

Maximize Presupposition and Types of Indefinites in Chamorro\*

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## 1. Introduction

It is by now widely accepted that natural language allows a range of types of indefinites. For instance, some types of indefinites are scopally unrestricted; others must have wide scope with respect to semantic operators; still others must have narrowest scope, or must be within the scope of an operator in order to occur at all (see e.g. Matthewson 1999 on St'át'imcets). Within semantic theory, particular attention has been devoted to the types of indefinites that must have narrowest scope (henceforth *narrow-scope indefinites*). Chung and Ladusaw (2004 and 2006; henceforth C&L) account for such indefinites by enriching the inventory of semantic composition operations that combine predicates with their arguments. Specifically, they propose that a predicate can be combined with the descriptive content of an indefinite by Restrict, a composition operation that does not saturate the targeted relatum of the predicate but merely narrows its domain. C&L make no attempt to connect the limited scope potential of such indefinites to other aspects of their semantic-pragmatic profile. However, languages such as Hungarian, Spanish, and Catalan have bare singular NPs that must have narrowest scope, are semantically number-neutral, and make no contribution to discourse dynamics. This constellation of properties has led Farkas and de Swart (2003) and Espinal and McNally (2009) to propose accounts in which these deficiencies in scope, number, and discourse contribution are intertwined. The accounts are inspired by the leading idea—traceable to Van Geenhoven's (1998) seminal work on semantic incorporation—that narrow-scope indefinites are more limited than other types of indefinites *along multiple dimensions*.

It is worth asking whether narrow-scope indefinites have this deficient character across languages. Here I offer some novel evidence that suggests that they do not. The evidence comes from Chamorro, an Austronesian language of the Mariana Islands.

Alongside the definite article *i*, Chamorro has two indefinite articles that differ in scope possibilities. One indefinite article, *un*, has roughly the same range of scope options as English *a*. The other indefinite article, which is unpronounced, must have narrowest scope. Although I contend that indefinites formed from the null indefinite article are DPs, they have a realization indistinguishable from bare NPs. That might lead one to wonder to what extent they fit the profile of narrow-scope indefinites in Hungarian, Spanish, or Catalan.

I first show that Chamorro indefinites formed from the null indefinite article have semantic number and set up discourse referents that can be referred to subsequently. In these respects, they appear no more limited than indefinites formed from *un*. The rest of the discussion documents a pragmatic dimension along which the null indefinite article has a *less* limited distribution than *un*. This dimension involves Maximize Presupposition (MP), the pragmatic principle that urges the speaker to 'Make your contribution presuppose as much as possible!' (Heim 1991: 514-515).<sup>1</sup> Heim originally postulated MP to account for two effects, which have been called *antipresupposition* (following Percus 2006) and *presuppositional implicature* (following Leahy 2016). The indefinite article *un* exhibits both effects. But, surprisingly, the null indefinite article exhibits the second effect, but not the first.

There is no consensus on the precise formulation of MP, whether it can be made to follow from Grice's maxims, or even whether the effects attributed to it should be explained by the same principle (see e.g. Percus 2006, Singh 2011, Schlenker 2012, Leahy 2016, and Lauer 2016 for a range of views). However, many discussions of MP are framed partly in terms of presuppositional scales. Pairs of lexical items that "differ minimally" (Lauer 2016: 980) in carrying, or not carrying, a particular presupposition are viewed as arranged in a scale ordered by

presuppositional strength. MP directs speakers to choose the alternative that employs the strong rather than the weak member of the scale—the alternative that presupposes more—if they can.

In Chamorro, the definite article carries a uniqueness presupposition that the indefinite articles lack. So we expect these articles to form a presuppositional scale in which the definite article is strong and the indefinite articles are weak; this is what happens for presuppositional implicature.<sup>2</sup> Why is the null indefinite article ignored for antipresupposition? I suggest that part of the answer lies in C&L's notion of mode of composition. From the perspective of semantic composition, the definite article and *un* are what Horn and Abbott (2014: 334) would call “natural paradigmatic alternatives”: they are type-shifters that enable the descriptive content of DP to be composed with the predicate via Function Application. In contrast, the null indefinite article signals that the descriptive content of DP should be composed directly with the predicate via Restrict. This, I claim, is enough to explain why the null indefinite article does not compete with the definite article for antipresupposition purposes.

Like C&L, Farkas and de Swart (2003) and Espinal and McNally (2009) claim that the descriptive content of a narrow-scope indefinite is composed directly, as a property, with the predicate. This means that as far as antipresupposition is concerned, their accounts could make the same cut among Chamorro's three articles as C&L. But to the extent that these other accounts are designed to deliver narrow scope together with number neutrality and discourse inertia, they are not well-suited to handle the null indefinite article's full profile. For this reason, I maintain, C&L's approach is more appropriate here.

Section 2 introduces Chamorro and the three articles that are the focus of investigation. Section 3 sketches some ways of accounting for definites and indefinites in this language. It also presents evidence that the limited scope potential of the null indefinite article is not correlated with number neutrality or discourse inertia. Then, section 4 introduces MP and the effects attributed to it. Section 5 shows that the indefinite articles behave as expected for presuppositional implicature: in contexts in which the definite article's uniqueness presupposition is not already known to be satisfied, use of an indefinite article conveys that the speaker believes that the extra information that the definite article would have communicated is false.<sup>3</sup> Sections 6 and 7 deal with antipresupposition. Section 6 zeroes in on the use of articles in possessives. Chamorro possessives differ from English possessives like *Meg's cat* in that the article and the possessor co-occur and co-vary freely. I first confirm that Chamorro possessives formed from the null indefinite article have the form and meaning of indefinites, even when their possessor is definite. I then show that for possessed nouns for which it is common knowledge that the possessee is unique relative to the possessor (e.g. *gui'ing* ‘nose’, *nāna* ‘mother’), the two indefinite articles pull apart: *un* displays antipresupposition effects—its use is infelicitous—but the null indefinite article can be used felicitously. Section 7 uncovers a similar pattern in the use of articles with nouns whose intended referent is commonly understood to be unique in the real world (e.g. *ātdao* ‘sun’). After suggesting an account of these patterns, section 8 concludes with some general remarks about the typology of narrow-scope indefinites and its connection to the semantics of noun incorporation.

## **2. Chamorro: The Basics**

Chamorro is spoken by some 35,000-40,000 people in the U.S. Commonwealth of the Northern Mariana Islands (CNMI) and the unincorporated U.S. territory of Guam, and by numerous Chamorros in the continental U.S. The language has undergone rapid decline in the last half-century, and is now widely believed to be on the cusp of endangerment.

The language is head-initial and allows a range of null arguments. Clauses consist of a predicate, which can be a verb, noun, adjective or preposition, followed by the predicate's arguments and adjuncts. When the predicate is a verb or adjective, the relative order of arguments and adjuncts is flexible, but the unmarked, most frequent word order is: *Verb/Adjective Subject Object Other* (see Chung 1998). The inflected verbs are underlined in (1).<sup>4</sup>

- (1) Ha konni' si Orasima' i haggan, ya ha po'lu gi buti-ña.  
 AGR take UNM Orasima' the turtle and AGR put LOC boat-AGR  
 'Orasima' took the turtle, and he put it in his boat.' (from a narrative)

DPs formed from common nouns consist of a determiner (D) followed by an NP constituent consisting of the noun, its complements, and modifiers. The noun (underlined in (2)) precedes its complements, but can be preceded or followed by modifiers.

