

QUANTIFICATION AT A DISTANCE ACROSS VARIETIES OF FRENCH: A CRITICAL REVIEW OF THE LITERATURE*

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1. Introduction

The phenomenon of *Quantification at a Distance* (henceforth known as *QAD*) has received a great deal of attention since it was first noticed by Kayne (1975) in his seminal work *French Syntax*. A canonical example of this construction, which we will refer to henceforth as a *QAD sentence*, is shown in (1b)¹.

- (1) a. J'ai mangé **beaucoup** de pommes
I-have eaten **a-lot** of apples
'I have eaten a lot of apples'
b. J'ai **beaucoup** mangé de pommes
I-have **a-lot** eaten of apples
'I have eaten a lot of apples'

In French, quantification over objects is usually realized by a class of quantificational determiners that appear adjacent to their restricting noun phrase, as shown in (1a). However, although in (1b) the determiner *beaucoup* appears in a preverbal position, i.e. separated from *de pommes*, at first glance, this sentence seems to be synonymous with (1a). The search for an appropriate analysis of this construction have been a long-standing problem in the study of the syntax and semantics of the French language, and has motivated major works by authors such as Obenauer (1983; 1984), Doetjes (1995), in addition to Kayne himself. Furthermore, the existence of the construction has been taken to support a variety of analyses of different aspects of French, such as the application of the concept of *Relativized Minimality* to A-bar movement (Rizzi (1997)), and the

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¹ The term *Quantification at a distance* or *non-canonical quantification* has also been used to describe the behaviour of the interrogative quantifier *combien* (see Obenauer (1983) and Mathieu (2002)). Similarly to *beaucoup*, *combien* can appear both next to its restriction and separated from it by the bulk of the sentence.

- (i) a. **Combien**, as-tu lu \uparrow **de livres**?
b. **Combien de livres**, as-tu lus \uparrow ?
'How many books have you read?'

However, as noted by Obenauer (1983:71), distance quantification with *combien* is not subject to the same restrictions as the quantifiers we are discussing here. We thus assume that, due to its interrogative nature, QAD with *combien* should be the subject of a separate paper.

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realization of non-canonical quantification as a general phenomenon (Mathieu (2002)).

In this paper, we present a comprehensive review of the literature on this phenomenon and we argue that, despite all the papers that have been devoted to its study, all aspects of this construction are far from being completely understood. Furthermore, the study of the QAD construction has, with one exception, been limited to Standard French (SF), and we present data that show that major dialectal differences exist between this dialect and the French spoken in Québec (QF). We show that while QAD sentences in SF have only one reading, these sentences in QF are genuinely ambiguous and raise many more questions than their SF counterparts. We further argue that what authors have been referring to as quantification “at a distance” exists only in the French spoken in North America²; a fact that is troubling for authors who draw broader conclusions about the nature of the grammar based on the SF QAD data.

1.1. Background Facts

Although the QAD construction is most often exemplified by sentences with the quantifier *beaucoup*, the class of lexical items that can participate in QAD is in fact very large. Further examples from Standard French are provided in (2).

- (2) a. J’ai **peu** rencontré de gens
I-have **few** met of people
‘I have met few people’
b. J’ai **trop** bu de vin
I-have **too-much** drunk of wine
‘I have drunk too much wine’
c. J’ai **tellement** fait de travail
I-have **so-much** done of work
‘I have done so much work’

The construction is also possible with *assez* ‘enough’, *moins* ‘less’, *autant* ‘as many/much as’, *pas mal* ‘quite a few’, among others. In addition to the preceding list, Québec French QAD is possible with *pas benben* ‘not so much’ and *pas diable* ‘not a hell of a lot of’.³

- (3) a. Ils ont **pas benben** vendu de livres
they have **not so-much** sold of books
‘They have not sold so many books’
b. J’ai **pas diable** apporté de tartes
I-have **not a-hell-of-a-lot** brought of pies
‘I have not brought many pies’

² This statement is true to the best of our knowledge; however, we have not yet conducted a comprehensive study of dialectal continental French to verify it. In fact, given that most of the “innovations” that appear in QF tend to also be found in non-Parisian areas in France, it would surprise us to find out that true distance quantification existed only in Québec.

³ QF *benben* and *diable* are usually taken to be negative polarity items (Vinet (2001)); therefore they only appear with along with the negative marker *pas*.

