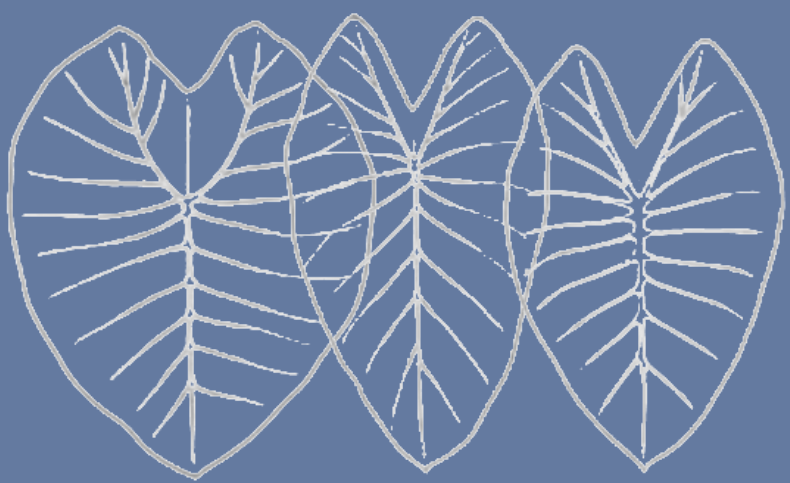
Proceedings of TripleAFLA

9th TripleA workshop for semantic fieldworkers
29th annual meeting of the Austronesian Formal Linguistics Association



Edited by Vera Hohaus, Jens Hopperdietzel & Siena Weingartz

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Edited by Vera Hohaus, Jens Hopperdietzel & Siena Weingartz
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"Taro Varieties in Hawaii", *Hawaii Agricultural Experiment Station Bulletin* 84, Fig. 2, p. 15.
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Preface

The TripleAFLA conference was hosted by the Department of Linguistics and English Language at the University of Manchester between the 28th June and the 1st July 2022. The conference was a joint event combining the 9th TripleA workshop for semantic fieldworkers and the 29th annual meeting of the Austronesian Formal Linguistics Association (AFLA).

The programme included 22 talks selected by reviewed abstract, of which eight are featured as papers in this volume. Invited talks at the conference were from Sasha Calhoun (Victoria University of Wellington), Tingchun Chen, (National Tsing Hua University, Hsinchu), Joash Gambarage (University of British Columbia, Vancouver), Paloma Jeretič (Leibniz-Zentrum für Allgemeine Sprach-wissenschaft, Berlin), Manfred Krifka (Leibniz-Zentrum für Allgemeine Sprachwissenschaft, Humboldt-Universität zu Berlin), and Luisa Martí (Queen Mary University of London).

We are grateful to the reviewers listed below for their time and feedback.

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The Organisers

Margit Bowler, Emily Hanink, Vera Hohaus,
Jens Hopperdietzel, and Siena Weingartz

Table of Contents

DEFINITENESS OF CLASSIFIER-NOUN PHRASES IN NUNG *

Esther Lam

University of Edinburgh
s1673754@ed.ac.uk

Nung (Tai, Kra-Dai) is a classifier language spoken in Vietnam that has the Classifier-Noun (CL-N) construction. Although CL-N phrases in Nung can be used in contexts where the English definite article *the* and indefinite article *a* are used, there are restrictions in the use of CL-N phrases in Nung. In this paper, I argue that CL-N phrases carry a presupposition of uniqueness regardless of whether the referent is presupposed to exist in the discourse. Drawing on Coppock and Beaver (2015), I argue that a CL-N phrase is always definite, although it can be determinate (presupposes the existence of its referent) or indeterminate (does not presuppose the existence of its referent). To account for the determinate and indeterminate interpretations of CL-N phrases in Nung, I suggest that a CL-N phrase introduces a variable that carries a presupposition of uniqueness, and that the operator that binds the variable determines which interpretation the phrase receives. I suggest that binding by the ι operator contributes to the determinate reading, while indeterminate CL-N phrases, which only occur in post-verbal positions, introduce variables to be bound by existential closure or the item *mī* 'have' in the existential construction.

1 Introduction

Nung is a Tai (Kra-Dai language family) language spoken by the Nung ethnic group in Vietnam. The ethnic group has a population of 1.1 million (1.1% of the population in Vietnam) who mostly reside in the moutainous area in northeast Vietnam near the border with China.[1] This paper presents primary fieldwork data on Nung with a focus on the function of the classifier-noun (CL-N or "bare classifier") construction, such as the phrases *tú má* and *tú dɑ̄ʊ* in example (1).

(1) *tú má kʰàn dɛ̄ mā ɬɤ̀ːŋ kʰòp tú dɑ̄ʊ.*
CL dog ascend shore come want bite CL tortoise
'The dog went up to the shore and wanted to bite the tortoise.'

Since there are contexts which disallow the use of a CL-N phrase (see section 3), the aim of this paper is to provide a semantic analysis of CL-N phrases that account for the restrictions. I will argue that although CL-N phrases in Nung can be translated into English with the definite article 'the' and indefinite article 'a', they always presuppose uniqueness. I suggest that the contrast between "definite" and "indefinite" CL-N phrases is whether it presupposes the existence of its referent. Drawing on Coppock and Beaver (2015), I refer to CL-N phrases that presuppose existence as *determinate* and those that do not as *indeterminate*. To account for how CL-N phrases may have the two interpretations, I will draw on Coppock and Beaver (2015) and Heim (1982) and suggest that CL-N phrases introduce variables to be bound by quantifiers, the determinate reading comes from the IOTA operator, while the indeterminate reading comes from Existential Closure at the VP or the item *mī* 'have', which is present in the existential construction.

