, defective, ill' found in the closely related languages Western Jamamadi and Deni and in the Juruá variety of Kulina. The latter has the verb *phira* 'defective, non-functioning' ("não servir/prestar"), which can be realized as *hira*, i.e., without the initial consonant *p* (Tiss 2004: 199). Thus, the fact that *hira* in the privative function always occurs in its full form (see Example (21)) may suggest that in that function it is not the negative copula, but rather the verb 'defective, non-functioning'/'empty'. They both, of course, share a negative meaning and it is quite plausible that they are related in diachrony. We leave this issue open. Similarly, we are not in the position to argue whether the auxiliary *(hi)ra-* and the verb *hira* 'empty' are related in Purus. Although this is an interesting question, it is less relevant. What is relevant is the synchronic and the diachronic status of the auxiliary *(hi)ra-* in the negative existential construction *nowe (hi)ra-* 'absent, not existent'. This issue will be central in Section 4.2.1.

3.1.5 *Negative pro-sentence ("no")*

In all three varieties of Kulina, the negative pro-sentence ('no') contains the root *nowe,* and the differences pertain either to the presence of the morpheme *ra* (analyzed as a shortened form of the auxiliary *(hi)ra-* in Dienst 2014) or to the presence of aspectual inflection. In the Purus variety, the negative pro-sentence can be encoded either by *nowe ra-* or simply by *nowe,* i.e., without the auxiliary (Dienst 2014: 236; Dienst p.c.).

(24) *nowe (rai)*
      nowe *(Ø-ra-i)*
      absent 3-AUX-DECL.M
      'No'/'There is none.'[17]   (Dienst 2014: 236; Dienst p.c.; Boyer & Boyer p.c.)

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17. The translation with 'none' can be misleading, for Kulina does not have any negative indefinites. See the discussion of negative concord in Section 4.2.2.

This is also the construction encoding negative existence, hence the translation 'there is none'. In the Juruá variety, as suggested above, the negative pro-sentence is encoded by the forms *nowerani/nowerawi* (in all examples occurring with aspect markers *-ni/-wi*), see examples (16)–(17). In the Envira variety, the negative pro-sentence is expressed – with aspectual inflections; see Example (20) – either by *nowerani/nowerai* (Silva & Monserrat 1984: 103) or by the form *nowera* – with no aspectual inflections (Monserrat, p.c.).[18]

To summarize, all three Kulina varieties share the lexeme *nowe* as negative pro-sentence. While in Juruá and Envira, this lexeme seems to require a construction with *ra-* (either inflected or not), in Purus the lexeme *nowe* can be used on its own.

3.2   Schematic summary of the negation forms

Table 1 summarizes the analyses of negative forms and their functions for the three Kulina varieties. The table should be read as follows. The left-most column gives a schematic representation of a construction that contains a negative form. Each construction is provided with a gloss showing the analysis of a corresponding negative form in a source material. The columns to the right give the function(s) that a construction has in each variety. If a certain analysis or construction is not applicable, this is identified by a dash. If no information is available, a question mark is used.

3.3   Taking stock of *hi(ra)* and *nowe*

The data discussed above suggest that at least the Juruá and Purus varieties have the form *hira-* (with a shortened form *ra-* in the latter, when the subject is 3rd person). In Juruá, *hira-* is a negative copula (i.e., a copula *ha-* with a negative suffix *-ra*), which encodes negative habituals without any additional markers of negation (Tiss 2004: 194–195). In Purus, the form *(hi)ra-* is one of the auxiliaries: one that is used only with 10 stative verbs, among which is the verb *nowe* 'absent'. However, this auxiliary is not itself negative, even though *-ra* being part of the standard negation markers *-hara/-hera* is negative (and *-ra* by itself can encode standard negation in Envira). Furthermore, there is a verb *hira* 'empty' in Purus. In Section 4.2.1, which focuses on the synchronic and the diachronic status of this auxiliary, we argue that the Purus *(hi)ra-* is undergoing a polarity change in the context of the ten stative verbs: from negative to polarity-neutral.

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18.   An earlier source, Nies (1976: 20), which is a list of lexical items in (an unspecified variety of) Kulina, provides two forms for the entry 'no': *nuwɛrawa / pahirnaʔunani*.

Table 1. The analyses of negative forms and their functions for the three Kulina varieties