Although the list of QAD quantifiers is long, not all possible DP quantifiers can be used to form a QAD sentence. When a syntactic construction is limited to a subset of possible quantifiers, it is natural to ask whether these lexical items form a natural class, semantically speaking. For example, since Milsark (1974), it has been noted that not all English determiners can be placed in existential constructions in this language. While determiners such as *five* are grammatical in these sentences, others, such as *most*, are not.

- (4) a. There are **five** dogs in the garden
 b. *There are **most** dogs in the garden

Recently, Keenan (2003) has shown that the quantifiers who are licit in existential sentences actually fall into a formal semantic class which he calls *intersective*. He contrasts this class of quantifiers with two other classes, the *co-intersective* class, which includes quantifiers such as *all*, *all but five* etc. and the *proportional* class, which includes determiners such as *most*.⁴ However, in the case of QAD, we find that such a characterization is impossible: the set of quantifiers involved does not perfectly match a particular semantic class.

- (5) a. *J'ai **cinq** vu (des) films *intersective*
 'I have seen five (of the) movies'
 b. *J'ai **tous sauf cinq** vu (des) films *co-intersective*
 'I have seen all but 5 of the movies'
 c. *J'ai **la plupart** vu des films *proportional*
 'I have seen most of the movies'

Nevertheless, all of these quantifiers exhibit a syntactic behaviour that sets them apart from the other quantifiers of French, namely the fact that they may appear as VP adverbs.

- (6) a. J'ai **trop** vu de films
 'I have seen too many movies'
 b. J'ai **trop** dormi
 'I have slept too much'
 c. J'ai **pas diable** fait de travail cette semaine
 'I have not done much work this week'
 d. J'ai **pas diable** travaillé
 'I have not worked much' etc.

Thus, we can propose the following generalization:

- (7) QAD is only possible with those DP internal quantifiers who also double as adverbial quantifiers.⁵

⁴Keenan & Stavi (1986) provide a very explicit mathematical characterization of these classes, but the details of his definitions are not particularly relevant here.

⁵ At first glance, there seems to be one exception to (7), and that is the quantifier *tous* 'all', usually referred to by its pronunciation as /tUt/ in QF. However, /tUt/ has other properties that render it even more different from the other QAD quantifiers, and thus these characteristics put the relevance of the study of this particular lexical item for a theory of QAD into question (see Lemieux, St-Amour &

1.2. Plan of the Paper

We will begin by closely examining the data and the analyses presented in previous works on QAD. For the sake of exposition, we have divided the various proposals we will be taking up into two main groups based on how they view the behaviour of the quantifier. We will term an analysis a *base generation* analysis if, under the account in question, the quantifier is generated in a preverbal position and never appears adjacent to the object at any level of representation. We will call an analysis a *movement* analysis if it proposes that the quantifier is generated adjacent to the object DP and its preverbal position is a result of overt movement. We will complement our review with the introduction and discussion of new data from QF.

2. The Base Generation Analysis

The major advocates of a base-generation analysis are Kayne (1975), Obenauer (1983; 1994), and Doetjes (1995). These authors have been concerned exclusively with Standard French. We will show that proposals that can account nicely for the SF data are inadequate to treat data from QF.

2.1. Kayne (1975)

Kayne (1975) provides the first analysis of the phenomenon of QAD as an aside to his analysis of constructions involving the floated quantifier *tous*. He argues that it is not necessary to postulate any kind of movement since we already need a Phrase-Structure rule to generate the relevant quantifiers in the SpecVP position in sentences where no object is present, such as in (6b&d). The PS rule that allows us to generate *trop* in this position can then be reused to generate it in a sentence such as (8):

(8) J'ai trop bu de café.

Thus, the internal structure of the VP (i.e. the presence or absence of an object) is independent from the presence of the quantifier. In Kayne's mind, with this simple account, the restrictions that apply to the object NP require additional explanation. He therefore postulates the presence of an empty category besides the *de*-phrase. Licensing of this empty category requires that a quantifier be in a close c-commanding relation with it. The details of this requirement are left rather vague in this analysis, as this construction is not the main subject addressed by Kayne (1975). However, it is sufficient to explain the ungrammaticality of sentences (10-11).

(9) *Jean a vu de films.

(10) *D'enfants ont beaucoup chanté.

For Kayne, (9) is ungrammatical because there is no quantifier to license the empty category beside the *de*-phrase. (10) is ruled out because the quantifier is not in a c-commanding position with respect to the *de*-phrase.

