Maximize Presupposition and Two Types of Definite Competitors

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1. Introduction

Indefinites impose an anti-uniqueness condition on their domain of quantification. The sentence in (1), for instance, cannot be felicitously uttered when it is taken for granted that John has only one friend (Hawkins 1978, 1991, Heim 1991).

(1) Yesterday, I saw a friend of John’s.

Heim 1991 suggests that this effect can be derived from a Maximize Presupposition constraint, which blocks the use of the indefinite determiner when the uniqueness presupposition associated with the definite determiner is satisfied.\textsuperscript{1} This line of explanation has proven to be fruitful in that it can be extended to a number of other constructions. Consider, for instance, (2) below. This sentence is odd when it is part of the common ground (GG) that Mary has exactly two students. On the Maximize Presupposition account, this is so because the speaker is required to use the presuppositional determiner \textit{both} in these situations. Similarly, the sentence in (3) is infelicitous when we are taking for granted that Mary is dating Mark since, in those cases, the speaker should use the factive verb \textit{know}.

(2) \#John talked to all of Mary’s students. \hspace{1cm} [CG: |\{x: Mary’s student (x)\}| = 2]

(3) \# Peter thinks that Mary is dating Mark. \hspace{1cm} [CG: Mary is dating Mark]

\textsuperscript{1} See Chemla 2008, Sauerland 2008 and Percus 2006 for recent discussions of this idea.
This paper presents a puzzle involving a class of examples in which indefinites lack the anti-uniqueness effect illustrated in (1), thus raising a challenge for Maximize Presupposition. Building on recent work that distinguishes two types of definite determiners (Schwarz 2008), we will argue that Maximize Presupposition can in fact account for these data. Putting Maximize Presupposition in the context of this new work on definites paves the way towards gaining a more comprehensive perspective on the typology of definites and indefinites, which turns out to be more complex than when Maximize Presupposition was first proposed.

The paper is organized as follows: in section 2 we discuss the anti-uniqueness effect associated with indefinites and sketch the Maximize Presupposition account. In section 3, we present a construction where indefinites do not convey anti-uniqueness, and we explore (and ultimately reject) a processing account of these cases. In section 4, we argue that the observed contrast between the examples where indefinites convey anti-uniqueness and the examples where they do not is due to the fact that there are two types of definite competitors. Section 5 concludes and provides an outlook for further research.

2. Background: Indefinites and Anti-uniqueness

The anti-uniqueness condition associated with English indefinites of the form *a* NP is illustrated in (4) through (6) below. These sentences are deviant because it is common knowledge that the indefinite noun phrases that they contain range over a domain containing only one individual (if any).

(4) # Yesterday, I talked to a wife of John’s. (# if we assume monogamy)

(5) # A weight of our tent is under 4 lbs. (Heim 1991)

(6) # I interviewed a father of the victim. (Hawkins 1991)

The sentences in (7) and (8) show that the same pattern obtains in Spanish and German: Spanish *un* and German *ein* also impose an anti-uniqueness condition on their domain of quantification.

(7) # Ayer hablé con una mujer de Juan.
   ‘Yesterday I talked with a wife of Juan.’

(8) # Gestern habe ich mit einer Frau von Hans gesprochen.
   ‘Yesterday I talked to a wife of Hans.’

Where does this anti-uniqueness condition come from? One possibility is that indefinite determiners trigger an anti-uniqueness presupposition, as in (9). On this view, the examples in (4) to (6) would be infelicitous because the presupposition in (9) conflicts with common knowledge: (4) would only be felicitous in a context where John has more than one wife, (5) would require us to assume that our tent has at least two weights, and
(6) that the victim has at least two fathers.

(9) a NP / un NP / ein NP is only felicitous if it is taken for granted that there are at least two NPs in the domain of discourse.

However, Heim 1991 argues that such an account is not tenable. Consider her examples below:²

(10) a. Robert caught a 20 ft. long catfish. (Heim 1991)

b. A pathologically noisy neighbor of mine broke into the attic. (Heim 1991)

Heim observes that, contrary to what the presuppositional account in (9) would predict, (10) can be felicitously uttered in a context in which it is not taken for granted that there is more than one 20 feet long catfish. All that is needed for (10) to be felicitous is that it is not taken for granted that there is only one 20 feet long catfish. Likewise, the sentence in (10) requires that it not be taken for granted that she has only one pathologically noisy neighbor, not that it be taken for granted that the speaker has more than one.

Sauerland 2008 argues further against the hypothesis in (9) by showing that the anti-uniqueness component associated with indefinites does not project like a presupposition. He illustrates this point with the examples in (12), uttered in the context in (11).