Construction	Purus variety (Dienst 2014, Dienst p.c.)	Juruá variety (Tiss 2004)	Envira variety (Monserrat & Silva 1986, Monserrat p.c.)
VERB-*hara/-hera* verb-NEG.M /-NEG.F	negation of verbal predicates	negation of verbal predicates	–
VERB-*ha-ra/-he-ra* verb-AUX.M-NEG / -AUX.F-NEG	–	–	negation of verbal predicates
NOUN *ha-hara/-hera* noun COP-NEG.M /-NEG.F (when subject=1/2nd person)	negation of nominal predicates (with subject=1st/2nd person)	negation of nominal predicates (with subject=1st/2nd person)	?
NOUN Ø-*hara/-hera* noun Ø-NEG.M /-NEG.F (when subject=3rd person)	negation of nominal predicates (with subject=3rd person)	negation of nominal predicates (with subject=3rd person)	negation of nominal predicates (with subject=3rd person)
VERB-*ra* verb-NEG	derivational negation	derivational negation	negation of verbal predicates (uncommon)
VERB_{NMZ} + ***hira-*** nominalized verb + COP.NEG	–	negative habitual	?
NOUN + ***hira-*** noun + COP.NEG /'empty'[19]	privative ('without N')	privative ('without N')	?
nowe + *hira-* 'absent'+ AUX (when subject=1st/2nd person)	non-identity	?	?
nowe + *ra-* 'absent'+ AUX (when subject=3rd person)	(a) negative existential; (b) negative pro-sentence 'no'	(a) ? (b) negative pro-sentence 'no'	(a) ? (b) negative pro-sentence 'no'
nowe 'absent'	negative pro-sentence 'no'	?	?

Second, all three Kulina varieties share the form *nowe*. In Juruá and Envira, it is always followed by the shortened form of *(hi)ra-* to encode a negative pro-sentence and, possibly but not certainly, negative existence. The fact that *nowe* in Purus can occur as a pro-sentence all by itself (i.e., without the shortened form of the auxiliary) indicates that in this use the form *nowe* itself is negative; again,

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19. Note the difference in the analysis and glossing of the form *hira-* for this function: Tiss (2004) treats it as a negative copula, whereas Dienst (p.c.) analyses it as a verb meaning 'empty'.

at least in Purus. The lexicon of Purus also contains the form *nowe* which is a dynamic verb 'to show' (Dienst 2014: *passim*, p.c). Speakers do not see any link between these forms (Dienst p.c.) and while this can be a case of homonymy, we argue that the negative existential (and the negative pro-sentence) originates in the semantically neutral verb 'show', which has undergone contamination by the originally negative element *(hi)ra-*.

Thus we suggest that the negative existential construction in the Purus variety of Kulina is characterized by a double negativity swap: (i) the auxiliary *(hi)ra-* is diachronically negative but synchronically polarity-neutral, and (ii) the stative verb *nowe* is diachronically neutral but synchronically negative. In Section 4 we propose a course of the development.

4.   Towards a reconstruction of negation marking

Our focus now lies on the Purus variety of Kulina, where, as we argue, a double negativity swap had taken place in a negation construction. Data from the other two varieties are used in support.

4.1   From existential negation to standard negation

As seen in Section 3.1, synchronically the standard negation forms in Purus (as well as in Juruá) are *-hara* 'NEG.M' and *-hera* 'NEG.F'. In the Envira variety, standard negation is reported to be encoded by the auxiliary *-ha* 'AUX.M'/*-he* 'AUX.F' plus the negative suffix *-ra* (Monserrat & Silva 1986: 43). We put forward the hypothesis that the Envira strategy is the ancestor of the Purus strategy. This essentially agrees with Dienst (2014: 83), who claimed that, for Purus, the standard negation markers *-hara* 'NEG.M'/*-hera* 'NEG.F' derive from a univerbation of the copula *ha* and the negative *-ra* (with the vowel /a/ of the copula *ha* raised to /e/ in the feminine gender, resulting in the form *-hera*). Tiss (2004: 193, fn. 101) mentioned the same hypothesis for the origin of the negation markers in Juruá but rejected it for the reason that the copula *ha,* which still exists, can itself take the negative suffix *-hara* 'NEG.M'/*-hera* 'NEG.F'. We second Dienst (2014: 83) in his view that the compatibility of the negation marker with the copula only indicates that the first syllable of the negation marker is not interpreted as a copula synchronically. As to the diachronic claim, it is strongly supported by cross-linguistic evidence, namely, by what is known as the "Negative Existential Cycle" (Croft 1991; Veselinova 2013, 2014). This says that an existential negator (which is often a copula or a verb meaning 'exist' fused with a negation marker) can become a marker dedicated to stan-

