The mass/count distinction in Nadëb

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ABSTRACT: Languages differ with respect to if and how they categorize their nouns based on specific lexical or grammatical criteria. A well-studied example is the mass/count distinction, which groups nouns according to their ability to be counted or measured. Cross-linguistic comparison on this noun-categorization system provided evidence that the mass/count distinction is not a reflection of pre-linguistic perceptions, rather it is a language internal grammatical distinction showing how countability and measurability can be grammatically encoded on different nouns. This work focuses on how the mass/count distinction surfaces in the grammar of Nadëb (Naduhup family; ISO 639-3: mbj) – an endangered and under-described indigenous language of Northwest Amazonia (Brazil). Results from Lima and Rothstein’s (2020) “The count/mass distinction questionnaire” show that the ability (or inability) to be syntactically juxtaposed with a numeral expression is one of the cut-off points for the division of mass and count nouns in Nadëb. Moreover, I show that mass and count nouns combine with distinct sets of quantifiers and that the possibility of having a (semi-)suppletive plural form can also be considered a possible strategy in the assignment of Nadëb nouns to the count noun category.

KEYWORDS: Mass-count distinction; Noun categorization; Nominal number; Naduhup family

Introduction

It is a well-known fact that the grammatical strategies for counting distinct entities vary across languages; i.e., nouns denoting objects such as chairs, cars and cups are frequently counted using different grammatical resources than nouns denoting substances such as mud, blood and sand. The object nouns from the previous sentence could all be combined with a numeral (e.g. five chairs; six cars and ten cups) and can also be morphologically marked for number, yet these same strategies would produce ungrammatical utterances for the substance denoting nouns (e.g. *five muds; *five bloods and *ten sands), at least in English. This compatibility or incompatibility of nouns and numerals has been described in the literature as the cut-off point for a language distinguishing mass nouns and count nouns (Chierchia 2015).
Rothstein (2017: 4) argues that mass nouns denote measurable entities that are usually not countable, while count nouns refer to individuals that can be counted.\footnote{Recent research on Non-Indo-European languages such as Yudja (Tupi family) (see Lima 2014) provides evidence that both mass and count-nouns in that language can be combined with numerals without the need of a classifier or a measure phrase element.} This compatibility has often been related to number marking strategies, indicating that mass nouns are less prone to be marked for plural than count nouns. Based on these assumptions, Chierchia (2010) establishes a three-way typology of how languages can encode the mass/count distinction: classifier languages; number marking languages; and number neutral languages, with each type encoding this distinction differently in their grammars. Classifier languages (e.g., Mandarin) do not exhibit obligatory number marking, and distinguish mass nouns from count nouns through a distinct set of numeral classifiers. In number marking languages (e.g., English), the mass/count distinction is apparent through the distribution of singular and plural morphemes on nouns. In nominal number neutral languages, as Chierchia (ibid.) describes them, the mass/count distinction appears at the level of the distribution of numerals.

Applying this typology to data from Nadêb\footnote{My heartfelt thanks go to the Nadêb community of Roçado. I also gratefully acknowledge the National Endowment for the Humanities (PD-266994-19) for current funding and the Department of UT Austin for hosting me. I am also especially grateful to my colleagues and friends their comments on this work: Pattie Epps, Kelsey Neely and the South-Americanist group at UT Austin. And finally, thanks to the editors of this volume and for the thoughtful feedback of the reviewers.} (Naduhup family; ISO: mbj), a still under-described indigenous language spoken in Northwest Amazonia (Brazil), we will see that this language encodes the mass/count distinction in different parts of its grammar, showing properties of both a number marking language and a number neutral language. In this work, I will show that the mass/count distinction in Nadêb primarily surfaces in the direct syntactic juxtaposition of nouns and numerals, with count nouns combining directly with a numeral and mass nouns requiring a measure phrase to be quantified, indicating that Nadêb is number neutral language. However, Nadêb has a small set of nouns with (semi)-suppletive plural forms and exhibits sensibility to the mass/count distinction on determiners and quantifiers – characteristics described for number marking languages. Furthermore, observations on the mass/count distinction contribute intriguing facts to the description of Nadêb grammar, which deviates from the grammar of its sister languages (Dâw, Hup and Yuhup). Some examples of these interesting features include: the presence of a numeral system that goes beyond ‘twenty’; the absence of a dedicated morphological marker for plural number on nouns, and the fact that number marking is only marginally registered on nouns but is richly evident in verbal constructions relating both nominal number, participant number, and event number, with complex interactions among these.

In what follows, I will present original field data based on Lima and Rothstein’s (2020) “The count/mass distinction questionnaire” collected with Nadêb speakers from the Roçado community (Terra Indígena Uneixi) during November 2019 through January 2020. I will first introduce the Nadêb people and provide a brief overview of Nadêb grammar. Section 2 introduces the numeral system in Nadêb, followed by Section 3, which discusses the combinatorial possibilities of these numerals and the distinct semantic classes of nouns proposed in Lima and Rothstein’s (2020) questionnaire. Section 4 focuses on nominal number marking strategies in Nadêb and addresses questions of verbal number as a mechanism for expressing nominal number in this language. Finally, in Section 5, I show how modifiers such as quantifiers and other determiners can partially indicate the membership of nouns to mass or count noun class in Nadêb.
1. Nadëb and its speakers

Nadëb is a member of the small Naduhup family of the northwest Brazilian Amazon (formerly classified as Makú; see Epps & Bolaños 2017), and is spoken between the middle Rio Negro and Japurá Rivers (see Map 1). Most of the approximately 600 speakers of Nadëb currently live along the Uneiuxi River and in the Paraná Boá-Boá region; this region forms one principal dialect area, with only minor phonological and lexical differences identified between the Uneiuxi and Boá-Boá varieties. A more profound dialectal division exists between these groups and the Nadëb of the Téa river to the west, but the speakers of the Téa dialect have all moved to riverine communities along the Rio Negro or joined the Uneiuxi/Boá-Boá communities.

Nadëb and its three sister languages (Hup, Yuhup, and Dâw) are spoken within the Upper and Middle Rio Negro region, that is considered a region of striking linguistic diversity with small-scale multilingualism, yet overall language maintenance with some contact-driven changes. According to Nimuendajú (1955), it is likely that the Naduhup family represents the earliest layer of the contemporary inhabitants that have traditionally occupied the interfluvial zones between major rivers and have maintained a hunting and gathering orientation in the region. Based on the current understanding of innovations in phonology, morphology, and lexicon, Nadëb appears to be the most divergent sister language within the Naduhup family (see Epps 2008; Epps & Bolaños 2017). One possible reason for this is the intense contact of Hup and Yuhup with Tukanoan languages in particular, while there is strong evidence for Arawakan influence on the Nadëb lexicon and grammar, such as the verbal person-marking prefixes (see Epps & Bolaños 2017; Epps & Obert forthcoming a)).

