

# Reconstructing functional relatives

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## Introduction

The goal of this study is to present empirical limits to standard assumptions on distributive readings of relative clauses (pair-list or natural function), and to propose a more adequate formalization based on two fundamental statements about the syntax and semantics of relative clauses. The first one relates multiple individual readings of relative clauses to syntactic reconstruction of the antecedent via presence of a copy. The second one argues that such copies can be interpreted either as definite, as proposed by Fox (2003) among others, hence giving rise to individual or natural function readings with presupposition accommodation constraints (property of the definite), or as indefinite, as proposed in Kratzer (1998) and Agüero-Bautista (2001) among others, hence giving rise to pair-list readings.

The first section discusses classical reconstruction data and how it relates to the notion of distributivity. Section 2 presents standard assumptions about distributive readings of relative clauses, and introduces highly problematic data for such hypotheses. Section 3 develops my analysis based on the two fundamental mechanisms stated above, while Section 4, on the one hand, shows how such problematic data come as no surprise in my account, and, on the other hand, gives further arguments for such approach.

## 1 Reconstruction and distributive readings

Reconstruction standardly refers to a general phenomenon which can be summarized as the interaction between displacement structures (dislocation, topicalization, interrogation, relativization) and structural constraints on interpretation, such as scope or binding constraints (see Chomsky (1995) or Sauerland (1998)). Notice that, following standard literature on the topic, I'm using the term reconstruction to describe the general phenomenon, although it was first introduced as a particular analysis by which a moved item could be lowered in the gap/thematic position at Logical Form, hence literally reconstructed in that position. Consider the following examples from French as

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an illustration of the phenomenon, where distributive readings occur with interrogative structures:<sup>1</sup>

- (1) A: *Quelle femme<sub>1</sub> est-ce que tu as dit que chaque homme  
which woman is-it that you have said that each man  
inviterait <sub>-1</sub>?  
would-invite*

A: 'Which woman did you say that each man would invite?'

B: *Son épouse.*

his wife

B: 'His wife'

- (2) A: *Quelle photo<sub>1</sub> de lui<sub>2</sub> est-ce que tu penses que chaque homme<sub>2</sub>  
which picture of him is-it that you think that each man  
a déchirée <sub>-1</sub>?  
has torn*

A: 'Which picture of him(self) do you think that each man tore?'

B: *Celle de son mariage.*

that-one of his wedding

B: 'The one from his wedding'

(1) and (2) correspond to what Engdahl (1980) or Jacobson (1999) call functional questions as they can have a distributive reading of the *wh*- constituent with respect to the universal quantifier. The availability of functional answers in (1) and (2) clearly show the existence of the distributive reading of the questions. As proposed by several authors, that distributive reading in both examples can be seen as cases of reconstruction.

### 1.1 Scope reconstruction: distributive reading of indefinites

The distributive reading of (1) can be seen as following from a reconstruction effect on the peripheral constituent *quelle femme* ('which woman'), and more precisely from the indefiniteness property of that constituent.<sup>2</sup> Such an example then illustrates what is standardly referred to as scope reconstruction in the sense that the indefinite *quelle femme* appearing at the left edge can be interpreted as if it were (at least partially) 'reconstructed' in its thematic position, i.e. within the scope of the quantified expression *chaque homme* ('each man'). The interpretation of an indefinite within the (syntactic) scope of a universal quantifier gives rise to a distributive reading mapping every man to a possibly different woman. Evidence for this is given by the contrast between the following examples:

<sup>1</sup>Notice here that the availability of a distributive reading extends to parallel examples with negative quantifiers.

<sup>2</sup>For more arguments to analyze interrogative constituents as indefinites, see Reinhart (1997) among others.

- (3) (a) *Chaque homme a dit qu'il inviterait une femme.*  
 each man has said that-he would-invite a woman  
 'Each man said that he would invite a woman.'
- (b) *Une femme a dit que tu avais invité chaque homme.*  
 a woman has said that you had invited each man  
 'A woman said you had invited each man.'

When the universal quantifier takes scope over the indefinite *une femme* ('a woman'), as in (3a), the latter can be understood to refer to a different woman respective to every man. But when the indefinite is forced to take scope over the universal quantifier, as in (3b), then the distributive reading disappears and only the individual reading is available. The generalization can be stated as follows:

- (4) *The distributive (multiple individual) reading of an indefinite is tied to its narrow scope with respect to a universal quantifier in syntax (or at LF).*

Coming back to the example in (1), notice that the distributive reading is indeed available. Partial reconstruction<sup>3</sup> in the thematic position then comes as a way of getting the indefinite within the scope of the universal quantifier, hence predicting the distributive reading.

## 1.2 Binding Reconstruction: bound variable reading

Similarly, (2) also illustrates reconstruction, and more precisely binding reconstruction. In that sentence, the pronoun *lui* ('him') can crucially be interpreted as a variable bound by the quantified expression *chaque homme* ('every man'). Again, the availability of that reading might appear surprising if we assume that the bound variable reading of a pronoun is syntactically constrained in the following way:

- (5) *Constraint on Bound Variable Anaphora:*  
 An anaphoric expression can be interpreted as a variable bound by a quantifier iff it is syntactically bound (c-commanded and coindexed) by that quantifier.

The example in (2) then argues for (binding) reconstruction of the displaced constituent in order for the pronoun *lui* ('him') to be interpreted within the scope of the universal quantifier.

## 1.3 Distributivity: natural vs pair-list (PL) function

A further distinction within distributive readings is the one given in Sharvit (1999) between pair-list function readings on the one hand, and natural function readings on the other. Consider again the example in (1) repeated below, and the two alternative answers corresponding to distributive readings:

<sup>3</sup>Reconstruction within interrogative structures is commonly assumed to be partial, as the interrogative element (i.e. *quel* 'which') is *also* interpreted in the peripheral position to get the standardly assumed semantics for the question as a set of propositions. For more details, see Karttunen (1977). Partial reconstruction can be contrasted with total reconstruction where the displaced constituent would only be interpreted in the base position.

(6) A: *Quelle femme<sub>1</sub> est-ce que tu as dit que chaque homme inviterait <sub>-1</sub>?*

A: 'Which woman did you say that each man would invite?'

(a) Natural function answer:

B: *Son épouse.*

B: 'His wife'

(b) Pair-list function answer:

B: *Pour Paul, c'est Marie; (pour) Jean, Suzanne;...*

B: 'For Paul, it is Mary; (for) John, Suzann;...'

One question arises at this stage: why should we posit a clear distinction between those two distributive readings? Interestingly enough, the natural and pair-list function readings are very similar in the sense that a natural function does also provide a list of pairs of individuals.

However, one argument for such distinction is given by Sharvit (1999): the fact that the two readings are not equally available. Crucially indeed, Sharvit (1999) provides contexts which only allow for the natural function reading, but not the pair-list function. One such context is tied to presence of a negative quantifier. Consider the following example from French which corresponds to a very similar example from Hebrew given in Sharvit (1999):

(7) A: *Quelle femme est-ce qu'aucun homme n'a invitée?*

which woman is-it that-no man Neg-has invited

A: 'Which woman did no man invite?'

(a) B: *Marie.*

(b) B: *Sa mère.*

B: 'His mother.'

(c) B: *\*Pour Jean, c'est Marie; Fred, Justine; Benoît, Valérie.*

B: '\*For Jean, it is Marie; Fred, Justine; Benoît, Valérie.'