dard negation. A simplified schematic representation of the Negative Existential Cycle is given in Figure 1, in which the main stages 3 and 5 are preceded by stages in which the 'old' and 'new' negative markers coexist, but can be restricted to a particular context (Veselinova 2014). Note that the development in Figure 1 is more a "spiral" (Meillet 1912 [1921]) than a "cycle," since by the end of each turn, the forms do not overlap with the ones at the beginning (see also Van Gelderen 2011).
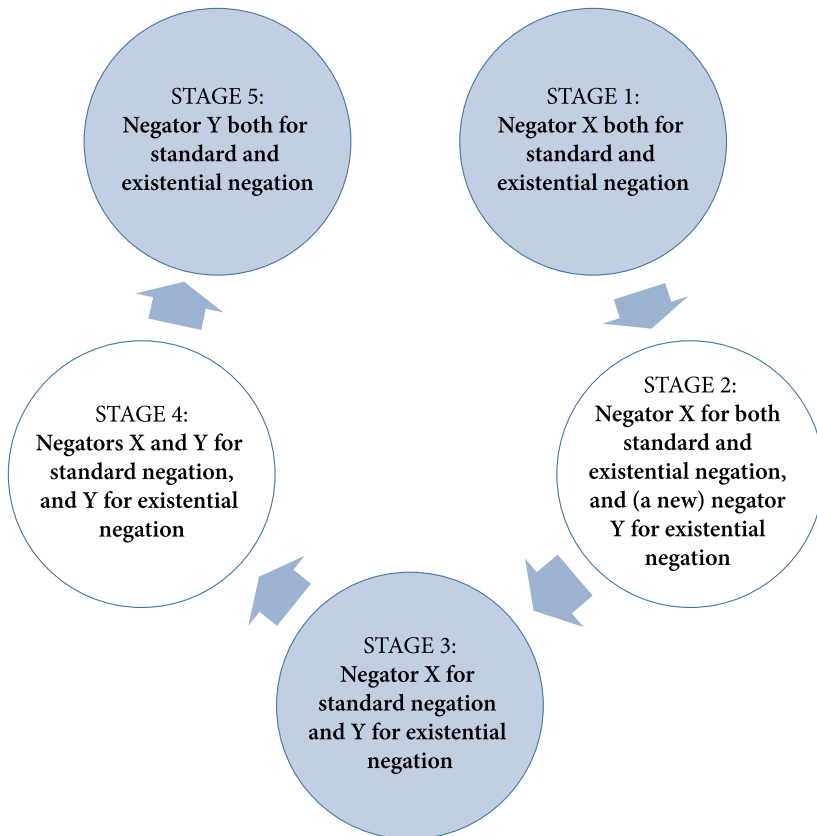

Figure 1. Negative Existential Cycle (based on Croft 1991 and Veselinova 2014)

In the Purus variety of Kulina, standard negation markers are synchronically different from the marker used for negative existence (-*hara* 'NEG.M'/-*hera* 'NEG.F' vs. *nowe (hi)ra-* 'be absent'). Given the widely attested diachronic path in Figure 1, it is most plausible that the current markers of standard negation -*hara*/-*hera* were negative existential markers in the past. Concretely, the following course of development can be suggested.

The "old" standard negation marker is presumably the suffix *-ra*. In contemporary Juruá and Purus only the derivational function of *-ra* remains (see 8–10 above). However, this negative suffix occurs in all Kulina varieties and has a cognate in the other languages of the Arawan family.[20] Thus, in Kulina, this negative suffix *-ra* would initially be used as negator on main verbs and would also be used as negator in existential clauses, which often involve either the verb 'exist' or the copula 'be'. This corresponds to Stage 1 in Figure 1. We can schematize the forms as [VERB-NEG1] and [EXIST-NEG1]. In Purus, the existential verb is the copula *ha,* and NEG1 is presumably the suffix *-ra*. It is often the case that in the course of time, the root of the existential verb fuses with the negative marker, producing a form that establishes itself as a negative existential marker (Croft 1991; Veselinova 2014). This development corresponds to Stages 2 and 3 in Figure 1. We can schematize it as [NOUN EXIST.NEG1]. In Purus, the new existential would be the form *hara* (as a basic form).[21] According to Croft (1991) and Veselinova (2014), this stage can be followed by one in which the dedicated negative existential marker starts to be employed in some contexts of standard negation, gradually expanding its applicability as standard negation marker (Stage 4 in Figure 1). We symbolize this as [VERB-EXIST.NEG1]. During the next period, the "older" standard negation coexists with the "new" standard negation. It is possible that we see the remnants of this development stage in the Envira variety, where the use of the (presumably) "older" standard negation marker *-ra* is still possible but uncommon, and the use of the forms *hara/hera* is preferred for standard negation (Monserrat & Silva 1986: 43). In a Negative Existential Cycle, the "newer" form ultimately replaces the "older" standard negator and becomes a dedicated marker of standard negation (Stage 5 in Figure 1). This can be schematized as [VERB-NEG2]. And this is what we argue to have taken place in Purus (and the Juruá) variety, where synchronically standard negation can only be expressed by *-hara* 'NEG.M'/*-hera* 'NEG.F'.

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20. In related Arawan languages we find forms that predominantly share the negative suffix *-ra*. Specifically, in Dení, the second closest language to Kulina, there are negative suffixes *-ra* and *-phira* (Koop 1977 [2008]: 18, 20, 25). In Jarawara and in the other languages of the Madi language cluster, standard negation is marked by the suffixes *-ra* 'NEG.F' / *-re* 'NEG.M' (Dixon 2004b, 1999: 301). In the more distantly related Paumari, we also find the negative verb suffix *-ri* /*-ra* (in addition to the negative proclitic *ni-*) (Chapman & Derbyshire 1991). In Arawá (extinct since about 1880), the negative suffix seems to be *-raha* (Dixon 1999: 301 referring to the list in Chandless (1869: 311)). The list of 50+ words in Chandless (1869: 311) contains the word *amozadi* 'good' and *amozaraha-di* 'bad', from which can be concluded that *-raha* encodes negation.

21. The reason to refer to "a basic form" is the following: as will be suggested in Section 4.2.1, it is very likely that the form *hara* used for encoding negative existence coexisted with its variant form *hera* for the feminine gender (i.e., with the vowel /a/ raised to /e/) and, importantly, coexisted with the form *hira* (with the vowel /a/ raised to /i/).