Nadëb displays some typologically interesting features both from an areal and a theoretical point of view. Of particular interest is Nadëb’s preference for OAV constituent order, considered the default pattern for declarative clauses in the language (see Weir 1984), which is identified by Dryer’s (2013) survey of constituent order as being highly unusual cross-linguistically. Furthermore, Nadëb is unusual among Naduhupan languages in that it is predominantly prefixing, with only marginal suffixation. An alternation between person marking prefixes and free pronouns encodes an ergative-absolutive morphological alignment system, differing from the other Naduhupan languages, which all exhibit nominative-accusative alignment.

Map 1. Nadëb territory and Nadëb communities (blue shaded area)3

3 This map is a courtesy from the Instituto Socioambiental, São Paulo Brazil.
One grammatical characteristic of Nadëb that is central to this discussion is the absence of dedicated morphology for indicating nominal number, with the exception of a very small group of nouns that show semi-suppletive singular/plural allomorphy (see section 3). These allomorphs can differ phonologically by vocalic laryngealization, vowel length, by voicing of the final consonant; or they can be suppletive as shown in Table 1.

Table 1. Nadëb suppletive plural forms for count nouns

<table>
<thead>
<tr>
<th>Gloss</th>
<th>SG</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>man</td>
<td>aj’yy</td>
<td>ajyy</td>
</tr>
<tr>
<td>woman</td>
<td>ŋnh</td>
<td>ŋňnh</td>
</tr>
<tr>
<td>offspring</td>
<td>t’ah</td>
<td>taah</td>
</tr>
<tr>
<td>child</td>
<td>karapee</td>
<td>karepé</td>
</tr>
<tr>
<td>tree</td>
<td>baah</td>
<td>b’ah</td>
</tr>
<tr>
<td>day</td>
<td>adēb</td>
<td>ñńa</td>
</tr>
</tbody>
</table>

However, the number distinction in Nadëb is richly evident in verbal morphology, with most Nadëb verbs having (semi-)suppletive variants that agree with the S or O argument and/or participant number and event number. Further verbal categories in Nadëb are primarily indicated through free post-verbal formatives indicating tense and aspect and are probably best understood as a result of earlier processes of root serialization.

The Nadëb noun phrase mirrors the language’s head final preference providing a template in which nominal modifiers precede the head noun as exemplified in (1) for demonstratives; in (2) for possessive pronouns; and in (3) for numerals.4

(1) hā ŋňḥ moowūt tii ŋňnh
ARG 1SG.NSUBJ work DEM.PROX5 woman
‘To me, this woman is a worker (this woman works (a lot)).’

(2) 3SG-ADV-go.down.to.port 3SG.NSUBJ-brother DFT.A-go.down.to.port at.water
‘His brother went down to the river.’

(3) tsém hē Watom ba-hapāh tamawoob hē depaa
yesterday ADVZ Watom ADV-see NMRL:3 ADVZ paca
‘Yesterday, Watom saw three pacas.’

4 All examples in this work are written in the practical orthography showing the following phoneme-grapheme correspondences in Nadëb: /p/ <p>; /b/ <b>; /t/ <t>; /k/ <k>; /ŋ/ <ŋ>; /sh/ <ś>; /ʃ/ <s>; /h/ <h>; /m/ <m>; /n/ <n>; /ŋ/ <nh>; /ŋ/ <ng>; /w/ <w>; /j/ <j> and for vowels: /i/ <i>; /ɨ/ <y>; /u/ <u>; /e/ <e>; /ɛ/ <é>; /ǝ/ <ë>; /ɔ/ <ó>; /a/ <a>.

5 Abbreviations used in this work: 1, first person; 2, second person; 3 third person; ADV, adverbial prefix; ADVZ, adverbializer; ANPH, anaphoric pronoun; ARG, argument marker; APPL., applicative; CAUS, causative; CL, classifier; COMPL., completable aspect; DEM:PROX, proximate demonstrative; DFT: A, default verbal prefix a-; DFT: E, default verbal prefix e-; DIM, diminutive; DIST, distributive; EXCL, exclusive; INDF, indefinite pronoun; INCL, inclusive; INSTR, instrumental; INTJ, interjection; LOC, generic locative marker; LOC/TEMP, locative/temporal marker; NMRL, numeral term; NSUBJ, non-subject person marker; SG, singular; PL, plural; PST, past; PFV, perfective aspect; PURP, purpose; REL, relativizer; UNIV:QUANT, universal quantifier; VERB:QNT, verbal quantifier.
Numeral terms and quantifiers in Nadëb do not necessarily have to be juxtaposed with the noun they modify and can be discontinuous from the rest of the noun phrase. In cases where the quantified NP appears as an O argument, for example, the numeral term occurs clause-initially followed by the A argument and verb, mirroring Nadëb’s basic constituent order (OAV see Epps et al. 2021), while the modified noun is likely appositional as exemplified in (4).

(4) **pewóp hê Karol a-wong bêeh ta saroor paah**

 NMRL2  ADVZ  Karol  DFT.A-throw.away  COMPL.PL  3SG.NSUBJ  clothes  PST

‘Karol throws two (pieces) of her old clothes away.’

The ordering of distinct modifiers in a continuous Nadëb noun phrase appears to be fairly rigid, showing the following order as the most common one NP: (DEM-NMRL-POSS) N. Note that in both continuous and discontinuous NPs, the numeral term always precedes the noun it modifies (compare examples (3) and (4)). However, NPs possessed by a first-person singular possessor the possessive pronoun follows the noun (N POSS) as exemplified in (5).

(5) **waa jỹỹ jỹ a-wa bã maj’iĩ sa-mahang**

 food 1SG.NSUBJ 1SG DFT.A-eat  LOC/TEMP  enemy.PL  3PL.NSUBJ-among

‘I will eat my food [here] among my enemies.’