- (2) i ottimu na istoria ni guaha ta'lu sustansiân-ña  
 the last L story COMP AGR.exist again substance-AGR  
 'the last story which again has substance' (EM 99)

The Ds include quantifiers, demonstratives, and three articles: the definite article *i*, the indefinite article *un*, and the null indefinite article.

At first blush, the three articles have uses broadly similar to the uses of the definite and indefinite articles in English. The definite article *i* is used when the speaker and hearer can uniquely identify the intended referent of DP. In (3a), for instance, *i* is used because there is a unique sun in the world. In (3b), from a story, the old woman is the only individual who has been previously mentioned who is both female and old. In (3c)—an instruction from a psycholinguistic experiment involving a computer tablet—there is only one star displayed on the tablet screen. Finally, in (3d), it is reasonable to infer that the engine is unique relative to the car under discussion. (The relevant DPs are underlined.)

- (3) a. Dokku' i atdao.  
 AGR.sprout the sun  
 'The sun rose.'
- b. Nina'gogof maguf i biha kumu guaha bisitâ-ña.  
 AGR.PASS.make.very happy.PROG the old.lady if AGR.exist visitor-AGR  
 'The old woman was made very happy when she had visitors.' (Marciano n.d.: 1)
- c. Chonnik i puti'un guatu gi ...  
 push the star to.there LOC  
 'Push the star over to ... [the picture that fits the description].'
- d. Ti siña masugun i kareta sa' mayulang i makina.  
 not can AGR.PASS.drive the car because AGR.PASS.break the engine  
 'The car can't be driven, because the engine is broken.'

Following Roberts (2003), I assume that *i* carries both an existence presupposition and a presupposition of *informational uniqueness*—"the requirement that sufficient information has

been given to uniquely indicate the intended discourse referent antecedent among all those in the common ground of the participants” (Roberts 2003: 307).

The indefinite articles have existential force. DPs formed from *un* or the null indefinite article are used to introduce new discourse referents, as in (4).

- (4) a. Mimilalak ginin i kannat un balutan magågu.  
 AGR.float.PROG from the channel a bundle.L clothes  
 ‘A bundle of clothes came floating from the channel.’ (Cooreman 1983: 107)
- b. Anai ma baba, humuyung påtgun.  
 when AGR open AGR.come.out child  
 ‘When they opened it, a child came out.’ (Cooreman 1983: 107)

DPs formed from either indefinite article display quantificational variability. The most natural interpretation of (5a) is that each child received a different bunch of bananas, and of (5b), that each house should have a different exit.

- (5) a. Ha dispåtta si nãna i rasimun aga’ ya ha påtti kada  
 AGR separate UNM mother the stalk.L banana and AGR apportion each  
 patgon-ña un iting.  
 child-AGR a bunch  
 ‘Mother divided the banana stalk and gave each child of hers a bunch.’ (CD, entry for *dispåtta*)
- b. Gi kada guma’ debi di u guaha sagan fanhuyungan.  
 LOC each house should AGR exist place.L exit  
 ‘In every house there has to be an exit.’ (CD, entry for *fanhuyungan*)

Again following Roberts (2003), I assume that the fundamental difference between *i* and the indefinite articles is that *i* carries a uniqueness presupposition, but the indefinite articles do not.

The rest of the discussion takes it for granted that Chamorro has a three-way article system that includes two indefinite articles, one of which is not pronounced. Before going further, I should perhaps reiterate the claim that the null indefinite article exists as a D in its own right, as opposed to being an unpronounced form of one of the other articles or simply not instantiating a syntactic category at all. (In the latter scenario, what I have been calling ‘DPs formed from the null indefinite article’ would be bare NPs.) Some evidence supporting this claim will emerge in section 5. A selection of other evidence is offered below:

(i) Out of context, DPs formed from *un* or the null indefinite article can serve as the pivot of an affirmative existential sentence, but DPs formed from *i* cannot (see Chung 2006). This familiar pattern reveals the null indefinite article is not a phonologically reduced form of *i*.

- (6) a. Guaha un kostat suni.  
 AGR.exist a bag.L taro  
 ‘There’s a bag of taro.’ (heard at a conference)
- b. Disdi esti, kada sãkkan guaha nobena yan lukao.  
 since this each year AGR.exist novena and procession  
 ‘Since this, every year there is a novena and procession.’ (EM 104)

- c. \*Guaha        i        katni.  
           AGR.exist    the    meat  
           (There's the meat.)

(ii) DPs formed from *un* typically have wide scope with respect to negation (C&L 2004: 100-102), but DPs formed from the null indefinite article always have narrowest scope. Moreover, only DPs formed from the null indefinite article can be the pivot of a negative existential sentence. This pattern, shown in (7a), reveals that the null indefinite article is not a phonologically reduced form of *un*. (In addition, (7b) shows that out of context, the pivot of a negative existential sentence cannot be a DP formed from *i*.)

- (7) a. Tâya'                    (\*un)        prublema.  
           AGR.not.exist    a            problem  
           'There's no problem.'  
       b. Tâya'                    (\*i) sumâsaga        Susupe na palão'an.  
           AGR.not.exist    the    AGR.live.PROG    Susupe L    woman  
           'There isn't any/\*the woman who lives in Susupe.'

(iii) Chamorro has a syntactic topic position at the left edge of the clause (Chung 1998). DPs formed from *i* or *un* can occupy this position, but DPs formed from the null indefinite article cannot. This is another reason for distinguishing the null indefinite article from the other two articles.

- (8) a. I        taotao    ha    oddu'    i        balutan magâgu gi    ilu-ña.  
           the person    AGR.carry    the bundle.L clothes    LOC head-AGR  
           'The man carried the bundle of clothes on his head.' (CD, entry for *oddu'*)  
       b. Parehu        yan        i        simiyan mustâsa ni        un    tâotao    ha    chuli' ...  
           AGR.similar    with        the seed.L    mustard COMP    a    person    AGR.take  
           'It is like a mustard seed, which a man took....' (NT 133)  
       c. \*Tâotao        gai            patgun    un    lâhi.  
           person        AGR.have    child    a    boy  
           (A man had a son.)

(iv) Finally, like other DPs, indefinites formed from the null indefinite article can have a possessor (see section 6). Possessors in Chamorro occur high in the structure of DP, outside the NP constituent consisting of the noun, its complements, and modifiers. This is why noun incorporation, which incorporates NPs in Chamorro (see (9a)), cannot incorporate an NP accompanied by a possessor (see (9b-c) and C&L 2004: 85-88).

- (9) a. Gai                    [kareta    ni        agaga'] si        Juan.  
           AGR.have    car        COMP    AGR.red UNM    Juan  
           'Juan has a car that is red.'  
       b. \*Gai                    [lepblom-mu]    yu'.  
           AGR.have    book-AGR        I  
           (I have your book.)

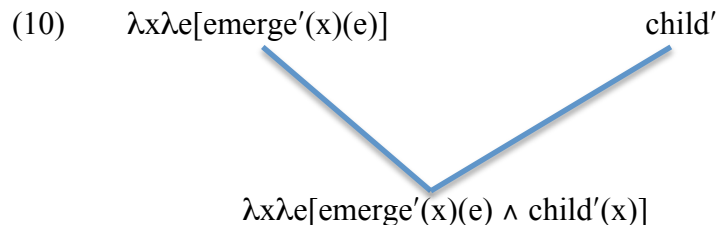
- c. \*Hâyi gai [karetan Dolores]?  
 who? AGR.have car.L Dolores  
 (Who has Dolores' car?)

The fact that indefinites of the type shown in (4b), (5b), (6b), and (7) can host a possessor reveals that they are constituents larger than NP. More precisely, they are DPs formed from a D that is not pronounced—the D referred to here as the null indefinite article.