4.2   *nowe (hi)ra*: A new existential negation

When a negative existential marker has changed its function and has become a marker dedicated to standard negation, a new negative existential can develop to fill the void. In other words, the cycle could start a second round. This is where we propose the construction *nowe (hi)ra-* comes in. We argue that *nowe (hi)ra-* constitutes this 'new' negative existential filling the void after the 'old' negative existential *hara/hera* became a marker dedicated to standard negation. In Section 4.2.1, we first consider the synchronic status of the *(hi)ra-* auxiliary, then address its diachronic status, venturing a hypothesis on its development. In 4.2.2 we zoom in on the lexeme *nowe*. Again, we first examine its synchronic status and then propose its diachronic path.

4.2.1   *(hi)ra: From diachronically negative to synchronically neutral*

As explained already, the auxiliary form *(hi)ra-* is analyzed by Dienst (2014) as a neutral (non-negative) auxiliary synchronically. The argument is based on the way the form *(hi)ra-* is used in contemporary speech. *(hi)ra-* is one of three auxiliaries in Purus; the other two are the general auxiliary *na-* and the auxiliary/copula *ha-*. While *na-* and *ha-* are widely applicable, the use of the auxiliary *(hi)ra-* is limited to ten stative verbs (Dienst 2014: 148). All attested cases are given in (25).[22]

(25)   Attested stative verbs that take auxiliary *(hi)ra-*
     nowe (hi)ra- 'non-existent, absent'
     biri (hi)ra- 'big'
     mota (hi)ra- 'big; many'
     deke (hi)ra- 'tall'
     witha (hi)ra- 'long; tall'
     phawa (hi)ra- 'heavy'
     dako (hi)ra- 'hard; strong'
     maitha (hi)ra- 'old'
     phoko (hi)ra- 'hot'
     khanaha (hi)ra-/khanaha na- 'heavy'[23]   (Dienst 2014: 148)

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22. The majority of these verbs express adjectival concepts. Purus has a number of lexemes that can be distinguished from nouns and verbs on a language-internal basis and can thus be regarded as members of a separate adjective class (see Dienst 2014: 163). However, most property concepts that are associated with an adjective class (e.g. Dixon's (2004c) core and periphery semantic classes) are encoded by stative verbs. In Jurua no separate adjective class can be distinguished and all property concepts are encoded by stative verbs (Tiss 2004: 115).

23. The choice for auxiliary *(hi)ra-* or *na-* depends on the village.

As can be seen in (25), the stative verb *nowe* 'absent' is one of the ten verbs that occur with this auxiliary. In (26–27) two other stative verbs from this list are given to illustrate that the syntactic and morphological behavior of the auxiliary *(hi)ra-* is identical to the one with *nowe*. The auxiliary is realized in its full form only when the subject is first or second person or when the noun class prefix *ka-* is required; in all other cases the auxiliary has a shortened form *ra-*.

(26)   *ozabehe   mota kahirani*
       *ozabehe   **mota** Ø-ka-**hira**-ni*
       communal.house big   3-NCL-AUX-DECL.F
       'The communal house is big.'   (Dienst 2014: 149)

(27)   *pasho phoko rani*
       *pasho **phoko** Ø-**ra**-ni*
       water hot   3-AUX-DECL.F
       'The water is hot.'   (Dienst 2014: 149)

How can it be the case that the auxiliary *(hi)ra-* used with the ten stative verbs is polarity neutral, whereas *hira* and *ra* are negative elsewhere, both in Purus and Juruá? Dienst's answer is that it is "quite likely" (2014: 148) that the *(hi)ra-* of the ten stative verbs derives from a negative use. He supported this view with observations for the following three verbal roots: *phawa, dako* and *biri*. For each of these, Purus has an identical or a similar form, but with an antonymic meaning. The clearest case is the root *phawa*. It means 'heavy' when used with the auxiliary *(hi)ra-*, but it means 'light' when combined with the general auxiliary *na-* (Dienst 2014: 149). Then, the root *dako* means 'hard' in combination with *(hi)ra-*, and though there is no stative verb 'soft' which would occur with *na-*, there is an inflecting verb *dako* 'to be soft' (Dienst 2014: 150). The third case is the stative verb *biri (hi)ra-* 'big'. Dienst (2014: 150) argued it to be related to the adjectives *birihari/biriharo* 'small kind, lesser F/M'. In the present-day Purus, these adjectives occur only in names of biological species and plants, of which small and big kinds exist (Dienst 2014: 168). Since the adjective forms comprise the gender markers *-hari* 'M' and *-haro* 'F', one can identify the root, i.e., *biri* 'small, lesser', although it does not occur as a free form now. There is also a fourth root for which Dienst (2014) proposes a near-antonym. The stative verb *witha (hi)ra-* means 'tall', and there is a suppletive verb *witha* that means 'sit': for when a person sits, he is shorter than when he does not sit (Dienst 2014: 150). There are yet two other roots for which Dienst found constructions both with and without *(hi)ra-*, but these are not antonyms. The first is *phoko*. As a stative verb with *(hi)ra-* it means 'hot', but the root *phoko* is also attested as an inflecting verb (i.e., without any auxiliary), and then it means 'warm' and only with respect to

