

# Local Pragmatics Redux: Presupposition Accommodation Without Covert Operators\*

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**Abstract.** On several occasions in recent linguistic research, operations that used to be considered part of pragmatics were syntacticized: a covert operator was postulated to enrich the meaning of some constituents as part of compositional semantics. Two cases in point are Chierchia, Fox and Spector's exhaustivity operator *O*, used to compute local implicatures; and Bochvar's assertion operator *A*, used to compute local accommodation of presuppositions. A key benefit of syntacticization is to explain why these operations can be performed in the scope of various operators, something that is not easy to conceptualize within standard Gricean pragmatics. But are these operators syntactically real? We offer a case study of the operator *A*. Using tests based on ellipsis, we argue that it is not syntactically real. In the spirit of Recanati's 'free enrichment', we develop an alternative analysis of presupposition accommodation. It is based on a generalization of domain restriction, which we take to apply not just to nominal elements but, when needed, to verbal elements as well. Besides this result, our analysis raises a more general question: Which pragmatic operators are syntactically real and which are not?

Keywords: semantics, pragmatics, operators, semantics/pragmatics interface, local implicatures, local accommodation

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## 1 Pragmatic Operations and Covert Operators

On several occasions in recent linguistic research, operations that used to be considered part of pragmatics were syntacticized: A covert operator was postulated to enrich the meaning of some constituents as part of compositional semantics. A key benefit of syntacticization was to explain why these operations can in some cases be performed in the scope of various operators, something that is not easy to conceptualize within standard Gricean pragmatics. But are these operators syntactically real?

We develop tests based on ellipsis and argue that the answer is negative in one important case study: local presupposition accommodation, syntacticized by way of Bochvar's assertion operator *A*, which turns undefinedness into falsity (Beaver 2001, Beaver and Krahmer 2001, Fox 2013). We argue that local accommodation can be analyzed as a variety of local pragmatic enrichment, a view proposed for different cases by Recanati ('free enrichment', e.g. Recanati 2003). Specifically, we take as our model restrictions on quantifier domains, standardly used to explain why *nobody stopped smoking* means that nobody *in a salient domain D* stopped smoking. We generalize these restrictions to verbal elements: under some pragmatic conditions, *stopped smoking* could come to mean *belongs to a salient domain G* and stopped smoking. This provides an analysis of presupposition accommodation without operators. (Similar questions about syntactic reality could be asked about the exhaustification operator *O*, postulated in research on local implicatures (e.g. Chierchia 2004; Chierchia et al. 2012). We do not discuss *O* in the present study, except to motivate the notion of local pragmatic enrichment; nor do we discuss the more recent non-redundancy operator *R* postulated by Blumberg and Goldstein (2021).)

### 1.1 Syntactic operators vs. local pragmatic enrichment

Famously, Chierchia 2004 argued that some scalar implicatures are computed locally, in the scope of various logical operators.<sup>1</sup> This finding was unexpected in view of the neo-Gricean view, on which a sentence *S* triggers the implicature that an alternative *S'* is false if *S'* is more informative and hence cooperative than *S*—something that does not make sense for non-sentential constituents (e.g. Horn 1972). Chierchia originally revised the interpretive procedure so as to allow scalar implicatures to be computed in tandem with compositional interpretation. Soon after, however, the same facts were handled instead by postulating a covert operator *O*, which as a first approximation is a presuppositionless (and covert) version of *only* (e.g. Chierchia et al. 2012). To illustrate, (1)a is now routinely analyzed as (1)b, where *O* appears within the first disjunct and strengthens it to mean: *Ann only read some of the books*. (The motivation lies in a constraint, called Hurford's constraint, which prohibits the second disjunct from entailing the first; with *O*, the constraint is satisfied.)

- (1) a. Ann read some of the books or she read all the books.  
b. *O* [Ann read some of the books] or she read all of the books.

Recanati 2010 proposes that local implicatures are neither syntactic nor semantic in nature, but fall under a more general category of 'modulation', a process whereby semantic values are modulated before they enter compositional evaluation. Modulation can turn the 'animal' meaning of *lion* in (2)a into a 'statue' meaning. Similarly, it can turn the literal meanings of *city* and *asleep* in (2)b into extended or metaphorical ones: since a set of buildings cannot be asleep, either *city* must come to refer to its inhabitants, or *asleep* must come to mean something like *quiet and showing little activity*.

- (2) a. There is a lion in the middle of the piazza.  
b. The city is asleep.  
(Recanati 2010 pp. 5 and 41)

Recanati 2010 proposes that local implicatures are a subcase of modulation called 'free enrichment', a process whereby an expression "is contextually given a more specific interpretation than it literally

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<sup>1</sup> Landman 2000 and Schwarz 2001 independently explored related ideas.

encodes" (p. 168). The architecture Recanati proposes is somewhat reminiscent of Chierchia's (2004) initial analysis of locally computed implicatures, with modulation affecting meanings before they enter semantic composition.

As we will see, a similar debate arises about the syntactic reality of the local accommodation operator, and will argue for a version of Recanati's modulation view.

## 1.2 The local accommodation operator $A$

In a landmark study of presupposition projection, Heim 1983 distinguished between two repair strategies that might be invoked when a presupposition fails to be satisfied, as in (3) (we replace *France* with *Syldavia* in Heim's example to increase the chance that one doesn't have prior beliefs about the country's constitutional system).

(3) The king of Syldavia didn't come.

One strategy, global accommodation, might just follow from Gricean pragmatics: the addressee computes the presupposition as required by projection rules, sees that in view of her beliefs the sentence should give rise to a failure, and adapts her beliefs to avoid this unfortunate outcome. Concretely: Heim's dynamic semantics was based on update rules such as (4), which specify how the context of evaluation of an expression is updated in view of the semantic value of its constituent parts. For atomic elements, one can take for granted a static trivalent semantics, writing  $\mathbf{p}(w)$  for the value of a propositional expression  $p$  at world  $w$ , and state how failure at a world determines presupposition failure in a context, as in (4)a. Rules such as (4)b further specify how the update of a complex expression is determined on the basis of the update of its parts.

(4) If  $p$  is an atomic proposition expression and if  $F$  is a (possibly complex) propositional expression:  
 a.  $C[p] = \#$  iff for some  $w \in C$ ,  $\mathbf{p}(w) = \#$ . If  $\neq \#$ ,  $C[p] = \{w \in C: \mathbf{p}(w) = 1\}$   
 b.  $C[\text{not } F] = \#$  iff  $C[F] = \#$ ; if  $\neq \#$ ,  $C[\text{not } F] = C - C[F]$

Applying (4) to (3), we obtain the condition that  $C$  should guarantee the existence of a king of Syldavia. The addressee sees that this condition isn't satisfied by  $C$  and adjusts her beliefs to ensure that the condition is satisfied in a more restrictive context  $C^+$  that entails that Syldavia has a king. The update operation applies to that strengthened context, as illustrated in (5)a. If  $C^+$  is the *minimal* strengthening of  $C$  that satisfies the presupposition, it has the value in (5)b, and after global accommodation and update, it follows that Syldavia is a monarchy.

(5) a.  $C[\text{not the king of Syldavia came}] - \text{global accommodation} \rightarrow C^+[\text{not the king of Syldavia came}] = C^+ - C^+[\text{the king of Syldavia came}]$   
 b.  $C^+ = C[\text{Syldavia has a king}]$   
 c. Result of global accommodation:  
 $C[\text{Syldavia has a king}] - C[\text{Syldavia has a king}][\text{the king of Syldavia came}] = \{w \in C: \text{in } w, \text{ Syldavia has a king and the king of Syldavia came}\}$   
 d. Static trivalent semantics: For any world  $w$ , **the king of Syldavia came**( $w$ ) =  $\#$  unless there is a unique king of Syldavia in  $w$ . If  $\neq \#$ , = 1 iff the king of Syldavia came in  $w$ .

This monarchist conclusion might be hard to swallow if one is talking about France rather than Syldavia—or if one believes that Syldavia is a republic. But fortunately, Heim offers an alternative, local accommodation, which does not affect the global context of evaluation (that of the entire negative sentence) but just the immediate context of the trigger (that is, the local context of the clause *the king of France came*). This gives rise to the result in (6)a, where local accommodation and update combined do not entail that France has a king. The sentence then means in essence: *It's not the case that France has a king and that he came*, where the underlined conjunct is the contribution of local accommodation. Local accommodation is usually assumed to be a last resort that is only employed in case global accommodation leads to unacceptable results.

- (6) a. C[not the king of France came] – local accommodation → C - C+[the king of France came]  
 b. C<sup>+</sup> = C[France has a king]  
 c. Result of local accommodation:  
 C - C[France has a king][the king of France came] = {w ∈ C: in w, it's not the case that France has a king and he came}

While non-committal about the implementation, Heim seemed to view local and global accommodation alike as pragmatic in nature. Clearly, however, local accommodation is not an operation that invariably strengthens the meaning of the target sentence. Without local accommodation, if (3) is true, then Syldavia has a king, but this entailment disappears when local accommodation is applied. This suggests, rather unsurprisingly, that local accommodation is not a Gricean-style operation that enriches the global meaning.

It was later proposed that local accommodation could be viewed in terms of the optional insertion of an operator that turns undefinedness, notated as #, into falsity, notated as 0 (Beaver 2001). This operator corresponds to Bochvar's (1939) meta-assertion operation (developed for trivalent logics in general), and it is correspondingly notated as A. In Beaver's words, "the meta-assertion of *F*, *AF*, is the proposition that *F* is true"<sup>2</sup>, and it can be defined as in (7). This operator can be applied to a variety of trivalent logics, including to the trivalent core of Heim's dynamic semantics.

- (7) *AF* has the value 1 iff *F* has the value 1; otherwise, *AF* has the value 0.

On this operator-based view, local accommodation is just the insertion of A above an elementary propositional expression. This can be applied in Heim's framework, with the Logical Form in (8)a, and the result in (8)b, which is equivalent in this case to Heim's original recipe. (Importantly, there are non-dynamic trivalent accounts of presupposition projection, and those may borrow Bochvar's A without making use Heim's intrinsically dynamic operation.<sup>3</sup>)

- (8) a. not A [the king of France came]  
 b. If C ≠ #, C[not A[the king of France came]] ≠ #, and C[not A[the king of France came]] = C - C[A[the king of France came]] = {w ∈ C: in w, it's not the case that France has a king and he came}  
 c. A[**the king of Syldavia came**](w) = 1 iff in w there is a unique king of Syldavia and in came; = 0 otherwise.

Our main argument against this operator will be that when ellipsis tests are applied, as in (9), it becomes very dubious that A is syntactically real.

- (9) *Context*: We're supposed to take the lab rat out of its cage, once a day. Otherwise, it feels stressed. Bill has been unreliable in performing this task.

Ann: Last Monday, Bill didn't take the lab rat out of its cage.

(↗ last Monday, the rat was initially in its cage)

Sue: On Wednesday as well, but that's just because I took it home on Tuesday and forgot to bring it back, so it wasn't in the cage at all that day.

The first sentence of (9) gives rise, despite the negation, to an inference that the lab rat was in the cage. This suggests that *take out of its cage* triggers the presupposition that the rat was in the cage, and crucially that no occurrence of A appears below negation. But under standard assumptions about ellipsis, the elided clause is obtained by copying the boxed antecedent. Since this boxed constituent doesn't contain A, neither does the elided clause. This predicts that the presupposition of the elided clause cannot be locally accommodated, which should give rise to a contradiction in view of the *because*-clause. Since no such contradiction is obtained, local accommodation seems to be possible in the elided clause—but this seems to argue against the operator-based account.

<sup>2</sup> Beaver 2001 p. 37 (we replaced  $\Phi$  with *F* in the quote).

<sup>3</sup> For static trivalent accounts of presupposition projection, see for instance Peters 1979, Krahmer 1998, Fox 2008, George 2014.