### 3. Some Ways of Accounting for Definites and Indefinites in Chamorro

I observed earlier that DPs formed from the null indefinite article must have narrowest scope. The three accounts of narrow-scope indefinites sketched below are similar in claiming that the descriptive content of such indefinites is composed directly with the predicate.

C&L claim that the descriptive content of narrow-scope indefinites is composed with the predicate by Restrict, a non-saturating operation that uses the descriptive content of the indefinite to narrow the domain of the predicate's relatum. For Chamorro, this amounts to saying that the null determiner is a semantically vacuous identity element that composes with the meaning of NP to yield a DP that denotes a property. Restrict then applies to compose this property directly with the predicate's relatum. The analysis subtree in (10) illustrates how Restrict combines the meaning of the property-denoting DP *pâtgun* 'child' with the meaning of the predicate *humuyung* 'come out, emerge' in the semantic composition of (4b). (I assume the predicate relation supplied by the verb includes a Davidsonian event argument.)



Note that the resulting expression is just as semantically incomplete as it was before Restrict applied: the value of the targeted relatum has not yet been fixed. C&L (2004: 11-12) assume that if the targeted relatum is not saturated by further predicate-argument composition, the incompleteness is remedied by existential closure, which occurs early enough in the compositional process to ensure narrowest scope.

Farkas and de Swart (2003) develop an approach to semantic incorporation that links the narrow scope of bare NPs to number neutrality and the failure to contribute a discourse referent. In their account, which is framed in Discourse Representation Theory, a predicate's thematic arguments normally combine with the meaning of argument nominals by instantiation: the predicate's thematic argument is replaced by the discourse referent that the argument nominal introduces. However, only nominals that are specified for semantic number can introduce discourse referents. When the argument nominal introduces no discourse referent, its descriptive content is unified with the predicate's thematic argument, forming a complex predicate; this is what gives rise to narrowest scope.

Finally, Espinal and McNally (2009) construct an account of bare noun objects in Spanish and Catalan that treats them semantically as verb modifiers. In their account, a lexical rule suppresses the verb's internal argument, thereby ensuring that this argument contributes no

discourse referent. The lexical rule does not, however, block the entailment that two participants are involved in the event. Verbs whose internal argument has been suppressed are composed with the descriptive content of a bare noun complement by a special rule of intersective modification. The fact that the descriptive content of the bare noun combines directly with the verb meaning ensures that it has narrowest scope.

Despite certain recurring themes, there are substantial differences among these accounts. I want to focus here on the claim that certain types of indefinites—or, perhaps, bare NPs in general—are simultaneously deficient in scope, number, and discourse dynamics. Is this the profile of narrow-scope indefinites (or bare NPs) crosslinguistically?

Chamorro's narrow-scope indefinites can be viewed as bare NPs, so the question can be raised about them. As a matter of fact, these indefinites do not appear to be deficient in number or discourse contribution. In these respects, they resemble indefinites formed from *un*.

To begin with, indefinites formed from the null indefinite article are *not* semantically number-neutral, although it requires a bit of effort to see this. The vast majority of Chamorro nouns show number inflection only optionally. However, the language has six nouns that must be inflected (irregularly) for number: *lâhi* 'man', *palão'an* 'woman', *pâtgun* 'child', *saina* 'parent', *che'lu* 'sibling', and *pâli* 'priest'. Indefinites formed by combining these nouns with the null indefinite article are construed as singular if the noun is in the unmarked form, and as plural if the noun is in the plural form; they do not have a number-neutral interpretation.<sup>5</sup>

- (11)a. Manli'i'      yu' pâtgun    gi   kantun   tâsi.  
 AGR.AP.see   I   child   LOC edge.L   ocean  
 'I saw a child at the beach [= one child, not not more than one child].'  
 b. Manli'i'      yu' famagu'un    gi   kantun   tâsi.  
 AGR.AP.see   I   children   LOC edge.L   ocean  
 'I saw children at the beach [= several children, not just one child].'

Further, indefinites formed from the null indefinite article can set up discourse referents that can be referred to subsequently, just like indefinites formed from *un*. This can be seen from the examples in (12), which are taken from narratives. In (12a), an indefinite formed from *un* serves as the antecedent of a definite DP later in the discourse (cf. (4a)); in (12b), an indefinite formed from the null indefinite article serves as the antecedent of a DP formed from a demonstrative (cf. (4b)); and in (12c), an indefinite formed from the null indefinite article serves as the antecedent of two (null) pronouns—the object of the transitive verb *gu'ut* 'grasp' and the subject of *malingu* 'disappear'.

- (12)a. Mimilalak      ginin    i    kannat   un   balutan   magâgu ...    Pues    ha   chuli'  
 AGR.float.PROG   from   the   channel   a   bundle.L clothes   then   AGR take  
 si      Jose    i    balutan.  
 UNM   Jose   the   bundle  
 'A bundle of clothes came floating from the channel...Then Jose grabbed the bundle.'  
 (Cooreman 1983: 107)  
 b. Anai    ma   baba,    humuyung      pâtgun ...    Pues    esti   na   pâtgun   sikretu  
 when   AGR open   AGR.come.out   child   then   this L   child   secret  
 mo'na   sigi    ha'   di   ha   poksai.  
 forward keep.on EMP   AGR raise



‘When they opened it, a child came out....So this child they kept on raising secretly from then on.’ (Cooreman 1983: 107)

- c. Siempri guaha nai manã'i hao dangis hãlum ya gigan  
surely AGR.exist COMP AGR.PASS.give you candle inside and as.soon.as  
un gu'ut, malingu.  
AGR.grasp AGR.disappear  
‘Surely there will be times when you are given a candle inside and as soon as you grasp it, it disappears.’ (Cooreman 1983: 4)

These patterns suggest that Chamorro’s narrow-scope indefinites are better handled by C&L’s account than by Farkas and de Swart’s or Espinal and McNally’s. I will assume this for now, returning to the issue at the end.

A more familiar range of options is available for the compositional semantics of DPs formed from *i* or *un*. For instance, *i* could be a type-shifter from properties to individuals (e.g. Partee’s (1987) *iota*) or from properties to generalized quantifiers (e.g. a version of Partee’s (1987) *THE* in which existence and uniqueness are presupposed; see Coppock and Beaver 2015: 383); *un* could be a type-shifter from properties to individuals (e.g. a choice function; see Reinhart 1997, Winter 1997, Kratzer 1998, C&L 2004) or from properties to generalized quantifiers (e.g. Partee’s (1987) *A*). I believe it is unimportant for my purposes which of these options is adopted. What matters is that *i* and *un* are type-shifters that enable the descriptive content of DP to be composed with the predicate’s relatum by Function Application. This differentiates them from the null indefinite article, which signals that the descriptive content of DP is composed with the predicate’s relatum by Restrict.

With this much in place, I now move on to MP, which provides a dimension along which indefinites formed from the null indefinite article are *less* constrained than indefinites formed from *un*.

#### 4. Maximize Presupposition: The Basics

Heim (1991) observed that there seems to be a condition that urges speakers to avoid the indefinite article if they can use the definite article. (For different approaches to roughly the same material, see Hawkins 1978: 175-191 and 1991: 432-434). She identified two sorts of contexts in which the condition is at work. First, in contexts in which the uniqueness presupposition carried by the definite article is already known to be satisfied, use of the indefinite article is infelicitous. This is what Percus (2006) refers to as *antipresupposition*. What goes wrong in (13), for instance, is that the indefinite article is used although it is normally taken for granted that each concrete object has a unique weight.