soup (Dienst 2014:149).[24] 'Warm' and 'hot' are not antonyms. The second one is *khanaha* 'heavy'. In some villages *khanaha* occurs with the general auxiliary *na-* and in others it occurs with *(hi)ra-*, with no difference in meaning (Dienst 2014:149–150). *Khanaha (hi)ra-* 'heavy' is the newcomer, which emerged on the analogy to *phawa (hi)ra-* 'heavy' when the auxiliary *(hi)ra-* was no longer perceived as negative by speakers (Dienst 2014:150, Dienst p.c.). For the remaining four stative verbs Dienst does not find a use of a cognate without *(hi)ra-*.

So much for Dienst's hypothesis. In our view, he is basically right, but there is room for nuance. We claim that the system with the 10 stative verbs with *(hi)ra-* is a system in flux. At the one end, there is *phawa*. With its meaning 'light' with the general auxiliary *-na* and its meaning 'heavy' with *(hi)ra-*, the most straightforward analysis is that *(hi)ra-* is negative, not just diachronically but synchronically, and also in compositional way. At the other end is *khanaha*, which occurs with both *na-* and *(hi)ra-*, depending on the village, but in both cases it means 'heavy'. That *khanaha (hi)ra-* 'heavy' is the innovative construction makes sense given that the auxiliary *(hi)ra-* is no longer negative. The other constructions, for which Dienst (2014) reported a use without *(hi)ra-*, are in between: either there is no strict antonymic relation (namely, *phoko* 'hot' or 'warm', and *witha* 'tall' or 'sit') and/or there is no straightforward compositionality (the root *biri* related to a root of an adjective meaning 'small kind'). And for the remaining constructions there is, similarly, no antonymic relation; but this time because cognates do not seem to exist.

The above account does not solve all problems. We go along with Dienst's (2014:148) hypothesis that Purus *(hi)ra-* stems from the copula *ha* and the negative *-ra* (which is also the origin of the negative *hira-* in Juruá, see Tiss 2004:194). But the Purus standard negation markers *-hara/-hera* are similarly taken to stem from the copula *ha* fused with the negative *-ra* (Dienst 2014:83). To recall, the negative suffix *-ra* triggers the raising of the vowel /a/ in a syllable that precedes this suffix from /a/ to either /e/ or /i/. Thus, the vowel /a/ in the copula *ha* can produce both /he-ra/ and /hi-ra/, when used with the suffix *-ra*, and the unraised form /ha-ra/ also still exists. This is puzzling, and Dienst (2014) does not help us in this respect. Here is what we speculate.

First of all, the forms *-hara* 'NEG.M'/*-hera* 'NEG.F' are variants used for one function synchronically. We are not in the position to offer an account on the development of the form *hera* for the feminine gender, but this differentiation is not relevant to us anyway. What is relevant is the emergence of the functional dichotomy *hara* (or *hera*) vs. *hira*. We can assume that *hara* is the 'primary' form, while the form *hira* is a derivative. Presumably, during the period when the form

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24. The root *phoko* is also attested with a general auxiliary *na-* meaning 'warm', but this use is recorded only among the Juruá speakers, never among Purus speakers.

hara (or *hera*) functions as a negative existence marker (see Section 4.1), a phonologically different form *hira* emerges. The form *hara* (or *hera*) would push further in the Negative Existential Cycle (Figure 1), gradually establishing itself as standard negation marker. The form *hira* would stay behind and acquire a different functional load. The sketched development accords with the principle of 'divergence' (Hopper 1991: 22; Hopper & Traugott 1993 [2003]: 118–122), also known as 'split' (Heine & Reh 1984: 57–59): in a process of grammaticalization, one initial form can acquire two distinct functions, with or without an allomorphic change for one of the functions. The Swedish preposition *hos* 'at, with' is a case in point: it derives from the noun *hus* 'house' with a phonological change of the long /u:/ to /o/ in unstressed position (Wessén 1968: 85 in Norde 1999: 43). But the form *hus* also exists, and the two forms function differently: *hus* still means 'house' and *hos* only means 'at, with' (Norde 1999, 2000). It is this kind of divergence or split that we propose for Kulina. For Juruá, the case is clearest: next to the standard negator *-hara/-hera*, there is also a functionally different but still negative form *hira* (called "negative copula" by Tiss 2004), which is used to encode negative habituals. For Purus, the case is less clear, but more interesting. Next to the standard negator *-hara/-hera* there is now an auxiliary *(hi)ra-*. We claim that it originally diverged with a special negative meaning, that it then diverged even further and is now losing its negative sense in contemporary Purus. Divergence is probably also needed to explain the relation to the verb 'empty, bad, non-functioning', which exists in Purus and Juruá, as well as in the closely related languages Deni and the Western Jamamadi.