### 1.3 Data elicitation

Unless they are cited from the literature, the examples we discuss are original to this piece. English judgments come from extended one-on-one elicitation sessions with two native speakers of American English, who are also linguists (we reasoned that seasoned linguists would be more apt to judge some of the more difficult cases we discuss; for arguments in favor of this introspective method, see for instance Sprouse and Almeida 2012, 2013, Sprouse et al. 2013). The French data come from the authors' own judgments.

### 1.4 Structure

The rest of this article is organized as follows. In section 2, we sketch a typology of different types of truth-conditional enrichments, some of which are 'seen' by ellipsis and some of which are not; in particular, we study the case of domain restrictions, which we will generalize to apply to verbal elements in addition to nominal ones ('generalized domain restrictions'). We turn to the local accommodation of presuppositions in Section 3, where we lay out the ellipsis-based argument against A and an alternative analysis based on the mechanism of Generalized Domain Restriction. We extend our analysis to the case of intermediate accommodation in section 4. In section 5, we show that it dovetails with an independent argument against A-based theories initially sketched in Romoli 2011, and we draw some conclusions in section 6.

## 2 Ellipsis and the Typology of Truth-conditional Enrichments

We start by analyzing examples in which ellipsis interacts with various enrichments depending on their source: a covert syntactic operator, a semantic rule, or a post-semantic enrichment. These examples lay the groundwork for our argument against the accommodation operator. One of these examples, domain restriction, will also serve to introduce our own analysis of these enrichments.

### 2.1 Parallelism requirements on ellipsis resolution and

Ellipsis is subject to licensing conditions. It is commonly accepted that these include at the very least parallelism requirements—the elided site must, in some fashion, be parallel to its antecedent. Theories differ on the nature of the parallelism requirement. Depending on the approach, parallelism may be a parallelism of forms (*syntactic parallelism*), of meanings (*semantic parallelism*), or of both. Syntactic parallelism requires the elided constituent and its antecedent to be identical. Semantic parallelism, in a formulation that goes back to Rooth (1992), requires that the antecedent clause that be among the focus value of the clause that contains the elided constituent.

(10) 5 is less than or equal to itself, and  $7_F$  is ~~<less than or equal to itself>~~ as well.

(11) Semantic parallelism requirement  
 $5 \leq 5$  must belong to  $\{1 \leq 1, \dots, 5 \leq 5, \dots, 7 \leq 7, \dots\}$

Rooth 1992 proposes that ellipsis is subject to *both* syntactic and semantic parallelism conditions. The ellipsis in (12) meets the syntactic parallelism condition, because the elided VP is syntactically identical to its antecedent. The two clauses also satisfy a form of semantic parallelism, spelled out in terms of focus values: the proposition expressed by the antecedent must belong to the focus value of the clause that contains the ellipsis site. Specifically, the antecedent expresses  $5 \leq 5$  which is in the set of propositions  $\mathbf{n} \leq \mathbf{n}$ , i.e. the focus value of the second clause. Together, these two parallelisms license the ellipsis displayed in (12).

(12) 5 is less than or equal to itself, and  $7_F$  is ~~<less than or equal to itself>~~ as well.

To justify this dual syntactic and semantic requirement, Rooth offers an interesting contrast between ellipsis and downstressing. According to Rooth, downstressing only requires semantic parallelism in order to be licensed. In (13)b, the focus value of the downstressed clause (represented in subscripted font) is the set of proposition  $n \leq n$ , which contains the proposition expressed by the first clause; this mere semantic parallelism suffices to license downstressing. By contrast, ellipsis is more demanding, and as a result *less or equal to itself* in (13)a cannot be elided: While this phrase satisfies the semantic parallelism condition, it is not syntactically parallel to its antecedent.

- (13) Logical Forms and semantic parallelism condition
- a. \*5 is less or equal to 5 and 4 isn't ~~<less or equal to itself>~~.
  - b. 5 is less or equal to 5 and 4 isn't <sub>less or equal to itself</sub>.
  - c. Semantic parallelism requirement  
 $5 \leq 5$  must belong to  $\{1 \leq 1, \dots, 5 \leq 5, \dots, 7 \leq 7, \dots\}$

## 2.2 Two types of explanations and their interaction with ellipsis

When an expression E receives a stronger interpretation than expected by a simple-minded compositional semantics, this enriched semantics may be explained in different ways, and each explanation interacts differently with ellipsis.

A *syntactic* explanation attributes the unexpected meaning of E to the presence of a covert operator *Op*. The semantic value of *Op* may in turn depend on parameters of the interpretation function (contextual operator) or not (non-contextual operator). The dependence on contextual parameters matters to ellipsis because of bound-variable readings. When an operator is sensitive to some parameters of interpretation, it may in principle be 'bound' and may thus yield bound-variable readings, on which the interpretation of the elided clause is only parallel to that of the antecedent clause *modulo* the interpretation of the parameters, as illustrated in (14)a with the context-dependent expression *local*. We refer to this as *functional semantic parallelism*: in the simplified analysis in (14)b (disregarding tense), the predicate *go to the local<sup>x</sup> bar* are identical only up to the value of the binder *x*.

- (14) a. Jane went to the local bar. And Bill did <go to the local bar [=his local bar]> too.  
 b. Jane  $\lambda x$   <sub>$t_x$</sub>  go to the local<sup>x</sup> bar. And Bill < $\lambda x$   <sub>$t_x$</sub>  go to the local<sup>x</sup> bar> too.

The operator A, the focus of this piece, has an entirely non-contextual semantics; regardless of context, A invariably converts undefinedness to falsity. So it does not give rise to this sort of functional semantic parallelism.

The second possible analysis of an enrichment is the *contextual* analysis. It assumes no covert operator in the target expression E, but makes the interpretation itself depend on more contextual parameters than meet the eye; the unexpected meaning only arises in special circumstances, when the contextual parameters are set in a certain way. Since these contextual parameters responsible for the enrichment may be bound, bound-variable readings are expected and functional semantic parallelism may be expected. We will illustrate this below with the case of domain restriction.

Syntactic analyses and contextual analyses are schematically illustrated in (15). But they are sometimes hard to tease apart empirically. In fact, any semantic rule of composition may often be reified into an operator in the syntax. For instance, Charlow 2017 shows how the lambda-abstraction rule, typically thought to be a rule of composition, can be rewritten as a syntactic operator. For this reason, the present paper's argument against the local accommodation operator A isn't and couldn't be an argument against any syntactic approach to local accommodation: it can only be an argument against the specific approach based on A. For clarity, we distinguish below between context-sensitive and non-context-sensitive versions of syntactic enrichment, with the disclaimer that our analysis solely targets the *non*-context-sensitive version.

- (15) **Two analyses of local enrichment**
- a. **Syntactic enrichment** (comes in two versions: non-context-sensitive *Op* and context-sensitive *Op*)  
 Syntactic form:  $Op\ E$   
 Source of the enrichment: for some parameter *p*,  $[[Op\ E]]^p$  differs in meaning from  $[[E]]^p$

### b. Contextual enrichment

Syntactic form: E

Source of the enrichment: for some parameters  $p, p'$ ,  $[[E]]^{p'}$  differs in meaning from  $[[E]]^p$

With these types of analysis in mind, we consider contexts in which E serves as the antecedent for an elided expression E'. We determine whether E' must receive an enriched meaning when E does. This critically depends on which of the explanations laid out above is correct. Importantly, these hypotheses about the origin of the enriched meaning come with different requirements for the semantic and especially syntactic parallelism conditions, as is summarized in the table in (16); the shaded row will be the crucial one for our argument. The last column, pertaining to 'post-semantic enrichment', pertains to another theoretical possibility, which is discussed in Appendix I but will otherwise be disregarded in this piece.

#### (16) Interaction between two analyses of local enrichment and ellipsis

Analysis of an expression  $E$  that has a stronger meaning than a standard compositional analysis would lead one to predict.

	Syntactic enrichment		Contextual enrichment	Post-semantic enrichment
	Non-context-sensitive $Op$	Context-sensitive $Op$		
Syntactic form	$Op E$	$Op E$	E	E
Semantics+pragmatics	Non-contextual semantics: <b>Op E</b> depends only the value <b>E</b> (not on the value of covert parameters)	Contextual semantics: <b>Op E</b> depends on the value of interpretation parameters	Contextual semantics: <b>E</b> depends on the value of interpretation parameters	Non-contextual semantics with pragmatics: <b>E</b> is enriched by reasoning/pragmatic considerations
Syntactic parallelism	$X Op E. Y_F <Op E>$ .	$X Op E. Y_F <Op E>$ .	$X E. Y_F <E>$ .	$X E. Y_F <E>$ .
Semantic parallelism	<b>X Op E</b> is in the focus value of $Y_F Op E$ .	<b>X Op E</b> is in the focus value of $Y_F Op E$ .	<b>X E</b> is in the focus value of $Y_F E$ .	<b>X E</b> is in the focus value of $Y_F E$ .
Semantic result	Strict semantic parallelism	Functional semantic parallelism (i.e. parallelism <i>modulo</i> differences in contextual parameters)	Functional semantic parallelism (i.e. parallelism <i>modulo</i> differences in contextual parameters)	No requirement of pragmatic parallelism

The denotation of  $A$  does not depend on the value of any contextual parameters (it only turns undefinedness to false); per the chart above, it thus requires strict semantic parallelism. Given this, our main argument takes the following form:

(i) postulating a covert operator  $A$  predicts a form of parallelism that is not observed;

(ii) by contrast, an operator-free analysis using a contextual semantics makes the correct syntactic and semantic predictions.<sup>4</sup>

<sup>4</sup> This argument may suffer from one flaw, however. In some cases, such as "sprouting", the parallelism requirements are a bit looser than strict identity. One may worry that such "looser" requirements might license

The rest of this section illustrates with non-presuppositional phenomena the first and third columns of (16) (pertaining syntactic enrichment with a non-contextual operator and contextual enrichment). These are the two crucial cases for our discussion, since syntactic enrichment is the theory of local accommodation we will refute, while contextual enrichment is the alternative theory we will advocate.

### 2.3 *Non-context-sensitive syntactic enrichments*

We start with cases in which an enrichment is due to the presence of a covert operator whose meaning does not depend on parameters of the context. We will henceforth call them 'syntactic enrichments' (with the understanding that those we consider are not context-sensitive). Syntactic enrichments must obey both the syntactic and the semantic parallelism requirements on ellipsis. This implies that an elided phrase must have an enriched meaning if its antecedent does. We illustrate this fact with two examples.

**Existential closure:** It has been argued that in many languages, tense is ambiguous, with both an anaphoric and an existential reading (e.g. Grønn and von Stechow 2016). A case in point is the French *passé composé*, which can carry the roles of both the English present perfect and the English simple past. In (17), the tense of the main clause may either be anaphoric to the tense of the relative clause or understood existentially. The two readings can be represented in simplified form in (18)a and (18)b, where we assume that existential quantifiers are dynamic, i.e. can bind variables outside of their c-command domain. The key difference is that in (18)b the main clause contains an existential quantifier that is missing from (18)a.

- (17) Dans chaque ville que j'ai visitée, des balcons se sont effondrés.  
*In each city that I have visited, some balconies SE are collapsed*  
 'In every city I visited, balconies collapsed.'  
 a. **Anaphoric reading** : ... *collapsed during my visit*  
 b. **Existential reading** : ... *collapsed at some point in the past*

- (18) a. [every x: city x & [∃t: PAST t] I visit<sub>t</sub> x] balconies collapse<sub>t</sub>  
 b. [every x: city x & [∃t: PAST t] I visit<sub>t</sub> x][∃t': PAST t'] balconies collapse<sub>t'</sub>

While unpronounced, existential closure is often thought to be syntactically real and to involve covert quantifiers. The existential reading can thus be seen as a syntactic enrichment, and we expect that this enrichment will be copied by ellipsis. This is indeed the case: in the dialogue in (19), either both clauses yield an anaphoric reading or both yield an existential reading; mixing readings is not possible.

- (19) A: Moi, dans chaque ville que j'ai visitée, des balcons se  
*Me, in each city that I have visited, some balconies SE*  
 sont effondrés.  
*are collapsed*  
 'In my case, in every city I visited, balconies collapsed.'
- B: Moi aussi!  
*Me too*  
 In my case too!