Although both the individual answer in (7a) and the natural function answer in (7b) are available, the pair-list function answer in (7c) is not an option anymore. In other words, negative quantifiers seem to ban the pair-list reading of the question, the only distributive reading being the natural function. Such example then gives more credit to a clear distinction between the two distributive readings.

## 2 Relative clauses: assumptions and paradoxes

Having settled some fundamental assumptions about reconstruction and how it relates to distributive readings, we are now in a position to tackle the main topic of the paper: distributive (multiple individual) readings of relative clauses. Consider the following example as an illustration of the phenomenon:

- (8) *Nous avons contacté le patient que chaque médecin s'est vu attribuer.*  
 we have called the patient that each doctor *Refl*-is seen assign  
 'We called the patient each doctor was assigned.'

In the same way that questions can somehow be interpreted as either individual or distributive (be it pair-list or natural function), similar readings seem to occur with relative clauses. The individual reading of (8) corresponds to a context referring to a unique patient for the set of doctors, i.e. a context in which only one person was called in the end. But crucially, the sentence also allows for a distributive reading of the relative clause and its antecedent. In other words, a context in which there is a different (and specific) patient for each doctor would also make the sentence true, i.e. a context in which several persons were contacted in the end.<sup>4</sup>

Two major assumptions about such distributive readings of relative clauses have been proposed in the literature. The first one given in Sharvit (1999) tries to build on the distinction between pair-list and natural function readings. The second one proposed by Alexopoulou and Heycock (2002) relates such distributive readings of relative clauses to the presence of the external definite determiner. The following sections first develop those two assumptions in more details, before introducing novel data that clearly seem to disprove such hypotheses.

## 2.1 Pair-list vs natural function readings

Sharvit (1999)'s work on multiple individual readings of relative clauses builds on her initial distinction between the two kinds of distributive readings, pair-list versus natural function. She considers examples from Hebrew like the following one:

- (10) *ha-iSa<sub>2</sub> Se kol gever<sub>1</sub> hizmin <sub>2</sub> hodeta lo<sub>1</sub>.*  
 the-woman *Op* every man invited thanked him  
 'The woman every man<sub>1</sub> invited thanked him<sub>1</sub>.'

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<sup>4</sup>As such readings may not be natural for the reader, consider the following examples taken from the newspaper *Le Monde* which confirm the availability of distributive readings with relative clauses. I thank the reviewers of this paper for providing these attested examples.

- (9) (a) *Les études faites sur la pénurie de logements avaient seulement jusqu'ici porté sur les besoins de l'ensemble de la population, sans distinguer les difficultés que rencontrait chaque catégorie de Français.* (31 janvier 2003)  
 'Studies about the lack of housing only dealt with the overall needs of the population so far, without any distinction based on the difficulties that each category/class of French people was confronted with.'
- (b) *L'impact sur les marchés financiers de la politique que mènerait chaque candidat commence à nourrir les notes de recherche des banques d'investissements américaines.* (8 avril 2004)  
 'The impact on financial markets of the policy that each candidate would defend is now feeding the research notes of American banks.'

Sharvit (1999) argues that the relative clause in (10) allows for a distributive reading relating a different ‘woman’ for ‘every man’. Confirmation for this reading, according to her, comes from the availability for a covariant/distributive interpretation of the pronoun *lo* ‘him’ in the matrix, which can refer back to ‘every man’. Notice here that such a distributive reading of the pronoun cannot be seen as a case of bound variable anaphora (recall the constraint on the availability of such an interpretation, stated in (5)), but rather corresponds to a case of *donkey* or E-type anaphora as described in Evans (1980).

More precisely, Sharvit (1999) further makes a strong assumption about such distributive readings of the relative clause in (10), which can be stated as follows:

**Hypothesis #1:** *the multiple individual reading of a relative clause corresponds to a pair-list (function) interpretation of that relative (and crucially not a natural function one), at least when the matrix sentence is predicative.*<sup>5</sup>

Two empirical arguments are provided in favor of such an assumption. The first one builds on the use of negative quantifiers, the second one concerns the case of resumption.

The first piece of evidence in favor of Hypothesis #1 is related to the availability of distributive readings with negative quantifiers. Recall indeed that negative quantifiers only allow for a natural function reading, as shown by the possible answers for (7) repeated below:

(11) A: *Quelle femme est-ce qu'aucun homme n'a invitée?*

A: ‘Which woman did no man invite?’

(a) B: *Marie.*

(b) B: *Sa mère.*

B: ‘His mother.’

(c) B: *\*Pour Jean, c'est Marie; Fred, Justine; Benoît, Valérie.*

B: *\*‘For Jean, it is Marie; Fred, Justine; Benoît, Valérie.’*

Negative quantifiers clearly ban the pair-list answer, hence the pair-list reading. Now consider the use of a negative quantifier within a relative clause:

(12) (a) *J'ai déchiré la photo qu'aucun homme n'avait choisie.*

I-have torn the picture that-no man Neg-had chosen

‘I tore the picture that no man had chosen.’

(b) *\*ha-iSa<sub>2</sub> Se af gever<sub>1</sub> lo hizmin <sub>2</sub> higia bil'ad-av<sub>1</sub>.*

the-woman Op no man Neg invited arrived without-him

\*‘The woman no man<sub>1</sub> invited arrived without him<sub>1</sub>.’

Very strikingly, neither the French nor the Hebrew example allows for a distributive reading in that predicative sentence. Confirmation for this comes from the fact

<sup>5</sup>The case of equative/specificational sentences will be discussed in Section 4.5.

that the pronominal element *-av* in the example from Hebrew can no longer be interpreted as covariant. The absence of the distributive reading in those sentences is a direct consequence of Hypothesis #1. The argument goes as follows. Relative clauses in predicative sentences only allow for a pair-list interpretation; but that interpretation is banned with negative quantifiers; it logically follows that no distributive reading can occur in (12). In other words, if relative clauses licensed natural function readings, the distributive reading should be available with both types of quantifiers, which is clearly not the case.

The second argument in favor of Hypothesis #1 is highly similar as it introduces another context traditionally considered to ban the pair-list interpretation: resumption. Consider indeed the following example in Hebrew:

(13) A: *Ezyo iSa kol gever hizmin ota?*  
 which woman every man invite.past-3s her

A: (lit.) ‘Which woman did every man invite her?’

(a) B: *Et im-o.*

*acc* mother-his

B: ‘His mother.’

(b) B: *\*Yosi et Gila; Rami et Rina...*

*Yosi acc Gila Rami acc Rina*

B: \*‘Yosi, Gila; Rami, Rina’

As first noticed by Sharvit (1999), in the same way that negative quantifiers block the pair-list reading, that reading also disappears when resumption is at stake, i.e. when a pronoun is introduced in the ‘gap’ position. More precisely, adding the object pronoun *ota* (‘her’) resuming the *wh*- element *ezyo iSa* (‘which woman’) suffices to ban the pair-list answer.

Very interestingly, adding a resumptive pronoun in the relativized site of a relative clause leads to a similar effect. The multiple individual reading of the relative clause seems to disappear, as shown by the following example:<sup>6</sup>

(14) *??ha-iSa<sub>2</sub> Se kol gever<sub>1</sub> hizmin ota<sub>2</sub> hodeta lo<sub>1</sub>.*

the-woman *Op* every man invited her thanked him

(lit.) ‘The woman every man<sub>1</sub> invited her thanked him<sub>1</sub>.’