4.2.2 *nowe: From diachronically neutral to synchronically negative*

Let us now turn to *nowe* 'absent'. It is one of four stative verbs for which neither Dienst (2014) – nor anyone else – reported a possible cognate, but we now propose one, with hindsight support of Dienst (p.c.). There is a non-inflecting dynamic verb that means 'show'. (Dienst 2014, *passim*), illustrated in (28).

(28) *ethe bedi   tiaza   nowe onana*
       ethe bedi   tia=za **nowe** *o-**na**-na*
       dog small 2=IO   show 1SG-AUX-IFUT
       'I'm going to show you a puppy.'   (Dienst 2014: 227)

The lexeme *nowe* 'show' is not restricted to the lexicon of Purus: the verb **noke* 'show' is listed in Dixon (2004a: 65) among the Proto-Arawan forms, with the cognates *noki* in Paumarí and *nowe* in Kulina, with the occurred change of [k > w] in the latter. Synchronically, this verb takes the general auxiliary *na-*, and just like any other verb it takes the standard negation marker *-hara/-hera* when a proposition is negated (29).

(29) *owaza   nowe inaharade*
      *owa=za nowe i-na-**hara**-de*
      1SG=IO show 3-AUX-NEG.M-PST
      'He didn't show it to me.'   (Boyer & Boyer p.c.)

Speakers do not associate *nowe* 'absent' and *nowe* 'show' with each other, just like, we propose, speakers of French do not relate the element *pas* in the French negator *ne … pas* to the noun meaning 'step'. But there is a near-antonym relation in the sense that when something is not shown or not on show, it is, in a sense, absent. So there is near-antonymy in diachrony, but not in synchrony.

     That the stative verb *nowe* is synchronically negative is also at harmony with the fact that in its pro-sentential use, the shortened form of *(hi)ra-* can be absent; see (24) repeated as (30).[25]

(30) *nowe   (rai)*
      nowe   *(Ø-**ra**-i)*
      not.exist 3-AUX-DECL.M
      'No'/'There is none.'   (Dienst 2014: 236, Dienst p.c.; Boyer & Boyer p.c.)

How did this change happen? The scenario that we argue for involves contamination. Specifically, we suggest that the lexical verb *nowe* 'show' was contaminated by *(hi)ra-* during the period when it was still, in combination with *nowe*, a negative element. The meaning 'absent' would develop from the frequent use of the verb in this specialized context of negation, so that 'non-visibility' or 'absence' would in time become part of its meaning. Thus, the semantics of *nowe* would shift from neutral 'show' to negative 'non-existent/absent' without any specialized (negative) morphology added.

     The development we propose for *nowe* can easily be placed in a broader typological context. Contamination is a driving force behind the "Jespersen Cycle" (van der Auwera 2009), and it has been attested in different families across the globe (van der Auwera 2009; Vossen 2016). French is a textbook example, showing that a negation marker can descend from an originally neutral lexical item, in this case, a noun *pas* 'step, pace' (Jespersen 1917; Meillet 1912 [1921]; Price 1962). The

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25. As a reviewer points out, the mere fact that *(hi)ra-* can be absent in the pro-sentential uses does not itself imply that *nowe* is negative when *(hi)ra-* is present. French offers two parallels. First, in pro-sentential *pas du tout* 'not at all', *pas* can be omitted, investing *du tout*, literally 'at all' with the negative meaning 'not at all'. In full sentences, however, *pas* is obligatory and *du tout* just means 'at all'. Second, in colloquial French there are a few short prohibitives that can drop both *ne* and *pas* and still be negative. Thus *t'inquiète* means 'do not worry' just like the construction with *ne … pas*. (The opposite also occurs: some languages have conventionalized prohibitives as imperatives; see Devos & Van Olmen 2013: 47–48).

word *pas* 'step, pace' was possibly first used with motion verbs[26] as emphasizer of the preverbal negator *ne*, yielding a meaning like 'I will not come even a step'. In the course of time, *pas* 'step, pace' started to lose its emphatic effect, broadened its applicability to all lexical verbs, and began to partake in marking the negative meaning as such. As a result, present-day standard French normally encodes standard negation through a double *ne … pas* marking that embraces the finite verb.[27] Furthermore, in colloquial present-day French, *pas* can be the sole exponent of negation, confirming that *pas* has already become a negative element. The source noun *pas* remains in French in its original meaning, living on in parallel with the negator *pas,* and illustrating, here too, divergence or split.

Note that the proposed similarity between Kulina doubling and the French textbook case of Jespersen doubling should not be exaggerated. In French, the development of *pas* cannot be understood without taking into consideration a negative concord system that involves indefinites, e.g., with *ne … rien* 'nothing', literally 'not … nothing', with *rien* deriving from a noun meaning 'thing'. However, as argued in a cross-linguistic study by van der Auwera & Van Alsenoy (2014), Jespersenian doubling, i.e., double clausal negation, and negative concord are only weakly connected: most languages that have double clausal negation do not or did not have negative concord. Kulina – and the majority of the languages of South America (van der Auwera & Van Alsenoy 2016: 484) – illustrates this: there is no negative concord (Dienst p.c.) or any indication that it ever had it. To make a statement about nobody, Kulina speakers resort to a combination of a negative marker and either a universal quantifier (Dienst 2014: 198), as in (9), or a general noun like 'people' (Dienst p.c.). Another difference is that the onset of the French Jespersen Cycle involves pragmatics (emphasis). But this is not the case for Kulina, nor should it be the case, for a Jespersen Cycle comes in sufficiently different versions to warrant pluralizing the term into 'Jespersen Cycles' (van der Auwera 2009). But there is still a similarity between French *ne … pas* and *nowe … (hi)ra-*:

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26. This hypothesized motion verb context is not attested, however, and, as one reviewer points out, perhaps the earliest uses need not have been particularly harmonious with predicates; cf. the discussion of 'squatitive' negation, as in *He … discovered writing didn't pay squat* (Horn 2001).