**Generic and episodic indefinites:** A related case is that of episodic/generic indefinites. In English, the same expression *a house in Beverly Hills* can be interpreted generically (as *all typical houses in Beverly Hills*) or episodically (as *there is a house in Beverly Hills such that...*), as illustrated in (20). It is generally thought that the generic reading obtains through a covert GEN operator, which occurs in the generic but not in the episodic case, as seen in (21).

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the ellipsis when E contains a covert operator that E' does not. This would make the ellipsis test uninformative. We discuss and dismiss this possibility in Appendix II.

- (20) a. Joshua thinks a house in Beverly Hills is huge. (generic)  
 b. Joshua thinks a house in Beverly Hills burnt down (episodic)
- (21) a. Joshua thinks Gen<sub>x</sub> [a house in Beverly Hills]<sub>x</sub> is huge.  
 b. Joshua thinks that a house in Beverly Hills burnt down.

In (20), predicate choice and plausibility considerations disambiguate the reading of the generic. But other cases, such as (22), a genuine ambiguity is obtained, which can be lifted by adding information to the discourse..

- (22) Joshua thinks a house in Beverly Hills costs more than \$100 million  
 a. ... so in his estimation, the whole neighborhood has a value of at least \$50 billion (generic).  
 b. ... so his goal in life is to buy it (episodic).

Because the choice of generic vs. episodic reading is conditioned by the presence of a covert operator GEN, it is predicted that an elided clause should be disambiguated in the same way as its antecedent. This is indeed what is found: forcing the disambiguation of the elided clause in favor of the episodic reading (= (23)a) or the generic reading (= (23)b) concomitantly imposes the same reading on the antecedent clause.<sup>5</sup>

- (23) Joshua thinks a house in Beverly Hills cost more than \$100 million.  
 a. Mark does too and he hopes to buy it.  
 b. Mark does too so, according to his estimation, the whole neighborhood has a value of at least \$50 billion.

## 2.4 Contextual enrichments

We turn to another way in which enriched meanings can arise: through a dependency on contextual parameters. Sometimes, a constituent receives different meanings depending on the value of some contextual parameters. We use implicit domain restrictions as a prime illustration of this type of enrichment.

A commonplace observation is that a naive semantics for (24) would require that all students in the world come to my office—an undesirable result. To avoid this consequence, one usually assumes that quantifiers are implicitly dependent on a contextually provided domain.

- (24) Every student came to my office.

As has been noted by several authors (e.g. von Stechow, 1994; Schlenker, 2006), this contextually provided implicit domain may be functional and co-vary with an arbitrarily large number of variables. Thus in (25), the implicit domain restriction for *part-time instructor* is dependent on the *dean* (different deans interact with different instructors) and the domain restriction for *most students* depends on both the *dean* and the *part-time instructor*.

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<sup>5</sup> A reviewer worries that the unavailability of the reading of (23) on which Joshua believes a generic statement and Mark an episodic one may not be due to parallelism requirements but simply the difficulty of conceiving a question under discussion that would make such mixed reading relevant. To alleviate this concern, we propose the following context for (23): Joshua has a budget of 80 million dollars and Mark a budget of 150 millions dollars; both have been wondering if it would be possible to buy a house in Beverley Hills. So the question under discussion (QUD) would be: Does each of them think it will be possible to buy a house in this neighborhood? In this context, the generic statement “Joshua thinks a house in Beverley Hills in general costs 100 million dollars” is the only relevant statement, since it makes it impossible for him to accomplish his goal. For Mark, both episodic and generic statements are relevant and both could reasonably be used. So a mixed construal could reasonably be intended in this case. But it is unavailable, as is expected, because of the parallelism requirement on ellipsis.

- (25) [Uttered in Los Angeles, a large city with many colleges and many part-time instructors]  
Each dean forced each part-time instructor to give an A to most students. (Schlenker 2006)

The possibility of implicit and potentially functional domains has important repercussions on ellipsis and parallelism conditions. Consider the two sentences in (26)a, which intuitively make claims about two different sets of professors.

- (26) a. MIT's dean met with every professor. Harvard's dean didn't.  
b. **Simple parse:**  
MIT's dean met with every<sub>C</sub> professor. not Harvard's dean ~~<met with every<sub>C</sub> professor>~~.  
c. **Functional parse:**  
MIT's dean  $\lambda x$  x met with every<sub>C(x)</sub> professor. not Harvard's dean will ~~< $\lambda x$  x met with every<sub>C(x)</sub> professor>~~ too.

Parsed with a single domain variable C, as in (26)b, the two sentences are syntactically identical. But to derive the intended reading, the value given to the domain restriction variable C must vary across the two clauses (presumably through context change), yielding a violation of the semantic parallelism condition. The problem is solved with the functional parse in (26)c, which satisfies both syntactic and semantic parallelism (for the latter, because the same function is defined by the two complex predicates). Assuming that the value of C is constant across the discourse, in (26)c the two clauses are both syntactically identical and semantically parallel. Ellipsis is thus predicted to be licensed. And because the  $\lambda$ -abstract takes different arguments, a different implicit restriction is obtained in the two clauses.

Since we will base our main proposal on domain restriction, we should be more specific about implementation. There are multiple options. In Stanley and Szabó 2000, implicit domain restrictions are syntactically represented with both domain variables and individual variables, as is the case in (26). But a purely semantic analysis can also be proposed, and for reasons of notational simplicity, it is the solution we opt for. This analysis, to be presented fully in the next section, is illustrated in (27) for the case of *most*. To foreshadow the analysis, we will see that the meaning of certain expressions, such as quantifiers, involves a contextually provided restriction R dependent on s, the assignment function. Because the assignment function contains values for all the binders in the syntactic context, the value of R may depend on any binders in the context, as was illustrated in (25).

- (27) a.  $\llbracket \text{most} \rrbracket^{c,s,t,w}(f) = \text{most}' (\lambda d_e. \mathbf{R}_{c,s,t,w}(\mathbf{f})(\mathbf{d}) = \mathbf{1} \text{ and } f(\mathbf{d}) = 1)$   
b.  $\llbracket \text{most student} \rrbracket^{c,s,t,w} = \llbracket \text{most} \rrbracket^{c,s,t,w}(\llbracket \text{student} \rrbracket^{c,s,t,w})$   
 $= \text{most}' (\lambda d_e. \mathbf{R}_{c,s,t,w}(\text{student}'_{t,w})(\mathbf{d}) = 1 \text{ and } \text{student}'_{t,w}(\mathbf{d}) = 1)$

## 2.5 Proposal: Generalized Domain Restriction

In the rest of this piece, we will argue on the basis of ellipsis and related tests that accommodation and redundancy effects are not syntactic enrichments. We will propose instead that they should be viewed as contextual enrichments. To do so, we will generalize the mechanism of domain restriction seen in the previous section from the nominal to the verbal domain. Thanks to this generalization, some of the enrichments discussed later will be subsumed under this rule, thus making them *contextual enrichments*.

To be more specific, we propose a new rule of *Generalized Domain Restriction*, defined in (28)-(30). In essence, we redefine composition by reference to an auxiliary interpretation function  $G^{\llbracket \bullet \rrbracket^{c,s,t,w}}$ . This interpretation function just affects elementary predicative expressions<sup>6</sup> by narrowing down their extensions to those elements that satisfy a generalized restriction. Crucially, this may affect nominal and verbal expressions alike (unlike standard domain restriction, which only affects nominals). In greater detail, (29)a states that G restricts the meaning of elementary predicative expressions, while (29)b states that G has no effect on other elementary expressions. Finally, (30) ensures that composition rules (Function Application, Predicate Modification and Predicate Abstraction) are redefined so as to take into account the effect of G on the meanings they combine.

<sup>6</sup>One could explore a version of our system with Generalized Restriction applying to all expressions whose type 'ends in t'.

- (28) **Assumption:** For any  $n \geq 1$ , any context  $c$  determines a generalized restriction  $R^n_c$  which can take an assignment function, a time and a world as additional arguments, where  $R^n_{c,s,t,w}$  takes an  $n$ -ary relation and  $n$  individual arguments and yields a truth value.

*Notation:* For  $n = 1$ , we write  $R_{c,s,t,w}$  instead of  $R^n_{c,s,t,w}$ .

- (29) For any elementary expression  $a$ , for any context  $c$ , assignment function  $t$ , and world  $w$ :
- a. if  $\llbracket a \rrbracket^{c,s,t,w}$  has a predicative type (ending in  $\langle e, t \rangle$ ,  $\langle e, et \rangle$  or  $\langle e, \langle e, et \rangle \rangle$ ), and requires  $n$  arguments of type  $e$  to yield a truth value,  

$${}^G\llbracket a \rrbracket^{c,s,t,w} = \lambda d_1 \dots \lambda d_n \cdot R^n_{c,s,t,w}(\llbracket a \rrbracket^{c,s,t,w}, d_1, \dots, d_n) \ \&^7 \ \llbracket a \rrbracket^{c,s,t,w}(d_1, \dots, d)$$
- b. otherwise,  ${}^G\llbracket a \rrbracket^{c,s,t,w} = \llbracket a \rrbracket^{c,s,t,w}$ .

- (30) For any expressions  $a, b$ , for any context  $c$ , assignment function  $t$ , and world  $w$ :

a. Function Application

If one of  $\{a, b\}$  has a type of the form  $\langle \alpha, \beta \rangle$  and the other has type  $\alpha$ , then

$\llbracket [a b] \rrbracket^{c,s,t,w} = {}^G\llbracket a \rrbracket^{c,s,t,w} ({}^G\llbracket b \rrbracket^{c,s,t,w})$  or  ${}^G\llbracket b \rrbracket^{c,s,t,w} ({}^G\llbracket a \rrbracket^{c,s,t,w})$ , whichever one is type-theoretically acceptable.

b. Predicate Modification

If  $a$  and  $b$  are both of type  $\langle e, t \rangle$ ,  $\llbracket [a b] \rrbracket^{c,s,t,w} = \lambda x_e \cdot {}^G\llbracket a \rrbracket^{c,s,t,w} (x) = {}^G\llbracket b \rrbracket^{c,s,t,w} (x) = 1$ .

c. Predicate Abstraction

If  $E = \text{such}_i, \text{who}_i, \text{which}_i, i$ , or  $\lambda i$ ,  $\llbracket [E F] \rrbracket^{c,s,t,w} = \lambda x_e \cdot {}^G\llbracket F \rrbracket^{c,s[t \rightarrow x],t,w}$

To illustrate, the meaning of *most students* will be computed as in (31), which yields the very same result as (27)b.

- (31) 
$$\begin{aligned} \llbracket [\text{most student}] \rrbracket^{c,s,t,w} &= {}^G\llbracket \text{most} \rrbracket^{c,s,t,w} ({}^G\llbracket \text{student} \rrbracket^{c,s,t,w}) \\ &= \llbracket \text{most} \rrbracket^{c,s,t,w} (\lambda d_e \cdot R_{c,s,t,w}(\text{student}'_{t,w}, d) \ \& \ \text{student}'_w(d)) \\ &= \text{most}' (\lambda d_e \cdot R_{c,s,t,w}(\text{student}'_{t,w}, d) \ \& \ \text{student}'_w(d)) \end{aligned}$$

This example shows that the mechanism proposed subsumes domain restriction as seen above. But it is more general: As we will see later, this rule can also serve as a model for local accommodation. To foreshadow these developments, local accommodation will be what happens when the domain restriction on a predicate is strong enough to satisfy its presupposition.

### 3 Presupposition Accommodation Without Operators I: Local Accommodation

In this section, we present examples showing that local accommodation is not subject to the parallelism requirement on ellipsis. This is unexpected under the operator theory of local accommodation.

#### 3.1 Local accommodation obviates strict parallelism requirements

□ *Main argument: stripping*

We start by investigating cases in which a certain VP triggers a presupposition that projects, while its elided counterpart leads to local accommodation of the same presupposition.