2. Nadëb numerals

The numeral system of Nadëb has previously been described by Weir (1984: 103-104) as very simple, exhibiting only three lexical terms which could be considered numerals: sêt ‘one’, pewóp ‘two’, and tamawób~tamewób ‘three’. Weir describes numerical values above ‘three’ as being expressed by quantifiers such as sedó ‘many/much’ or sahõnh ‘all’. Our recent fieldwork has also identified morphologically decomposable forms for the numerals ‘four’ through ‘twenty’, which are listed in Table 2. Some elders even provided terms up to ‘sixty’, using a productive strategy based on a base-five system for numerals above ‘twenty’. Numeral terms from ‘one’ to ‘three’ are commonly followed by the adverbial marker hê, which frequently follows adverbial expressions in Nadëb. However, speakers sometimes omit the adverbial marker, and, at the time of this writing, it remains unclear under which circumstances the adverbializer may be omitted.

Ordinal numbers in Nadëb seem to be restricted to the terms pooj ‘first’ and tasee ‘other’ or ‘next’. The term pooj is probably related to the temporal adverb pooj ub ‘in the old days’ (ub functions as and adverbial intensifier), which speakers use in order to refer the mythological past, i.e. a time that came first before the Nadëb people’s existence.

<table>
<thead>
<tr>
<th>Numeral</th>
<th>Form/Morphological composition</th>
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<tbody>
<tr>
<td>1</td>
<td>sêt (hê)</td>
</tr>
<tr>
<td>2</td>
<td>pewóp (hê)</td>
</tr>
<tr>
<td>3</td>
<td>tamawób/tamewób (hê)</td>
</tr>
<tr>
<td>4</td>
<td>ji me-heet péh</td>
</tr>
<tr>
<td></td>
<td>INDF with-point type.of</td>
</tr>
<tr>
<td></td>
<td>‘index finger’</td>
</tr>
<tr>
<td>5</td>
<td>ji ma poo oow péh</td>
</tr>
<tr>
<td></td>
<td>INDF INSTR nose? thumb type.of</td>
</tr>
<tr>
<td></td>
<td>‘thumb’</td>
</tr>
</tbody>
</table>
Epps (2006: 264) suggests that the terms for ‘two’ and ‘three’ among the other three Naduhup languages can be understood as retentions of metaphoric phrases from a common ancestor, i.e. the terms for ‘two’ correspond to ‘eye quantity’ while the terms for ‘three’ seem
to related to the three-lobed seed of a rubber tree. Weir (1984: 105) suggests that the Nadëb term sét ‘one’ is derived from the term for ‘unity’ or ‘together’. The Nadëb terms pewóp ‘two’ and tamawób/tamewób ‘three’ contain the etymon -wób/-wóp, which may be related to the plural determiner (ta)-wób ‘others’. Furthermore, there is a striking similarity to the universal quantifier wap ‘all’ in Dâw and the quantifying element ?ap in Hup (see Epps 2006; Martins 2004; Storto 2020). For the case of pewóp ‘two’, the syllable pe- in ‘two’ may be related to the verbal prefix pe-/pa-, which has distributive semantics according to our current understanding. Diachronically, this may have resulted from the incorporation of the postposition pa ‘next to’, indicating the notion of one entity being next to another one (see Weir 1986). Likewise, the term for ‘three’ tamawób/tamewób is may also be formed through the addition of the verbal prefixes ta- ‘3SG’ and ma-/me- ‘comitative’ to the formative wób, which could be understood to have the literal meaning ‘he/she is together with the others’, associating one entity to a group of referents. Another possibility is to understand tamawób/tamewób as cognate to the corresponding terms in Nadèb’s sister languages according to its phonological similarity; i.e. mótwaʔap in Hup, mutwáp in Dâw and modíg-w’ap in Yuhup (see Epps 2006). Epps (2006: 264) convincingly shows that the etymology for the term for ‘three’ in Dâw, Hup and Yuhup can be traced back to the metaphor “rubber.tree-seed-quantity”. For Nadèb, we could consequently imagine that -ma-/me- in tamawób/tamewób could also be derived from the word for ‘rubber tree’ plus the quantifier -wób which has cognate forms in all Naduhup languages. In a further step, the term could have taken on the 3rd person singular possessive prefix ta- and undergone vowel harmony to result in the form tamawób (Epps p.c.). I consider both options as possibilities, but the source of this numeral cannot be determined definitively at this time.

Strategies for the quantification of individuals differ from strategies for the quantification of events in Nadèb. While individuals are counted via the juxtaposition of the numeral term (+ measuring element) and the respective noun, as in (6), events are counted in Nadèb happens using the juxtaposition of a numeral term and the phrase nuu me ‘times’, as in (7).

(6) tamawób hē karepé P’ée hapâh
    NMRL3 ADVZ children P’ée see
    ‘P’ée saw three kids.’

(7) pewóp nuu me ſ’ét wajaa wátʔ
    NMRL2 [? INSTR] woman run PFV.SG
    NMRL2 times woman run PFV.SG
    ‘The woman ran twice.’

Numeral expressions for quantities above ‘three’ are transparent and involve the terms for fingers and toes as shown in Table 2 above, which corresponds to what has been described for other Amazonian languages showing larger sets of numeral terms (see Epps & Salanova 2013). Nadèb numeral terms between ‘four’ and ‘ten’ involve the terms for the respective fingers starting with right index finger (‘four’) followed by the thumb (‘five’), which is then followed by the thumb of one’s other hand indicated through the modifier see ‘other’. These numeral terms correspond to the counting gestures used by Nadèb speakers as shown in the set of photos illustrating counting gestures for numerals ‘one’ to ‘ten’.

7 The lexeme nuu in the event quantifier can possibly be related to the homophonous term nuu ‘head’ in Nadèb. Interestingly the same term also appears in the measure element nuu jawyg which is a correspondence for the word ‘kilo’ in Nadèb (see section 3 below).
While the term for ‘ten’ is understood as ‘all of our hands’, the terms for ‘eleven’ to ‘nineteen’ follow the same logic for the toes, while ‘twenty’ is analogously indicated through ‘all of our feet’, as listed in Table 2. Above ‘twenty’, numbers are only counted by fives. Numbers above ‘twenty’ up to ‘forty’ count the hands and feet of the interlocutor (additional to the hands and feet of the speaker), using the second person possessive prefix a- as shown in (8) and (9). Numbers above ‘forty’ up to ‘sixty’ involve counting the hands and feet of another person, using the third person possessive prefix ta-, such as in (10) and (11). Thus, the numerals for ‘twenty’, ‘forty’, and ‘sixty’ are distinguished only by the possessor.

(8)  
\[
\begin{array}{cccc}
\text{a-moo} & \text{see} & \text{sêt} & \text{hê} \\
2\text{SG-hand} & \text{hand} & \text{NMRL1} & \text{ADVZ} \\
\end{array}
\]
Absolute.