(11) Context: Several candidates applied. Some have written only one book, others have written more than one. The selection committee decides:

(12) a. # Every candidate should send his book.

b. Every candidate should send a book of his. (Sauerland 2008)

The sentence in (12) is odd in the context in (11). This oddity results from the uniqueness presupposition triggered by the description his book. Under standard assumptions, the uniqueness presupposition of his book projects universally. In our example, this gives rise to the presupposition that each candidate has only one book, which is not supported by (11). If a triggered an anti-uniqueness presupposition, we would expect this presupposition to project universally as well, i.e., we would expect the sentence in (12b) to presuppose that each candidate has more than one book. If so, (12) should be as deviant as (12) in the context in (11) (since there are applicants who have written only one book.) But (12) is perfectly acceptable in that context.

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² The original examples are in German. The English versions are taken from a widely circulated English translation of Heim 1991.
Heim 1991 proposes an alternative account, which derives the anti-uniqueness effect that we are dealing with via an injunction to presuppose as much as possible (“Maximize Presupposition”). For our purposes, this principle can be stated as in (13).³

(13) **Maximize Presupposition:**
Among a set of alternatives, use the felicitous sentence with the strongest presupposition. (Chemla 2008)

In the case at stake, Maximize Presupposition blocks the use of the indefinite determiner when the uniqueness presupposition of the definite determiner is satisfied. To see how this works, consider the sentences in (14) and (15).

(14) # I interviewed a father of the victim.

(15) I interviewed the father of the victim.

Let us assume that (14) and (15) are alternatives of each other.⁴ The definite determiner in (15) triggers the presupposition that the victim has a unique father. The sentence in (14) carries no presupposition. The presupposition triggered by (15) will be satisfied in any context in which it is assumed that every person has a unique father. In such a context, Maximize Presupposition blocks the use of (14).⁵ Maximize Presupposition thus accounts for the fact that indefinites of the form *a* NP are infelicitous when it is common ground that there is exactly one NP (or, in Percus’s 2006 terms, that these indefinites antipresuppose that there is exactly one NP.) Furthermore, it also captures the fact that (10) can be felicitously uttered even in a situation where there is only one 20ft long catfish, as long as this is not common ground.

In the next section we will consider a set of examples in which indefinites do not exhibit anti-uniqueness effects, and that, therefore, present a puzzle for Maximize Presupposition at first sight.

### 3. The Puzzle: Relative Clauses

The sentences in (16) and (17) below illustrate a contrast that challenges Maximize Presupposition. As we have seen above, (16) and (17) are deviant. The unacceptability of these examples follows from the competition with their definite counterparts, as predicted by Maximize Presupposition. However, when we replace the prepositional phrase *of John*

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⁴ There are various proposals in the literature for what exactly should count as an alternative in this context. Since all of them would consider (14) and (15) alternatives, we will not go into any more detail here.
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with the Relative Clause (RC) *that is married to John*, the oddity disappears, as (16) and (17) illustrate. This is surprising, since, given Maximize Presupposition, (16) and (17) should be blocked by the felicity of the definite alternatives in (18) and (19).

(16)  
a. # Hablé con una mujer de Juan.  
I talked with a wife of Juan.  
‘I talked to a wife of John’s.’

b. Hablé con una mujer que está casada con Juan.  
I talked with a woman that is married with Juan.  
‘I talked to a woman that is married to Juan.’

(17)  
a. # Ich habe mit einer Frau von Hans gesprochen.  
I have with a wife of Hans talked.  
‘I talked to a wife of Hans’.

b. Ich habe mit einer Frau gesprochen, die mit Hans verheiratet ist.  
I have with a woman talked that with Hans married is.  
‘I have talked to a woman that is married to Hans.’

(18)  
Hablé con la mujer que está casada con Juan.  
I talked with the woman that is married to Juan.  
‘I talked to the woman that is married to Juan.’

(19)  
Ich habe mit der Frau gesprochen, die mit Hans verheiratet ist.  
I have with the woman talked that with Hans married is  
‘I talked to the woman that is married to Hans.’

How can we account for the contrast between the a) and the b) examples above? Note that we cannot resort to arguing that the RCs in the b) examples are not restrictive. First, these RCs do not require the ‘comma intonation’ associated with non-restrictive RCs (Potts 2005). Second, the RCs above are not necessarily speaker-oriented, unlike non-restrictive relative clauses (Potts 2005). To see this point, consider the contrast between (20) and (21). The first sentence in (20) commits the speaker to the content of the RC, namely that the woman that Mary talked to is married to John. Thus, adding the second sentence, which says that the woman in question is married to Marco, results in an inconsistent discourse. In (21), on the other hand, such a follow-up is perfectly fine, since the speaker is not necessarily committed to the content of the RC.

(20)  
# Pedro thinks that Mary talked to a woman, who is married to John. But the woman is married to Marco.