Writing  $X$  and  $Y$  for the subjects, the target discourse will have the form in (32)a, where the elided XP is enclosed within angle brackets, and where local accommodation is forced by a *because*-clause stating that subject  $Y$  doesn't satisfy the presupposition  $P$ .

<sup>7</sup> In our meta-language,  $\&$  is a Strong Kleene conjunction so that  $A \ \& \ B = 0$  iff either  $A$  or  $B$  is 0,  $=1$  iff both are 1, and  $\#$  otherwise.

- (32) a. X not PP'. Y too <not PP'> (because not Y P).  
 b. Impossible Logical Form  
 X not PP'. Y too <not A PP'>.

The key will be that if local accommodation were effected by the operator A, A would have to be within the syntactic scope of negation. We ensure that negation is within the elided constituent, with the result that A would have to be as well. Since the Logical Form in (32)b violates parallelism condition, we would thus expect, contrary to fact, that A is present in the antecedent.

To get the elided constituent to contain negation, we first use stripping (Hankamer, 1971), which unlike VP-ellipsis can elide a matrix negation (we will construct below a more complex example that just relies on VP-ellipsis).

The English example in (33) has precisely the structure in (32)a, and seems felicitous; it makes use of the verb *take Y out of X*, which presupposes that *Y was in X*. Importantly, the first sentence, pronounced by Ann, is interpreted without local accommodation: Our consultants infer from the first sentence that the rat was in its cage last Monday, which suggests that the presupposition projects from under negation. This still allows for the application of local accommodation in the elided structure pronounced by Sue.

- (33) *Context*: We're supposed to take the lab rat out of its cage, once a day. Otherwise, it feels stressed. Bill has been unreliable in performing this task.

Ann: Last Monday, Bill didn't take the lab rat out of its cage.

(↗ last Monday, the rat was initially in its cage)

Sue: On Wednesday as well, but that's just because I took it home on Tuesday and forgot to bring it back, so it wasn't in the cage at all that day.

The French example in (34)a is similar to the English example in (33), but it has the advantage of allowing for a control (in (34)b) with a version of *be unaware* ('ignorer') that does not contain a negation (not even as a morpheme).<sup>8</sup> The latter results in incoherence because, for lack of a negation, global and local accommodation alike yield the inference that the students at the private school have real chances of success.

- (34) *Context*: The speaker works at two separate schools to prepare students for competitive exams. One school is public and has excellent students, but they lack self-confidence. The other school is private and has terrible students.

a. Au lycée public, les élèves ne s' aperçoivent pas  
 At-the high-school public, the students NE SE notice not  
 qu' ils ont de réelles chances de succès aux examens.  
 that they have of real chances of success to-the exams

'At the public school, the students don't realize that they have real chances of success at the exams.

b. #Au lycée public, les élèves ignorent  
 At-the high-school public, the students are-unaware  
 qu' ils ont de réelles chances de succès aux examens.  
 that they have of real chances of success to-the exams

'At the public school, the students are unaware that they have real chances of success at the exams.

Continuation (for both a. and b.):

Au lycée privé aussi – mais là c'est parce qu' ils n' en ont aucune.  
 At-the high-school private too – but there it is because they NE EN have none  
 At the private school too – but there that's because they don't stand a chance.'

<sup>8</sup> One might try to construct a related control in English with *are oblivious of the fact that*, but it would involve a more complicated structure.

□ *Possible objections*

We turn to two potential objections. One is that the antecedent could be parsed with the local accommodation operator; the other is that stripping might involve anaphora, not elision.

As a reviewer notes, one could object that Ann's utterance in (33) can in fact be parsed with a local accommodation operator in the scope of negation (in essence, *not A [Bill took the rat out of its cage]*). On this view, Ann's utterance means that either (a) the rat was in the cage and Bill didn't take it out of the cage on Monday or (b) the rat wasn't in the cage on Monday. If the hearer has no reason to believe that (b) is the case, then they'd conclude (a), giving the illusion of projection, while maintaining parallelism.

This objection targets our analysis, but more generally the very idea of presupposition projection. In general, in a context  $C[\dots]$  where a presupposition trigger  $pp'$  is used, the reading in which the presupposition projects and is accommodated (in operator terms, it could be written  $A[C(pp')]$ ) is stronger than the reading where the presupposition is locally accommodated (i.e.  $C[A(pp')]$ ); on some theories, this is even a provable property of presupposition projection<sup>9</sup>. This implies that any appearance of projection can always be argued to be the result of pragmatic strengthening of a locally accommodated reading (which is weaker). For instance, the inference in (35)a could derive not from universal presupposition projection but from a local accommodated reading in (35)b, followed by some unspecified pragmatic strengthening. Whether this is a plausible analysis depends on whether we can independently evidence the necessary pragmatic strengthening mechanism.

- (35) a. Most journalists stopped smoking  
 => All smoked before  
 b. Most journalists [smoked before and stopped smoking]

Besides the fact that this objection targets the very idea of presupposition projection, there are two specific considerations that make it implausible. First, local accommodation is usually taken as a last resort operation (Heim 1983). So we have to wonder why this parse should be licensed here, especially since the parse without the A operator conveys the same information without relying on pragmatic reasoning. The need to satisfy parallelism with Sue's utterance is the only plausible explanation for why it might be preferred. But Ann's utterance is made without knowledge that Sue's utterance will contain an elided constituent. In the absence of any incentive for a parse with the A operator, the parse without the A operator is likely the one intended by Ann. In Appendix III, we discuss a more sophisticated version of the reviewer's analysis assuming that Sue is "re-parsing" Ann's utterance, and show that the parsing freedom it affords makes incorrect predictions in other examples.

Second, we can offer a control that paraphrases the effect of the A operator using a conjunction, as in (36). But differently from (33), it does not seem possible in this case to infer from Ann's utterance that the rat was initially in the cage. This casts doubt on the assumption that hearers can rule out (b) purely on pragmatic grounds, as required by the suggested counter-analysis.<sup>10</sup>

- (36) *Context:* We're supposed to take the lab rat out of its cage, once a day. Otherwise, it feels stressed. Bill has been unreliable in performing this task.

<sup>9</sup> Specifically, on some theories that are provably near-equivalent to Heim 1983, such as Schlenker 2009, presupposition projection is obtained by *adding* certain pragmatic conditions to the bivalent (= presupposition-free) meaning of a sentence. The latter is just obtained by locally accommodating all presuppositions. On these theories, the meaning of a sentence  $S$  with global projection is thus always stronger than the meaning of  $S$  with local accommodation.

<sup>10</sup> As is standard in presupposition studies, it is very difficult to find entirely minimal non-presuppositional controls of presupposition triggers, for the following reason: starting from a presupposition trigger  $pp'$  (triggering a presupposition  $p$ ), we might want to compare it to a conjunction  $p$  and  $p'$  (or:  $p$  and  $pp'$ ), where the presupposition is locally satisfied. But the conjunction comes with a pragmatic requirement of its own, on which  $p$  should be non-trivial (anti-presupposed). This problem for all presupposition studies affects our point as well.

Ann: Last Monday, it wasn't the case that the rat was in the cage and that Bill took it out.

(≠> last Monday, the rat was initially in its cage)

Sue: On Wednesday as well, but that's just because I took it home on Tuesday and forgot to bring it back, so it wasn't in the cage at all that day.

A second point of contention is whether our examples truly involve ellipsis. Indeed, some (Hankamer and Sag (1976), Fiengo and May (1994), and works cited in Johnson (2018)) have argued that stripping may be a kind of null pronoun, although this null pronoun view is challenged (see Johnson 2018 for a discussion). For the purpose of testing the presence of the A operator, the distinction between ellipsis and anaphora is immaterial as long as both require strict semantic parallelism with their antecedent. More specifically, our argument just depends on the fact that the locally accommodated meaning in (37)a cannot count as parallel to the non-accommodated in (37)b.

- (37) a. Not A (pp')  
b. Not pp'

A reviewer proposes that the difference matters because parallelism constraints on anaphora might be looser than those on ellipsis. One possibility is that a propositional pronoun may denote any proposition *entailed* by its antecedent. A variant is that a propositional pronoun may denote any proposition that carries the same assertive content as its antecedent (in technical terms, any proposition that is Strawson-equivalent to the antecedent (von Stechow, 1999)).

In fact, however, for present purposes parallelism requirements on stripping are as stringent as those on ellipsis. (38)a shows that mere entailment isn't sufficient (as on the propositional pronoun theory above): we infer that in her new job Mary satisfies the very same property, namely *working in southern France*, as in her old job, rather than just a property entailed by it (such as *working in France*). If the weaker requirement were in force, the continuation (*she works in downtown Paris*) would be felicitous, contrary to fact. In (38)b, a propositional pronoun attempts to refer to the proposition *Mary believes that her boss would never give her a raise*, which has the same assertive component but presupposes less than the antecedent proposition *Mary knows that ...*. A continuation is added to ensure that this putative reading is the only one felicitous. Despite this, the sentence feels contradictory, proving that anaphora does require strict semantic parallelism. Thus, even if stripping were a case of propositional anaphora, then it would still be a test for the presence of A.

- (38) a. In her previous job, Mary worked in southern France. In her new job as well (#in fact, she works in downtown Paris).  
=> in her new job, Mary works in southern France (rather than just: in France)  
b. #In her previous job, Mary knew that her boss would never give her a raise. In her new job as well, but she's mistaken: the boss is in fact planning to give her a raise.

#### □ VP ellipsis

Lest there are remaining worries regarding our use of stripping to make out point, we construct related (but more complex) examples with VP-ellipsis. In VP ellipsis, the view that treats VP-ellipsis as a form of anaphora resolution has less currency (see the discussion in Merchant 2019). As before, we need negation to be elided in our example, so as to be sure that the putative A operator will be part of the elided constituent. To do so, we embed the negation through the cumbersome phrase *this was a day when ...*, as in (39).<sup>11</sup>

- (39) *Context*: We're supposed to take the lab rat out of its cage, once a day. Otherwise, it feels stressed. Bill has been unreliable in performing this task.  
[Pointing towards a calendar]

<sup>11</sup> Due to availability constraints, this example was checked with a different speaker than the other examples in this article.

- A: This [pointing towards Monday] was a day when Bill didn't take the lab rat out of the cage.  
 B: That [pointing towards Tuesday] was too, but there, I had taken the rat with me the day before, so it wasn't in the cage at all.

While complex, this construction behaves like the stripping case we discussed in (33); both constructions converge on the conclusion that there is no parallelism requirement regarding local accommodation.

### 3.2 An account with Generalized Domain Restriction

We will now show that our main problem, namely the fact that A isn't syntactically real, can be solved using Generalized Domain Restriction.

We start by illustrating how Generalized Domain Restrictions can be used to perform local accommodation. The idea is that, in some cases, a restriction on the verbal predicate can be used to satisfy a presupposition triggered by this predicate. We illustrate the key mechanism on the example of (40)a, which has the schematic structure in (40)b (with  $X$  representing *on Wednesday*,  $\underline{PP}'$  representing *take the lab rat out of the cage*).