This paper is structured as follows: section 2 provides background information for the discussion of CL-N phrases in Nung; it outlines what is considered as a classifier in Nung as well as how the data presented in this paper is collected. In section 3, I present data to support the claim that classifiers perform the function of individuation; I will also explain that individuation alone cannot account for the restrictions in the use of CL-N phrases. In section 4 and section 5, I discuss the use of CL-N phrases in contexts where the definite and indefinite articles are used in English respectively; I will argue that both "definite" and "indefinite" CL-N phrases presuppose that the referent is unique in the context. In section 6, I provide an analysis for the two interpretations of CL-N phrases.

*I am grateful to Hoàng Thị Tươi, Lăng Thị Tuyết and Quý for their help as language consultants for this project. I would also like to thank Wataru Uegaki, Nik Gisborne and Bert Remijsen for their helpful comments on this paper.

[1] Source: 2019 Vietnam Population And Housing Census, by the General Statistics Office of the Vietnamese government.

2 Background information

2.1 Classifiers in Nung

The type of classifier present in Nung is referred to as a numeral classifier in the literature of classifier typology, such as Aikhenvald (2000). In Nung, the use of a cardinal numeral requires the presence of a classifier. For instance, in (2), the classifiers *tú* and *ān* are required when the cardinal numeral *ɬám* is present. Since different classifiers are used for nouns of different semantic classes, classifiers are also considered as nominal categorization devices.

(2) a. *mī ɬám *(tú) má kʰàʊ hɤ̄n mā.*
have three CL dog enter house come
'Three dogs entered the house.'
b. *hāu ɬɯ́ ɬám *(ān) tʰòi nʌ̀i.*
1SG buy three CL bowl PROX
'I buy these three bowls.'

Since classifiers are required in counting, in this paper, a morpheme is considered to be a classifier if it cannot be omitted when a cardinal numeral co-occurs with a noun. For instance, although the item *māk*, similar to *tú* and *ān*, indicates the semantic class of the noun it pairs with, it requires the presence of the classifier *ān* for counting. As a result, *māk* is not considered to be a classifier, while *tú* and *ān* are.

(3) *hāʊ ɲòm hǎn ān māk tǎʊ nɤ̄ŋ/tēʊ.*
1SG see perceive CL fruit apple one
I see one/an apple.

In this paper, I will only focus on examples that involve the animal classifier *tú*. This is due to syntactic variations between numeral classifiers. For instance, although (5) shows that the classifier *ʌ̀n* may occur alone with a demonstrative, the classifier *hōŋ*, which may occur between a numeral and a noun (6a), cannot occur alone with a demonstrative (6b) in this context.[2]

(5) *ān nʌ̀i là māk tǎu.*
CL PROX COP fruit apple
This is an apple.

(6) a. *mī ɬóŋ hōŋ ɬù jū nʌ̀i.*
have two CL shirt LOC PROX
There are two shirts here.
b. **hōŋ nʌ̀i là ɬù.*
CL PROX COP shirt
This is a shirt.

In order to allow for a more focused study into whether CL-N phrases show any semantic contrasts with other types of NPs, I will only compare NPs formed from one classifier. The comparison between the distribution of various classifiers will be a topic for future research.

2.2 Data source

The Nung data discussed in this paper is based on my primary fieldwork data, including oral texts provided by Nung speakers without interruption by the fieldworker, as well as answers obtained from controlled elicitation sessions. The oral texts studied include instructive texts, a narrative of a Vietnamese folk tale (Lake Ba-be), a narrative based on a picture book titled 'A Dog, A Boy and A New Friend' by Mercer Mayer, as well as a narrative based on 'Pear Film' created for the 'Pear Stories'

[2]The restriction (5) suggests appears to be limited to the syntactic environment shown in (6a), i.e. as the subject for a nominal predicate. These classifiers may nevertheless occur alone with a demonstrative when it can be inferred what type of thing the phrase refers to. For example, the use of *hōŋ* with the demonstrative *nʌ̀i* is possible in (4), where it is given in the context that there are several shirts and it is understood that the utterance refers to shirts.

(4) *hōŋ nʌ̀i māu kʰěu hōŋ nʌ̀i māu dám.*
CL PROX colour white CL PROX colour black
This (shirt) is white and this (shirt) is black.

project in Chafe (1980).[3] Controlled elicitation sessions involved the researcher asking speakers to form utterances in Nung as well as to judge the acceptability on utterances formed by the researcher. The extralinguistic context was always provided for controlled elicitation tasks. Controlled elicitation was carried out in-person as well as via text messages.[4]

This paper quotes linguistic data provided by three native speakers, who come from villages located in the area bordering Bình Gia and Văn Quan districts in Lạng Sơn province of Vietnam. Their sociolinguistic details are provided in the table below.