27. Terms like 'double negation' are also used for the co-occurrence of negation markers in which one cancels the other (as when *I did not not come* means *I did come*). In this paper 'double negation' refers to a single clausal semantic negation that is expressed by two (arguably) clausal negative markers, as with French *ne … pas*. It is true that one can question whether the old negator *ne* in *ne … pas* is still truly negative instead of negatively polar – a question that Jespersen (1917: 75) had already raised, but at least there is no sense in which the new marker cancels the old one. Neither do we use the term 'double negation' for the doubling involving at least one indefinite (as in *You ain't seen nothing yet*). For this kind of doubling we use the term 'negative concord' (Jespersen 1922: 352).

in both cases a single semantic negation has two exponents, which developed from the contamination of an item that was originally not negative by the older negator.

The proposed course of development for Purus is schematized in Table 2. Note, however, that this is a very simplified representation of the basic stages. During Stage 1, contamination of the neutral lexical verb *nowe* 'show' by the then-negative *hira* takes place. During Stage 2 the construction consists of two negative elements. This is the doubling stage of a classical Jespersen Cycle. However, different from the previously known cases, in Kulina the doubling of two negative elements takes place in a negative existential construction. During Stage 3, we observe the semantic bleaching of the originally negative element *(hi)ra-*.

Table 2. Proposed course of development for the negative existential construction *nowe hira*

Stages	Negative existential strategy
1	$nowe_{\text{[show]}}\ hira_{\text{[neg]}}$
2	$nowe_{\text{[non-visible]}}\ hira_{\text{[neg]}}$
3	$nowe_{\text{[non-visible/not-exist]}}\ hira_{\text{[neut]}}$

The development continues in Purus: synchronically, the construction *nowe (hi)ra-* 'not exist' functions as a negative pro-sentence. As noted earlier (see (24)), the auxiliary *(hi)ra-* is often dropped, resulting in the lexeme *nowe* used by itself to express 'no' (Dienst p.c.; Boyer & Boyer p.c.). This is not surprising, given that the lexeme *nowe* is perceived as a negative item and that the auxiliary *(hi)ra-* does not carry any additional semantics.[28] Thus, we can add a fourth stage in Table 3, showing an expansion of function of the *nowe (hi)ra-* construction.

Table 3. Proposed course of development for the negative pro-sentence *nowe ((hi)ra-)*

Stages	Function: Negative existential
1	$nowe_{\text{[show]}}\ hira_{\text{[neg]}}$
2	$nowe_{\text{[non-visible]}}\ hira_{\text{[neg]}}$
3	$nowe_{\text{[non-visible/not-exist]}}\ hira_{\text{[neut]}}$
	Function: Negative pro-sentence
4	$nowe_{\text{[non-visible/not-exist]}}\ (hira_{\text{[neut]}})$

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28. This morphological reduction in Purus may suggest that this Kulina variety is more innovative in this respect compared to the other two varieties, where no reduction in the similar forms of the negative pro-sentence is observed.

Negative pro-sentences typically develop from negative existentials (Croft 1991: 8; Veselinova 2013: 127, 139; Veselinova 2014). Nevertheless, Kulina presents a typologically unusual case due to the origin of its negative pro-sentence (as discussed in Section 5).

4.3   An open issue

There is one issue that remains open. The construction *nowe ra-* serves as the negative pro-sentence in all three Kulina varieties. Based on the available information, we cannot conclude with confidence that the same *nowe ra-* is (or was) employed to encode negative existentials in Juruá and Envira. This creates a certain gap in the diachronic picture for these two varieties. Thus, the question arises as to how Juruá and Envira have acquired *nowe ra-* as the negative pro-sentence. We can mention two possible routes, with the first one being more likely.

It is possible that *nowe ra-* does (or did) function as a negative existential in Juruá and Envira, too. The indication that we have for this is the fact that *nowe ra-* can take aspectual markers (*-ni* 'IMPF.F' or *-wi/-i* 'IMPF.M'; see examples 16–17 and 20) and, as such, it behaves as a predicate. In that case, the use of *nowe ra-* as negative pro-sentence in Juruá and Envira could be taken to be an expected diachronic development. If *nowe ra-* were employed as a negative existential in all Kulina varieties, we would be able to argue that the development discussed earlier had taken place at an earlier stage of Kulina, before the language split into dialects.