- (40) a. On Wednesday, Bill didn't take the lab rat out of the cage, but that's because the lab rat wasn't in the cage to begin with.  
 b.  $X \lambda i \text{ not } i \underline{PP}'$

The derivation of the meaning of the  $\lambda$ -abstract proceeds as in (41), making use of the rules in (29)-(30). We note that  $G$  plays a non-trivial role only when it is applied to predicative elements. For notational simplicity, we write  $\underline{PP}'_{t,w}$  for  $[[\underline{PP}']]^{c,s[i \rightarrow x],t,w}$  (which does not depend on the assignment function, nor on the context).

$$\begin{aligned}
 (41) \quad [[\lambda i \text{ not } i \underline{PP}']]^{c,s,t,w} &= \lambda x_e. G[[\text{not } i \underline{PP}']]^{c,s[i \rightarrow x],t,w} \\
 &= \lambda x_e. \text{not}'(G[[i \underline{PP}']]^{c,s[i \rightarrow x],t,w}) \\
 &= \lambda x_e. \text{not}'(G[[\underline{PP}']]^{c,s[i \rightarrow x],t,w}(x)) \\
 &= \lambda x_e. \text{not}'[[\lambda d. R_{c,s[i \rightarrow x],t,w}(\underline{PP}'_{t,w}, d) \& \underline{PP}'_{t,w}(d)]](x) \\
 &= \lambda x_e. \text{not}'[R_{c,s[i \rightarrow x],t,w}(\underline{PP}'_{t,w}, x) \& \underline{PP}'_{t,w}(x)]
 \end{aligned}$$

If we feed this  $\lambda$ -abstract its argument corresponding to  $X$  in (43), which we write as  $\mathbf{X}$ , we obtain the result in (42).

$$(42) \quad [[\lambda i \text{ not } i \underline{PP}']]^{c,s,t,w}(\mathbf{X}) = \text{not}'[R_{c,s[i \rightarrow x],t,w}(\underline{PP}'_{t,w}, \mathbf{X}) \& \underline{PP}'_{t,w}(\mathbf{X})]$$

Since we take generalized domain restrictions to be contextually determined, it is natural that the context can be adjusted to ensure that  $R_{c,s[i \rightarrow x],t,w}(\underline{PP}'_{t,w}, \mathbf{X})$  avoids a presupposition failure in the elided clause. This can be achieved if  $R_{c,s[i \rightarrow x],t,w}(\underline{PP}'_{t,w}, \mathbf{X})$  entails (by generalized entailment) the presupposition  $\mathbf{P}$  of the elided predicate  $\underline{PP}'$ . This yields, in essence, the same result as local accommodation.

Let us now see how this account can predict non-parallelism in ellipsis. We consider the sentence in (43)a-B, with the representation in (43)b.

- (43) a. A: On Monday, Bill didn't take the lab rat out of the cage.  
 B: On Wednesday too, <Bill didn't take the lab rat out of the cage>.  
 b.  $Y \lambda i \text{ not } i \underline{PP}' . X \lambda i \text{ not } i \underline{PP}'$

We already derived the meaning of the elided clause  $X \lambda i \text{ not } i \underline{PP}'$  in (42) above. By parity of reasoning, the meaning we get for the antecedent is:

$$(44) \quad [[\lambda i \text{ not } i \underline{PP}']]^{c,s,t,w}(\mathbf{Y}) = \text{not}'[R_{c,s[i \rightarrow y],t,w}(\underline{PP}'_{t,w}, \mathbf{Y}) \& \underline{PP}'_{t,w}(\mathbf{Y})]$$

The key is that the restriction  $R$  depends on the assignment function. The antecedent clause and the elided clause are evaluated against different assignment functions:  $s[i \rightarrow y]$  for the former and  $s[i \rightarrow x]$  for the latter. For this reason, the value of  $R$  in both cases can differ: in the elided clause,  $R$  is a predicate strong enough to meet a restriction; in the antecedent,  $R$  is weaker, allowing the presupposition to project.

While they have different denotations, the two clauses remain semantically parallel. The focus value of the sentence containing the elided constituent (assuming *on Wednesday* is F-marked) is as in (45)a, which simplifies to (45)b, using (44). The meaning of the sentence containing the antecedent clause belongs to this focus value and so semantic parallelism is met.

- (45) a.  $\{ \llbracket \lambda i \text{ not } i \text{ PP}' \rrbracket^{c,s,t,w}(\mathbf{Z}) \mid \mathbf{Z} \in D_e \}$   
 b.  $\{ \text{not}' [R_{c,s[i \rightarrow z],t,w}(\underline{\text{PP}}'_{t,w}(\mathbf{Z}) \ \& \ \underline{\text{PP}}'_{t,w}(\mathbf{Z})) \mid \mathbf{Z} \in D_e \}$

The elided clause and the antecedent are also syntactically parallel. Ellipsis is thus correctly predicted to be licensed, even though local accommodation is performed in only one of the two clauses. Our account therefore avoids the problem raised for the A operator account of local accommodation.

### 3.3 Local accommodation vs. non-triggering: Homer's test

At this point an objection could be raised. Instead of claiming that a presupposition is triggered and then locally accommodated, it could be assumed that no presupposition was triggered in the first place. The possibility of non-generation of presuppositions on pragmatic grounds has a long history, going back at least to Stalnaker 1974. It has acquired new relevance in view of numerous recent proposals that argue that some or all presuppositions are generated by a productive algorithm working on top of bivalent (non-presuppositional) meanings, making the latter primitive (e.g. Abusch 2010, Abrusán 2011, Tonhauser et al. 2013, Schlenker 2021). If the foregoing examples involve non-triggering, they make our argument moot (but if so, they also cast doubt on the need for A in the first place, at least for local accommodation: non-triggering might be all we need).

Fortunately, Homer 2008 offers a possible criterion to distinguish between local accommodation and non-triggering. The criterion stems from an analysis of presuppositional intervention on the licensing of Negative Polarity Items (NPIs). Homer starts by noting that presupposition triggers intervene and may prevent an NPI from being licensed. He then notes that this intervention effect persists even when the presupposition is locally accommodated (contrary to what one might expect on a simple-minded theory). Crucially, however, there are cases in which intervention by a presupposition trigger disappears, and he proposes that these cases should be viewed as involving non-triggering rather than local accommodation.

A particularly minimal case involves the presupposition trigger *s'apercevoir* ('to notice') and the NPI *la moindre chance* ('(even) the slightest chance') in French. As shown in (46), *s'apercevoir* intervenes in the licensing of *la moindre chance*, even when its presupposition is locally accommodated. But when the embedded clause is in the subjunctive, no intervention makes itself felt, as in (47).

- (46) \*Pierre ne s' aperçoit pas que Marie a la moindre chance, car elle n' a aucune chance.  
*Pierre NE SE perceives NEG that Marie has the slightest chance, for she NE has no chance*  
 'Pierre doesn't realize that Marie has any chance, for she has no chance.' (Homer 2008)

- (47) Si Pierre s' apercevait que Marie ait changé quoi ce soit, il serait en colère.  
*if Pierre SE perceived that Marie have.SUBJ changed anything, he would-be in wrath*  
 'If Pierre found out that Marie changed anything, he would be mad.' (Homer 2008)

Within Homer's theory, the contrast makes sense if no presupposition is generated when *s'apercevoir* embeds a subjunctive in (47), while the presupposition is locally accommodated when it embeds an indicative in (46).

This analysis also reveals another difference between the subjunctive embedding and the indicative embedding. With the indicative and absent any other pressure, the factive inference that Mary has chances projects. A variant of (46) without the NPI and without the *because*-clause, as in (48)a,

does yield the inference that Marie has chances. Only the addition of the *because*-clause forces a non-projected reading, as in (48)b. This dovetails with the typical view that local accommodation is a last resort (Heim 1983). By contrast, the subjunctive (which, under Homer's view, yields non-triggering) does not typically project. (49)a doesn't give rise to the inference that Marie changed things, and the same observation might extend to (49)b, with an embedded clause in subjunctive, which contrasts with (49)c, with an embedded clause in the indicative.

- (48) a. Pierre ne s' aperçoit pas que Marie a des chances.  
*Pierre NE SE perceives NEG that Marie has some chances*  
 => Marie has chances  
 'Pierre doesn't realize that Marie has chances.'
- b. Pierre ne s' aperçoit pas que Marie a des chances, car elle n'en a aucune.  
*Pierre NE SE perceives NEG ghat Marie has some chances for she NE EN has none*  
 ≠> Marie has chances  
 'Pierre doesn't realize that Marie has chances because she has none.'
- (49) a. Si Pierre s' apercevait que Marie ait changé des choses, il serait en colère.  
*if Pierre SE perceived that Marie have.SUBJ changed some things, he would-be in wrath*  
 ≠> Marie changed things  
 'If Pierre found out that Marie changed something, he would be mad.'
- b. Pierre ne s'est pas aperçu que Marie ait changé des choses.  
*Pierre NE SE is NEG perceived that Marie have.SUBJ changed some things*  
 ≠>? Marie changed things
- c. Pierre ne s'est pas aperçu que Marie a changé des choses.  
*Pierre NE SE is NEG perceived that Marie has changed some things*  
 => Marie changed things

Why in this particular case the subjunctive induces non-triggering is a further question; for the present argument, all that matters is that it does. Without seeking to provide a full account, we note that the intervention-inducing indicative version of *s'apercevoir*, with an embedded indicative, is precisely the one we investigated in (34). If Homer is right, this is precisely the variant of *s'apercevoir* that does not yield non-triggering.

The point can be made sharper by adding an NPI to our target sentences, as in (50). This results in an intervention effect and thus strongly suggests that the phenomenon we are assessing in (34) is indeed local accommodation rather than non-triggering: We *do* obtain NPI intervention in this case, which wouldn't be the case if non-triggering were at stake.

- (50) Au lycée privé, les élèves ne s'aperçoivent pas qu' ils ont  
*At-the high-school private, the students NE SE notice not that they have*  
 a. de réelles chances,  
*some real chances,*  
 b. \*la moindre chance,  
*the slightest chance,*  
 parce qu' ils n' en ont aucune.  
*because they NE of-it have none.*  
 'At the private high school, the students don't realize that they have real chances/any chance because they have none.'

#### 4 Presupposition Accommodation Without Operators II: Intermediate Accommodation

As mentioned above, one might object that the cases we considered result from non-triggering rather than from local accommodation proper. The dialectical situation is somewhat peculiar, as such an objection would save the A operator from our argument, but it would also obviate the need for A in the first place: If non-triggering is a general possibility, why not rely on it to account for *all* cases of local accommodation?

While we invoked Homer's intervention criterion to exclude non-triggering as an explanation, it would be reassuring to have an independent argument that non-triggering isn't at stake. We will now develop one using intermediate accommodation, cases in which a presupposition is undoubtedly triggered because it projects to an entire constituent, but is still accommodated in an intermediate context. Since intermediate accommodation is notoriously difficult to obtain empirically, we can only hope to show that, *to the extent that it is possible*, it gives rise to the expected inferential patterns in ellipsis.<sup>12</sup> Having completed our argument in this way, we will refine our theory by discussing a constraint on Generalized Domain Restriction.

#### 4.1 Intermediate accommodation and ellipsis

Schematically, we will consider examples that have the form in (51), where *think-not* corresponds to the verb *doubt/don't think*, and where the bracketed part is elided.

(51) X think-not if pp', q. Y too <think-not if pp', q>.

Simplifying somewhat,<sup>13</sup> there are three patterns of accommodation and they can be paraphrased (with conjunctions) as in (52). All possible patterns yield substantially different readings, which can be teased apart. Critically, intermediate accommodation is entailed by *Y thinks not p* and it is the only reading that is.

(52) **Possible patterns of accommodation in the elided clause**

a. Global accommodation

[p and Y thinks that p] and Y think-not if p', then q

b. Local accommodation

Y think-not if [p and p'], q

c. Intermediate accommodation

Y think-not [p and if p', q]

Consider (53). We aim for a non-parallel reading where the antecedent clause uttered by person A does not involve any accommodation whereas the elided clause uttered by person B involves intermediate accommodation, as schematically represented in (52)c. Since intermediate accommodation is notoriously difficult, we include a control without ellipsis in (53)B'. If a parallelism

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<sup>12</sup> In section 3.3, we used Homer's diagnostic to exclude the possibility that apparent cases of partial accommodation are in fact due to non-triggering of the relevant presupposition. In principle, we could construct a new argument to the same effect using intermediate accommodation. The logic would be that part of the presupposition fully projects (thus excluding the possibility that non-triggering is involved), while another part is accommodated at an intermediate scope. We tried to construct such examples, as in the elided part of (i) (here ellipsis is just intended to make the sentence easier to process). The idea was that the factive presupposition of *feel angry* fully projects (hence the purported inference that B's company's interns were underpaid), while that of *continue* is accommodated at an intermediate level: if it fully projected, there would be an inference that B's company's interns used to feel angry ; this inference would also arise if there were non-triggering or local accommodation ; indeed, in that case, the reading could be, in informal logical notation, written as "impossible [not [feel angry and continue to be]]", which is equivalent to "necessary [feel angry and continue to be]". Owing to the difficulty of intermediate accommodation itself, we could not get clear judgments, be it in favor or against our contention. We therefore leave this possibility open for future research.