Again, the absence of the multiple individual reading for the relative clause is correlated with the unavailability of the covariant reading for the pronoun *lo* (‘him’). Hypothesis #1 now accounts for the fact that only the individual reading will be an option, as such structures induce a pair-list reading (and crucially not a natural function reading), but that reading is blocked by resumption in the relativized site.

<sup>6</sup>Grammaticality judgments come from Sharvit (1997). Notice that she further indicates that distributive readings of relative clauses with resumption seem more readily available when a context is given to the speakers that clearly favors the distributive reading: ‘(it) becomes more acceptable if the previous discourse establishes a mapping between men and the women they invited’.



To summarize, the absence of multiple individual reading of relative clauses with negative quantifiers and/or resumption provides strong empirical support for Hypothesis #1, i.e. the fact that relative clauses in predicative sentences can only induce one type of distributive reading, the pair-list reading. Two natural predictions that such an assumption makes is the fact that multiple individual readings of relative clauses should never occur in presence of either a negative quantifier or a resumptive pronoun in the relativized position.

## 2.2 Definite vs indefinite antecedents

Alexopoulou and Heycock (2002) also discuss the availability of distributive readings with relative clauses, and propose another restriction on such readings based on a fundamental property of the antecedent of the relative clause, whether it is indefinite or definite. The first aim of their study is to provide arguments against Bianchi (1995)'s approach to contrasts such as the one given below:<sup>7</sup>

- (15) (a) *The secretary called the two patients that every doctor will examine tomorrow.*  
 (b) *The secretary called two patients that every doctor will examine tomorrow.*

As noticed by Bianchi (1995), only (15a) allows for a multiple individual reading of the relative clause and its antecedent mapping *two* different *patients* to *every doctor*. Such distributivity is clearly not available in (15b). Bianchi (1995) proposes an account of the contrast based on the notion of reconstruction. More precisely, the cardinal *two* in (15a) could be reconstructed in the relativized site as a case of scope reconstruction leading to wide-scope of the universal quantifier over the cardinal expression.<sup>8</sup> This scope configuration leads to the distributive reading. As for (15a) however, the cardinal *two* now behaves as the external determiner of the relative clause, and as such, could not be reconstructed in the relativized site, hence predicting the absence of a distributive reading.

Alexopoulou and Heycock (2002) argue against such an account based on reconstruction of the cardinal, as the same contrast holds in similar examples without any cardinal. Consider indeed the following contrast:

- (16) (a) *We contacted the patient each doctor was assigned.*  
 (b) *?We contacted a patient each doctor was assigned.*

(16a) allows for a multiple individual reading of the relative clause and its antecedent whereas only the individual reading prevails in (16b). Alexopoulou and Heycock (2002) further claim that the contrasts do not result from the (un)availability of reconstruction, but rather from a crucial distinction between relative clauses headed by a definite antecedent and relative clauses headed by an indefinite antecedent:

<sup>7</sup>The examples in (15) correspond to English translations to similar examples from Italian introduced by Bianchi (1995).

<sup>8</sup>Notice here that Bianchi (1995)'s account builds on Kayne (1994)'s structural approach to relative clauses, called the head-raising analysis, in which the restriction of the antecedent itself moves. Also notice that Section 3.2.1 will provide an alternative way to get reconstruction in relative clauses.



**Hypothesis #2:** *the distributive reading of a relative clause and its antecedent is crucially tied to the presence of the definite determiner.*<sup>9</sup>

Again, a natural prediction comes out from Hypothesis #2: the fact that the multiple individual reading of a relative clause and its antecedent should never occur with indefinite antecedents, but only with definite antecedents.

### 2.3 Paradoxes: binding reconstruction

This section introduces data which, according to us, cast doubt on the two hypotheses stated above. Recall indeed that both assumptions make strong predictions as to when a distributive reading of a relative clause should be available, or more precisely should *not* be available. Sharvit (1999)'s claim predicts that a distributive reading could never occur when either a negative quantifier or resumption appears within the relative clause. Alexopoulou and Heycock (2002)'s claim also predicts that the distributive reading of a relative clause should not be available when it is introduced by an indefinite determiner. As will be shown, all the paradoxical data introduced in this section have a fundamental common property: they all correspond to cases of binding reconstruction.

Considering first Sharvit (1999)'s claim and its logical consequence, the following data from French, English and Jordanian Arabic seem highly problematic:<sup>10</sup>

- (17) (a) *J'ai déchiré la photo de lui<sub>1</sub> qu'aucun homme<sub>1</sub> n'avait choisie.*  
 I-have torn the picture of him that-no man Neg-had chosen  
 'I tore the picture of him(self) no man had chosen.'
- (b) *The picture<sub>2</sub> of himself<sub>1</sub> which no candidate<sub>1</sub> liked \_<sub>2</sub> ruined his<sub>1</sub> career.*
- (c) *S-Surah<sub>2</sub> tabaʕat ʔibin-ha<sub>1</sub> illi kul mwaʕaf<sub>1</sub> ʕab-ha<sub>2</sub> riʕʕat l-uh<sub>1</sub>.*  
 the-picture of son-his that every employee bring.past.3s.-it give-back.passive to-him.  
 'The picture of his<sub>1</sub> son that every employee<sub>1</sub> brought (it) was given back to him<sub>1</sub>.'

The example (17a) from French allows for a distributive reading of the relative clause, on a par with the availability of the bound variable reading of *lui* ('him'), being bound by *aucun homme* 'no man'. Consider for example a context with three men in the room, each one being told to choose pictures of himself among several ones (one picture of his childhood, one of his wedding, one with his family). Under such a context, the

<sup>9</sup>More precisely, Alexopoulou and Heycock (2002)'s analysis is indebted to Loebner (1985)'s work on what he calls *functional concepts* and how such concepts crucially rely on the presence of the definite determiner/property. For more details, see Alexopoulou and Heycock (2002).

<sup>10</sup>(17b) from English was originally given by Alexopoulou and Heycock (2002) as a challenge for Sharvit (1999)'s analysis, and (17c) from Jordanian Arabic comes from a parallel study of resumption developed with Nouman Malkawi.

sentence more or less states that, for each of those men, there was one picture of his that he had not chosen and that I tore, for example the picture of his wedding. Notice that this distributive reading of the relative clause (mapping a different picture with respect to every man) is completely unexpected with a negative quantifier like *aucun homme* ‘no man’. If only a pair-list reading could give rise to distributivity of the relative clause, presence of the negative quantifier should ban any distributive reading of that sentence, contrary to fact.

The example (17b) from English is very similar, as the predicative sentence also allows for a distributive reading of the relative clause despite presence of a negative quantifier. And confirmation for that reading in the example comes from the availability of both the bound variable reading of *himself* and the covariant (E-type) interpretation of the possessive *his*.

The piece of data from Jordanian Arabic in (17c) goes against the second prediction of Sharvit (1999)’s claim, the fact that distributive readings of relative clauses should never occur when resumption appears in the relativized position. Again, this prediction is not borne out if we consider the availability of the distributive reading in (17c) despite presence of the resumptive clitic *-ha* in the relativized position. That the multiple individual reading of the relative is present is correlated with the availability of both the bound variable reading of *-ha* (‘his’) and the covariant (E-type) interpretation of the clitic *-hu* (‘him’).

Now considering Alexopoulou and Heycock (2002)’s claim based on the distinction between definite and indefinite antecedents of relative clauses, empirical data from French as in (18) clearly go against the prediction that it makes. Recall indeed that Alexopoulou and Heycock (2002)’s approach predicts that indefinite antecedents should never allow for a distributive reading.