Sankoff (1985) for a discussion of the exceptionality of /tUt/.

Although Kayne's analysis serves as an excellent "first look" at the construction, it leaves many questions open. First and foremost, since it is purely distributional, i.e. it accounts for the placement of the quantifier in the sentence, it pays no attention to the differences in interpretation between canonical quantification and QAD. Nor does it address how the semantic composition of the sentence takes place. This second question is particularly important given Kayne's proposal of the existence of an empty category inside the object. It is not immediately obvious what the semantic contribution of this null element is, nor is it clear what relationship it bears to the preverbal quantifier.

2.2. Obenauer (1983;1994)

The question of the differences in interpretation between canonical quantification and QAD is a major object of study in Obenauer (1983; 1994)'s now standard works on the construction.⁶ He proposes that that the placement of the quantifier is not without semantic consequences. He argues that quantification from the SpecVP position can only result in quantification over the entire verbal predicate, producing an iterative interpretation. His argument is based on the fact that, in Standard French, when a sentence is constructed where the only possible reading is one where there is a single event, as in (11), QAD yields ungrammaticality. This observation is termed the *Multiplicity of Events Requirement* (MER).

- (11) * En soulevant le couvercle, il a **beaucoup** trouvé de pièces d'or.
 In lifting the lid, he had a-lot found of pieces of gold
 'Lifting the lid, he found a lot of gold pieces'

The idea is that since the PP *En soulevant le couvercle* anchors the sentence to a unique event, *beaucoup* cannot take the set of events of finding gold pieces as an argument and the derivation crashes. On the other hand, canonical quantification is possible with sentences referring to a single event, as in (12).

- (12) En soulevant le couvercle, il a trouvé **beaucoup** de pièces d'or
 'Lifting the lid, he found a lot of pieces of gold'

As to the question whether a base-generation analysis should be preferred over a movement analysis, Obenauer is ambivalent. He says,

Je laisserai ouverte pour l'instant la question de la dérivation syntaxique des structures à QAD, c'est à dire la question de savoir si – en dehors du cas de combien – elles doivent être considérées comme résultant d'un processus syntaxique de mouvement de QP...ou si elles sont engendrées telles quelles...(Obenauer (1994:111)) (*I will leave open for the moment the question of the syntactic derivation of QAD structures; that is to say, the question whether--apart from combien--they should be considered as a result of QP movement...or if they are generated as is.*)

However, he considers Kayne's base-generation analysis to be more "basic" (p.

⁶ It was he who, in a 1983 paper on the subject, coined the term *quantification à distance* (Quantification at a distance).

110), and so adopts it for the sake of convenience. In any case, what is important for his analysis of the syntax of A-bar positions is presence of an empty category inside the object DP, and this state of affairs is compatible with both a movement and a base-generation analysis.

Despite his indecision, he does present one significant argument in favour of the base-generation analysis, and this argument comes from the impossibility of forming QAD sentences with psychological verbs such as *apprécier* ‘to appreciate’, *impressionner* ‘to impress’ and *inquiéter* ‘to worry’.

- (13) a. *Le critique a peu apprécier de films
 b. *Son regard a beaucoup impressionné de minettes
 c. * La nouvelle a beaucoup inquiété d’experts
 (Obenauer (1983 :70))

Since psych verbs are not in themselves bounding nodes (in the sense of Chomsky (1977)), an analysis that proposed movement of the quantifier from inside the DP would have no explanation for why, in (13), these verbs seem to be barriers to such a movement.

As was the case with Kayne (1975), the precise nature of this alleged empty category is not made clear to the reader. We consider this lack of information to be a considerable drawback of these two analyses. A reasonable account of the semantics of a null element is a key part of the justification for its existence. If it can be shown that a null quantificational “pronoun” or placeholder is required for the straightforward semantic composition of the sentence, then the facts about the distribution of *de* could be seen as an appropriate secondary argument for the presence of this element in the object DP. Without a comprehensive understanding of the role of the null category in the derivation, the observation that there exists a subject-object asymmetry in the presence of the determiner *de* cannot be said to pin down a unique analysis based on the ECP. It is a fallacious step to conclude from the mere existence of a subject-object asymmetry that this asymmetry is due to the presence of a phonologically null element. It is even more troubling to tie the existence of this element exclusively to QAD, since *de*-phrases are also possible in sentences with negation.