(i) A: In my company, it's impossible/inconceivable that the interns won't **continue** to **feel angry** that they are underpaid.

B: In mine as well – for here they never did.

Purported judgments (unclear):

=> A's company's interns were underpaid; => A's company's interns have felt angry that they were underpaid

=> B's company's interns were underpaid; ≠> B's company's interns have felt angry that they were underpaid

<sup>13</sup> We disregard issues related to the Proviso Problem (see for instance Geurts 1996, 1999, Lassiter 2012, Mandelkern 2016).

condition makes itself felt on ellipsis, only the unelided control in B' should allow for a non-parallel reading and thus be felicitous (with intermediate accommodation in the elided clause but not in the antecedent clause). For our consultants, both the target elided sentence and the unelided control do, confirming that intermediate accommodation is not subject to parallelism.

- (53) A: I doubt that the Statue of Liberty would collapse if an earthquake shook its pillars.  
 B: I do too, but that's because I know that the Statue of Liberty doesn't have pillars.  
 B': I too doubt that the Statue of Liberty would collapse if an earthquake shook its pillars, but that's because the Statue of Liberty does not have pillars.

On the operator-based theory, the representation of the elided clause would have to contain A under *think-not*, as represented in (54). And the syntactic parallelism condition would require that it should be present in the antecedent too, thus predicting intermediate accommodation in the antecedent clause.

- (54) X think-not A not pp'. Y too <think-not A not pp'>.

As discussed for local accommodation in section 3.1, one might wish to propose a counter-analysis of this example. One could assume that intermediate accommodation does take place in A's utterance, leading to the meaning: *I believe that either the Statue of Liberty does not have pillars or that it does and it would not collapse if an earthquake shook its pillars*. One would then have to assume that pragmatic considerations could lead hearers to conclude A in fact believes the second disjunct.

The same reasons as in our discussion of section 3.1 suggest that this counter-analysis is untenable. First, A's utterance is made before B's. So there is no reason A should intend an otherwise marked intermediate accommodation parse when a parse without is both closer to the meaning she wishes to convey and unmarked. Second, controls with explicit coordination fail to provide evidence for the suggested pragmatic reasoning:

- (55) I doubt that the Statue of Liberty has pillars and would collapse if an earthquake shook its pillars.

## 4.2 Summary and outlook

In sum, we have shown that ellipsis tests suggest that local and intermediate accommodation are not effected by the A operator, and we have provided an operator-free alternative account based on Generalized Domain Restriction. We have addressed a potential objection, namely that the cases of local accommodation we discussed should be reanalyzed as non-triggering instead. Finally, the view that non-triggering could suffice to solve the problem is further refuted by the existence of cases of intermediate accommodation in which the operator-based theory makes once again incorrect predictions for ellipsis resolution.

We will now show that our analysis offers a solution to an independent problem raised by Romoli 2011 against the A operator: In some cases, local accommodation is more discriminating than the A operator allows for. Generalized Domain Restriction will offer a solution.

## 5 Extension: Local Accommodation isn't All-or-Nothing

Romoli 2011 argued that the analysis of local accommodation using Bochvar's operator A runs into a separate problem: it predicts that accommodation of the presuppositions of a given constituent X should be all-or-nothing, whereas sometimes some presuppositions of X are accommodated while others are not (see also Fox (2013, fn. 35) and Francis (2019, section 2.6.3)). While we think that Romoli's original examples could be handled by a tweak to the A-based theory, we will display new examples that fully vindicate his conclusion. We will then show that Romoli's problem receives a natural solution within our operator-free analysis based on Generalized Domain Restrictions.

### 5.1 Romoli's argument and its limitations

Romoli 2011 starts from the example in (56)a, where the boxed constituent gives rise to accommodation of the presupposition of *stop* but not of the presuppositions triggered by *being upset* and by *too*. The more complex example in (56)b shows that the purported (non-accommodated) presuppositions really do project like presuppositions out of an *if*-clause.

- (56) Romoli's examples (Romoli 2011)
- a. Either [John stopped being upset that he left the country too], or John started being upset that he left the country too.
- b. If either [John stopped being upset that he left the country too] or [John started being upset that that he left the country too], he will let us know soon.

We believe that Romoli considers insertion of A at the points shown in (57)a, where his objection to A is entirely valid: By locally accommodating the presupposition of *stop*, one would be forced to accommodate the presuppositions of the more embedded triggers as well. But Romoli's objection does not work against the modified analysis in (57)b, where A is applied directly to *stop* rather than to the entire VP. This does require an extended definition of A so it can apply to any constituent whose type 'ends in t', rather than just to propositions. But it is routine to define such an operation<sup>14</sup>. The present dialectics is summarized in (58).

- (57) a. If either A [John stopped being upset that he left the country too] or A [John started being upset that that he left the country too], he will let us know soon.
- b. If either [John [A stopped] being upset that he left the country too] or [John [A started] being upset that that he left the country too], he will let us know soon.
- (58) **Romoli's argument and its limitations**
- a. In (56), one derives (i) a presupposition that John left the country and that another salient person did too, but (ii) no presupposition that John used to be upset about this fact.
- b. On the assumption that A is 'all or nothing', it is unclear how to give it scope "so that it could cancel only the conflicting presuppositions".
- c. This conclusion is valid for the LF in (57)a, but not for the LF in (57)b.
- d. The latter requires either (i) that lexical presuppositions can fail to be generated, or (ii) a generalized definition of A.

### 5.2 Vindicating Romoli's conclusion: partial accommodation

We will now seek to vindicate Romoli's conclusion in a different way, namely by displaying cases in which one and the same word gives rise to some but not all of its presuppositions—a phenomenon we term 'partial accommodation'.

We start from Homer's *s'apercevoir*. In the negative sentence in (59)a, the verb triggers the inference that the person referred to is in fact unpopular, and it also triggers the inference that this person is alive. Related facts hold in (59)b, which involves universal projection under *none*.

- (59) a. Cette personnalité ne s' aperçoit pas qu' elle est impopulaire.  
       this public-figure NE SE notice not that she is unpopular  
       'This public figure doesn't realize that they are unpopular.'  
       => this person is alive  
       => this person is unpopular
- b. Aucune de ces dix personnalités ne s' aperçoit qu' elle est impopulaire.  
       none of these ten public-figures NE SE notices that she is unpopular  
       'None of these ten public figures realize that they are unpopular.'

<sup>14</sup> The semantic value **A** of the cross-categorical operator A can be defined as in (i).

(i) For any type-theoretic object E whose type 'ends in t' and requires n arguments of types  $\tau_1, \dots, \tau_n$  to yield a truth value,  $\mathbf{A} E = \lambda d_{1\tau_1} \dots \lambda d_{1\tau_n} . 1$  iff  $E(d_{1\tau_1}) \dots (d_{1\tau_n}) = 1$ ; 0 otherwise.

- => each of these ten public figures is alive  
=> each of these ten public figures is unpopular

Crucially, there are also cases in which only one of the two presuppositions is locally accommodated, as seen in (60)-(61).

- (60) a. Cette personnalité ne s'aperçoit pas qu'elle est impopulaire, car elle est morte!  
*this public-figure NE SE notice not that she is unpopular, for she is dead*  
'This public figure doesn't realize that s/he is unpopular because s/he is dead!'
- b. Cette personnalité ne s'aperçoit pas qu'elle est impopulaire, car elle ne l'est pas!  
*this public-figure NE SE notice not that she is unpopular, for she is dead, for she NE it est not!*  
'This public figure doesn't realize that s/he is unpopular because s/he isn't!'
- (61) a. Aucune de ces dix personnalités ne s'aperçoit qu'elle est impopulaire, car elles sont toutes mortes!  
*none of these ten public-figures NE SE notices that she is unpopular, for they are all dead*  
'None of these ten public figures realize that they are unpopular, because they are all dead.'  
≠> each of these ten public figures is alive  
=> each of these ten public figures is unpopular
- b. Aucune de ces dix personnalités ne s'aperçoit qu'elle est impopulaire, car aucune ne l'est!  
*none of these ten public-figures NE SE notices that she is unpopular, for none NE it is*  
'None of these ten public figures realize that they are unpopular, because none of them is!'  
=> each of these ten public figures is alive  
≠> each of these ten public figures is unpopular

It is clear that none of the insertion points for A displayed in (62) (for (61)) will be able to distinguish between the two presuppositions. The heart of the matter is that the verb *notice* simultaneously triggers a presupposition about its subject and about the embedded proposition, as stated in (63) (where we greatly simplified the lexical contribution of *notice*). Any occurrence of A that applies above *notice* will fail to draw the necessary distinction.

- (62) a. [no public-figure]  $\lambda x [t_x [A \text{ notices}] \text{ that } x \text{ is unpopular}]$   
b. [no public-figure]  $\lambda x [t_x A [\text{notices that } x \text{ is unpopular}]]$   
c. [no public-figure]  $\lambda x A [t_x \text{ notices that } x \text{ is unpopular}]$   
d. [no public-figure]  $A \lambda x [t_x A [\text{notices that } x \text{ is unpopular}]]$
- (63)  $\llbracket \text{notice } F \rrbracket^{c,s,t,w} = \lambda d_e . \# \text{ iff } d \text{ isn't alive at } t \text{ in } w \text{ or } \llbracket F \rrbracket^{c,s,t,w} \neq 1; 1 \text{ iff } \text{notice}'_{t,w}(\lambda t' \lambda w' \llbracket F \rrbracket^{c,s,t',w'})(d) = 1.$

Proponents of A are thus forced to complicate their analysis significantly. First, they might need some syntactic representation of the two presuppositions, for instance by decomposing *notice* into two parts, one that triggers a presupposition about subject existence, the other about the truth of the propositional object. This could be implemented by invoking a voice head  $v$  (e.g. Kratzer 1996), responsible for the subject existence presupposition, while the lexical verb is responsible for the factive presupposition, with an LF akin to (64)a for the accommodation-free case. Depending on how one defines the cross-categorial meaning of A, this might make it possible to apply A to  $v$  only, as in (64)b, and to *notice* or to the VP only, as in (64)c'.

- (64) a.  $t_x v \text{ notice that } x \text{ is unpopular}$   
b.  $t_x [A v] [\text{notice that } x \text{ is unpopular}]$   
c.  $t_x v \llbracket [A \text{ notice}] \text{ that } x \text{ is unpopular} \rrbracket$   
c'.  $t_x v A [\text{notice that } x \text{ is unpopular}]$

But this measure won't suffice to handle further cases, such as (65), where the relevant presuppositions pertain to the object of the verb. In addition, the possessive description is not by itself responsible for the presupposition that the denoted individuals exist at the time of evaluation, as this presupposition is clearly absent from the possessive description in (66).