An alternative path for *nowe ra-* ending up as negative pro-sentence in Juruá and Envira is that the construction had been borrowed from Purus. Many South American indigenous languages lack specialized negative pro-sentences and use a strategy of echoing the main lexical verb plus a regular negative marker (see also Floyd 2016). For example, in the Nambiquaran language Sabanê, the grammatical answer to the question in (31a) would be the clause in (31b). The answer (31c) would be ungrammatical (Antunes de Araujo 2004: 136).

(31)   a.   *isun-i-al-a*
            be.angry-VS-PRES.NEUT-INTER
            'Is s/he angry?'
       b.   *isun-i-mina-al-i*
            be.angry-VS-NEG-PRES.NEUT-DECL
            'S/he is not angry.'
       c.   **Mina.*
            'No.'   (Antunes de Araujo 2004: 136)

Similarly, the Arawan languages of the Madi-cluster (Jarawara, Jamamadí, and Banawá) are argued not to have any interjections for 'no' as such; a negative pro-sentence is expressed through a negated main lexical verb (Dixon 1999: 301).

Besides, according to Dixon (2004a: 17–18), a certain degree of borrowing is likely to have taken place from one Arawan language to another. Although there is no mention of forms or constructions related to negation among the possible loans, it is not excluded that the Juruá and Envira varieties of Kulina did not develop a negative pro-sentence *nowe ra-*, but borrowed it from Purus.

In general, no other language of the Arawan language family has the construction *nowe (ra-)* as negative pro-sentence. From this we can assume that this is an innovation, at least, in the Purus variety of Kulina.

5.   Typological and diachronic relevance

Kulina negation confronts typology and historical linguistics with an unusual situation. First, negative pro-sentences, as well as negative existentials (as a source of negative pro-sentences) can generally be traced back to two sources: either to a reanalysis of a lexical item with a negative content (such as 'lack,' 'not have,' 'absent,' 'there is not,' 'empty,' 'dead') or to a univerbation of a standard negation marker and a verb of existence, like a 'be' verb (Croft 1991; Veselinova 2013: 137, Veselinova 2014).[29] In about 30% of the cases studied in a worldwide sample by Veselinova (2013), the source of the negative existential is unknown (Veselinova 2013: 137); and consequently, we miss out on information for possible sources of negative pro-sentences. In Kulina, as we have discussed, the neutral lexical verb *nowe* 'show' is the likely source of the negative pro-sentence, which underwent contamination by an originally negative element. Importantly, the change in polarity of the lexeme *nowe* did not involve any additional (negative) morphology. This sets it apart from the common development of negative existentials from univerbations. The development of *nowe* is also different from the scenario of reanalysis involving lexical items with a negative content, since *nowe* did not have a negative content originally.

Second, a contamination (namely, a polarity change with no change in morphology) has been mainly observed in standard negation constructions, less so in prohibitives (see van der Auwera 2009: 63–64 for the case of the Austronesian language Lewo). We are not aware of a contamination process in the domain of existential negation.

Third, a double change in polarity is observed within one construction: on the one hand, a reanalysis of a neutral lexical item ('show') into a negative item

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29. Givón (1978: 89) gives grammaticalization of negative verbs, such as 'refuse,' 'deny,' 'reject,' 'avoid,' 'fail' and 'lack,' as another possible source for negative markers. At any rate, all these cases involve a source element that is semantically negative from the start.

('absent'/'non-existent'), and, on the other hand, a semantic bleaching of an originally negative element into a non-negative auxiliary. So far, we do not know of cases of a similar negativity swap. It remains to be seen whether this is a *rarum* or *rarissimum* or, simply, a phenomenon that has remained under the radar so far.

6.   Conclusion

In this study, we reconstructed the development of the negative existential construction and the negative pro-sentence in the Arawan language Kulina. We based our study on synchronic data from three Kulina varieties: Purus, Juruá and Envira. The variation in negation observed was given a diachronic interpretation.

At the level of Kulina, we concluded that the Purus variety appears as the most innovative one in the domain of negation. First of all, in Purus there are indications that a swap in polarity has taken place in the negative existential construction (viz. the originally neutral lexeme turning negative and the originally negative element bleaching into a non-negative one). Second, the negative pro-sentence, which developed from the negative existential construction, already has a morphologically reduced form in Purus, which is not (yet?) found in the other two varieties.

More generally, we can conclude that the present case-study has a strong relevance for typologists and historical linguists dealing with negation: neither the source (lexical verb 'show') nor the developmental path of the negative pro-sentence that is observed for Kulina has yet been documented in the literature on negation.

Acknowledgements

Abbreviations

1	1st person	NCL	noun class marker
2	2nd person	NEG	negative
3	3rd person	NEUT	neutral
AUX	auxiliary	NFIN	non-finite
COP	copula	NMZ	nominalization
DECL	declarative	OBJ	object
F	feminine	PL	plural
HPST	hodiernal past	POSS	possessive
IFUT	immediate future	PRES	present
IO	indirect object	PST	past
IMPF	imperfective	SG	singular
INTER	interrogative	TC	temporal-causal
LOC	locative	TOP	topic
M	masculine	VS	verbal suffix
NAR	narrative		

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