- (13) #A weight of our tent is under 2 kilos. (Heim 1991: 514)

Second, in contexts in which the uniqueness presupposition carried by the definite article is *not* already known to be satisfied, use of the indefinite article implicates that the speaker believes that the extra information that the definite article would have communicated is false (see note 3). This is what Leahy (2016) calls *presuppositional implicature*. In (14), for instance, the use of *a pianist* rather than *the pianist* aggressively invites the inference that the pianist who Richard had a beer with is not the pianist of the Beaux Arts Trio.

- (14) Richard heard the Beaux Arts Trio last night and afterwards had a beer with a pianist. (Heim 1991: 515)

Although Heim noted that the condition at work in (13-14) is reminiscent of scalar implicature, she claimed that it could not be accounted for in the same way. Her reason was that scalar implicatures are usually derived from Grice's maxim of quantity ('Make your contribution as informative as is required'), but given that it is common knowledge that each concrete object has a unique weight, an example like (13) is not less informative than its felicitous counterpart (15).

- (15) The weight of our tent is under 2 kilos.

She suggested that the privileging of the definite over the indefinite article might instead follow from a new conversational maxim, 'Make your contribution presuppose as much as possible!'—the maxim now known as MP.

There has been an explosion of research on MP since the turn of the century. Its empirical domain has been widened to include other pairs of lexical items that differ in presuppositional strength (e.g. *both* and *all*, *know* and *believe*; see Percus 2006), as well as certain types of inflectional morphology (e.g. tense, number agreement; see Sauerland 2003 and 2008). Considerable effort has been devoted to crafting a more precise formulation of MP and integrating it in one way or another into a Gricean model of reasoning (see e.g. Schlenker 2012, Leahy 2016, Lauer 2016). Other research has probed the question of whether the alternatives compared by MP are lexical items or more complex expressions consisting of clauses or sentences plus their interpretations (see e.g. Percus 2006, Singh 2011, Schlenker 2012, Lauer 2016, Collins 2016).

The goal of this discussion is to use the interplay between Chamorro's article system and MP to provide evidence for C&L's modes of composition. Because I am interested primarily in the effects attributed to MP, I will not need to commit to any formulation of it more precise than Heim's. In section 8, however, I will briefly engage with some larger questions that emerge from the Chamorro material investigated here.

## 5. Presuppositional Implicature

Given that Chamorro *i* carries a uniqueness presupposition that the indefinite articles lack, we expect the indefinite articles to exhibit presuppositional implicature effects. In contexts in which *i*'s uniqueness presupposition is not already known to be satisfied, use of an indefinite article should implicate that, for all the speaker knows, the extra information that *i* would have communicated is false. This is in fact what happens. Consider a discourse in which the speaker utters (16), followed by one of the sentences in (17), which differ only in the article used to form the underlined DP.

- (16) Humānao    yu' para    i    fandāngu    gi    egga'an.  
 AGR.go    I    to    the wedding    LOC morning  
 'I went to the wedding celebration in the morning.'
- (17)a. Dispues,    gi    talu'āni,    hu    li'i' i    nobia.  
 then    LOC afternoon    AGRsee the bride  
 'Then, in the afternoon, I saw the bride.'

- b. Dispuēs, gi talu'āni, hu li'i' un nobia.  
 then LOC afternoon AGR see a bride  
 'Then, in the afternoon, I saw a bride.'
- c. Dispuēs, gi talu'āni, hu li'i' nobia.  
 then LOC afternoon AGR see bride  
 'Then, in the afternoon, I sighted a bride.'

An utterance of (17a), with the definite article, can be felicitously used to report that the speaker saw the bride from the wedding s/he attended earlier that day. But an utterance of (17b), with *un*, implies that the speaker saw a bride from a different wedding, or perhaps the wedding that the speaker attended involved multiple brides. (As one consultant said, "We are assuming here several weddings happened or it could be a polygamous wedding!") That is, (17b) implicates that there is more than one bride in the domain of discourse. An utterance of (17c), with the null indefinite article, has the same non-uniqueness implication. (The consultant commented, "Interesting sentence. Translation: Afterwards, I sighted (a) bride (could be any bride)".)

A discourse in which the speaker utters one of the sentences in (18) gives rise to similar effects. Note that *mākina* means 'engine, machine'.

- (18)a. Hu sugun i kareta, pues mayamak i mākina.  
 AGR drive the car then AGR.PASS.break the engine  
 'I drove the car, then the engine broke.'
- b. Hu sugun i kareta, pues mayamak un mākina.  
 AGR drive the car then AGR.PASS.break a engine  
 'I drove the car, then an engine / machine broke.'
- c. ??Hu sugun i kareta, pues mayamak mākina.  
 AGR drive the car then AGR.PASS.break engine  
 'I drove the car, then an engine / machine broke.'

The most natural understanding of an utterance of (18a), with the definite article, is that the speaker drove the car and then the engine of that car broke. However, an utterance of (18b), with *un*, implies that a machine broke which might or might not be the engine of the car the speaker drove. (The consultant commented, "Could mean one part of the car's engine broke or some other machine broke, or could be [that] a machine he was transporting in the car broke.") An utterance of (18c), with the null indefinite article, licenses this inference as well. ("Not clear which machine.")

A comment is in order about the status of (17c) and (18c). In Chamorro, DPs formed from the null indefinite article routinely serve as arguments in naturally-occurring discourse and in sentences volunteered by speakers in fieldwork sessions. Consider the sentences below, which are parallel in the relevant respects to (17c) and the last clause of (18c).

- (19)a. Ma lili'i' palão'an na ā'paka' magagu-ña ...  
 AGR see.PROG woman COMP AGR.white clothes-AGR  
 '[Sometimes] they saw a woman with white clothes...' (Cooreman 1983: 3)
- b. Mayulang siya.  
 AGR.PASS.break chair  
 'A chair broke.'

However, speakers sometimes report that mini-discourses like (16-17c) or (18c) are incomplete, leave the listener hanging, or are not really grammatical. The dissonance seems more pronounced when the DP is inanimate, as in (18c). I believe these reactions reflect the fact that these discourses are not very good discourses. DPs formed from the null indefinite article typically introduce discourse referents that are not salient. However, the design of the mini-discourses and their presentation as minimal triplets serves to draw attention to the discourse referents these DPs introduce. The heightened salience could well lead to the judgment that in this particular context, a DP formed from the null indefinite article does not supply enough information for the discourse to cohere. Mini-discourses like (16-17b) and (18b), with a DP formed from *un*, do not encounter the same issue, because DPs formed from *un* can introduce discourse referents that are salient.

(In Chamorro, the antipassive voice signals explicitly that the internal argument is not salient. In a discourse in which the speaker utters (16), followed by one of the antipassive sentences in (20), both types of indefinites are readily accepted, and the pattern of presuppositional implicature is similar to what was reported for (17-18).<sup>6</sup>

- (20) a. Ya gi talu'āni manbisita yu' ni nobiu.  
 and LOC afternoon AGR.AP.visit I OBL.the groom  
 'And in the afternoon I visited with the groom [= the groom from the wedding earlier that day].'
- b. Ya gi talu'āni manbisita yu' un nobiu.  
 and LOC afternoon AGR.AP.visit I a groom  
 'And in the afternoon I visited with a groom.' [It might or might not be the groom from the wedding earlier that day.]
- c. Ya gi talu'āni manbisita yu' nobi.  
 and LOC afternoon AGR.AP.visit I groom  
 'And in the afternoon I visited with a groom.' [It might or might not be the groom from the wedding earlier that day.]