‘twenty-five’

Lit.: ‘One of your hands’
The existence of this more complex numeral system in Nadëb raises questions with respect to its emergence for several reasons. First, it deviates from its sister languages with respect to its attested upper limit and the fact that the numerals ‘one’ and ‘two’ are formed through a different strategy, as described above. While Dâw numerals beyond ‘three’ are indicated through a tally system using a ‘fraternal’ expression (i.e. ‘having/not having a sibling’), Hup and Yuhup also show a finger-based for numbers up to ‘twenty’ (see Martins 2004; Epps 2006; Epps et al. 2012). Second, it deviates from broader generalizations about numeral systems among Amazonian hunter-gatherer groups, for which only the isolate Huaorani (Ecuador) has been reported to have a numeral system that goes beyond 20 (Epps et al. 2012: 51). According to Comrie (2005), processes of elaboration and change in numeral systems are fast and often motivated by contact and innovation, and can consequently be motivated by social and cultural practices. More specifically, many authors have noted that limits of numeral systems may be correlated with social structure and subsistence patterns. Evidence from some Amazonian groups, including Nadëb’s sister languages, suggests that smaller hunter-gatherer societies are prone to show low-limit systems (see Epps et al. 2012). Contact as an impulse for the development of a larger numeral system appears to be a possibility in Nadëb, since Nadëb, in contrast to its sister languages, is reported to have sustained significant interactions and long-term contact with more agricultural Arawakan groups in the past (see Epps & Obert forthcoming a)). There is clear evidence for Arawakan contact effects in both Nadëb’s grammar and lexicon, but we cannot tell to what extent this numeral system has been adopted from extinct Arawakan languages from the Middle Rio Negro region. However, the overall difficulty of reconstructing numeral terms in the Naduhup family and the distribution of similar counting strategies across the region suggests that all Naduhup languages, including Nadëb, acquired this strategy via contact and trade with their neighbors. The emergence of a numeral system with higher upper limits could consequently be understood as being related to the acquisition of horticultural skills and activities through that contact, or through trade with other indigenous and non-indigenous groups. Today, this system can only be recalled by older Nadëb speakers and is not in use among younger speakers, who generally know how to count up to ‘ten’ using the Nadëb system, but prefer to use borrowed numeral terms from Portuguese. Finally, more investigation is needed in order to understand the kinds of contexts where older generations of Nadëb speakers needed to make reference to higher quantities.

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8 However, as Epps et al.’s (2012) survey of numeral systems among hunter-gatherer languages from distinct parts of the world provided evidence that there is a tendency for smaller systems among hunter-gatherer languages but that subsistence practices should not be understood as a predictor of a specific numeral system.
3. What can be counted and what can be measured in Nadèb?

Lima and Rothstein’s (2020) questionnaire involves the elicitation of several nouns belonging to the following three groups: notional count nouns (humans; animals; artifacts; fruits and vegetables), count/object-mass nouns (aggregates), and notional mass nouns (liquid/natural/concrete/ granulated substances) in order to verify if and how numerals can be combined with nouns from each of these groups and to verify how the mass/count distinction surfaces in an individual language.

Our results show a clear distinction between the group of notional count nouns and notional mass nouns. All notional count nouns in Nadèb can be directly combined with numeral terms, as in (12) and (13), while notional mass nouns require a measure or container phrase in order to be quantified by numerals, as illustrated in (14) and (15). Examples (12) and (14) show that the counted or measured nouns are not marked for plural number when combined with a numeral or a numeral term + measure phrase, which has been identified by Chierchia as a property of number neutral languages (2015: 108). However, if a noun shows suppletive singular/plural allomorphy, as in (13) (aj’yy ‘men’ vs. aj’yy ‘man’), the plural allomorph of is obligatory when quantified by a numeral term above ‘one’, which aligns more closely with the properties of number marking languages.

(12) tsém hê Watom ba-hapâh tamawôb hê depaa

yesterday ADVZ Watom ADV-see NMRL3 ADVZ paca
‘Yesterday, Watom saw three pacas.’

(13) naga hê tamawôb hê ajyy gawaj’aah

today ADVZ NMRL3 ADVZ men hunt.PL
‘Today three man hunted.’

(14) tamawôb hê sareej kajahar âah e-êêk jêng

NMRL2 ADVZ pot manioc.porridge 1PL.excl DFT.E-drink VERB.QNT
“We drank three pots of manioc porridge.”

(15) *tamawôb hê kajahar âah e-êêk jêng

NMRL2 ADVZ manioc.porridge 1PL.excl DFT.E-drink VERB.QNT
Intended translation: ‘We drank three manioc porridges.’

Accordingly, count and mass nouns in Nadèb exhibit distinct morphosyntactic and lexical properties that we will briefly address at this point. To begin with, the most crucial morphosyntactic cut-off point between these classes of nouns is whether they require a measure phrase to be quantified or not. In other words, nouns from semantic classes that fall under Lima and Rothstein’s notional count noun group can be directly quantified with numerals, and nouns from the notional mass noun group require a measure phrase to be quantified with numerals. Most Nadèb measure phrases are semantically transparent and employ count nouns denoting objects for measurements of liquid, granulated, or natural substances. Some examples of these units of measurement include sareej ‘pot’ as in (14); raat ‘can’ (Portuguese loan lata) as in (16); hood ‘container’ (such as plate, cup, bowl, bottle); and êk ‘cuia’ as in (17). For concrete substances such as meat, Nadèb speakers made use of the partitive noun bûih ‘piece of’ in order to license quantification with a numeral, as illustrated in (18). When referring to non-indigenous products (e.g., rice and beans) that are sold in standard units (e.g., packages of one kilo), Nadèb speakers used the measure phrase ta nuu jawyg which has the literal meaning ‘his/her/its heavy head’ and is used by speakers to refer to a kilogram, as in (19). Except for the partitive construction, where a partitive noun follows the head noun, as in (18), all other
measure phrases precede the head noun of the NP, as seen in (16), (17) and (19). Our best understanding at this time is that numerals may be discontinuous from both count noun phrases and measure phrases with a mass noun. Nevertheless, the syntax, semantics, and pragmatics of discontinuous NPs in Nadëb merits further research.

(16) tamewób hê raat masuuk re-sônh
NMRL2 ADVZ can manioc.fLOUR 3PL-roast
‘They roasted two cans ([latas]) of manioc flour.’

(17) P’éé manaa pewóp hê ëk naëng
P’éé bring NMRL2 ADVZ cuia water
‘P’éé brought two cuias of water.’