Table 1: Speaker profile

Code	Age	Gender	Place of residence	Occupation	Language used at place of residence
Tu	20s	Female	Hanoi (from Nung village in Văn Quan)	Student	Vietnamese
Qu	20s	Female	Hanoi (from Nung village in Bình Gia)	Student	Vietnamese
Ty	30s	Female	Nung village in Văn Quan	Teacher	Vietnamese Nung

3 Individuation function of classifiers

Individuation is a function that the literature generally suggests numeral classifiers perform (e.g. Greenberg (1972), Chierchia (1998) and Bisang (1999)). This stems from the observation that languages with a system of numeral classifiers tend to lack obligatory plural marking on nouns (Greenberg, 1972; Sanches & Slobin, 1973). According to Greenberg (1972), languages with singular/plural marking on nouns may nevertheless have a group of "transnumeral" (number-neutral) nouns that denote count entities but lack a plural form, this includes nouns such as 'furniture' in English. Greenberg (1972) notes that numerals do not directly co-occur with transnumeral nouns; for instance, in English, a lexical item that that indicates a unit, e.g. 'piece', must be present so that 'furniture' can be counted. Since nouns in classifier languages lack plural forms in general and that numeral classifiers are required for counting, Greenberg (1972) suggests that nouns in classifier languages are transnumeral and that classifiers' function is to indicate a unit for counting.

However, numeral classifiers do not always co-occur with a numeral, such as in the CL-N construction. Do classifiers perform the function of individuation in these situations? According to Bisang (1999), classifiers in CL-N phrases in Vietnamese perform the function of individuation because a CL-N phrase refers to a singular individual. Hence, if a CL-N phrase in Nung is singular in number, it suggests that the classifier in a CL-N phrase in Nung also individuates.

Example (7) suggests that classifiers in CL-N phrases individuate. The example contains a reciprocal predicate which requires a plural subject. Since the CL-N phrase *tú má* (CL dog) is infelicitous in this example, and that an NP with *kì* 'several' should be used, this suggests that the phrase *tú má* is singular in number; thus the classifier *tú* in the CL-N phrase *tú má* performs the role of individuation according to Bisang (1999).

(7) a. **tú má dáŋ tō kʰòp.*
CL dog PROG RECP bite
Intended: 'The dogs are biting each other.'
b. *kì tú má dáŋ tō kʰòp.*
several CL dog PROG RECP bite
Intended: 'The dogs are biting each other.'

Although the claim that classifiers perform the role of individuation may predict that a CL-N phrase

[3] Link to video: `https://www.youtube.com/watch?v=bRNSTxTpG7U&t=66s`

[4] Although Nung does not have an official orthography system, speakers are used to transcribing Nung based on the Vietnamese orthography system in their communication. Language consultants send their responses to the researcher via this means. They also sent the researcher audio recordings for sounds which they consider the Vietnamese alphabet could not capture.

is singular, it is not sufficient to account for other restrictions in the use of a CL-N phrase. At first glance, (8)[5] and (9) suggest that a CL-N phrase can be used regardless of definiteness, which may suggest the lack of restriction in the use of CL-N phrases.

(8) *mī tú má sɑ̄ʊ vɑ̄ŋ lùk tέk pάɪ dɛ̄m tsá.*
have CL dog COM HON.boy HON.child child go to.fish fish
'A dog and a boy went fishing.'

(9) *tú má kʰɑ̀n dɛ̄ mā ɬɤ̀ːŋ kʰɔ̀p tú dɑ̄ʊ.*
CL dog ascend shore come want bite CL tortoise
'The dog went up to the shore and wanted to bite the tortoise'

However, the observation that a CL-N phrase may be be used in contexts where phrases with *a* and *the* are used in English does not necessarily imply that there is no restriction in the use of CL-N phrases. There are contexts, such as (10) and (11), which disallow the use of a CL-N phrase, even though the referent is a singular individual. In (10), the numeral 'one' is required in the second and third clauses, suggesting that a CL-N phrase is infelicitous in this environment. The context for (11) is that the interlocutors saw one particular chicken in the market that the hearer wanted to buy; thus the chicken referred to in (11) is salient in the discourse. Although (9) suggests that a CL-N phrase can be used to refer to a discourse salient referent, speakers suggest that the use of the CL-N phrase *tú kɑ̄ɪ* is infelicitous and that the demonstrative *tέ* is required.

(10) *mī kì tú má tʃáŋ ɬón, mì tú má *(nɤ̄ŋ) jū dɑ̀ɯ kóp māk, ɲɑ̄ŋ mī*
have several CL dog in garden, have CL dog one LOC bottom tree.trunk fruit, still have
*tú má *(nɤ̄ŋ) jū hēn kó sāk.*
CL dog one LOC beside CL.plant vegetables
'There are several dogs in the garden. A dog is at the bottom of a fruit tree, and a dog is beside the vegetables.'

(11) *tóklάŋ tsέ ɬí tú kɑ̀ɪ *(tέ) là:*
in.the.end older.sister buy CL chicken DISTAL INTERROG
'Did you buy the chicken in the end?'

The observation that CL-N phrases are infelicitous in (10) and (11) suggests that number alone cannot capture the distribution of CL-N phrases. In the following sections, I will study the meaning a CL-N phrase, so as to account for why the use of a CL-N phrase is disallowed in the two examples above.

4 "Definite" NPs in Nung

Definiteness generally covers familiarity and uniqueness. Although it is a debate whether familiarity, uniqueness or both are required to explain the use of the definite article in English, some literature suggests that languages may represent familiar and unique definiteness differently. For instance, Schwarz (2009) notes that in German, the weak definite article is used when the referent is unique, whereas the strong article is used when the referent is familiar; in Mandarin, Jenks (2015) argues that bare nouns express unique definiteness, while demonstrative phrases express familiar definiteness; Simpson (2017) suggests CL-N phrases in the Jinyu dialect of Wu (Sinitic) expresses familiar definiteness and bare nouns express uniqueness. In this section, I will study the distribution of CL-N phrases in Nung with respect to familiarity and uniqueness. I will conclude that CL-N phrases in Nung concerns uniqueness but not familiarity, which further suggests familiarity and uniqueness may be expressed differently in languages.