However, not all speakers are comfortable with mini-discourses like (17-20a), in which the internal argument of the antipassive verb is definite, even though such constructions are grammatical elsewhere. The loose trade-off between voice, definiteness, and salience seen above exhibits considerable individual variation; it clearly deserves further study.)

Abstracting away from the intricacies, the presuppositional implicature effects in (17-18) reveal that the use of definite and indefinite articles in Chamorro conforms to MP as expected. I provisionally take this to mean that the three articles are arranged in a presuppositional scale in which the definite article *i* is the strong member and either *un* or the null indefinite article is the weak member. It will be convenient later for me to decompose this into two simpler presuppositional scales, one consisting of *i* and *un* and the other consisting of *i* and the null indefinite article. In Horn's (2001[1989]: 231) formalism, in which the stronger member of the scale occurs to the left of the weaker member, these scales are  $\langle i, un \rangle$  and  $\langle i, null \rangle$ .

Over and above this, we have now arrived at another argument that the null indefinite article exists in the first place (see section 2). In the literature on MP, the members of presuppositional scales are sometimes assumed to be lexical items that are members of the same syntactic category (see Percus 2006 for explicit discussion). If we adopt this assumption, then the fact that

the null indefinite article forms a presuppositional scale with *i* is evidence that it is a lexical item and, further, belongs to the same category as *i*. It is a D that happens not to be pronounced, in other words.

## 6. Antipresupposition, Part 1

The claim that Chamorro articles conform to MP leads to the expectation that the indefinite articles should exhibit antipresupposition effects. Here the empirical patterns are more complex, so the discussion is divided into two parts. I begin by exploring antipresupposition effects involving nouns whose meaning, together with common knowledge, communicates that the possessee is unique relative to the possessor (e.g. *gui'ing* ‘nose’). But for the investigation to get off the ground, some background must be installed about the form and meaning of Chamorro DPs that contain a possessor, which—following Barker 1991—I call *possessives*.

### 6.1. Chamorro Possessives: The Basics

Possessives in Chamorro have a possessor that occurs high within DP, following the noun and outside the NP constituent consisting of the noun, its complements, and modifiers (see Chung 1998 and 2006). The noun either shows (suffixal) agreement with the possessor or else is inflected with the linker (glossed L).<sup>7</sup> The possessor is enclosed in brackets below.

- (21) a. neni-ña [si Dolores]  
           baby-AGR UNM Dolores  
           ‘a baby of Dolores’  
       b. nenin [Dolores]  
           baby.L Dolores  
           ‘a baby of Dolores’

These possessives are quite unlike English possessives such as *Meg's cat* in that D and the possessor coexist and covary freely. Consider the examples below, which make the point that a possessive can be formed from any article—*i*, *un*, or null—and, moreover, the possessor can be any type of DP. (The overt articles in (22) are in bold-face, and pronoun possessors are represented as *pro*; see note 7.)

- (22) a. **i** hugetin [i neni]  
           the toy.L the baby  
           ‘the toy of the baby’  
       b. **i** gapitulun [patgon-ña [pro]]  
           the hair.L child-AGR  
           ‘the hair of a child of hers’  
       c. **un** kannai-ña [pro]  
           a arm-AGR  
           ‘an arm of his’ (CD, entry for *mångku*)  
       d. **un** balutan [kandi]  
           a bag.L candy  
           ‘a bag of candy’ (CD, entry for *ápatti*)  
       e. pảo-ña [i sadduk]  
           smell-AGR the river

- ‘an(y) odor of the river’
- f. che’chu’ [**un** tãotao]  
 work.L a person  
 ‘work of a (i.e. one) person’ (heard at a meeting)
- g. patgun [tãotao]  
 child.L person  
 ‘a child of a person’

Just as for other DPs, the definiteness of a possessive is determined by the definiteness of the D from which it is formed. I take this to be self-evident for possessives formed from the articles *i* and *un*. (For some evidence, read on to section 6.2.) One might wonder about the status of possessives formed from the null indefinite article, given Barker’s (2011) claim that English possessives like *Meg’s cat*, which have no overt article, inherit their familiarity and uniqueness from their possessor. (Relatedly, it has sometimes been claimed that English prenominal possessives are definite; see e.g. Jensen & Vikner 2002: 200-201 and, for discussion, Barker 2000 and 2011). However, there is abundant evidence that in Chamorro, *a possessive formed from the null indefinite article has the morphosyntax and semantics of an indefinite*, even when the possessor is definite. Chamorro possessives do not inherit their definiteness from the possessor, in other words (see Chung 2006). Here is some of the evidence:

- (i) A possessive formed from the null indefinite article can serve as the pivot of an existential sentence (see (23a-b)), but a possessive formed from the definite article cannot (see (23c)).
- (23) a. Guaha            difekton-ña [i adding [i taotao]].  
           AGR.exist    defect-AGR    the leg.L    the person  
           ‘The person’s leg has a defect (lit. There is a defect of the leg of the person).’ (EM 133)
- b. Tãya’            patgon-ña [pro].  
           AGR.not.exist    child-AGR  
           ‘There isn’t a child of hers / She doesn’t have a child.’
- c. \*Tãya’            i patgon-ña [pro].  
           AGR.not.exist    the child-AGR  
           (There isn’t the child of hers.)

(ii) A possessive formed from the null indefinite article *cannot* occupy the syntactic topic position at the left edge of the clause (see (24a)). However, a possessive formed from the definite article can (see (24b)).

- (24) a. \*Ga’-mu [pro]    ha na’dãnu            i gualu’.  
           pet-AGR            AGR cause.damage    the garden  
           (A dog of yours destroyed the garden.)
- b. I ga’-mu [pro] ha na’dãnu            i gualu’.  
           the pet-AGR            AGR cause.damage    the garden  
           ‘Your dog destroyed the garden.’

(iii) Possessives formed from the null indefinite article exhibit quantificational variability, but possessives formed from the definite article do not, or do so with greater difficulty. The most

immediate interpretation of (25a) is that a different child of hers gets sick on different occasions, whereas the most immediate interpretation of (25b) is that the same child gets sick on multiple occasions.

- (25) a. Kada malāngu patgon-ña [pro], tristi gui'.  
 every.time AGR.sick child-AGR AGR.sad she  
 'Every time a child of hers gets sick, she's sad.'  
 b. Kada malāngu i patgon-ña [pro], tristi gui'.  
 every.time AGR.sick the child-AGR AGR.sad she  
 'Every time her child gets sick, she's sad.'

(iv) Possessives formed from the null indefinite article are nonreferring in opaque contexts (see (26a)). However, possessives formed from the definite article are referring even in these contexts (see (26b)).

- (26) a. Malagu' si Jose mañodda' asaguã-ña [pro].  
 AGR.want UNM Jose INFIN.AP.find spouse-AGR  
 'Jose wants to find a wife (of his).' [He has no wife; he's not married yet.]  
 b. Malagu' si Jose mañodda' nu i asaguã-ña [pro].  
 AGR.want UNM Jose INFIN.AP.find OBL the spouse-AGR  
 'Jose wants to find his wife.' [He already has a wife, but she's not in the vicinity.]

(v) Finally, question-answer pairs reveal that a possessive formed from the null indefinite article does not presuppose uniqueness (maximality). Consider a scenario in which B and C both know that Antonio has siblings, but only C knows that some of Antonio's siblings are smart and some are not smart. Suppose that B asks the question in (27a), with a possessive formed from the null indefinite article. When asked how C would respond, speakers volunteered the responses in (27b) as the first or most natural answer. (Other answers are possible.) These responses reveal that the question was understood to be about one or more of Antonio's siblings.<sup>8</sup>

- (27) a. B: Kao manmalāti' mañe'lu-ña [si Antonio]?  
 Q AGR.smart siblings-AGR UNM Antonio  
 'Are siblings of Antonio smart?'  
 b. C: Guaha ha'. / Hunggan.  
 AGR.exist EMP yes  
 'There are some. / Yes.'