(18) ji me-heet pêh ta dab büh aā tā
[INDF APPL:INSTR-point type.of]3SG.NSUBJ meat piece 1PL.excl CL:food
NMRL4 3SG.NSUBJ meat piece 1PL.excl CL:food
‘We have four pieces of meat’
Lit.: ‘Four pieces of meat is our food.’

(19) pewóp hê ta nuu jawyg kamaan ſ y e-tséë wät
NMRL2 ADVZ [3SG.NSUBJ head be-heavy] bean 1SG DFT.E-buy PFV.SG
NMRL2 ADVZ [kilo] bean 1SG DFT.E-buy PFV.SG
‘I bought two kilos of beans.’

Moreover, the existence of suppletive singular/plural allomorphs corresponds to the mass/count distinction in Nadëb: while singular/plural allomorphy is attested for count nouns (see Table 1 above), it has not been attested for any Nadëb mass nouns at this time.

As we will discuss in detail in Section 5, count and mass nouns in Nadëb can also be identified by the quantifiers they can combine with. Some of them do not reflect the mass/count distinction per se but intersect with respect to other semantic parameters such as liquid vs. non-liquid. For example, quantifiers like aëh ‘be big’ are restricted to liquid substances, a subset of mass nouns in Nadëb.

With respect to lexical features, Nadëb nouns also exhibit distinct properties which help to predict whether a noun is mass or count. Prototypical count nouns in Nadëb can be either animate or inanimate, while mass nouns tend to denote inanimate referents. Physical properties of the referents also play a crucial role for this classification. Thus, Nadëb count nouns correspond to Chiercha’s (2015:2) description in that these are endowed with natural boundaries, are cohesive, and maintain their identity after collision with other objects. Mass nouns, in contrast, may have less rigid boundaries as they usually denote homogenous substances (i.e. liquids; natural substances such as mud or sand). They can also differ with respect to size, if we imagine substances that are parts of the local topography such as bodies of water or large amounts of sand at the riverbanks.

Finally, we will briefly address the class of count/object mass nouns in Nadëb, which includes nouns denoting aggregates or so-called superordinate nouns such as clothes, furniture, tools, etc. Such nouns behave morphosyntactically as mass nouns in some languages, such as English, yet they can denote individuable entities (see Chierchia 2010’s discussion on fake mass nouns for more details). While eliciting nouns from that class, Nadëb speakers expressed

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9 The term lata ‘can’ is a regional measure term for a bucket with a volume of approximately 20 liters.

10 The pronoun ta ‘3SG.NSUBJ’ is used here to indicate obligatory possession of the noun dab ‘meat’.
difficulties in providing native nouns that directly corresponded to the meanings of most of the suggested nouns, with the exception of the expressions for ‘clothes’ saroor, ‘shoes’ tsyym sun, ‘food that is meat’ tā, and ‘food that is not meat’ waa. While the terms for ‘clothes’ and ‘shoes’ pattern like count nouns in that they can be combined directly with numerals, as in (20), both tā ‘meat food’ and waa ‘non-meat food’ function as possessive classifiers in Nadēb and always co-occur with a noun specifying the type or substance of the food in possessive contexts (see Obert and Epps forthcoming b)). Whether these NPs pattern as mass or count nouns depends on the class of count nouns (as in the case of bananas) or mass nouns (as in the case of granulated substances like manioc flour) that the classifiers combine with. In example (21) the classifier tā specifies the count noun tah’yyb ‘fish’, licensing the combination with a numeral term in contexts of possession (Epps & Obert forthcoming b)). In (22), in contrast, no classifier is required since there is no possession involved, and the quantification of the mass noun is realized using the measure phrase hood.

(20) pewóp hē ta saroor paah Karol a-wong bēeh
NMRL2 ADVZ 3SG clothes PST Karol DFT:A-throw.away COMPL.PL
‘Karol throws two (pieces) of her old clothes away.’

(21) pewóp hē tah’yyb a tā
NMRL2 ADVZ fish 2SG.NSUBJ CL:food
‘You have two fishes’
Lit.: ‘Two fishes are your food.’

(22) Esten manaa pewóp hē hood masuuk
Esten bring NMRL2 ADVZ container manioc.flour
‘Esten brought two bags of manioc flour.’

A number of nouns in the questionnaire, including items such as furniture and tools for fishing and hunting, were translated as complex phrases by Nadēb speakers. Syntactically, these analyzable as nominalizations, as evidenced by the clause-final element doo as illustrated in (23) through (25). Speakers expressed difficulties in counting these nouns, and some explained that they were unsure of the degree of acceptability of these nouns for other speakers.

(23) ji moo moowāt doo
INDF hand work REL
‘tools’

(24) ji me-tën doo
INDF APPL:INSTR-play, instrument REL
‘instruments’

(25) ji ge-me-hyā doo
INDF APPL:INSTR-blow REL
‘blow instruments’

In sum, terms denoting aggregates are seldom attested in Nadēb, and it remains unclear if terms for ‘clothes’ and ‘shoes’, for example, allow for the individuation of units, and it is consequently questionable if Nadēb exhibits an object-mass noun class at all.
4. Number marking strategies and the mass/count distinction

In this section, we focus on the number marking resources of Nadëb grammar in order to observe possible correspondences with the count/mass distinction. As discussed earlier, number marking on nouns in Nadëb is marginal, and is restricted to a small set of singular/plural suppletive allomorphs for a subset of count nouns. Unlike its sisters, Nadëb has no dedicated morphological marker for plural number on nouns. Except for the small class of nouns with singular/plural suppletive allomorphy, bare nouns in Nadëb are unmarked for number.

Number is exposed in the nominal modifiers tasee ‘other’ and tawób ‘others’. These modifiers may directly precede the noun they modify, as in (26), or the 3rd person singular prefix ta- can also be substituted by the noun that it modifies itself as illustrated in (27) and (28). Example (26) shows that ta-wób is used when the noun is nominally plural, and (27) shows the use of see when it is nominally singular. For the case of unquantified mass nouns, as in (28), speakers prefer the use of the singular form see, suggesting that number is underspecified for mass nouns.

(26) \[\text{ta-} \text{näng} \text{ ta-wób} \text{ panyyg} \]
\[\text{ANPH} \quad \text{DFT.A-exist} \quad \text{3SG-other.PL} \quad \text{story}\]
‘There are other stories.’

(27) \[\text{panyyg} \quad \text{see} \quad \text{ta-ti}\text{i} \]
\[\text{story} \quad \text{other.G} \quad \text{3SG-ANPH}\]
‘This one is another story.’