- (65) a. None of these ten doctors will heal/cure his patient.  
=> each of the ten patients is alive  
=> each of the ten patients is or was sick
- b. None of these ten doctors will heal/cure his patient because the patients are all dead.  
≠> each of the ten patients is alive  
=> each of the ten patients is or was sick
- c. None of these ten doctors will heal/cure his patient because none of the patients are sick.  
=> each of the ten patients is alive  
≠> each of the ten patients is or was sick
- (66) None of these ten children knows anything about his great-great-grandparents.  
≠> each/some of these ten children's great-great-grandparents are alive

Yet another response is possible, however. One might object that in our examples, one of the presuppositions isn't generated to begin with. This might explain away some cases, but not all, at least if one accepts Homer's criterion. The crucial cases in this respect are (67)a and (68)a, where the factive presupposition of *notice* involves an indicative clause under *s'apercevoir*, which does not seem amenable to non-triggering. This can be re-established by modifying our examples minimally by adding NPI *le moindre* as in (67)b and (68)b. The result is less acceptable than the NPI-free versions in (67)a and (68)a, and it is also less acceptable than the NPI-full but factive-free examples in (67)c and (68)c.<sup>15</sup>

- (67) a. Cette personnalité ne s'aperçoit pas qu'elle a du soutien, car elle n'en a pas!  
*this public-figure NE SE notices not that she has some support, for she NE of-it has not*  
'This public figure doesn't realize that s/he has some support, because s/he doesn't have any!'  
=> this public figures is alive  
≠> this public figures enjoys some support
- b. \*Cette personnalité politique ne s'aperçoit pas que ses mémoires aient la moindre  
*this public-figure political NE SE notices not that her memoirs have the slightest*  
  
valeur littéraire, parce qu' ils n' en ont aucune!  
*value literary, because they NE of-it have none!*  
Intended: 'This public figure doesn't notice that her memoirs have the slightest literary value, because they have none!'
- c. Cette personnalité politique ne pense pas que ses mémoires aient la moindre  
*this public-figure political NE thinks not that her memoirs have the slightest*  
  
valeur littéraire, parce qu' ils n' en ont aucune!  
*value literary, because they NE of-it have none!*  
  
'This public figure doesn't think that her memoirs have the slightest literary value, because they have none!'
- (68) a. Aucune de ces dix personnalités ne s'aperçoit qu'elle a du soutien, car aucune n'en a.  
*none of these ten public-figures NE SE notices that she has some support, for none NE of-it has.*  
'None of these ten public figures realize that s/he has some support, because none of them has any!'  
=> each of these ten public figures is alive  
≠> each of these ten public figures enjoys some support
- b. \*Aucune de ces dix personnalités ne s'aperçoit que ses mémoires aient la moindre

<sup>15</sup> A reviewer notes that in this case, it may be possible to argue, in light of Kratzer 2006, that factives are made of different heads, one responsible for the factive inference and one responsible for the "alive" inference. If so, inserting an A operator sufficiently locally should be enough to remove one part of the presupposition but not another. Note however that (65) is not subject to this critique; in this example, there are no good arguments to consider an articulated semantics since both presuppositions triggered pertain to the object.

*none of these ten public-figures*NE *SE notices that her memoirs have the slightest*

valeur littéraire, parce que leurs mémoires n' en ont aucune.  
*value literary, because their memoirs NE of-it have none!*

Intended: 'None of these ten public figures notices that their memoirs have the slightest literary value, because they have none!'

c. *Aucune de ces dix personnalités ne* *pense que ses mémoires aient la moindre*  
*none of these ten public-figures*NE *thinks that her memoirs have the slightest*

valeur littéraire, parce que leurs mémoires n' en ont aucune.  
*value literary, because their memoirs NE of-it have none!*

'None of these ten public figures thinks that their memoirs have the slightest literary value, because they have none!'

Since accommodation is probably not effected by an operator in these cases, it is also unsurprising that ellipsis fails to give rise to parallelism requirements, as shown in the French examples in (69).

(69) A: Dans mon pays, le roi ne s' aperçoit pas  
*In my country, the king NE himself notice not*  
 qu' il est impopulaire.  
*that he is unpopular.*  
 'In my country, the king doesn't notice that he is unpopular.'

a. B: Dans le mien aussi: il est mort.  
*In the mine too: he is dead.*

In mine too: he is dead.'

=> the king in A's country is alive

=> the king in A's country is unpopular

≠> the king in B's country is alive

=> the king in B's country is or was unpopular

b. B: Dans le mien aussi: notre roi est très populaire.  
*In the mine too: our king is very popular.*

In mine too: our king is very popular.'

=> the king in A's country is alive

=> the king in A's country is unpopular

=> the king in B's country is alive

≠> the king in B's country is or was unpopular

We conclude that Romoli's conclusion was right: Accommodation isn't all-or-nothing. This dovetails with our ellipsis-based argument against the syntactic reality of A: Positing A won't help in these cases; and as we will now see, our alternative account solves the problem.

### 5.3 Extending Generalized Domain Restriction to partial accommodation

The mechanism of Generalized Domain Restriction can solve Romoli's problem. Since accommodation is now a pragmatic process in which one adjusts a generalized domain restriction in order to satisfy a presupposition, nothing prevents the adjustment from targeting some presuppositions but not others: Those that cannot project without yielding a pragmatic failure will be accommodated; others need not be.

To be concrete, consider again the example of partial accommodation in (59)a, with the (A-free) LF in (70).

(70) not [this public figure]  $\lambda x t_x$  [notices that x is unpopular]

Writing *VP* for the embedded Verb Phrase (so  $VP = notices\ that\ x\ is\ unpopular$ ), its restricted meaning will be computed as in (71) relative to a context  $c$ , an assignment function  $s'$  and a world  $w$  (but it should be borne in mind that if the entire sentence is evaluated relative to  $c, s, w$ , the relevant values of  $s'$  will be of the form  $s' = s[x \rightarrow d]$ , for  $d$  different public figures).

$$(71) \quad G[[VP]]^{c,s',t,w} = \lambda d . R_{c,s',t,w}([VP]^{c,s',t,w}, d) \ \& \ [VP]^{c,s',t,w}(d)$$

With a trivial generalized restriction, projection will give rise to a requirement that, at the world and time of evaluation (i.e. at the world and time of the context, if the sentence isn't embedded<sup>16</sup>), the subject public figure is (i) unpopular and (ii) alive.<sup>17</sup> If the 'alive' inference cannot be accommodated globally because this would contradict the rest of the sentence, as in (60)a, one can assume that for  $d =$  the subject public figure,  $R_{c,s[x \rightarrow d],t,w}([VP]^{c,s[x \rightarrow d],t,w}, d)$  guarantees that  $d$  is alive in  $w$  – and thus the 'alive' presupposition of the VP will be locally satisfied without yielding undesirable inferences about the world of evaluation. On the assumption that the restriction contributed by  $R$  is minimal, we will still preserve the inference that the subject public figure is unpopular. In the case of (60)b, things are reversed, and it is now just the presupposition that the subject public figure is unpopular which is accommodated by way of a non-trivial  $R$ , whereas the presupposition that the subject public figure is alive will be preserved.

The foregoing discussion pertained to a VP (namely *notices that x is unpopular*) found under a  $\lambda$ -abstractor, and thus the same account will extend to the quantified examples in (61), which can uniformly be given the Logical Form in (72), without the operator  $A$ :

$$(72) \quad [no\ public-figure] \ \lambda x \ t_x \ [notices\ that\ x\ is\ unpopular]$$

Theory-neutrally, partial accommodation of the 'alive' presupposition predicts the same behavior as for the sentence in (73)a, while partial accommodation of the 'unpopular' presupposition should be similar to (73)b.

- (73) a. [None of these public figures]<sub>x</sub> **is alive** and notices that they<sub>x</sub> are unpopular.  
 $\Rightarrow$  all of these public figures are alive  
 b. [None of these public figures]<sub>x</sub> **is unpopular** and notices that they<sub>x</sub> are unpopular.  
 $\Rightarrow$  all of these public figures are unpopular

Two remarks should be added for clarity. First, one may worry that if (73)a/b is an adequate paraphrase of (61)a/b, then the meaning contributed by the first conjunct “is alive” or “is unpopular” would be made redundant or vacuous by the end of the sentence, namely *because they are all dead* or *because they are not popular*. And indeed, if all the public figures are dead, then for any  $p$ , it follows that *no public figure is alive and p*. However the *because*-clause that asserts that all the public figures are dead comes after the quantified statement, and thus the boldfaced conjunct in (67)a needn't be redundant in its local context; and it is redundancy in a local context which normally gives rise to deviance. The same remarks apply to (67)b in the context of (52)b.

Second, several theories of presupposition projection (notably, various incarnations of dynamic semantics following Heim 1983) predict a conditional presupposition, both in (73) and in our analysis of partial accommodation. For instance, partial accommodation of the 'unpopular' presupposition in (72) (corresponding to (61)b), as well as the conjunctive equivalent in (73)b, are predicted to just presuppose that for each of the relevant public figures  $x$ , *if x is unpopular, x is alive*. This is too weak, but this is an instance of a far more general issue called the Proviso Problem: In diverse cases, dynamic semantics (and other frameworks) predict conditional presuppositions when unconditional ones are observed (see for instance Geurts 1996, 1999, Lassiter 2012, Mandelkern 2016). This question is

<sup>16</sup> We assume, as is standard, that if  $F$  is uttered in context  $c$  and if  $s$  properly represents the referential intentions in  $c$  for free variables of  $F$ , then  $F$  is true in  $c$  if and only if  $\llbracket F \rrbracket^{s,c_t,c_w} = 1$ , where  $c_t$  and  $c_w$  (i.e.  $c_t$  and  $c_w$ ) are respectively the time and world coordinates of  $c$ .

<sup>17</sup> We distinguish these in our discussion, but we do not have to assume that these are morpho-syntactically distinct at the lexical level: *notice* will come with failure conditions that take into account all presuppositions at once.

orthogonal to the issue of accommodation per se, as shown by the fact that it arises in (73) just as it does in our target examples in (61). We thus leave this issue aside in what follows.

#### 5.4 *Constraining Generalized Domain Restriction*

As a final remark, we should note that Generalized Domain Restriction is a powerful mechanism. In principle, there is no bound on how restrictive the value of *G* can be, and it may apply to both nominal and verbal elements. By itself, this need not be a problem: as with implicit domain restrictions, we assume that *G* is determined through context and thus constrained by the pragmatics. Still, there seems to be an important difference between verbal and nominal restrictions. In the nominal realm, domain restriction is the norm. In the verbal domain, it seems to be used rather sparingly, possibly just as a last resort to avoid infelicities. We leave this problem for future research; for expediency, we just stipulate in (74) that verbal domain restrictions might be a last resort.<sup>18</sup>

(74) **Conjecture: Verbal Domain Restriction as a Last Resort**

Applications of Generalized Domain Restriction to the verbal domain might be limited to cases in which this helps avoid infelicities (such as presupposition failure).

A more fine-grained investigation could prove illuminating, as there might well be cases in which verbal domain restriction is not a last resort. In (75), A's utterance naturally understood to mean that A runs *for exercise* once a week. Correspondingly, B denies that B runs for exercise (at least) once a week, but to our ear this is compatible with a situation in which B does run once a week for other reasons, for instance to catch a bus. More work will be needed to get some clarity on the crucial generalizations.

- (75) –A: I run once a week.  
–B: I don't.

Stepping back, we have seen arguments from two sources against the syntactic reality of the *A* operator, and in favor of the operator-free analysis we developed: Ellipsis tests suggest that *A* isn't real; and a generalization of Romoli's data suggests that *A* couldn't properly handle partial accommodation anyway.

## 6 Conclusion

We conclude that the accommodation operator *A* is not syntactically real. Its effects are better analyzed by way of an operator-free pragmatic process, namely a generalization of domain restriction. Generalized Domain Restriction explains why, under ellipsis, differences seen in terms of local accommodation between an elided expression and its overt antecedent mirror those that are independently found with nominal domain restrictions. Our account has the advantage of solving an independent problem noted by Romoli: contrary to what *A*-based theories predict, accommodation isn't all-or-nothing.

We leave some important questions for future research. First, as we noted in (74), Generalized Domain Restriction seems to be used more sparingly in the verbal than in the nominal domain; why this is so has yet to be explained. Second, one will need to ask in the future whether a version of the present

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<sup>18</sup> A reviewer points out that additional constraints might be needed, using the example *Ann didn't run but she did run fast*. This sentence is contradictory but should not be if the first occurrence of *run* could be restricted to 'run for exercise' and the second interpreted unrestrictedly. This remark is correct but the principle at play already exists with nominal domain restriction. For instance, *Ann didn't talk to every student but she did talk a little to every student* feels similarly contradictory, although it should not be if the second occurrence of *student* could be more restricted than the first. In sum, the puzzle is not peculiar to our Generalized Domain Restriction account and we can't see a reason why a solution within a more standard view of domain restrictions could not be adapted into our theory as well.

arguments extend to further pragmatic operators that have been postulated in recent research—such as the exhaustivity operator  $O$ .