4.1 Familiar definite NPs

CL-N phrases can be used to refer to new and old referents. In other words, a CL-N phrase can be "definite" and "indefinite" in terms of familiarity. (8) and (9) (repeated here as (12) and (13)) come from one narrative. (12) is an utterance that introduces two referents, namely a dog and a boy into the discourse. (13) follows (12) in the narrative, thus the CL-N phrase *tú má* in (13) refers anaphorically

[5]Example (8), with the item *mī* at the sentence-initial position, shows the use of an existential construction in Nung. In section 6, I will discuss the meaning of CL-N phrases with regards to the use of this construction further.

to the dog introduced in (12). The CL-N phrase *tú má* is used in both examples, suggesting that CL-N phrases can be both "definite" and "indefinite" in terms of familiarity.

(12) *mī tú má sɑ̄ʊ vɑ̄ŋ lùk ték pʌ́ı dɛ̄m tsá.*
have CL dog COM HON.boy HON.child child go to.fish fish
'A dog and a boy went fishing.'

(13) *tú má kʰʌ̀n dɛ̄ mā ɬɤ̀ːŋ kʰɔ̀p tú dɑ̄ʊ.*
CL dog ascend shore come want bite CL tortoise
'The dog went up to the shore and wanted to bite the tortoise.'

As mentioned in section 3, (11) (repeated here as (14)) is a a case where the use of a CL-N phrase is infelicitous. This example suggests that some familiar referents cannot be referred to with a CL-N phrase.

(14) *tóklʌ́ŋ tsé ɬí tú kʌ̀ı *(té) là:*
in.the.end older.sister buy CL chicken DIST INTERROG
'Did you buy that chicken in the end?'

Since CL-N phrases can refer to familiar and non-familiar referents, and that some familiar referents cannot be referred to by a CL-N phrase, familiarity does not seem sufficient to explain the distribution of CL-N phrases. (14) suggests that some definite NPs require the presence of a demonstrative. The use of demonstratives in some familiar definite NPs will be further discussed in section 4.2.

4.2 Uniqueness

There are cases that suggest that CL-N phrases are associated to uniqueness. The pair of examples in (15) suggests that the CL-N construction in Nung is only felicitous when the referent is the only instance of the type in the context, i.e. when the referent is contextually unique. The context provided for this pair of examples is that there are several chickens but only one duck which some children were trying to catch. It is felicitous to use a CL-N phrase in (15a) to refer to the only duck in the context, but the numeral 'one' in (15b) cannot be omitted, i.e. it is infelicitous to use a CL-N phrase to refer to one of the chickens in the context.

(15) a. *kī ɛ̄ŋ dék pʌ́t dʌ̀ı tú púut (#nɤ̄ŋ) jă.*
PL CL.child child catch achieve CL duck one PFT
'The children caught the duck.'

b. *kī ɛ̄ŋ dék pʌ́t dʌ̀ı tú kʌ̀ı #(nɤ̄ŋ) jă.*
PL CL.child child catch achieve CL chicken one PFT
'The children caught a chicken.'

Based on (15), I suggest that a CL-N phrase carries a presupposition of uniqueness. The examples in (15) suggest that it is the information that there is only one duck in the context that allows a CL-N phrase to be used. Since this piece of information is provided in the context prior to the utterance of (15a), the information that the duck is contextually unique is presupposed when (15a) is uttered. Hence, I suggest that a CL-N phrase is felicitous only when it is presupposed that the referent is the only individual of the kind denoted by the N in the context.

Language consultants commented that the use of the numeral 'one' in (15a) was redundant because it was already provided in the context that there was only one duck. This may suggest that the use of the numeral 'one' resembles the effect of "anti-uniqueness implication" in English. "Anti-uniqueness implication" is based on the principle of Maximize Presupposition (Heim, 1991), which suggests that the use of the indefinite article in English is infelicitous when the referent is presupposed to be unique.[6] In other words, the infelicity in the use of the numeral 'one' in (15a) appears to resemble the infelicity of using the indefinite article in a nominal phrase that refers to a contextually unique referent in English. If

[6] "Maximize Presupposition" (Heim, 1991) suggests that when there are two linguistic expressions that are semantically true for a situation, but one bears a presupposition while the other does not, speakers only use the expression without the presupposition if the presupposition does not hold. Hence, assuming that the definite article 'the' presupposes uniqueness whereas 'a' does not, the use of 'a' implies that uniqueness does not hold. As a result, the use of 'a' in (16) is infelicitous, because it implies the presence of multiple seats in a bicycle whilst there is generally only one seat in each bicycle.

(16) The bicycle was fine after the/#a seat was replaced.

the use of the numeral 'one' in Nung results in an anti-uniqueness implication, this may further suggest that CL-N phrases carry a presupposition of uniqueness.