- (14) Je (n’)ai pas vu de films
 ‘I did not see any movies’

As we alluded to above, the question of the semantics of the empty category is particularly pressing for Obenauer, seeing as he uses its presence inside a QAD construction to justify Kayne (1981)’s revision of the ECP.

2.3. Doetjes (1995)

Doetjes proposes that the differences in interpretation between sentences with preverbal quantifiers and those with prenominal quantifiers can be modeled with reference to Krifka (1990)’s *event-related* reading (ER)/*object-related* reading (OR) distinction. In this paper, Krifka looks at examples from English where sentences with quantified objects can be interpreted as referring to multiple events even though no overt adverb of quantification is present.

- (15) Four thousand ships passed through the lock last year
(Krifka (1990: 487))

In (15), there are two possible readings. The first, most salient one, is what Krifka calls the *Object-related Reading*. In this interpretation, the number of ships who passed through the lock totals 4000. The second reading is called the *Event-related Reading* because, in this case, what totals 4000 is not the number of distinct ships, but the number of events of ships passing through the lock. No claim is made about the number of individual ships involved. We find the same ambiguity in French.

- (16) Quatre mille navires sont passés par l'écluse l'année passée
'4000 ships passed through the lock last year'

Krifka provides an account of the ambiguities of (15-16); however, its details are not of particular importance here. What is important is Doetjes' observation that the ER/OR distinction is exactly parallel to the QAD/non-QAD distinction.

- (17) a. J'ai vu beaucoup de films
'There were many movies such that I saw them' (OR)
b. J'ai beaucoup vu de films
'There were many events that were events of me seeing movies' (ER)

When the same quantifier appears prenominally, it applies to the objects denoted by the noun phrase (17a); whereas, when it appears preverbally, its object of quantification is the events denoted by the verbal predicate (17b)

Doetjes shows that the correspondence between ER and QAD can be taken one step further. She first observes that the availability of an event reading does not entail a multiplicity of events. For example, in the presence of mass nouns, an event reading is still possible if we are dealing with a single continuous event.

- (18) During the past hour, the fountain spouted 200 liters of water in the air
(Doetjes (1995:116))

For (18) to be true, there does not need to be 200 liters of water in the fountain. If, during one continuous spouting event, the same water is spouted twice, it will be counted twice as forming part of the 200 liters. Parallely, Doetjes shows that QAD sentences whose objects are mass nouns can be interpreted as having a single continuous event, as in (19)

- (19) Pendant ces dix minutes, la fontaine a **beaucoup** craché d'eau
'During these ten minutes, the fountain spouted a lot of water in the air'
(Doetjes (1995:117))

This example shows that Obenauer's *Multiplicity of Events Requirement* is too simplistic, and that the iteration observed in sentences such as (20b) arises not because of a construction specific postulate like the *MER*, but as the result of the complex interaction between the quantifier and the event structure of the predicate.

Once it has been established that the preverbal quantifier position creates the Event-related reading and that the prenominal quantifier position creates the

Object-related reading, it is easy to see why (7), repeated here as (20), holds.

(20) QAD is only possible with those DP internal quantifiers who also double as adverbial quantifiers.

Most theories of adverbial quantification propose that what the Q adverb takes as an argument is a set of *events*.⁷ The fact that French QAD sentences are limited to the ER reading suggests that there is no difference between the quantifier in a QAD sentence and a regular adverb of quantification. In other words, what we are seeing in sentences like (21a) is simply adverbial quantification of the type in (21b).

(21) a. J'ai beaucoup lu de livres hier
b. J'ai beaucoup lu hier

What Obenauer calls “quantification at a distance” is simply quantification over an event variable⁸, which is hypothesized to be introduced in the left periphery of the VP (see, for example, Kratzer (1996)). What follows from the position of the event variable in the VP and the fact that the restriction of the quantifier *beaucoup* is a set of events, is that the composition of the quantifier with its restriction occurs when the two are adjacent. Thus, the term *Quantification at a Distance* to describe these facts about Standard French is, in fact, a misnomer. There is nothing “long distance” about the semantic composition of (21a); it simply proceeds via adjacency.