(28) \[\text{hahýýh} \quad \text{masuuk} \quad \text{see} \]
\[\text{DEM.PROX} \quad \text{manioc.fLOUR} \quad \text{other}\]
‘This is another (mount of) manioc flour.’

There is further evidence for number-marking distinctions on demonstratives, which merit more investigation, but number-marking distinctions on interrogative pronominal elements has not been attested in Nadëb at this time.

In contrast to the scarcity of number marking on nouns, number marking is richly evident in verbal constructions, an observation which has also been made, to a lesser extent, for Nadëb’s sister languages. Most verbs in Nadëb exhibit pairs of distinct singular and plural allomorphs that agree with absolutive (S/O) arguments. These variants tend to differ by glottalization, vowel length, and/or voicing of the final consonant, but these patterns are not easily predictable. Analogously to singular/plural allomorphy in Nadëb nouns, verbs can also have fully suppletive forms, which are most robustly attested among posture and positional verbs, as illustrated in examples (29) and (30).

(29) \[\text{a-sëëg} \quad \text{gä} \]
\[\text{DFT.A-get.up} \quad \text{lie.in.hammock.SG}\]
‘He got up and lay in the hammock.’

(30) \[\text{a-s’ëëg} \quad \text{j’eenh} \]
\[\text{DFT.A-go.up.PL} \quad \text{lie.in.hammock.PL}\]
‘They got up and lay in the hammock.’
Agreement for number with the S argument in intransitive clauses is exemplified in (31) and (32). Transitive verbs in Nadëb can have a single form for both singular and plural A arguments such as in (33) and (34), where both singular and plural A referents are weaving a single basket. However, number allomorphy in transitive verbs is sensitive to the number of the O argument, as in example (35), where each person of the group was working on their own basket, with plural number for the O argument (arook ‘basket’) indicated by the plural allomorph of the verb ek’ëh ‘to weave a basket’.

(31) ſy a-hyng
   1SG DFT.A-go.downriver.SG
   ‘I go downriver.’

(32) ūr a-hyk
   1PL.incl DFT.A-go.downriver.PL
   ‘We are going downriver.’

(33) arook ſy e-këë
      basket 1SG DFT.E-weave.basket.SG
      ‘I am weaving a basket.’

(34) arook āāh e-këë
      basket 1PL.excl DFT.E-weave.basket.SG
      ‘We are weaving a basket.’ (everyone is working on only one basket)

(35) arook āāh e-k’ëë
      basket 1PL.excl DFT.E-weave.basket.PL
      ‘We are weaving baskets.’ (everyone is working on his/her own basket)

Number alternations are also observed in post-verbal aspect markers, which historically developed from posture and motion verbs. These markers show suppletive pairs indicating number of the S/A or O argument, as in the agreement of the perfective aspect marker with the S argument of the intransitive clause in (36), and with the O argument of the transitive clauses in examples (37) and (38).

(36) pewop ſyynh waj’aar bong
      two women run.PL PFV.PL
      ‘Two women ran.’

(37) Daniel hapāh wāśit sēt hē maruuś
      Daniel see PFV.SG NMRL.1 ADVZ girl
      ‘Daniel saw one girl.’

(38) tiikā te-ts’ëe bong ta j’ooh hā
      then 3SG-divide.PL PFV.PL 3SG.NSUBJ cousin ARG
      ‘Then he divided (the tools) with his cousin.’

The choice between the singular/plural allomorph of the verb in transitive clauses seems also to interact with the status of the object noun as either a mass or a count noun. For the case of bare mass nouns, i.e. those which appear without a numeral term, quantifier, or modifier in the NP, the singular allomorph of the aspectual marker appears, as illustrated in (39). Utterances
using the plural forms of aspectual markers with a mass noun object are considered infelicitous by Nadëb speakers as demonstrated in (40). In contrast, quantifying a mass noun with a numeral term + a measure phrase or other plural-marked modifiers in object position triggers the plural variant of the aspectual marker, as in (41).

(39) Daniel hapäh wāt tasyyj
Daniel see PFV.SG oil
‘Daniel saw the oil.’

(40) *Daniel hapäh bong tasyyj
Daniel see PFV.PL oil
Intended translation: ‘Daniel saw the oils.’

(41) Daniel hapäh bong hajōng hood tasyyj
Daniel see PFV.PL many container oil
‘Daniel saw many bottles of oil.’

Weir (1984) argues that Nadëb lacks a class of adjectives and suggests analyzing property concept terms as intransitive stative verbs. Weir’s analysis seems plausible since words with attributive semantics in our corpus exhibit verbal properties, including: taking verbal morphology such as person prefixes among others; occupying the syntactic position in the clause corresponding to the locus of the verbal predicate; and showing a high incidence of suppletive singular-plural pairs. Again, bare mass nouns in subject position require the singular form of the attributive verb as exemplified in (42), while bare count nouns trigger either the singular or plural verb forms indicating the notional number of the S argument, as shown in (43) and (44).

(42) ma-eh naēng
?-be.big water
‘There is a lot of rain.’
Lit.: ‘The water is big.’

(43) a-eh ta gēēw
DFT.A-be.big 3SG.NSUBJ manioc.garden
‘Her manioc garden is big.’

(44) e-wēēh ta gēēw
DFT.E-be.big.PL 3SG.NSUBJ manioc.garden
‘Her manioc gardens are big.’

5. Quantification and the mass/count distinction

In this section, we discuss the question of how the usage of distinct nominal quantifiers in Nadëb corresponds to the mass/count distinction. The initial task of Lima & Rothstein’s questionnaire aims to identify nominal quantifiers which could possibly contrast volume and cardinality and whether there is a restriction on the distribution of quantifiers with respect to different types of nouns (notional count/notional mass nouns). The set of Nadëb quantifiers are presented in Table 3.
Table 3. Nadèb quantifiers

<table>
<thead>
<tr>
<th>Quantifier</th>
<th>Possible etymology</th>
<th>Semantic noun classes; mass/count nouns compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>sédó ‘much/many’</td>
<td>sét ‘one’; Weir (1984) ‘unity’; <em>doo</em> ‘NMLZ’ or -see ‘other’</td>
<td>Combines with all semantic classes (as suggested in Lima &amp; Rothstein’s 2020 questionnaire) ✓mass/count nouns</td>
</tr>
<tr>
<td>aeh ‘a lot’ ‘be big’</td>
<td>aeh ‘be big’</td>
<td>Only combines with liquids ✓mass nouns</td>
</tr>
<tr>
<td>hajõng ‘many’</td>
<td>?</td>
<td>More related to count nouns and seems to be interchangeable with sédó in some contexts ✓count nouns</td>
</tr>
<tr>
<td>pewópits ‘a few’ ‘a (little) bit’</td>
<td>pewóp ‘two’ + <em>its</em> ‘diminutive suffix’ or <em>pe-wob-its</em> DSTR-others-DIM</td>
<td>Combines with all semantic classes of the list except for granulated substances ✓mass/count nouns</td>
</tr>
<tr>
<td>bāhan’yyts ‘a (little) bit’</td>
<td>?</td>
<td>Combines with nouns denoting liquids and granulated substances ✓mass nouns</td>
</tr>
</tbody>
</table>