- (18) *Marie a accroché au mur une photo de lui<sub>1</sub> que chaque*  
 Mary has hung to-the wall a picture of him that each  
*homme<sub>1</sub> avait choisie.*  
 man had chosen  
 ‘Mary displayed on the wall a picture of him(self)<sub>1</sub> each man<sub>1</sub> had chosen’

But crucially in (18), multiple individual reading of the relative clause and its antecedent seems more easily available, although the antecedent is indefinite. Consider again a context with three men in the room, each one being told to choose pictures of himself among several ones (one picture of his childhood, one of his wedding, one with his family). The example then just states that one picture was displayed for each man, for example the picture of his wedding (if it was chosen by all of them). Notice again that the unexpected distributive reading is correlated with the bound variable interpretation of *lui*, being bound by *chaque homme*.

Having introduced crucial data that seem incompatible with both Sharvit (1999) and Alexopoulou and Heycock (2002)’s assumptions about distributive readings of relative clauses, notice that they all share a fundamental property though: presence of an anaphoric expression in the antecedent of the relative clause. In other words, such data can all be seen as cases of binding reconstruction in the sense that the anaphoric expression can be interpreted as variable bound by the quantified expression although

it does not appear within the scope of that quantifier on the surface. Such examples thus appear very similar to classical reconstruction data such as (2) repeated below:

- (19) *Quelle photo<sub>1</sub> de lui<sub>2</sub> est-ce que tu penses que chaque homme<sub>2</sub> a déchirée <sub>-1</sub>?*  
 ‘Which picture of him(self) do you think that each man tore?’

Building on that common property of those examples, I argue that a proper analysis of distributive readings of relative clauses should somehow be linked to the reconstruction phenomenon. This will be developed in the following sections.

### 3 The Account...

The major claim of the analysis proposed in this paper is the following:

- (20) *Distributive readings of displaced constituents correspond to reconstructed readings of that constituent, be it with interrogation, dislocation or even relativization.*

The account is presented in two steps. I first introduce my general account of reconstruction, as developed in Guillot (2006) and Guillot and Malkawi (2009), and based on two fundamental assumptions, one syntactic, the other semantic. I will then try to show how such an account could be extended to relative clauses, and how it predicts when a multiple individual reading is available with such constructions.

#### 3.1 ...of Reconstruction...

Before introducing my two fundamental assumptions to account for reconstruction of displaced constituents, first notice that this phenomenon is not restricted to the gap strategy where the displaced constituent just leaves a gap in its thematic position, but also extends to the resumptive strategy where a pronoun resumes the displaced constituent in the thematic position. Reconstruction cases with both strategies are given below:

- (21) Gap strategy (with interrogation):

- (a) *Quelle photo<sub>1</sub> de lui<sub>2</sub> chaque homme<sub>2</sub> a-t-il déchirée <sub>-1</sub>?*  
 which picture of him each man has-he torn  
 ‘Which picture of his did each man tear?’

- (b) *Which woman<sub>1</sub> did each man invite <sub>-1</sub>?*

- (22) Resumptive strategy (with interrogation<sup>11</sup> and dislocation<sup>12</sup>):

<sup>11</sup>The question mark on the grammaticality judgment for (22b) does not relate to the distributive reading, but more broadly to the presence of resumption which French speakers do not always accept in questions, or at least consider as marginal.

<sup>12</sup>Notice that I consider dislocation as a case of resumption, following a standard trend in generative grammar. But resumption is sometimes defined in a more restricted way, so as to include only relative clauses and questions.

- (a) ?*Quelle photo<sub>1</sub> de sa<sub>2</sub> fille est-ce que tu te demandes*  
 which picture of his daughter is-it that you *Refl* ask  
*si chaque homme<sub>2</sub> l<sub>1</sub>'a gardée?*  
 whether each man it-has kept  
 (lit.) 'Which picture of his daughter do you wonder whether each man kept it?'
- (b) *La photo qu'il<sub>2</sub> avait choisie, chaque homme<sub>2</sub> l'a déchirée.*  
 the picture that-he had chosen each man it-has torn  
 'The picture that he had chosen, each man tore it.'

All these examples allow for a distributive reading of the displaced constituent which, I argue, follows from reconstruction. In (22a) and (22b), presence of the resumptive clitic *l(a)* is compatible with a bound variable reading of *il* ('he') or *sa* ('his') respectively, and hence with a distributive reading of the displaced constituent.

### 3.1.1 Syntax: building on copies

To account for reconstruction, I first propose the following syntactic assumption, which corresponds to an extension of the standard minimalist account, proposed in Chomsky (1995) and Sauerland (1998) among others, and based on the copy theory of movement:

- (23) *Reconstruction of a displaced XP requires presence of a syntactic copy of that XP, resulting either from **movement**, or crucially from an **ellipsis** phenomenon.*

This claim, based crucially on the presence of copies, has several advantages. One is the fact that it preserves the empirical coverage of the preceding analysis, as movement remains one of the triggers for reconstruction. As such, examples in (21) are analyzed as below:

- (24) (a) *Quelle photo de lui chaque homme<sub>1</sub> a-t-il déchirée ~~quelle photo de lui<sub>T</sub>?~~*  
 'Which picture of his did each man<sub>1</sub> tear ~~which picture of his<sub>T</sub>?~~'  
 (b) *Which woman did each man invite ~~which woman?~~*

In (24a), the bound variable reading of *lui* 'his' follows from the presence of a copy within the c-command domain of *chaque homme* 'each man'. The case of binding reconstruction follows straightforwardly. Similarly in (24b), presence of a copy of the indefinite *which woman* within the syntactic scope of *each man* now accounts for the distributive reading of the question as a case of scope reconstruction.

Another advantage of the claim in (23) is that it further extends the account to reconstruction data with resumption if we assume Elbourne (2002)'s view on pronouns,<sup>13</sup> stated as follows:

- (25) *A (resumptive) pronoun can be interpreted as E-type in the sense of Elbourne (2002), i.e. as a determiner followed by an NP complement elided under identity with its antecedent.*

<sup>13</sup>For independent arguments that ellipsis allows for reconstruction, see Guilliot and Malkawi (2009).

Consider now the syntactic representation for an example like (22):

- (26) *La photo qu'il avait choisie, chaque homme<sub>1</sub> a déchiré* [<sub>DP</sub> *l(a)* [<sub>NP<sub>Δ</sub></sub> ~~*photo qu'il avait choisie*~~]].

'The picture that he had chosen, each man tore it.'

In (26), I argue, following Guilliot and Malkawi (2009), that the resumptive clitic *l(a)* can be interpreted as E-type, i.e. as a determiner followed by an elided copy of the antecedent's restriction.<sup>14</sup> Binding reconstruction now follows from the presence of the elided copy containing the pronoun *il* 'he' within the c-command domain of *chaque homme* 'each man'.