Having made the hypothesis that the use of a CL-N phrase is only felicitous when a presupposition of uniqueness is met, I will now revisit the examples with familiar definite NPs. Indefinite CL-N phrases will be discussed in section 5. In section 4.1, (13) suggests that a CL-N phrase may be used to refer to a familiar referent. Since this example comes from a narrative where there is only one dog, the dog referred to in (13) is also contextually unique, implying that the requirement for a presupposition of uniqueness is satisfied. For (14), I suggest the reason why a CL-N phrase is not felicitous is that the presupposition of uniqueness is not met. Since it is likely that there are more than one chickens in the market, speaker may not perceive the discourse salient chicken as the only chicken present in the context. Although there remains a possibility that the chicken is contextually unique, following Dayal and Jiang (2020), I suggest that when speakers do not feel confident that the referent is unique in a situation, they will choose to use an NP with a demonstrative rather than a CL-N phrase, which presupposes uniqueness.

Moreover, (17) suggests that a CL-N phrase is preferred over a CL-N-Dem phrase when it is presupposed that the referent is contextually unique. In (17), the first clause sets the context to be one that contains one chicken and one duck. The observation that it is infelicitous in the second and third clause to use a CL-N-Dem phrase to refer to the chicken and the duck present in the context further suggests that a CL-N phrase presupposes uniqueness, while a demonstrative NP is used when a speaker is not confident about the uniqueness of the referent.

(17) *vān̄vā hāu ɬŭ̌ dàì tú kān̄ sān̄u tú púut nɤ̆ŋ, tú kān̄ (#té) nâk lái, tòà tú*
yesterday 1SG buy able CL chicken COM CL duck one, CL chicken DIST heavy much, but CL
púut (#té) éŋ lái.
duck DIST small much
'I bought a chicken and a duck yesterday, the chicken was heavy but the duck was small.'

4.3 Summary

In this section, I studied the use of CL-N phrases in contexts where the definite article is used in English. I argued that CL-N phrases presupposes that its referent is the only individual of the type in the context, thus a CL-N phrase is only felicitous when the presupposition of uniqueness is met. Familiar referents are referred to by a CL-N phrase when uniqueness is also presupposed. When a speaker is uncertain about whether the referent is contextually unique, a CL-N-Dem phrase may be used.

5 "Indefinite" CL-N phrases

As mentioned, Nung allows the use of a CL-N phrase in contexts where the indefinite article 'a' is used in English, such as in (12) and (18).

(18) *hăi pʰŏŋ tú má, jā kʰàu hēn mān.*
if meet CL dog, don't enter beside 3
'If you see a dog, don't go near it.'

In (12), the CL-N phrase *tú má* refers to a new discourse referent. Since language consultants report that the phrase *tú má* in (18) could refer to any dog, the phrase is "indefinite". In both examples, the existence of dog is not presupposed. In (12), the CL-N phrase *tú má* occurs in an existential construction which asserts the existence of a dog, thus it does not presuppose the existence of a dog in the common ground. In (18), the CL-N phrase *tú má* occurs in the antecedent of a conditional sentence; since it does not refer to any particular dog, it suggests that the existence of dog takes narrow scope under the conditional.

Yet, I argue that the CL-N phrase in the two examples presupposes uniqueness nevertheless.[7] In (12), the CL-N phrase presupposes uniqueness because it refers the only dog present in the context

[7] Since *tú má* in both (12) and (18) refer to discourse referents which can be referred to anaphorically in the discourse, or by a pronoun such as in (19), one may claim that CL-N phrases are always refer to a discourse referent, i.e. "pragmatic specific" as per (Dryer, 2007). Yet, the claim that a CL-N phrase is "pragmatically specific" is insufficient to account for the restrictions in the use of CL-N phrases observed in (10) and (11), because the CL-N-'one' phrases in (10) and the CL-N-Dem phrase in (11) refer to discourse referents that can potentially be referred to anaphorically as well.

when (12) is uttered. Since the pragmatic function of (12) is to introduce a dog into the discourse, it follows that no dog exists in the common ground of knowledge before (12) is uttered. As a result, when (12) introduces a dog into the discourse, the dog referred to by (12) is the only dog present in the discourse at the time when (12) is uttered. Similarly, I suggest the CL-N phrase in (18) presupposes uniqueness because it refers to the only dog that the speaker has seen at the point when they sees a dog. (18) can be interpreted as an utterance that describes the action the speaker advises the hearer to carry out in situations where the hearer visually see dogs. Intuitively, when (18) is uttered, the speaker presumes that the hearer has not seen any dog in the relevant time frame. Hence, I suggest that the dogs referred to by the CL-N phrase in the antecedent of (18) are the only dogs that the speaker has seen at the relevant time frame, thus it refers to the only dog present in the domain of discourse.[8]

Recall that (10) (repeated here as (19)) shows an indefinite context where the use of a CL-N phrase is not felicitous.

(19) *mī kì tú má tʃáŋ ɬón, mì tú má *(nɤ̄ŋ) jū dʌ̀ɯ kóp māk, ɲɑ̄ŋ mī*
have several CL dog in garden, have CL dog one LOC bottom tree.trunk fruit, still have
*tú má *(nɤ̄ŋ) jū hēn kó sāk.*
CL dog one LOC beside CL.plant vegetables
'There are several dogs in the garden. A dog is at the bottom of a fruit tree, and a dog is beside the vegetables.'