Now suppose that B instead asks the question in (28a), with a possessive formed from the definite article. When asked how C would respond, the same speakers volunteered (28b). Here, the responses reveal that the question was understood to be about all of Antonio's siblings.

- (28) a. B: Kao manmalāti' i mañe'lu-ña [si Antonio]?  
 Q AGR.smart the siblings-AGR UNM Antonio  
 'Are Antonio's siblings smart?'  
 b. C: Ti todū. / Āhi'.  
 not all no

‘Not all. / No.’

The contrast between (27) and (28) is evidence that Chamorro possessives do not inherit uniqueness from their possessors. Instead, possessives formed the definite article presuppose uniqueness; possessives formed from the null indefinite article do not.

The possessor in a Chamorro possessive can bear any semantic relation at all to the (possessed) noun. Nonetheless, the discussion here focuses on relational nouns—nouns that denote a relation identical to what Barker (1991 and 2011) calls the possession relation.

## 6.2. Antipresupposition in Possessives

We are now ready for antipresupposition. Suppose the noun of a possessive is a relational noun such as *gui’ing* ‘nose’, *kurason* ‘heart’, or *nanã* ‘mother’, for which it is common knowledge that the possessee is unique relative to the possessor. Because this is a context in which *i*’s uniqueness presupposition is already known to be satisfied, the use of either indefinite article should be infelicitous.

Here, the two indefinite articles pull apart. The use of *un* is indeed infelicitous, as (29) shows.

- (29) a. #Kumåtma i bongbung un kurason-ña [*pro*].  
 AGR.calm the beat.L a heart-AGR  
 ‘The beating of a heart of hers calmed down.’  
 b. #Hu mokmuk un pachot-tu [*pro*].  
 AGR rinse a mouth-AGR  
 ‘I rinsed a mouth of mine.’  
 c. #Mañisiha un nanã-hu [*pro*] yan i mankiñadã-ña siha.  
 AGR.together.PROG a mother-AGR and the sisters.in.law-AGR PL  
 ‘A mother of mine and her sisters-in-law were together.’

But, surprisingly, the use of the null indefinite article is felicitous. In fact, the null indefinite article occurs quite often in this context, as the following naturally-occurring examples are intended to illustrate.<sup>9</sup>

- (30) a. Kumåtma i bongbung kurason-ña [*pro*].  
 AGR.calm the beat.L heart-AGR  
 ‘The beating of her heart (lit. a heart of hers) calmed down.’ (EM 82)  
 b. Kada ogga’an, hu mokmuk pachot-tu [*pro*].  
 each morning AGR rinse mouth-AGR  
 ‘Every morning, I rinse my mouth (lit. a mouth of mine).’ (CD, entry for *mokmuk*)  
 c. Chamoru nanã-hu [*pro*], Chamoru tata-hu [*pro*].  
 Chamorro mother-AGR Chamorro father-AGR  
 ‘My mother (lit. a mother of mine) is Chamorro, my father (lit. a father of mine) is Chamorro.’ (from a conference presentation)  
 d. Manågu’ na u ma’utut aga’gã’-ña [*si* Juan] gi presu.  
 AGR.AP.order COMP AGR PASS.cut throat-AGR UNM Juan LOC prison  
 ‘He ordered that John’s throat (lit. a throat of John) be cut in the prison.’ (NT 27)



- e. Singku bibenda linekkâ'-ña [atyu na guma'].  
 five storeys height-AGR that L house  
 'The (lit. a) height of that building is five storeys.' (CD, entry for *linekka'*)
- f. Anâkku' dadalak-ña [i hafula'].  
 AGR.long tail-AGR the manta.ray  
 'The (lit. a) tail of the manta ray is long.' (CD, entry for *hafula'*)
- g. Hâfa na mampus amariyu kulot-mu [pro]?  
 what? COMP too.much AGR.yellow color-AGR  
 'Why is your color (lit. a color of yours) so yellow?' [addressed to a canary] (EM 82)

I should emphasize that the possessives in (30) can be shown to be indefinite by the same sorts of evidence I used in section 6.1 to make this point more generally for possessives formed from the null indefinite article. Even when the relational noun's meaning, together with common knowledge, communicates that the possessee is unique relative to the possessor, the possessive can be the pivot of an existential sentence, cannot occupy the syntactic topic position, and is nonreferring in opaque contexts (see the Appendix for some relevant examples). Moreover, the use of the definite article is also felicitous in this context, just as MP leads us to expect. Compare (30a), (30c), and (30f) with the examples below.

- (31)a. Hâfa na ti pasifiku i kurason-ña [pro].  
 whatever COMP not AGR.peaceful the heart-AGR  
 'For whatever reason, his heart is not calm.' (EM 128)
- b. U niñukut ni tilipas apuya' i nanâ-ña [pro].  
 AGR PASS.strangle OBL umbilical.cord the mother-AGR  
 'It will be strangled by the umbilical cord of its mother.' (CD, entry for *chathinenggi*)
- c. Hingao i dadalak-ña [i ga'lâgu].  
 AGR.hairless the tail-AGR the dog  
 'The tail of the dog is hairless.' (CD, entry for *dâdalak<sub>2</sub>*)

What has changed the playing field? Descriptively, it looks like the scale  $\langle i, un \rangle$  remains in force for antipresupposition, but for some reason,  $\langle i, null \rangle$  has been suspended.

The idea that the null indefinite article does not form a scale with *i* for antipresupposition purposes is supported by the discourse patterning of possessives of types (30) and (31). When it is common knowledge that the possessee is unique relative to the possessor, a possessive that explicitly introduces the discourse referent corresponding to the possessee can be formed from the null indefinite article or from *i*.

- (32)a. Ti siña masugun i kareta, sa' mayulang makinâ-ña [pro].  
 not can AGR.PASS.drive the car because AGR.PASS.break engine-AGR  
 'The car can't be driven, because its engine (lit. an engine of it) is broken.'
- b. Ti siña masugun i kareta, sa' mayulang i makinâ-ña [pro].  
 not can AGR.PASS.drive the car bec. AGR.PASS.break the engine-AGR  
 'The car can't be driven, because its engine (lit. the engine of it) is broken.'

Moreover, a possessive that refers back to a previously introduced discourse referent can itself be formed from the null indefinite article or from *i*.<sup>10</sup> The following examples from narratives illustrate this point.