### 3.1.2 Semantics: definite vs indefinite copies

Having introduced the syntactic hypotheses to account for reconstruction crucially based on the presence of copies, the question that arises is how such copies get interpreted in the semantic component. Putting together independent assumptions proposed in the literature on this topic (see Sauerland (1998), Aguero-Bautista (2001), Fox (2003), Heim and Jacobson (2005) among others), I argue for the following claim:

- (27) *Syntactic copies are interpreted either as **indefinite** descriptions, or as **definite** descriptions.*

Interpretation of a copy as an indefinite corresponds to the analysis given in Aguero-Bautista (2001) to account for pair-list readings in *wh*- structures, and also developed in Sauerland (1998) for *wh*- movement and Quantifier Raising. Following Kratzer (1998)'s analysis of indefinites and Aguero-Bautista (2001)'s account of *wh*- structures, I propose that a copy can be interpreted as a skolemized choice function, which takes two arguments, one individual *x* and a set of entities *P* and returns one individual of that set (written  $f(P)(x)$ ).<sup>15</sup>

Applied to the example in (21b), such a mechanism leads to the partial LF representation in (29a), which, I argue, gives rise to the two types of distributive readings, a pair-list reading as in (29b) and a natural function reading as in (29c).<sup>16</sup>

<sup>14</sup>Guilliot and Malkawi (2009) provides several arguments to support the hypothesis that the copy does result from an ellipsis phenomenon, one of them being the availability of reconstruction within syntactic islands when resumption occurs. For more details, see Guilliot and Malkawi (2009).

<sup>15</sup>The notion of skolemized choice function was first introduced by Kratzer (1998) to account for distributive and specific readings of indefinites which, as she claims, are distinct from existential readings. Consider the example below as an illustration. The choice function *f* picks one entity from the set of women, and the skolemization (the fact that the function takes another argument, being bound by the universal quantifier in that case) insures that the choice is relative to *every man*.

- (28) Every man loves **a** (certain) woman.  
 ⇒ one different & specific woman for each man  
 LF: every man<sub>1</sub> loves  $f_1$ (woman).  
 $\forall x.[man(x) \rightarrow [Loves(x, f_x(woman))]]$

<sup>16</sup>Notice here that ~~LF~~ refers to what is left uninterpreted at LF, whereas ~~PF~~ refers to what is not pronounced (i.e. uninterpreted at PF).

- (29) (a) Which ~~██████████~~<sub>1</sub> did each man<sub>2</sub> invite ~~f<sub>1</sub>(woman)~~?
- (b) What is the skolemized choice function  $f_{\langle et, ee \rangle}$  such that each man<sub>x</sub> invited  $f(woman)(x)$ ?  
 ⇒ PL reading (a set of arbitrary pairs): the *man-woman* relation can be different with respect to each man.
- (c) What is the function  $g_{\langle ee \rangle}$  ranging over women such that each man<sub>y</sub> invited  $g(y)$ ?  
 ⇒ Natural function reading: the *man-woman* relation is the same for each man.

According to Agüero-Bautista (2001), the semantic representation gives rise to a pair-list reading as the set of possible answers is composed of the set of choice functions  $f$  which for *each man* maps a member of the set of *women*, thus establishing a set of arbitrary pairs of men and women such that the former invited the latter. I further argue for a logical entailment from the pair-list reading in (29b) to the natural function reading in (29c), which can be stated as follows: a skolemized choice function  $f_{\langle et, ee \rangle}$  ( $CH_s(f)$ ) such that  $f(P)$  holds corresponds to a *Skolem* function  $g_{\langle ee \rangle}$  such that  $range(g)=P$ . One way to understand this entailment is to consider that among all the possible skolemized choice functions establishing a relation between men and women (and which define the possible answers for the question), some might not be arbitrary in the sense that it ends up defining a stable relation/function from men to women (*the mother\_of* relation for example). In other words, the natural function reading can be seen as a sub-reading of the readings obtained with a skolemized choice function analysis of the copy.

Summarizing the analysis so far, interpretation of the copy as indefinite thus gives rise to either a PL reading, or a natural function reading. Also notice that interpreting the copy as indefinite obviously does not induce any presupposition on the functions considered.

Following Fox (2003) or Heim and Jacobson (2005), I further argue that a copy may also be interpreted as a definite description, be it ‘individual’ or ‘functional’.<sup>17</sup> The distinction is essentially based on the existence of simple/individual *versus* complex/functional indices on the definite determiner introducing the copy.<sup>18</sup> The representations in (30) illustrate how the individual and the natural function readings of (21b) can be obtained:

- (30) (a) Which ~~██████████~~<sub>1</sub> did each man<sub>2</sub> invite ~~the<sub>1,1(2)</sub> woman~~?
- (b) What is the  $x$  such that each man<sub>y</sub> invited the<sub>x</sub> woman?  
 ⇒ Individual reading with presupposition that  $x$  is a woman.

<sup>17</sup>This assumption corresponds to Fox (2003)’s notion of *Trace Conversion*, a syntactic mechanism to transform gaps/traces into definite descriptions composed of a determiner and a predicate restriction (the restriction of the moved item).

<sup>18</sup>This assumption merely corresponds to an extension of Engdahl (1980)’s approach to individual *versus* functional questions, the trace being replaced by a definite copy.



- (c) *What is the function  $g_{(ee)}$  such that each man<sub>y</sub> invited the $_{g(y)}$  woman?*  
 ⇒ Natural function reading with presupposition that  $g$  maps men to women.

As stated in (30b), presence of an individual index on the definite determiner within the copy formalizes the individual reading, with a presupposition condition on the individuals considered (that presupposition being brought about by presence of the definite). (30c) represents the other option with a complex/functional index giving rise to the natural function reading. Again, presence of the definite determiner crucially leads to a presupposition condition on the functions considered within the context.<sup>19</sup> At this stage, I argue that this presupposition should require some kind of accommodation in the absence of such a context.

To summarize, interpretation of the copy as a definite description gives rise to either the individual reading or the natural function reading. Notice that both readings add a presupposition condition on the individual or the function. Without any context, I assume that the individual reading should prevail over the natural function reading as it is easier to accommodate the presupposition linked to the former. As will be developed shortly, this assumption will be crucial to account for some of the paradoxes introduced in Section 2.

## 3.2 ...in Relative Clauses

Before showing how my general account for reconstruction can shed light on the paradoxical data about distributive readings of relative clauses, two independent assumptions must be made, the first one about the syntactic structure to get binding reconstruction in relative clauses, and the second one about copy interpretation to get scope reconstruction in relative clauses.

### 3.2.1 Structure of relative clauses

To get binding reconstruction in relative clauses, a standard assumption is to consider that relative clauses are ambiguous between two possible structures: the matching analysis (movement of an operator) *versus* the head-raising analysis (movement of the antecedent's restriction).<sup>20</sup> As an alternative, I argue that the relative pronoun can be interpreted like a (resumptive) pronoun, i.e. as inducing a similar ellipsis phenomenon (deletion under identity with its antecedent) as the one proposed for examples like (26).<sup>21</sup> Consider first how a basic relative clause is represented under this account:

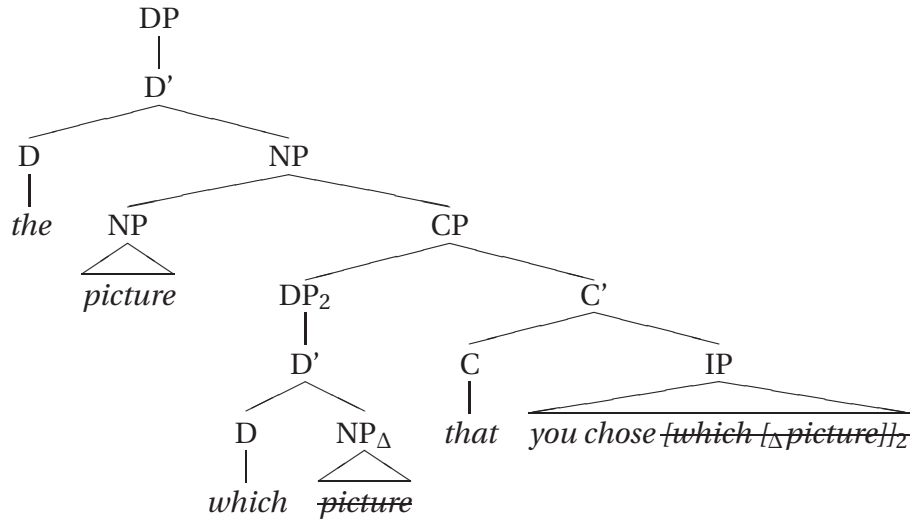
<sup>19</sup>A more detailed formalization of how presupposition should be projected is left for future research. But see Guillot (2006) for a first sketch of the process.