Most quantifiers were collected using example sentences proposed by the authors, which include the quantification of a notional count noun (*marakaaw* ‘turtle’) and a notional mass noun (*naëng* ‘water’) as exemplified in (45) through (48). This data set shows that Nadèb exhibits distinct quantifiers for expressing the notions of ‘much/many’ and ‘a lot/a little’ depending on whether the quantified noun belongs to the mass or count noun class. However, this distinction is not as clear-cut as it appears at first glance, since some quantifiers are restricted to a specific class of mass nouns, such as *aeh* ‘much’ which only quantifies liquids in its function as a nominal modifier. Other quantifiers such as *pewópits* ‘a few’, in contrast, can combine with both mass and count nouns (see examples (55)-(58) below) with the exception of granulated substances. In other words, Nadèb quantifiers are sensitive to more fine-grained attributes of nouns that go beyond the mass count distinction.

(45) sédó *marakaaw* tamii *me*
many turtle in.water LOC
‘There are many turtles in the river.’

(46) ma-eh naëng h’oo'h bëëh
? -be.big *naëng* water canoe lie.down.PL
‘There is a lot of water in the canoe.’

(47) pewóp-its *marakaaw* tamii *me*
[NMRL2-DIM] turtle in.water LOC
a.few turtle in.water LOC
‘There are a few turtles in the river.’
Table 3 lists three quantifiers indicating positive quantities, namely hajõng ‘many’; sédó ‘much/many’, and aeh ‘much’, which differ with respect to their distribution with different sub-classes of Nadęb nouns. Examples (49) and (50) show the use of hajõng to quantify a count noun and a measuring element (sareej ‘pot’), respectively. In contrast, the absence of a measure phrase, as in (51), triggers the quantifier aeh ‘much’ in order to quantify the bare mass noun, which denotes a liquid.\footnote{Comparing examples (42), (46) and (54) to (51) show that the quantifier aeh ‘a lot/be big’ can be marked by the verbal prefix ma-, which in those examples could be interpreted to have a locative or instrumental function. According to Weir (1986), many of the verbal prefixes in Nadęb derive historically from incorporated postpositions indicating oblique roles (locative, comitative, instrumental) or are related to processes of subordination. In the examples where ma- appears prefixed it is possible that it functions to indicate a locative notion that is specifically related to water or liquids. However, it remains unclear while this is absent in example (51). Further investigation is needed in order to understand if ma- would lead to a felicitous sentence in (51) or when eliminated in the remaining examples.} The usage of aeh is restricted to this semantic subclass of mass nouns in Nadęb, and other mass nouns are preferably quantified through the strategy of using hajõng + a measure phrase, as illustrated in (50).

The quantifier sédó ‘much/many’ is interesting in that it combines with both mass and count nouns, resulting in distinct interpretations related to individuable units belonging to one group or not. For example, when it is combined with count nouns, as in (52), it refers to several entities that are part of larger group such as animals occurring in swarms. In contrast, when it is combined with mass nouns, as in (53), the interpretation is that there are several portions of the substance denoted by the mass nouns. Thus, example (53) describes a scene in which several drops of blood were found grouped on the ground, while in (54) speakers described a puddle of blood. Accordingly, the quantifier sédó ‘a lot’ has the function of individuating substances that fall under the group of mass nouns, while when combined with counts nouns it describes quantities of a priori countable referents that are conceived of as entities within a larger unit. This usage is probably related to the etymology of séd that Weir (1984: 105) describes as being ‘unity’ or ‘together’ which is also the lexical source for the numeral term ‘one’. In the function as quantifier for mass nouns, it probably refers to single units of liquids forming a cluster in a bounded area.
(53) ̓ỹ hapāh sédó majyyw habā
1SG see a.lot blood here
‘I see many (drops of) blood here.’

(54) ̓ỹ hapāh ma-eh majyyw habā
1SG see ?-be.big blood here
‘I see a lot of (a puddle of) blood here.’

Negative quantities in Nadëb are broadly expressed through the quantifier pewópits ‘(a) few’ which is used with both mass and count nouns in Nadëb. When quantifying count nouns, as in (55), or aggregates, as in (56), speakers make reference to relatively small accumulations of individual entities which may, but do not necessarily have to, form a unit. When this quantifier is preposed to mass nouns denoting liquids, it remains unclear if pewópits denotes either a small group of individual portions of the liquid or a small quantity of the liquid, as illustrated in (57) and (58).

(55) pewóp-its nadëb dah karepé ji me-heet péh
[NMRL2-DIM] nadëb.person INTJ children [INDF with-point type.of] NMRL4
‘There were only a few Nadëb (here in the community), four children.’

(56) ̓ỹ hapāh pewóp-its saroor habā
1SG see [NMRL2-DIM] clothes here
1SG see few clothes here
‘I see a few clothes here.’

(57) ̓ỹ hapāh pewóp-its kamaan habā
1SG see [NMRL2-DIM] bean here
1SG see few bean here
‘I see a few beans here.’

(58) ̓ỹ hapāh pewóp-its majyyw habā
1SG see [NMRL2-DIM] blood here
1SG see few blood here
‘I see a little bit of blood here.’

Furthermore, pewópits cannot be combined with nouns denoting granulated substances. In these cases, Nadëb speakers proposed the term bāhan ‘yyts which refers to a very small quantity of a finely granulated substance, as in (59). When combined with other mass nouns such as liquids, as in (60), or grains, as in (61), the interpretation is strictly related to the relative size of an entity which is in these cases conceived as small by speakers. The lexical source of bāhan ‘yyts remains unclear until this point, however it may derive from a verb for the fact of showing the verbal prefix ha-. Note that the term for ‘small’ in Nadëb is nadëëd and thus not a likely source for this quantifier.

(59) ̓ỹ hapāh bāhan ‘yyts masuuk habā
1SG see little manioc.flour here
‘I see a bit of manioc flour here.’