(21)  
a. Pedro piensa que María habló con una mujer que está casada con Juan
Pedro thinks that María spoke with a woman that is married with Juan (pero, en realidad, la mujer está casada con Marcos).

‘Peter thinks that María talked to a woman that is married to Juan (but actually the woman is married to Marcos.)’

b. Peter glaubt, dass Maria mit einer Frau gesprochen hat, die mit Hans verheiratet ist (dabei ist die Frau tatsächlich mit Marco verheiratet).

‘Peter thinks that Maria talked to a woman that is married to Juan (but actually the woman is married to Marco.)’

One possible solution to our puzzle might appeal to a processing explanation. Let us make the following assumptions: (i) that the uniqueness presupposition of the definite is checked as soon as possible; (ii) that the competition between a and the gets activated at the point in the structure where the presupposition of the definite is checked, and (iii) that the competition between a and the decays after it has been activated once. Given these assumptions, consider the following Spanish DPs.

(22)  a. El amigo de Juan
     The friend of Juan

     b. Un amigo de Juan.
     A friend of Juan

(23)  a. El chico que es amigo de Juan
     The guy who is friend of Juan

     b. Un chico que es amigo de Juan.
     A guy who is friend of Juan

In (22) we have a relational noun: the presupposition triggered by the definite determiner can only be checked after the argument of the noun is saturated, i.e., after the prepositional phrase de Juan is parsed. This yields the presupposition that John has exactly one friend. By assumption, the competition between the definite and the indefinite would be activated right after de Juan is processed. At that point, the indefinite in (22) will require that it not be taken for granted that John has exactly one friend.

In (23), in contrast, we should be able to check the presupposition triggered by the right after the noun chico. This will give us the presupposition that there is a unique guy. The competition between a and the is activated after chico. At that point in the structure, then, (23) only requires that it not be taken for granted that there is exactly one guy. The competition between a and the decays after that; (23) should then be acceptable in contexts where it is common knowledge that Juan has exactly one friend, as long as it is not common knowledge that there is exactly one guy.

The proposal just sketched would account for the acceptability of the sentence in
(24) below. According to what we have said, this sentence will be felicitous as long as it is not taken for granted that there is just one woman, a condition that is compatible with common knowledge. Unfortunately, however, the explanation that we are exploring fails to account for the contrast between the Spanish examples in (25) below. On our current hypothesis, we would expect the presupposition of (25) to be first checked after the noun phrase montaña is parsed. Thus, (25) should require that it not be common ground that there is exactly one mountain, a requirement that could easily be met in normal contexts. However, what (25) in fact requires is that it not be common ground that there is exactly one tallest mountain in Massachusetts, which conflicts with common knowledge and therefore results in oddity.

(24) Hablé con una mujer que está casada con Juan.
    I talked with a woman that is married to Juan
    ‘I talked to a woman that is married to Juan.’

(25) a. Subí a la montaña más alta de Massachusetts.
    I climbed to a mountain most tall of Massachusetts
    ‘I climbed the tallest mountain in Massachusetts.’

b. # Subí a una montaña más alta de Massachusetts.
    I climbed to a mountain most tall of Massachusetts
    ‘I climbed a tallest mountain in Massachusetts.’

The puzzle that we presented at the beginning of this section is still unsolved. In what follows, we will argue that Maximize Presupposition can account for the surprising data above once we pay a closer look at the interpretation of the definite competitors.

4. The Proposal: Two Types of Competitors

Definite articles in German exhibit a morphological contrast when appearing in certain prepositional configurations, as illustrated below:

(26) Hans ging zum / zu dem Haus
    Hans went to-the\text{weak} / to the\text{strong} house

This morphological difference comes with a corresponding contrast in meaning and is generally taken to indicate that there are two underlying forms of the definite article at play (Hartmann 1980, Haberland 1985, Cieschinger 2006). The weak article, which contracts with prepositions, presupposes uniqueness, as illustrated in (27), whereas the strong article, which does not contract, presupposes familiarity, as shown by (28) (Schwarz 2008; see also Schwager 2007 for discussion of this contrast in Bavarian).
In the cabinet meeting today is a new proposal by-the weak {chancellor / minister} expected. ‘In today’s cabinet meeting, a new proposal by-the weak {chancellor / minister} is expected.’

Hans bought an antique desk and a cabinet bought. Supposedly has Goethe an dem (#am) Tisch ein Gedicht geschrieben. Goethe at the strong (#at-the weak) table a poem written. ‘Hans bought an antique desk and a cabinet. Supposedly Goethe wrote a poem sitting at the strong (#at-the weak) table.’

Crucially, only the strong article can combine with restrictive relative clauses, as (29) illustrates.