<sup>20</sup>See Bianchi (1995) or Sauerland (1998) for more details.

<sup>21</sup>One argument for this assumption comes from the fact that both resumption and relative clauses obviate reconstruction with condition C, as shown in (31a) and (31b):

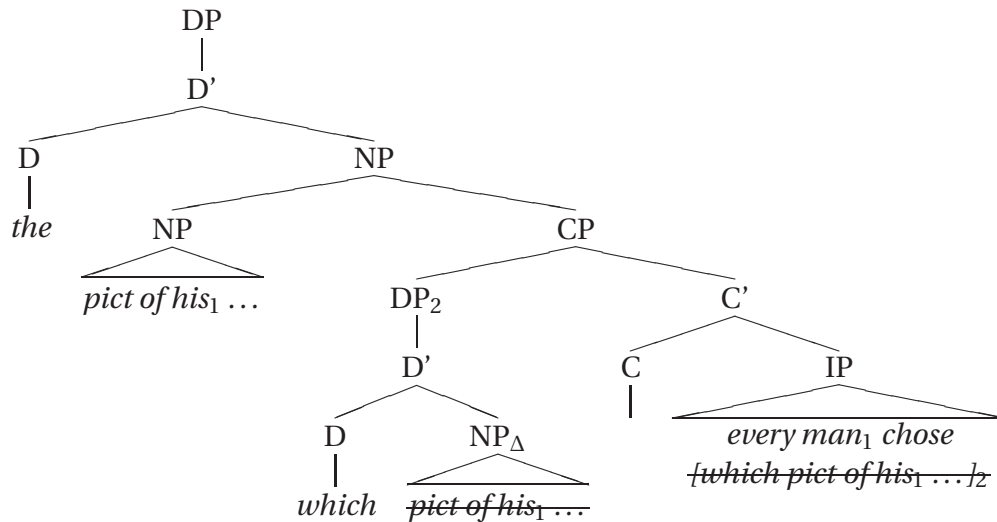
- (31) (a) *J'ai apporté la photo de Jean<sub>1</sub> qu'il<sub>1</sub> avait choisie.* 'I brought the picture of John that he had chosen.'  
 (b) *Le crayon<sub>2</sub> de Laila<sub>1</sub>, je pense qu'elle<sub>1</sub> l'<sub>2</sub> a acheté aux Galeries.* (lit.) 'Laila's pen, I think she bought it at the shopping mall.'  
 (c) *I kissed the sister of John<sub>1</sub>, and he<sub>1</sub> did [<sub>Δ</sub> ] too.*

(32) *I saw the picture which/that you chose.*



Consider now a more complex case, the case of binding reconstruction within relative clause, and its syntactic structure:

(33) *I tore the picture of his<sub>1</sub> daughter which each man<sub>1</sub> chose.*



As proposed, the relative pronoun *which* may induce an ellipsis phenomenon, hence be associated with an elided NP restriction corresponding to the antecedent's restriction. The reconstructed reading straightforwardly follows in (33) from presence of a copy resulting from both ellipsis and movement, and containing the bound variable anaphora *sa* 'his' within the syntactic scope of *chaque homme* 'each man'.

### 3.2.2 Copy interpretation in relative clauses

As for getting scope reconstruction with relative clauses, I argue, following Kayne (1994) and Cresti (2000) among others, that the relativized site (hence, the copy in that po-

The absence of condition C violation (i.e. the lack of reconstruction effect) is now on a par with classical examples of ellipsis like the one in (31c) taken from Fiengo and May (1994), where coreference between *John* and *he* is available.

sition) can be interpreted as indefinite,<sup>22</sup> and more precisely as a skolemized choice function. The account is then very similar to the general account of scope reconstruction. A schema of the process is given below in the case of a relative clause:

- (35) (a) *the ~~patient~~<sub>1</sub> each doctor<sub>2</sub> was assigned  $f_1^2$ (patient).*  
 (b) *the unique choice function  $f_{\langle et, ee \rangle}$  such that each doctor<sub>x</sub> was assigned  $f_x$ (patient).*  
 (c) *the unique function  $g_{\langle ee \rangle}$  ranging over patients such that each doctor<sub>y</sub> examined  $g(y)$ .*

Interpretation of the copy as indefinite now predicts that the two distributive readings of the relative clause are available. The pair-list reading follows from interpretation of the copy as a skolemized choice function (see the representation in (35)b). Contrary to Sharvit (1999), I argue that the natural function reading is also an option with relative clauses in predicative sentences, and formally follows from the logical entailment discussed in Section 3.1.2.<sup>23</sup>

## 4 Accounting for the paradoxes

Having introduced my general account for reconstruction, and extended it to relatives clauses, I argue that the paradoxical data provided in Section 2 are now completely predicted, as cases of binding reconstruction. But I will first show how the account deals with the contrasts introduced in Sharvit (1999) and Alexopoulou and Heycock (2002), i.e. the fact that presence of resumption, negative quantifiers or indefinite antecedents seem to limit distributive readings of relative clauses.

### 4.1 Resumption limits distributive readings

Recall that Sharvit (1999) notes that the presence of a resumptive pronoun instead of a gap within the relativized site seems to ban the multiple individual reading, as shown by the example repeated below:

<sup>22</sup>Notice that Kayne (1994) and Sauerland (1998) provide an independent argument for the assumption that the relativized site can be interpreted as indefinite: the availability of existential constructions in relatives. Consider indeed the grammaticality of the following example in French:

- (34) *J'ai invité les enfants qu'il y a dans cette salle.*  
 (lit.) 'I invited the kids that there are in this room.'

The use of existential constructions being restricted to weak determiners (like an indefinite), such an example then suggests that the relativized can indeed be interpreted as indefinite.

<sup>23</sup>A legitimate question that arises at this stage is how such a complex semantic object for the relative clause and its antecedent combines with the matrix predicate. Although this goes beyond the aim of this paper and should be developed in future work, several options can be considered. The most obvious one is to follow Sharvit (1999)'s analysis based on QR (when the headed relative is in the object position) and type-shifting rules: the relative clause and its antecedent can be QRed, and the matrix predicate is type-shifted to denote a set of functions (instead of a set of individuals). For more details, see Sharvit (1999). Another option would be to build on situations semantics and quantification over situations, as proposed in Elbourne (2002) to account for E-type anaphora. For more details, see Elbourne (2002).

- (36) *??ha-iSa<sub>2</sub> Se kol gever<sub>1</sub> hizmin ota<sub>2</sub> hodeta lo<sub>1</sub>.*  
 the-woman *Op* every man invited her thanked him  
 (lit.) ‘The woman every man<sub>1</sub> invited her thanked him<sub>1</sub>.’