(60) bāhan ‘yyts naëng ta hood gó
little water 3SG.NSUBJ container in
‘There is little water in the bottle.’
Besides the quantifiers mentioned in Table 3 above, Nadëb has additional quantifying elements with loci in other parts of the Nadëb grammar. Their correlation with the mass/count distinction in the language, however, still needs further investigation. These elements include the universal quantifier sahõnh (hê), the verbal quantifier jëng, the distributive prefix pa- and the obligatorily possessed partitive noun (ta)-uuh ‘a part of X’.

The universal quantifier functions as a modifier in (62) expressing the notion of ‘all of X’, and as a pronoun referring to the notions of ‘everything’ or ‘everybody’ as in (63) and (64), respectively. In both (63) and (64), sahõnh occurs in combination with the adverbializer hê indicating an adverbal function in comparison to (62), where it functions as modifier. As a modifier, sahõnh (hê) has a collective reading rather than a distributive one. Distributive meanings, in contrast, are expressed by the distributive verbal prefix pa-. This prefix indicates multiple referents distributed in space and quantifies over both S arguments, as in (65), and O arguments, as in (66). In both examples, the occurrence of pa- triggers a plural reading of the S argument without the need for a quantifier.

(62) sahõnh soo poo ge-soom jëng
UNIV.QUANT woodpecker nose APPL:in-poison VERB.QUANT
‘He poisoned all the woodpeckers.’

(63) ŋy hapäh sahõnh hê
1SG see UNIV.QUANT ADVZ
‘I know everything.’

(64) tî sahõnh ra-kata bëëh ta-ti sahõnh hê
ANPH UNIV.QUANT 3PL-get.together CMPL.PL 3SG.-ANPH UNIV.QUANT ADVZ
‘And then everybody got together, all of them.’

(65) tatyyt n’aa ha saroor pa-däk
rope PURP LOC clothes DIST-be.attached.SG
‘The (items of) clothing is hanging on the washing line (alongside others).’

(66) ŋy pa-da-däk saroor ta-tyyt n’aa ha
1SG DSTR-CAUS-attach clothes 3SG.NSUBJ-rope purpose LOC
‘I hang the clothes on the washing line.’

The post-verbal quantifier jëng, which may have developed diachronically from the homophonous verb ‘return’, primarily quantifies O arguments. In this function, jëng implies that all of the O argument is entirely affected by the action expressed by V as illustrated in (67). Our corpus shows that both universal quantifier and verbal quantifier co-occur in sentences.

(67) sahõnh hê ra-be-hôg jëng ta dab
all ADVZ 3PL-ADV-cut.meat VERB.QNT 3SG.NSUBJ meat
‘They cut all the meat from their companion.’

The partitive noun, in contrast, refers to smaller quantities as illustrated in (68) and (69), and can combine with either mass or count nouns to indicate a small portion of the respective
noun. In our corpus, it is most prominent with nouns related to food. Its compatibility with nouns from other semantic classes remains to be investigated in future work.

(68) ma-karēn masuuuk-uuh?
   2SG-want manioc.flour-part.of
   ‘Do you want a part of the manioc flour?’

(69) ma-karēn ta dab-uuh?
   2SG-want 3SG.NSUBJ meat-part.of
   ‘Do you want a part of the meat?’

In sum, this section provided evidence that some quantifiers provide evidence for distinguishing mass nouns from count nouns in Nadëb. However, these quantifiers are often sensitive to inherent properties of the respective nouns and therefore their distribution varies within the classes of mass and count nouns. In other words, none single quantifier in Nadëb is able the draw a clear distinction between the class of mass nouns and count nouns, as the words ‘much’ and ‘many’ can do in English. Indeed, some of these quantifiers are used with both noun classes, but result in different interpretations with respect to quantity based on the noun class. Furthermore, we have seen that verbal morphology, such as the verbal quantifier jēng and the distributive prefix pa-, can be used to quantify arguments. However, the distribution of these verbal patterns with respect to the classes of mass and count nouns is not entirely understood.

5. Conclusions

In this paper, I have shown how Nadëb encodes the distinction between mass and count nouns in its grammar and lexicon. First, we saw that Nadëb has mass nouns and count nouns of which only the latter can be quantified directly by numerals. Mass nouns, on the other hand, cannot be quantified by a numeral and require a preceding measuring element to license such quantification. Since Nadëb shows no obligatory number marking on most nouns, with the exception of the small class of semi-suppletive singular/plural allomorphs for some count nouns, Nadëb nouns should be best interpreted as unspecified for number. The existence of a class of nouns showing this singular/plural allomorphy could suggest traits of a number marking language. However, since these variants form a very small group among Nadëb nouns it cannot be considered a grammatical device responsible for distinguishing a general count noun from a mass noun class.

The lack of number marking on most nouns seems to be compensated in the grammar by verbal agreement in number with S and O arguments through singular/plural verbal root allomorphy. I have shown that this is another locus where the mass/count distinction can surface in Nadëb: while count nouns in O position can be arguments of both singular and plural verbal root variants, mass nouns are always arguments of the singular inflection. Verb roots in Nadëb can thus be best understood as an additional count environment. This is similar to the Denë (Athapaskan, Northern Canada) case, for which Wilhelm (2006) suggests that verbal roots, as opposed to functional elements, reveal whether nouns pertain to the mass or count class. Such patterns can, according to Wilhelm, be understood as being rooted in semantic compatibility, not syntactic derivation, implying that countability might be an inherent lexical property of nouns.

Furthermore, we have seen that the verbal complex in Nadëb holds many clues related to participant number and quantification; however, these do not seem to correlate strongly with the mass/count distinction. In other words, the verbal quantifier jēng, for example, can quantify
either S or O arguments when comprised of either mass and count nouns. However, the correlations between the indication of participant number marked through verbal morphology and the mass/count distinction advocates for future research.

Another locus of the mass/count distinction is related to the compatibility of a given noun with certain quantifiers in Nadèb. I have shown that the selection of certain quantifiers does not clearly rely on the distinction between mass and count nouns, but on more fine-grained properties of the specific semantic sub-classes. We have seen that the combination of certain quantifiers with both mass and count nouns leads to distinct readings related to individuality.

In sum, the exploration of the mass/count distinction in Nadèb has shown that it best fits the pattern of number neutral languages according to Chierchia (2010), since the distinction surfaces mainly in the distribution of numerals. In addition, resources in the Nadèb grammar show that the verbal complex is also a central source for encoding this distinction. Nadèb therefore presents an intriguing case of a language with distinct loci for the mass/count distinction in its grammar that goes beyond the prototypical environment of the noun phrase.

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