- (33) a. Kulan hu dimimoria na'ân-ña atyu na mediku. Kulan Foot  
 seems.like AGR memorize name-AGR that L doctor seems.like Foot  
na'ân-ña [atyu na mediku].  
 name-AGR that L doctor  
 'It seems like I recall the (lit. a) name of that doctor. It seems like the (lit. a) name of that doctor was Foot.' (Cooreman 1983: 12)
- b. Guiya esti i nanâ-ta as Santa Maria, nanan [i Saina-ta] as  
 she this the mother-AGR OBL Saint Mary mother.L the parent-AGR OBL  
 Jesu Kristu i Yu'us ni lâlâ'la'.  
 Jesus Christ the God COMP AGR.alive.PROG  
 'This was our mother, the Virgin Mary, the (lit. a) mother of our father Jesus Christ the living God.' (Cooreman 1983: 22)
- c. Pumoddung i santus ya kâ'ka' matâ-ña ... Tâya' Guam  
 AGR.fall the saint and AGR.crack face-AGR AGR.not.exist Guam  
 tumungu' fuma'mâolik i fasu-ña [pro].  
 WH.know INFIN.repair the face-AGR  
 'The [statue of the] saint fell and her face (lit. a face of her) cracked ... [She was sent to the Philippines because] no one in Guam knew how to repair her face (lit. the face of her).' (Cooreman 1982: 27)

These patterns suggest that it would not work to try to claim that Chamorro has two homophonous definite articles, one that differs from *un* in presupposing uniqueness and another that differs from the null indefinite article in presupposing familiarity (along the lines suggested for Spanish by Alonso-Ovalle et al. 2011). Rather, in antipresupposition contexts, the null indefinite article seems not to enter into competition with the definite article at all.<sup>11</sup>

## 7. Antipresupposition, Part 2

Another antipresupposition context is supplied by nouns whose intended referent is commonly understood to be unique in the real world, such as *âtdao* 'sun' or *lângit* 'sky'. Once again, because *i*'s uniqueness presupposition is already known to be satisfied, MP leads us to expect that the use of an indefinite article should be infelicitous. This expectation is realized for *un*, as can be seen from the minimal pair below.

- (34) a. #Dodokku' un âtdao.  
 AGR.sprout.PROG a sun  
 'A sun is rising.' [Infelicitous, according to one consultant, because "we all know that there is only one sun in our solar system".]
- b. Dodokku' i âtdao.  
 AGR.sprout.PROG the sun  
 'The sun is rising.'

What about the null indefinite article? No clear information about (in)felicity emerges from sentences like (35), because these sentences are simply rejected as ungrammatical.

- (35) \*Dodokku' âtdao.  
 AGR.sprout.PROG sun  
 (A sun is rising.)

However, when the noun is accompanied by a modifier, as in (36), speakers report that the use of the null indefinite article is both grammatical and felicitous.

- (36) Dodokku' / Kumahulu' dângkulu na âtdao.  
 AGR.sprout.PROG / AGR.go.up big L sun  
 'A big sun is rising / went up (higher in the sky).' [The same consultant commented, "This is okay because it can mean that when the sun rose it was big."]

Significantly, the use of *un* remains infelicitous.

- (37) #Kumahulu' un dângkulu na âtdao.  
 AGR.go.up a big L sun  
 'A big sun went up (higher in the sky).' [Infelicitous, according to another consultant, because "we all know that there is only one sun (for earth, that is)."]

One way of describing the pattern in (34-37) is to say that when it is common knowledge that the noun's intended referent is unique in the real world, the scale <*i*, *un*> remains in force, but <*i*, null> is suspended *as long as the null indefinite article is grammatical to begin with*.<sup>12</sup> Once the issue of grammaticality is factored in, the pattern replicates what was seen in section 6.2. This suggests that <*i*, null> is suspended for antipresupposition in general.

I do not know why (35) is ungrammatical. However, I should point out that there are naturally-occurring examples in which the null indefinite article is used with an unmodified noun of this type. A few sentences of this type are cited below.

- (38) a. Bula na amonestasion put tâsi.  
 AGR.much L warning about ocean  
 'There is a lot of warning about the sea.' (CD, entry for *amonestación*)  
 b. Ha chuda' i mina'kuâttru na ânghit i tason-ña gi hilu'  
 AGR.pour the fourth L angel the bowl-AGR LOC top.L  
âtdao.  
 sun  
 'The fourth angel poured out his bowl on the sun.' (NT 476)

Compare the naturally-occurring examples in (39), which are similar but use the definite article instead.

- (39) a. Astaimânu chinago'-ña i lugât-mu ginin i tasi?  
 how.far? distance-AGR the place-AGR from the ocean  
 'How far is your place from the ocean?' (CD, entry for *astaimânu*)

- b. Hu li'i' un ānghit tumotohgi gi hilu' i ātdao.  
 AGR see a angel AGR.stand.PROG LOC top.L the sun  
 'I saw an angel standing on the sun.' (NT 481)

Although sentences like (38) are not particularly common, the fact that they are attested at all supports the claim that  $\langle i, \text{null} \rangle$  is suspended for antipresupposition. (Note that there are no sentences in the CD database or NT in which *un* forms a DP with the nouns *ātdao* 'sun', *pulan* 'moon', *tāsi* 'ocean', or *lāngit* 'sky'.)

## 8. The Larger Picture

To sum up, Chamorro's two indefinite articles respond differently to MP. Both indefinite articles exhibit presuppositional implicature effects, but only *un* exhibits antipresupposition effects; the null indefinite article does not. In this concluding section, I first tentatively suggest an account of this pattern, and then step back and survey the larger consequences of the investigation for the typology of narrow-scope indefinites.

Perhaps the most straightforward story one could tell about the antipresupposition effects in sections 6 and 7 would claim that *i* and *un* form a presuppositional scale for the purposes of MP, but—contrary to what I suggested earlier in section 5—*i* and the null indefinite article do not. This would not be particularly surprising, given that scales—e.g. the scales relevant for scalar implicature—are known to be lexically arbitrary (see e.g. Horn 1972 and Hirschberg 1985). The claim that *i* fails to form a presuppositional scale with the null indefinite article could be motivated by appealing to the different composition operations they signal. Recall that for C&L, the null indefinite article signals that the descriptive content of DP is composed with the predicate by Restrict, an operation that narrows the domain of the predicate's relatum but does not saturate it. On the other hand, *i* and *un* are type-shifters that enable the descriptive content of DP to be composed with the predicate's relatum by Function Application. This suggests that *i* and *un* are similar enough to count as paradigmatic alternatives—the sorts of lexical entries that can be members of a scale (see Horn and Abbott 2014)—but *i* and the null indefinite article do not satisfy this criterion.

How would this story handle the fact that both *un* and the null indefinite article exhibit presuppositional implicature effects? Most likely, it would have to say that these patterns do not result from MP, but rather from a generalized scalar inference that recognizes both  $\langle i, un \rangle$  and  $\langle i, \text{null} \rangle$  as scales.<sup>13</sup> This position, though stipulative, is credible, since it has never been entirely clear whether antipresupposition and presuppositional implicature should be given a unified account. Leahy makes this point explicitly:

Theories of presuppositional implicature have different explanatory goals from theories of antipresupposition. Theories of antipresupposition aim to explain why utterances of presuppositionally weak alternatives are infelicitous in contexts that satisfy the presupposition of a presuppositionally stronger alternative. Theories of presuppositional implicature aim to explain why *felicitous* utterances of presuppositional weak alternatives...generate cancellable information that is not part of the asserted or presupposed content. (Leahy 2016: 86; emphasis in the original)

Leahy goes on to propose an account of scalar implicature that is broad enough to incorporate presuppositional implicature—but not necessarily antipresupposition—as a special case.

Notice now that the story I have just told about Chamorro indefinites and antipresupposition could be reconstructed in *any* approach that posits that the descriptive content of a narrow-scope indefinite is composed directly with the predicate. In this respect, C&L's account of Chamorro's narrow-scope indefinites is not unique. The reasons for preferring it lie elsewhere—in the patterns of semantic number and discourse dynamics discussed in section 3.

From the standpoint of the typology of indefinites, the pattern of antipresupposition documented above is noteworthy, because it reveals a dimension along which narrow-scope indefinites can have a less limited distribution than scopally unrestricted indefinites in the same language. The observation raises some questions. How do narrow-scope indefinites in other languages—bare NPs in particular—fare with respect to antipresupposition? Is the absence of antipresupposition effects characteristic of narrow-scope indefinites more generally? How, if at all, does the absence of these effects connect with semantic number and the ability to contribute a discourse referent?