Why is the distributive reading unavailable in that example? Within an account based on reconstruction, it just follows from the fact that resumptive pronouns clearly bear a definite feature, which then forces a definite interpretation of the copy. In other words, interpretation of the copy as indefinite, leading to either a pair-list reading or a natural function reading without any presupposition, is not an option anymore. More precisely, two interpretations are still in principle available, the individual reading or the natural function reading, but both are correlated with presupposition conditions brought about by the definite property of the resumptive, as shown by the following representations:

- (37) (a) *the unique  $x$  such that each man <sub>$y$</sub>  invited the <sub>$x$</sub>  woman*  
 ⇒ Individual reading with presupposition that  $x$  is a woman.
- (b) *the unique function  $g_{\langle ee \rangle}$  such that each man <sub>$y$</sub>  invited the <sub>$g(y)$</sub>  woman*  
 ⇒ Natural function reading with presupposition that  $g$  maps men to women.

At this stage, I argue that, in the absence of any context, the individual reading will prevail over the natural function one as it is easier to accommodate the presupposition linked to the former. In the case of the individual reading, accommodation consists in considering a context  $C$  which presupposes the existence of an individual  $x$  such that  $x$  is woman. In the case of the natural function reading, accommodation is a lot more complex as it consists in considering a context  $C$  presupposing the existence of a function  $g$  mapping men to women. such a competition, I argue, leads to a very strong preference for the individual reading.<sup>24</sup>

## 4.2 Negative quantifiers limit distributive readings

The second question that needs to be answered is why the distributive reading of the relative is so limited in the example repeated below, with a negative quantifier within the relative clause:

- (38) *J'ai déchiré la photo qu'aucun homme n'avait choisie.*  
 I-have torn the picture that-no man Neg-had chosen  
 ‘I tore the picture that no man had chosen.’

I argue that such a limitation follows if we assume that a skolemized choice function analysis of indefinites (for pair-list reading) must independently be restricted or banned under negative quantifiers. Notice indeed that for the simple example in (39),

<sup>24</sup>Also recall from footnote 6 that, according to Sharvit (1997), the distributive reading of a relative clause with resumption ‘becomes more acceptable if the previous discourse establishes a mapping between men and the women they invited’. This comes as no surprise if we assume that context accommodation is at stake in examples like (36).

something has to be said so as to exclude the reading as stated below, which could in principle be obtained from interpretation of the indefinite as a skolemized choice function.

- (39) *No man kissed a woman.*  
 Can not mean:  $\exists f. \neg \exists x. [man'(x) \wedge kiss'(x, f(woman')(x))]$

Everyone agrees that a sentence like *no man kissed a woman* cannot mean that there exists a way of choosing women  $f$  such that it is not true that there exists a man who kissed the woman chosen. Whichever the way the restriction should be formalized, I basically conclude from such data that the skolemized choice function analysis of a copy should not be available under a negative quantifier, and therefore that only the definite interpretation of the copy will. This assumption now accounts for the fact that presence of negative quantifiers limits the multiple individual readings of relative clauses in the same way that resumption does, as it leads to the following readings in principle, individual or natural function, both with presupposition conditions:

- (40) (a) *the unique  $x$  such that no man <sub>$y$</sub>  had chosen the <sub>$x$</sub>  picture*  
 $\Rightarrow$  Individual reading with presupposition that  $x$  is a picture.
- (b) *the unique function  $g_{\langle ee \rangle}$  such that no man <sub>$y$</sub>  had chosen the <sub>$g(y)$</sub>  picture*  
 $\Rightarrow$  Natural function reading with presupposition that  $g$  maps men to pictures.

Again, accommodation of the presupposition in the absence of context leads to a strong preference for the individual reading as it is easier to consider a context presupposing the existence of a woman instead of a function mapping men to women.

### 4.3 Indefinite antecedents limit distributive readings

The contrast introduced in Alexopoulou and Heycock (2002) shows that the presence of an indefinite antecedent also seems to limit the distributive reading in the same way that resumption and negative quantifiers do. The crucial data, with the indefinite antecedent clearly favoring the individual reading, is repeated below:

- (41) *?We contacted a patient each doctor was assigned.*

So why is the multiple individual reading unavailable in that case? The answer is very similar to the other cases of limitation discussed above, as I argue that the presence of an indefinite antecedent also force a definite interpretation of the copy in the relativized position. This assumption might appear stipulative, but a major argument for that is the obvious contrast between the examples in (42) below:

- (42) (a) *J'ai invité les enfants qu'il y a dans cette salle.*  
 I-have invited the kids that-it there has in this room  
 (lit.) 'I invited the kids that there are in this room'

- (b) ??*J'ai invité des enfants qu'il y a dans cette salle.*  
 I-have invited some kids that-it there has in this room  
 (lit.) 'I invited (some) kids that there are in this room.'

Recall from footnote 22 that the availability of (42a) with an existential construction within the relative clause is commonly given as an argument that the relativized position can be interpreted as indefinite. Now considering the oddness of (42b) with an indefinite antecedent heading the relative clause, I conclude that the option of interpreting the relativized position as indefinite is no longer available, or at least highly marginal. That leaves us with a very straightforward answer as to why indefinite antecedents limit distributive readings. Again, the definite interpretation of the copy prevails, leading to a competition between the individual and the natural function readings with presupposition conditions: accommodation of that presupposition in the absence of context will then favor the individual reading as it is easier to accommodate.

To summarize, the fact that resumption, negative quantifiers and indefinite antecedents seem to ban distributive readings of relative clauses is now predicted under a uniform account based on presence of syntactic reconstruction together with a natural restriction on the interpretation of the syntactic copy within the relativized position. More precisely, all these contexts just ban interpretation of the copy as indefinite, and interpretation of the copy as definite leads to a competition between the individual and natural function readings with presupposition, the individual reading being favored as it is harder to accommodate the presupposition linked to the natural function reading.

#### 4.4 Binding reconstruction as rescuer

As introduced in Section 2.3, all the problematic and paradoxical data reduce to cases of binding reconstruction. Crucially indeed, the distributive reading of the relative clause is suddenly available in the following examples, despite the presence of a negative quantifier in (43a) from French and (43b) from English, resumption in (43c) from Jordanian Arabic, or an indefinite antecedent in (43d) from French:

- (43) (a) *J'ai déchiré la photo de lui<sub>1</sub> qu'aucun homme<sub>1</sub> n'avait choisie.*  
 I-have torn the picture of him that-no man Neg-had chosen  
 'I tore the picture of him(self) no man had chosen.'
- (b) *The picture<sub>2</sub> of himself<sub>1</sub> which no candidate<sub>1</sub> liked <sub>2</sub> ruined his<sub>1</sub> career.*
- (c) *S-Surah<sub>2</sub> tabaʕat ʔibin-ha<sub>1</sub> illi kul mwaʕaf<sub>1</sub> ʕab-ha<sub>2</sub> riʕʕat l-uh<sub>1</sub>.*  
 the-picture of son-his that every employee bring.past.3s.-it give-back.passive to-him.  
 'The picture of his<sub>1</sub> son that every employee<sub>1</sub> brought (it) was given back to him<sub>1</sub>.'
- (d) *Marie a vu une photo de lui<sub>1</sub> que chaque homme<sub>1</sub> avait choisie.*  
 Mary has seen a picture of him that each man had chosen



'Mary saw a picture of him(self)<sub>1</sub> each man<sub>1</sub> had chosen.'