I suggest that CL-N phrases are not felicitous in the second and third clauses of (19) because the requirement for a presupposition of uniqueness is not satisfied. In (19), the first clause introduces more than one dogs into the discourse; thus, more than one dogs exist in the discourse before the second and third clauses are uttered. As a result, the dogs that the second and third clause refer to are not the only dogs present in the contextual domain. Since the requirement for a presupposition of uniqueness is not satisfied in the second and third clauses, it is not felicitous to use a CL-N phrase and CL-N-'one' phrases are used instead.

Based on (19) and (20), I suggest that the domain where the referent of a CL-N phrase is required to be unique is the discourse. For (20), the extralinguistic information provided to language consultants is that the interlocutors were in a place where they heard barking of dogs and knew the existence of multiple dogs. Hence, the referent of *tú má* in (20) was not unique if the domain was considered to be the area where the interlocutors were situated. Yet, (20) contrasts with (19) as the use of a CL-N phrase is preferred over the use of a CL-N-'one' phrase. I suggest this is because the requirement for uniqueness is satisfied in (20) but not (19). In (19), the presence of multiple dogs is explicitly mentioned in the first clause, thus multiple dogs are present in the domain of discourse as referents before the second and third clauses are uttered. Yet, in (20), although dogs are present in the extralinguistic context, dogs are not present as referents in the discourse prior to the utterance of (20). Hence, I suggest the referent referred to by *tú má* in (20) is unique when the domain for uniqueness is the discourse.

(20) *hʌ̌i mī tú má (*nɤ̄ŋ) ōk mā, jă láu, kòi pʌ́i t^{h}ói.*
if have CL dog one exit come, don't be.scared, CONJ walk only
'If a dog appears, don't be scared, just walk away.'

In summary, I argued in this section that "indefinite" CL-N phrases do not presuppose the existence of its referent, but they nevertheless presuppose that their referent is unique in a relevant discourse domain. The examples where the use of a CL-N phrase is felicitous are utterances which the speaker presumes the hearer has no knowledge of the existence of any individual of the type in the relevant domain prior to the time of utterance. It follows that the CL-N phrase in the utterance refers to a referent that is unique in the domain at the time of utterance.

6 Two interpretations of CL-N phrases

In the sections above, I suggested that CL-N phrases carry a presupposition of uniqueness regardless of whether it presupposes the existence of its referent in the common ground. Hence, CL-N phrases may have two interpretations: one that carries both a presupposition of uniqueness and existence, and one

[8]The negative polarity particle *tʌ́k* may occur before *tú má* in (18). A language consultant prefers the presence of the item *tʌ́k* more than the use of a CL-N phrase without *tʌ́k*. Since the focus of this paper is the conditions which allow the use of a CL-N phrase, the analysis provided here aims only to account for why the use of a CL-N phrase is possible in (18). I leave for future research why the use of a bare noun or a CL-N-'one' phrase in this example is less favoured by language consultants.

that carries a presupposition of uniqueness only. This generalization regarding CL-N phrases echoes Coppock and Beaver (2015), who suggests that an NP that presupposes both uniqueness and existence of its referent is a ***determinate*** NP, while an NP that presupposes uniqueness but not existence of its referent is a definite but ***indeterminate*** NP. Following Coppock and Beaver (2015), I suggest that a CL-N phrase in Nung is always definite, but it may be determinate or indeterminate.

In this section, I propose an analysis of CL-N phrases to account for how they can be determinate and indeterminate in different contexts. I suggest that a bare classifier (i.e. CL in a CL-N phrase) introduces an indexical variable that carries a presupposition of uniqueness (as in (21), the underlined part indicates the presupposition).

(21) Lexical entry for CL (e.g. *tú*) in a CL-N phrase (e.g. *tú má*)
$[\![\text{tú}_n]\!] = [\![\text{CL}_n]\!] = \lambda P_{<\text{e,t}>} : \underline{|P| \leq 1 \wedge P(x_n)}.\ x_n$

Since a CL-N phrase involves the application of a predicate denoted by the N to the variable denoted by the bare classifier, it denotes a variable that is only defined if the presupposition of uniqueness is satisfied.

(22) Denotation for *tú má*
$[\![\text{tú má}]\!] = [\lambda P_{<\text{e,t}>} : |P| \leq 1 \wedge P(x_n).\ x_n]\ (\lambda y.\text{DOG}(\text{y}))$
$= \begin{cases} x_n & \text{if } |\text{DOG}| \leq 1 \wedge \text{DOG}(x_n) \\ \text{undefined} & \text{otherwise} \end{cases}$

I suggest the quantifier that binds the variable introduced by CL-N phrase contributes to its determinate or indeterminate reading. Following Coppock and Beaver (2015), I suggest that a CL-N phrase receives a determinate reading when IOTA is applied, and that IOTA is freely available and not inherently associated to any morpheme in Nung. Since a CL-N phrase introduces a variable, IOTA is defined as (23) in this paper.

(23) Meaning shift: IOTA
IOTA$\equiv \lambda y_{<\text{e}>}.\ \iota x(x = y)$

Based on Coppock and Beaver (2015, p.408), the ι-operator is defined so that it requires exactly one satisfier of the predicate, or else, it denotes an undefined individual; since ι is undefined when the only satisfier of the predicate does not exist, ι presupposes both existence and uniqueness.

My analysis for indeterminate CL-N phrases diverges from Coppock and Beaver (2015). Instead of suggesting that application of existential quantification (EX) is also freely available in Nung, I propose that the indeterminate reading of CL-N phrases comes from existential closure (Heim, 1982) when the indeterminate CL-N phrase occurs in the object position, or from the item *mī* 'have' when it occurs in an existential construction.[9] I will discuss the motivations for this proposal below.