Ich habe gestern bei dem / beim Mann angerufen, der mit Maria verheiratet ist. ‘Yesterday, I called the strong / to-the weak man that is married to Maria.’

We would like to argue that the observed distribution and interpretation of the German articles accounts for our puzzle in the following way:

In examples like (30), the indefinite competes with both the strong and weak definite article. The competitors for (30) are therefore the two sentences in (31). As noted above, the weak article presupposes uniqueness. The competition with the weak article then yields an anti-uniqueness effect for (30), as in Heim’s discussion: this sentence will only be acceptable when it is not taken for granted that Mary has a unique husband, a requirement that conflicts with our shared assumptions, and, hence, leads to oddity.

# Ich habe bei einem Mann von Maria angerufen. ‘I have called a husband of Maria’s.’

a. Ich habe beim Mann von Maria angerufen. ‘I have by-the weak husband of Maria called’

b. Ich habe bei dem Mann von Maria angerufen. ‘I have by the strong husband of Maria called’

In examples like (32), where the indefinite is modified by a RC, the strong article, as in (33), is the only competitor. The strong article presupposes familiarity, not
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uniqueness. Thus, the indefinite in (32) will only be blocked by its definite competitor when the man I have called is known to be familiar. Otherwise, (32) is predicted to be felicitous. (Hence, we derive an effect along the lines of Heim’s 1982 novelty condition).

(32) Gestern habe ich bei einem Mann, der mit Maria verheiratet ist, angerufen.
Yesterday have I by a man that with Maria married is called
‘Yesterday, I have called a man that is married to Maria.’

(33) Gestern habe ich bei dem Mann, der mit Maria verheiratet ist, angerufen.
Yesterday have I by the\textsubscript{strong} man that with Maria married is called
‘Yesterday, I have called the man that is married to Maria.’

We would like to suggest that the contrast between a familiarity-based and a uniqueness-based article, morphologically overt in German, is present covertly in Spanish. As in German, the familiarity article would be the only possibility with RCs.

Evidence for this claim comes from the fact that in contexts without previous mention of Juan’s girlfriend, it is much easier to accept (34) below than (35), where the definite description contains a RC.

(34) Ayer conocí a la novia de Juan.
Yesterday, I met the girlfriend of Juan
‘Yesterday, I met Juan’s girlfriend.’

(35) Ayer conocí a la chica que está saliendo con Juan.
Yesterday I met the girl that is dating with Juan
‘Yesterday, I met the girl that is dating Juan.’

Suppose that Sally doesn’t know that Juan has a girlfriend. Laura calls Sally up and tells her (34). Unless the fact that Juan has a girlfriend is controversial, the presupposition triggered by the definite description will be easily accommodated, and the conversation will proceed smoothly. The sentence in (35), however, would be hard to accept in this context.

Now, assume that Sally does know that Juan has a girlfriend. Laura and Sally are both aware of this fact, and each of them knows that the other knows. But they have never talked about Juan’s girlfriend. In this context, Laura can of course utter the sentence in (34) felicitously. But (35) would still be odd. The sentence in (35) only becomes fully acceptable in a context where Juan’s girlfriend has been explicitly mentioned, e.g. in a conversation between two friends that have been gossiping about Juan’s girlfriend extensively.

5. Concluding Remarks and Issues for Further Research

We have seen that the anti-uniqueness condition associated with indefinites is not present when we set up a singleton domain by means of a RC. This looks like a puzzle for Maximize Presupposition. However, we have argued that the puzzle disappears once we
distinguish between two different types of definite competitors: When an indefinite DP contains a RC (e.g., *una mujer que está casada con Juan*) its definite competitor presupposes familiarity. The indefinite is only blocked by Maximize Presupposition when it introduces a familiar referent. In contrast, when an indefinite DP does not contain a RC (e.g., *una mujer de Juan*) it competes both with a familiarity-based article and with a uniqueness-based article. Competition with the uniqueness-based article yields anti-uniqueness.

The proposal we have presented here bears on a broader typological issue. Until relatively recently, the investigation of the properties of indefinite phrases focused almost exclusively on English, the implicit assumption being that there is only one type of indefinite. In the last decade, it has become clear that indefinites come in many different kinds.⁶ Definites arguably come in different kinds as.⁷ The Maximize Presupposition account of the anti-uniqueness inference associated with indefinites crucially involves competition between indefinites and definites. Given the typological diversity uncovered more recently, this raises the question of what kind of indefinite competes with what kind of definite. The present work addresses this question by discussing two types of definite competitors in German and Spanish.

One outstanding question that remains is why only the strong definite article (signaling familiarity) is compatible with restrictive RCs. Investigating this issue will be important for the more general issue of the semantic and syntactic differences between clausal and non-clausal modifiers. We hope to be able to address this question in future research.

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