The broader point to emerge is that there are types of narrow-scope indefinites that are not severely restricted along multiple dimensions. In a way, this is not surprising, if one takes seriously the semantic-pragmatic parallels between narrow-scope indefinites and incorporees in morphosyntactic noun incorporation. Following Van Geenhoven (1998), research has focused on narrow-scope indefinites whose semantic-pragmatic deficiencies closely parallel the semantic-pragmatic limitations on incorporees in Mithun's (1984) Type I and Type II incorporation. But Mithun also recognized a type of incorporation (Type III) in which the incorporee can be construed as familiar or unique. Perhaps the profile of Chamorro indefinites formed from the null indefinite article can be understood in this light. I hope to have helped to open up the exploration of this territory; a more thoroughgoing investigation must be left to another time.

## Appendix: A Road Not Taken

Given the empirical patterns in section 6, one might be tempted to try to float the alternative proposal that Chamorro has not one, but *two* null determiners: a null indefinite article that is compatible with a possessor (see sections 2 and 6.1), and a null *definite* article that obligatorily selects a possessor.<sup>14</sup> Under such a proposal, a possessive formed from a null determiner, such as *kurason-hu* 'my heart', would be systematically ambiguous between an analysis as an indefinite DP and an analysis as a definite DP. This sort of systematic ambiguity could handle certain facts presented earlier. For instance, possessives formed from a null determiner would be indefinite when they occur as pivots of existential sentences. (Their definite counterparts would be excluded just like possessives formed from *i*.) Similarly, possessives formed from a null determiner would be definite, and felicitous, when their possessee is commonly understood to be unique, as in (30). (In accordance with MP, their indefinite counterparts would be infelicitous, just like possessives formed from *un*.)

The problem with the two-null-determiner proposal is that it makes other predictions that are incorrect. For instance:

- A possessive formed from a null determiner cannot occupy the left-edge topic position in Chamorro. In this respect, it differs from definite DPs; see (24). Note that such a possessive cannot serve as the topic even when it is common knowledge that the possessee is unique, as (40) shows. (In an attempt to be even-handed, I translate the possessives below as Saxon genitives.)

- (40) \*Tatã-ña [si Miguel] ha hãtsa atyu na guma'.  
 father-AGR UNM Miguel AGR build that L house  
 (Miguel's father built that house.)

- A possessive formed from a null determiner cannot be construed as referring in opaque contexts. In this respect too, it differs from definite DPs; see (26). The example below shows that such a possessive cannot be construed as referring even when it is common knowledge that the possessee is unique.

- (41) Malagu' si Jose na u fañodda' tatã-ña [pro].  
 AGR.want UNM Jose COMP AGR AP.find father-AGR  
 'Jose wants to find his father.' [He's looking for a foster parent; or he's illegitimate and wants to have a father.]

- In Chamorro, subjects of transitive clauses and other external arguments must be specific (see Chung 1998: 102-111). A possessive formed from a null determiner cannot serve as the subject of a transitive clause, even when it is common knowledge that the possessee is unique. This is another respect in which these possessives differ from definite DPs.

- (42) a. \*Kao ha na'la'lu nanan [atyu na pãtgun] i sapãtus?  
 Q AGR return mother.L that L child the shoes  
 (Did that child's mother return those shoes?)  
 b. Kao ha na'la'lu i nanan [atyu na pãtgun] i sapãtus?  
 Q AGR return the mother.L that L child the shoes  
 'Did that child's mother return those shoes?'

- Question-answer pairs involving a possessive formed from a null determiner reveal that these possessives are construed as nonmaximal. This is a further difference between these DPs and definite DPs; see (27-28).

The bottom line is that possessives formed from a null determiner do not behave as if they were systematically ambiguous between definites and indefinites. In short, the idea that Chamorro might have two null determiners is not viable.

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<sup>1</sup> In the original: “Präsupponiere in deinem Beitrag so viel wie möglich!” (Heim 1991: 515).

<sup>2</sup> Cf. Hawkins (1991: 426) and Horn and Abbott (2014), who propose that *the* and *a* form a scale for the purposes of scalar implicature.



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<sup>3</sup> The wording here closely tracks Leahy (2016: 89). Alternatively, in wording closer to Heim's (1991: 516), the proposition expressed by the corresponding sentence with the definite article is false (or not known by the speaker to be true).

<sup>4</sup> The Chamorro examples are cited in the official orthography now used in the CNMI. In this orthography, possessor agreement is separated from the rest of the word by a hyphen. The words otherwise have not been explicitly decomposed into morphemes. The glosses employ the following abbreviations: AGR = agreement, AP = antipassive, COMP = complementizer, EMP = emphatic, FUT = future, INFIN = infinitive, L = linker, LOC = local case, OBL = oblique case, PASS = passive, PL = plural, PROG = progressive, Q = question, UNM = unmarked case, WH = wh-agreement. Naturally-occurring examples are taken from: Borja et al. 2006 (EM; a book of stories, essays, and poetry), Cooreman 1982 and 1983 (transcriptions of tape-recorded narratives), Marciano n.d. (a children's book), the database for the *Revised Chamorro-English Dictionary* (CD; illustrative examples created by community members for dictionary entries), and the Chamorro New Testament (NT; translated into Chamorro by a group led by Bishop Tomas A. Camacho). Examples not attributed to a source are from my fieldwork.

<sup>5</sup> Some details are glossed over because they are irrelevant. E.g. *che'lu* 'sibling' is inflected for singular, dual, and plural number; the other five nouns are inflected for nonplural versus plural number. For these five nouns, the nonplural (unmarked) form can be construed as singular or dual; the dual construal arises if and only if the noun is combined with the numeral *dos* 'two'.

<sup>6</sup> The oblique case marker *ni* merges with the definite article *i* in (20a) and is unpronounced when the DP is indefinite.

<sup>7</sup> The linker is realized as *-n* when the noun ends in a vowel and unrealized otherwise. Generally, the choice between the linker and possessor is free. However, possessors that are pronouns must be null, and the possessed noun must agree with them.

<sup>8</sup> Possessives formed from the null indefinite article can serve as subjects of individual-level predicates, but only when their possessor is strong; see Chung 2006.

<sup>9</sup> When the possessee is not unique relative to the possessor, both *un* and the null indefinite article are felicitous; e.g. *(un) patgon-hu* 'a child of mine', *(un) kannai-ña* 'a hand/arm of his'.

<sup>10</sup> Thanks to Louise McNally for pointing out the importance of investigating this.

<sup>11</sup> The possibility that Chamorro might have two null determiners is discussed in the Appendix.

<sup>12</sup> Cf. Collins' (2016) Well-formedness principle: "If *F* and *F'* are pragmatic alternatives, then *F* and *F'* are grammatically well-formed" (Collins 2016: 98).

<sup>13</sup> Chris Barker asks whether the relevant Horn scale is  $\langle i, un, \text{null} \rangle$ . This is a good question that I am not yet prepared to answer. On a different note, Deniz Rudin suggests that speakers' responses to (16-17) and (18) could be taken to indicate that the null indefinite article does not exhibit presuppositional implicature effects, contrary to what I claimed in section 5. Were that the case, the null indefinite article would be well-behaved with respect to a unified MP—it would not exhibit either of the effects attributed to that principle—but it would not enter into competition with the other articles at all. Serious discussion of this idea must await a more detailed study of the sorts of contrasts presented in section 5.

<sup>14</sup> Thanks to Chris Barker for raising this sort of possibility. One can imagine several versions of the two-null-determiners proposal, but I believe all are subject to the objections raised in the text.