The motivations for not proposing that the existential quantifier is freely available are twofold. The first motivation comes from syntactic distribution of indeterminate CL-N phrases. A CL-N phrase that occurs at the sentence-initial position is always determinate. For instance, language consultants suggest that (24) is not felicitous if the speaker does not presume the hearer to know about the existence of a chicken in the context.

(24) *tú kàì k^hàu hɤ̄n ma.*
CL chicken enter house come
'A chicken entered the house.'

If it is not presupposed that the referent of the Subject NP exists, the Subject NP may occur in an existential construction with the item *mī* 'have' occurring at the sentence-initial position, such as in (25).

(25) *#(mī) tú kàì k^hàu hɤ̄n ma.*
have CL chicken enter house come
'A chicken entered the house.'

If EX is freely available, it is predicted that all CL-N phrases, including those occurring at the sentence-

[9] My claim that an indeterminate CL-N phrase is a variable bound by existential closure echoes Li and Bisang (2012)'s analysis for indefinite CL-N phrases in the Fuyang dialect of Wu Chinese. But my analysis for determinate CL-N phrases in Nung differ the analysis of definite CL-N phrases in Wu Chinese in Li and Bisang (2012).

initial position, can have an indeterminate reading, which is contrary to what is observed in Nung.

Secondly, CL-N phrases in Nung can receive an indeterminate interpretation in contexts where English definites only have a determinate interpretation. To account for the observation that English definite NPs generally receive a determinate interpretation, Coppock and Beaver (2015) argues that IOTA takes priority over EX, thus EX can only be applied when the presupposition that a unique referent exists contradicts with the meaning of the utterance. Coppock and Beaver (2015) provides (26) as an example that shows the possibility for a NP with *only* to receive an indeterminate reading. They suggest that (26) has a reading that Anna gave multiple talks, which implies that 'the only talk' does not exist.

(26) Anna didn't give the only invited talk.

Coppock and Beaver (2015) suggests that *give*, which is a creation verb, places the existence of 'the only invited talk' to be at issue, when the verb phrase is under negation, there is no implication that 'the only invited talk' exists. They argue that the common ground should allow for the possibility that Anna gave multiple talks, where there is no existence of one unique talk in the common ground. Since the application of IOTA presupposes that one unique talk exists in the common ground, IOTA should not apply in (26) to allow for the possibility that no unique talk exists in the common ground.

In Nung, a CL-N phrase may receive an indeterminate reading even in contexts that allow for the existence of a unique referent in the common ground. For instance, (27) is a case where it is possible to presuppose the existence of a unique 'fish' in the context since the predicate implies the existence of the object NP. Hence, (27) should be a context where IOTA can be applied; if the claim that IOTA takes priority over EX applies to Nung, the CL-N phrase in (27) should only receive a determinate reading. However, (27) can be uttered in a context where the speaker only presumes the hearer to know that they went fishing in the morning, but they do not have any shared knowledge of the existence of any particular fish in the place where the speaker went fishing. In other words, the CL-N phrase *tú pjá* in (27) may be indeterminate as it refers to a fish that does not exist in the common ground prior to the utterance (27).[10]

(27) *nʌ́uu nʌ̀i hāu pʌ́t dʌ̀i tú pjá.*
morning PROX 1SG catch able CL fish
'I caught a fish this morning.'

Since indeterminate CL-N phrases in Nung only occur in a post-verbal position, I suggest that existential closure at the VP contributes to the indeterminate reading. Hence, IOTA or existential closure can be applied to a post-verbal CL-N phrase, allowing it to receive a determinate or determinate reading. For instance, although (15a) and (27) involve the same verb, the object CL-N phrase in the former receives a determinate reading and the latter an indeterminate reading as per the contexts of the two utterances.

Taking in consideration the observation that sentence-initial CL-N phrases are always determinate, I draw on Tsai (2001) and suggest that sentence-initial NPs in Nung do not occur within the scope of existential closure. Tsai (2001) argues that the domain of existential closure in a language with V-to-I movement is I', which includes the Specifier of VP, while that of a language without V-to-I movement is the V', which excludes the subject position. He suggests that languages without agreement morphology, such as Mandarin Chinese, do not license V-to-I movement, thus existential closure is not available to the subject NP. Nung, similar to Chinese lacks agreement morphology on verbs, thus I suggest, as per Tsai (2001) that the domain of existential closure in Nung is V', which excludes the subject NP. I provide Figure 1 as a representation of (27) at LF.[11]

[10] I argue that the CL-N phrase in (27) presupposes that the referent is contextually unique along the lines of my analysis for (12) and (18) — Since no fish exists in the common ground prior to the the utterance of the sentence, the fish is the only fish in the common ground.

[11] Based on Tsai (2001), I assume that the subject NP locates at the Spec IP position.