Presence of a potential bound variable within the antecedent in all these examples seems to override the limitations on the availability of multiple individual readings. The question is how this follows from an account based on reconstruction.

First recall that presence of negative quantifiers, resumption or indefinite antecedents forces a definite interpretation of the syntactic copy obtained by reconstruction within the relativized position. But crucially in all the examples in (43), interpreting the embedded anaphoric item as a bound variable, as a case of binding reconstruction through a definite copy, clearly excludes the individual reading associated with the relative clause and its antecedent, and hence straightforwardly accounts for the availability of the natural function reading with the presupposition condition.<sup>25</sup> In other words, if a bound variable occurs within the antecedent, the competition between the two possible readings of the relative clause, and the accommodation of the presuppositions associated to them, is not present anymore: the distributive/natural function reading of the relative clause prevails, as reconstruction of the bound variable just blocks the individual reading.

#### 4.5 What about specificational/equative sentences?

Interpretation of relative clauses within equative/copular sentences provides another argument for the account proposed in this study. As first noticed in Sharvit (1999), presence of a negative quantifier and/or resumption does not block the distributive reading of the relative when it is embedded in an equative sentence. Consider indeed the examples below, two from Sharvit (1999)'s study on Hebrew, and one from French:

- (44) (a) *ha-iSa<sub>2</sub> Se kol gever<sub>1</sub> hizmin ota<sub>2</sub> hayta iSt-o<sub>1</sub>.*  
 the-woman *Op* every man invited her was wife-his  
 'The woman every man<sub>1</sub> invited was his<sub>1</sub> wife.'
- (b) *ha-iSa<sub>2</sub> Se af gever<sub>1</sub> lo hizmin \_2 hayta iSt-o<sub>1</sub>.*  
 the-woman *Op* no man *Neg* invited was wife-his  
 'The woman no man<sub>1</sub> invited was his<sub>1</sub> wife.'
- (c) *La photo qu'aucun homme<sub>1</sub> n'a déchirée est celle de son<sub>1</sub> épouse.*  
 the picture that-no man *Neg*-has torn is the-one of  
 his wife  
 'The picture that no man<sub>1</sub> tore is his<sub>1</sub> wife's.'

Contrary to relative clauses in predicative sentences, relative clauses in equative sentences suddenly allow for a distributive reading even in cases of resumption (see (44a)), or a negative quantifier (see (44b) and (44c)). Confirmation of this comes from the correlated availability of the covariant (E-type) reading of the anaphoric item in the other part of the equation. And notice that these examples are not cases of binding reconstruction which, as shown above, can override the various limitations.

<sup>25</sup>Obviously, the individual reading of the relative clause and its antecedent is still available (and prevails) if the embedded anaphoric item is interpreted referentially.

Similarly, presence of an indefinite antecedent of the relative clause in an equative sentence does not block the distributive reading either. Consider indeed the following example from English:

(45) *A woman that no man<sub>1</sub> invited is his<sub>1</sub> wife.*

Again, the fact that the multiple individual reading is available is confirmed by the fact that the possessive *his* allows for a distributive/covariant interpretation with respect to every man. Such a reading might appear surprising in presence of both an indefinite antecedent and a negative quantifier.<sup>26</sup>

Summarizing the data, the generalization is that all the restrictions on distributive readings of relatives that appear in predicative sentences (with resumption, negative quantifiers, and indefinite antecedents) disappear in equative sentences.

How does the analysis predict such a contrast between predicative and equative sentences?

As predicted from the analysis, presence of resumption, a negative quantifier or an indefinite antecedent still forces a definite interpretation of the syntactic copy. But the availability of the distributive reading now comes as no surprise. It just follows from the fact that equative sentences crucially introduce the context that is required to satisfy the presupposition associated with the natural function reading. In other words, the distributive reading will be available, as it does not require any kind of accommodation: the second part of the equative sentence just provides the required function mapping men to women (the *wife\_of* function in (44a), (44b) and (45)) or mapping men to pictures (the *picture\_of\_wife\_of* function in (44c)).

## 5 Conclusion

Two main assumptions about distributive readings of relative clauses have been proposed in the literature, as stated below along with the logical predictions they make:

**Hypothesis #1 (Sharvit (1999)):** *the multiple individual reading of a relative clause corresponds to a pair-list interpretation of that relative (and crucially not a natural function one), at least when the matrix sentence is predicative.*

**Prediction #1:** the distributive reading of a relative clause should **never** occur with resumption and/or a negative quantifier in a predicative sentence, as they both ban the pair-list interpretation.

**Hypothesis #2 (Alexopoulou and Heycock (2002)):** *the distributive reading of a relative clause is crucially tied to presence of the external definite determiner.*

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<sup>26</sup>Similar examples in French are a bit harder to construct, as such equative sentences with an indefinite in subject position are not so natural in that language. A more natural way to express a similar proposition would be the following:

(46) *Il y a une femme qu'aucun homme<sub>1</sub> n'a invitée, et (cette femme) c'est son<sub>1</sub> épouse.*  
(lit.) 'There is a woman that no man invited, and (this woman) it is his wife.'

**Prediction #2:** the distributive reading of a relative clause and its antecedent should **never** occur with an indefinite antecedent.

The paper introduces empirical data that clearly show that these two predictions are not borne out, hence casting doubt on the two assumptions. As all these unexpected data can be seen as cases of binding reconstruction, I argue for an analysis of distributive readings of relative clauses based on syntactic (scope and/or binding) reconstruction of the displaced constituent. Under that assumption, the case of distributive readings of relatives just corresponds to a sub-case of a more general phenomenon that appears in all displacement structures.

My general account of reconstruction is based on the following major claims.

- The distributive reading of a displaced constituent follows from syntactic reconstruction of that constituent, i.e. presence of a copy resulting either from movement or ellipsis (see Guillot and Malkawi (2009)).
- A copy can be interpreted as indefinite, and more precisely a skolemized choice function (see Kratzer (1998) and Aguero-Bautista (2001)); this mechanism gives rise to a pair-list reading or a natural function reading without any presupposition, as a case of scope reconstruction (presence of an indefinite under the scope of the quantifier).
- A copy can be interpreted as a definite description (see Fox (2003)), giving rise to an individual or natural function reading with a presupposition on the individual or function considered (property of the definite); in the absence of context, accommodation constraints favor the individual reading.

Extending this general account to relative clauses, I argue for the following assumptions to account for the wide range of empirical data about distributive readings of such constructions.

- The relativized site of relative clause can also be interpreted as indefinite, hence giving rise to a distributive reading of the relative clause resulting from scope reconstruction.
- Resumption, negative quantifiers, and indefinite antecedents generally block the distributive reading of the relative clause in predicative sentences, because they force a definite interpretation of the copy, leading to a competition between the individual or the natural function reading with presupposition conditions: in the absence of context, accommodation constraints clearly favor the individual reading.
- The distributive reading of a relative clause suddenly reappears with resumption, a negative quantifier and an external indefinite determiner when binding reconstruction is at stake, as the presence of the reconstructed bound variable bans the individual reading: the natural function reading with a presupposition condition now prevails, as being the only option available.

- The distributive reading of a relative clause also reappears in equative sentences, as the presupposed function required to get the natural function reading is now given by the context, i.e. the other part of the equation, and then does not require any kind of accommodation.

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