*Appendix I.*  
*Post-semantic Enrichments and Ellipsis*

Besides the mechanisms of syntactic and contextual enrichment, discussed in sections 2.3 and 2.4, discrepancies between the meaning delivered by the composition and the observed interpretation may be due to pragmatic processes, such as reasoning based on world knowledge, reasoning about communicative intentions, etc.—all instances of *post-semantic enrichments*. By their nature, post-semantic enrichments should not be subject to semantic parallelism requirements, which only compare forms and *literal* meanings.

**Conversational implicatures:** In (76), a famous example by Grice, a conversational implicature is triggered: B implicates that Smith has, or may have, a girlfriend in New York. Grice noted that nothing in the overt or covert form of B's utterance conveys this inference as part of its meaning. Correspondingly, one expects that a sentence that copies the boxed VP by way of ellipsis, as in (77), need not give rise to the same implicature. This is as we observe: The elided VP does not give rise to the inference that Smith's sister has been paying a lot of visits to New York because she has a partner there (one may understand that she has been paying a lot of visits to New York because of her brother, for instance, but this is certainly optional).

- (76) A: Smith doesn't seem to have a girlfriend these days.  
B: He has been paying a lot of visits to New York lately.  
(Grice 1975 p. 51)

- (77) B: His sister has too – but not for the same reason.

**Strengthened anti-presuppositions:** A principle, called Maximize Presupposition, has been posited in recent research to explain why an expression such as *believe* gives rise to an inference that its complement is false. According to this principle, *believe* may only be used if its presuppositional alternative *know* is inapplicable because its presupposition is not met (e.g. Sauerland 2003, 2008; Percus 2006; Singh 2011; Schlenker 2012; Spector and Sudo 2017; Anvari 2018); the corresponding inference is sometimes called an anti-presupposition. The principle predicts that a use of *believe* triggers an inference to the effect that the presupposition of *know* does not hold (an *anti-presupposition*). But as Chemla 2008 notes, this inference is often insufficiently strong, as illustrated in (78) (where 'common belief' refers to the epistemic status of standard presuppositions).

- (78) John believes that I have a sister.  
a. Alternative: John knows that I have a sister.  
b. Actual inference: The speaker does not have a sister.  
c. Predicted inference: It is not common belief that the speaker has a sister.  
(Chemla 2008)

Chemla proposes a reasoning-based mechanism of strengthening: by combining (78)c with independently plausible principles of epistemic logic, one gets in some desirable cases the stronger inference in (78)b.

If this analysis is correct, the stronger inference is a post-semantic enrichment. One expects, just as above, that the stronger inference could be invisible to the parallelism requirement. A VP copied through ellipsis might thus not need to be strengthened when its antecedent is. This is what we observe in (79): While A's utterance conveys that A does not have a boyfriend, B's utterance (on a bound-variable reading) yields no such inference. By contrast, when the inference is made part of the literal meaning using the adverb *wrongly*, as in (80), the inference is preserved, with the result that B's reply sounds contradictory.

- (79) A: I am under the impression that my landlord believes I have a boyfriend.  
B: I am too – but unlike yours, my landlord is right!

- (80) A. I am under the impression that my landlord wrongly believes I have a boyfriend.  
B. #I am too – but unlike yours, my landlord is right!

In sum, we have seen two cases where post-semantic enrichments fail to be 'seen' by parallelism requirements on ellipsis, for reasons that follow from reasoning-based analyses. Crucially, these enrichments are relatively uncontroversial because they are applied globally (to an entire utterance) by reasoning on the speaker's belief state. It is unclear how such mechanisms could apply in the scope of various operators, and this makes them *prima facie* implausible candidates for an analysis of local and intermediate accommodation.

*Appendix II.*  
*Adding Material in the Elided Expression?*

In the main text, parallelism conditions on ellipsis allowed us to construct arguments against operator-based views of accommodation and non-redundancy. These conditions rule out structures with the schematic form in (81).

(81) X [...]. Y [... Op ...]

Still, one may counter that ellipsis does not require strict semantic identity: It may be that ellipsis allows the antecedent and the elided clause to contain different pieces of meaning, so long as sufficiently many pieces are similar.

The first case that comes in mind is that of the apparent deletion of features (and possibly further elements) in the course of ellipsis resolution. An example is given in (82)a. If John identifies as male and Mary identifies as female, (82)a has a bound reading but (82)b doesn't. Descriptively, the masculine feature of *himself* can be disregarded by ellipsis resolution, although the noun *man* cannot be; one theory among others is that features can be deleted under identity with that of a binder<sup>19</sup> (e.g. von Stechow 2003; see also Jacobson 2012, Sauerland 2013, Esipova 2019).

(82) a. John admires ~~him~~self, but Mary doesn't.  
b. John admires the man he has become, but Mary doesn't.

But the possibility to disregard part of the antecedent won't help in (81), where material has been *added* to the elided clause.

More relevant is the case of sprouting, illustrated in (83), where elided material appears within angle brackets. It argues for a looser formulation of identity conditions because the elided clause contains the trace of an adjunct (boxed) that lacks a correlate in the antecedent clause.

(83) a. [He painted the wall] but I don't know in what color <he painted the wall  $\langle t \rangle$ >.  
b. [She left] but I don't know when <she left  $\langle \text{at } t \rangle$ >.

For present purposes, the question is whether such looser parallelism conditions would make the elided clause sufficiently parallel to its antecedent despite the difference with respect to the presence of *Op*. This would fundamentally undermine the argument we developed in the main text. To put in a slogan, are our target cases instances of “covert operator sprouting”?

There are several disanalogies that make the objection weak, however. First, none of the cases considered involved sluicing or questions. We are not aware of cases of sprouting outside of such environments. Second, the looser parallelism conditions proposed in the literature to deal with sprouting don't seem liberal enough to license our cases either. We illustrate with Kotek and Barros's (2019) proposal. For them, ellipsis is licensed when the union of (the members of) the focus value of the antecedent is identical to the union of (the members of) the focus value of the consequent. For (83)b, the union of the focus of the antecedent appears in (84)a and that of the consequent appears in (84)b. Under the assumption that everyone that leaves does so at some point or other, they are indeed identical.

(84) a.  $\cup \llbracket \text{she left} \rrbracket^f = \cup \{ \lambda w. \text{she left in } w \} = \lambda w. \text{she left in } w$   
b.  $\cup \llbracket \text{she left} [\text{at } t]_F \rrbracket^f = \cup \{ \lambda w. \text{she left at } t' \text{ in } w \mid t' \text{ a moment} \} = \lambda w. \text{she left at some point in } w$

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<sup>19</sup> Alternatively, it could be that ellipsis allows *himself* in the antecedent (82)a to count as parallel to *herself* in the ellipsis site. The two words only differ in their presuppositions, and identity of assertive content might be sufficient for the parallelism conditions to be satisfied. Even if this view is correct, our main claim about accommodation and non-redundancy is unaffected because our target sentences should, under the operator theory, have different assertive contents.

This type of parallelism does not hold in our cases. Take, as an illustration, (85) (repeated (34), now in an English version). Under a syntactic analysis, we assume the structure in (86).

- (85) At my public school, the students don't realize that they have real chances of success.  
At my private school as well – but that's because the students are so bad that they don't have/stand a chance.
- (86) At my private school <the students don't Op realize that ...>.

The focus values are schematically given in (87): we write *chance(s)* for the proposition “*the students at school s have real chances of success*” and *realize(s)* for the proposition “*the students at s believe that they have chances at s*” (or whatever the assertion corresponding to *realize* is). Because of the presupposition in the antecedent clause, it's unclear what the union of (87)b ought to be: Must the presuppositions of all propositions in the set be satisfied (= (87)d)? Or is it sufficient that one of them is (= (87)c)? Whichever choice is made, the resulting proposition is not equivalent to its elided counterpart, due to the semantic contribution of the A operator; as per Kotek and Barros' parallelism conditions, ellipsis should not be licensed.

- (87) a.  $\cup \llbracket \text{[at my private school]}_F, \dots \rrbracket^f$   
 $= \cup \{ \lambda w. \neg \mathbf{A}(\llbracket \text{realize that } \dots \rrbracket^w(s) \mid \text{school}_w(s)) \}$   
 $= \cup \{ \lambda w. \neg [\text{chance}_w(s) \wedge \text{realize}_w(s)] \mid \text{school}_w(s) \}$   
 $= \lambda w. [\exists s: \text{school}_w(s)] \neg [\text{chance}_w(s) \wedge \text{realize}_w(s)]$
- b.  $\cup \llbracket \text{[at my public school]}_F, \dots \rrbracket^f$   
 $= \cup \{ \lambda w. \neg (\llbracket \text{realize that } \dots \rrbracket^w(s) \mid \text{school}_w(s)) \}$   
 $= \cup \{ \lambda w: \text{chance}_w(s). \neg \text{realize}_w(s) \mid \text{school}_w(s) \}$
- c.  $= ? \lambda w: [\exists s: \text{school}_w(s)] \text{chance}_w(s) . [\exists s: \text{school}_w(s)] \text{chance}_w(s) \text{ and not realize}_w(s)$   
d.  $= ? \lambda w. ([\forall s: \text{school}_w(s)] \text{chance}_w(s)) . ([\exists s: \text{school}_w(s)] \text{chance}_w(s) \text{ and not realize}_w(s))$

In conclusion, the looser parallelism conditions needed for sprouting don't seem to threaten our argument. More generally, we don't know of any independently motivated parallelism conditions loose enough to explain between a clause with an accommodation/non-redundancy operator and one without.

### *Appendix III. Against Reparsing*

An anonymous reviewer offers a more sophisticated defense of the operator-based view for our example (33), repeated below as (88).

(88) *Context:* We're supposed to take the lab rat out of its cage, once a day. Otherwise, it feels stressed. Bill has been unreliable in performing this task.

Ann: Last Monday, Bill didn't take the lab rat out of its cage.

(↗ last Monday, the rat was initially in its cage)

Sue: On Wednesday as well, but that's just because I took it home on Tuesday and forgot to bring it back, so it wasn't in the cage at all that day.

The proposal is that, just as we argue, Ann does not intend her utterance to be parsed with an operator A. However Sue, in an effort to meet the parallelism requirement of ellipsis, decides to 'reparse' Ann's utterance by adding to it the A operator. As the reviewer notes, this process of reparsing leads to a weaker meaning, still compatible with the proposition Ann intended to convey. The reviewer also assumes that, by pragmatic considerations, the parse with A may be strengthened to have the same meaning as Ann's original statement.

In section 3.1, we already argued against the idea that pragmatic reasoning may make the A parse as strong as the A-free parse with projection. We will now argue that reparsing is not an option in ellipsis. The example in (89) is a case in point.<sup>20</sup>

(89) *Context:* Museums are closed on Tuesdays. Speakers A and B reminisce about their trip to Europe some thirty years ago.

Ann: We were in France only on Tuesday. When we were in Paris, we didn't visit a museum.

Sue: When we were in London too. But we visited it on our trip the year after.

We exploit the fact that, in English, negation can scope above or below indefinites. The scope *not >> a museum* leads to a stronger reading than the scope *a museum >> not*. We are thus faced with one strong parse and one weak parse, just as in (88) above. Ann's discourse makes it likely that she intends the strong parse, corresponding to the scope *not >> a museum*. If reparsing were an option, Sue could intend her elided constituent to have a weak parse, corresponding to the scope *a museum >> not*. This, in turn, would make Sue's use of *it* in her second sentence coherent, as *it* can be anaphorically related to a wide scope existential quantifier in this case. But our consultant does not judge such an interpretation to be available; instead, our consultant interprets Sue as saying that Ann and her group didn't visit any museum in London, and struggles with the subsequent pronoun. In sum, reparsing doesn't seem to be an option for scope. This makes it very unlikely that it is an option for A-insertion.

Since our example in (88) does not require any miscommunication, we conclude that reparsing cannot explain it.

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<sup>20</sup> Due to availability constraints, this judgment were not provided by the two native speakers who provided most of the original judgments in this paper, but by another native speaker.

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