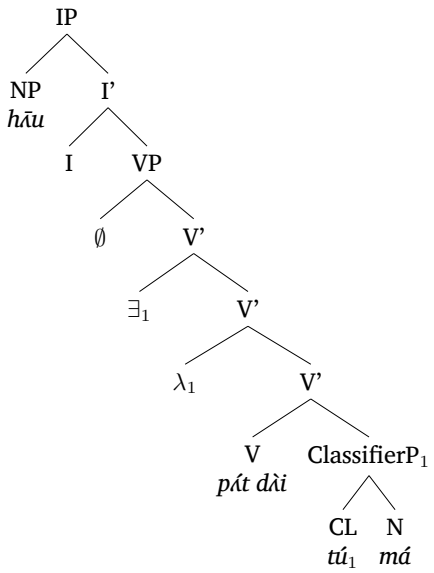

Figure 1: Representation of (27) at LF

In (12), the CL-N phrase can only be indeterminate. I suggest this is due to Definiteness Effect exhibited an existential construction (Milsark, 1979). Since this construction with sentence-initial *mī* is an existential construction that asserts the existence of the NP that occurs within it, if the CL-N phrase in (12) had a determinate reading, i.e. referred to a referent that was presupposed to exist, the use of this construction would result in a tautology, which is dispreferred in languages (Barwise & Cooper, 1981). Based on Tsai (2001), I suggest it is possible to assume that the binding of the variable introduced by the phrase *tú má* in (12) comes from the item *mī*. In Sinitic languages, existential constructions also involve an item meaning 'have' that occurs at the sentence-initial position. According to Tsai (2001), sentence-initial *you* functions as an unselective binder for an NP that directly follows it.

In section 5, I mentioned the phrase *tú má* in (18) has a narrow scope existential reading. If IOTA is freely available, it follows that the CL-N phrase *tú má* may receive a determinate reading as well. Based on (28), I suggest it is possible that the phrase *tú má* in (18) receives a determinate interpretation. (28), similar to (18), involves the predicate *pʰŏŋ tú má* occurring within the antecedent of a conditional sentence. In (28), the phrase *tú má* is determinate as it refers to the dog introduced into the discourse by the first clause of the example. This suggests that IOTA is available to a CL-N phrase that occurs in this syntactic environment.

(28) *jū hɤ̃n nɑ̀i mī tú má sɑ̄u tú mɛ̄u tɛ̄u, hɑ̌i nì pʰŏŋ tú má, sù hùu mēn kín hà.*
LOC house PROX have CL dog COM CL cat only.one, if 2SG meet CL dog, CONJ give 3SG eat SFP
'In this house, there is one dog and one cat, if you see the dog, please give it something to eat.'

In summary, I drew on Coppock and Beaver (2015) and argued that a bare classifier in Nung presupposes uniqueness but not existence; and that a CL-N phrase introduces a variable to be bound by quantifiers. I suggested as per Coppock and Beaver (2015) that the determinate reading of CL-N phrases comes from a freely available IOTA. Since I observed that indeterminate CL-N phrases only occur in a post-verbal position, I argued that the indeterminate reading of CL-N phrases does not come from a freely available EX, but rather, existential closure, which is only available at V', or from the sentence-initial *mī* in the existential construction.

7 Summary and outlook

In this paper, I studied the distribution of CL-N phrases in Nung. I suggested that the contrast between CL-N phrases that are translated into English with *the* and those that are translated with *a* is whether

they presuppose the existence of their referents in the common ground. Since both "definite" and "indefinite" CL-N phrases are only felicitous when they refer to a referent that is the only individual of the kind in the common ground, I argued that a CL-N phrase presupposes uniqueness regardless of whether it presupposes existence. I noted that determinate and indeterminate CL-N phrases have different syntactic distributions — the former may occur in the sentence-initial position and in post-verbal positions, while the latter only occurs in post-verbal positions. To account for the two interpretations of CL-N phrases and their syntactic distributions, I proposed that a CL-N phrase introduces a variable that carries a presupposition of uniqueness to be bound by a quantifier. I suggested as per Coppock and Beaver (2015) that IOTA contributes to the determinate reading, and that IOTA is freely available and not inherent to any morpheme in Nung. I suggested that indeterminate CL-N phrases are bound by existential closure or by sentence-initial *mī* in the existential construction.

This analysis of CL-N phrases in Nung suggests that the contrast between definiteness and determinacy suggested in Coppock and Beaver (2015) is observed in Nung. It also suggests that nominals that are translated into English with an indefinite article may have meanings pertaining to uniqueness (as per Dayal (2004)). The claim that CL-N phrases in Nung presuppose uniqueness also provides further crosslinguistic data to the position that languages may not represent different types of definiteness uniformly (as per Schwarz (2009) and others).

Since the focus of this paper is to explain the restrictions in the use CL-N phrase, the scope of paper is limited to the conditions that allow the use of CL-N phrases in Nung. Although a brief comparison of CL-N phrases with CL-N-'one' and CL-N-Dem phrases is provided, this paper has not provided a comparison between the use of CL-N phrases with bare nouns. The lexical entry provided for CL-N phrases is formulated to serve the goal of accounting for the distribution of CL-N phrases; it is not a compositional analysis of a CL-N phrase that is based on the semantics of bare nouns and classifiers. I will leave for future research for a semantic analysis of bare nouns, classifiers and other nominal elements in Nung, so as to provide a compositional analysis for CL-N phrases that also capture the meaning of other nominal constructions that involve classifiers.

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Appendix — List of abbreviations

Abbreviation	Meaning
1	First-person
3	Third-person
CL	Classifier
COM	Comitative
CONJ	Conjunction
COP	Copula
DEM	Demonstrative
DIST	Distal demonstrative
HON	Honorific
INTERROG	Interrogative
LOC	Locative
N	Noun
PFT	Perfect
PROG	Progressive
PROX	Proximal demonstrative
RECP	Reciprocal
SFP	Sentence final particle
SG	Singular