2.2. Dialectal Differences in QAD

What the previous studies of Standard French have shown us is that there exist significant differences between the readings of the sentences where the quantifier is adjacent to the object noun phrase and when it is in its preverbal position. In fact, given these interpretational differences and Obenauer’s facts about the distribution of QAD with psych verbs, in our mind, there seems to be no reason to even consider a movement analysis for Standard French. We will show, however, that differences between SF and French spoken in Québec give

⁷ In addition to *events*, domain of quantification for adverbs have been argued to be, among other things, *times*, *situations* and *cases* (see Lewis (1975) for a discussion). Here we are using the term *events* in the same way as Bach (1986) used *eventualities*: as a cover term for all these metaphysical objects.

⁸ Here we are assuming to a very simplistic theory of the semantics of adverbs of quantification, i.e. one where quantificational adverbs such as *beaucoup* simply take the set of events referred to by the saturated VP as their first argument. This is the type of theory found in works such as the *generalized quantifier* approach of De Swart (1991). The same type of treatment is suggested by Doetjes (2007) who proposes that the iteration found in sentences such as (i) arises because *beaucoup* takes a set of plural events as an argument.

(i) Sylvie va beaucoup au cinéma
‘Sylvie goes to the movies a lot’

There are other, more complicated, ways of doing the semantics of the event reading. For example, Dekydtspotter, Sprouse & Thyre (2000) adopt an analysis of SF QAD whereby the monadic quantifier is transformed by some sort of a syntactico-semantic rule into a polyadic quantifier over <event, object> pairs. However it is not clear to us why such a complicated account would be preferable to a semantics based on sets of events.

reason to think that a movement analysis might be more appropriate for the latter language. We are not, by all means, the first linguists to have noticed that grammaticality judgments vary substantially between dialects. Francine Cyr's 1991 MA thesis constitutes the first work on the subject of the QAD phenomenon in Québec. She observes that SF and QF QAD differ along two main points. Firstly, as we saw in (13), SF does not allow QAD with psych verbs. This is not the case with QF. According to her speakers (and ours), (22a-c) are interpretable.

- (22) a. ? Ce jeune peintre a **beaucoup** impressionné de connaisseurs
 'This young painter impressed a lot of connaisseurs'
 b. ?On a **trop** regretté de décisions
 'We regret too many decisions'
 c. La situation à Oka a **pas mal** inquiété de citoyens
 'The situation at Oka worried a fair number of citizens'

(Cyr (1991 :45))

Thus, a major argument against a movement analysis no longer applies to QF. Secondly, and more importantly, she observes that in QF, QAD is possible with a single, short event. So not only is (11) grammatical, but sentences such as (23) where a single event is being forced by a PP are perfectly acceptable.

- (23) a. Une fois, il a **trop** mangé de gâteaux et il a été malade
 'One time, he ate too much cake and he was sick'
 b. En arrivant sur place, on a **tellement** vu de policiers qu'on s'est demandé ce qui se passait.
 'When we arrived there, we saw so many policemen that we asked ourselves what was going on'

(Cyr (1991 :46))

So the major restriction identified by Obenauer is not operative in QF.

Although Cyr notes that the distribution of preverbal *beaucoup* is broader in QF than in SF, since her study is purely syntactic, she does not pay attention to the effects that this distribution has on the interpretations of the QAD sentences. What we will show now is that, in addition to having the adverbial quantification that is the essence of SF QAD, QF has a construction where the preverbal quantifier genuinely seems to be quantifying over the object, not just the VP. Thus while SF QAD is limited to the event-related reading (ER), QF QAD sentences have **both** ER and OR readings. Proving conclusively that QF QAD sentences are ambiguous⁹ is not trivial because it is often the case that the event reading entails the object reading. For example, with *J'ai beaucoup mangé de pommes*, if there have been many events of me eating apples, it follows that there have been many apples. However, one way of teasing the two readings apart is by using a verb which selects for a plural object in order to form a single event such as *réunir* 'to bring together'. According to our speakers, (24) is ambiguous, and its two distinct readings can be seen in (24-1) and (24-2).

⁹ We are speaking here of sentences which may receive a multiple event reading. Since the same restrictions apply to the QF event reading of QAD sentences, sentences with psych verbs or single events (such as those in (23)) are not in fact ambiguous, but have only the object related reading.

- (24) J'ai **beaucoup** réuni **de gens**
 'I brought many people together'
 1. In my long career as a matchmaker, I brought many people together
Event Reading
 2. For the party yesterday, I brought many people together
Object Reading

(24-1) is true if there have been many events of me bringing people together, even if the number of people involved was only two per event. However, for (24-2) to be true, the number of people involved in the single event of bringing together must be large. We will assume that the event reading of (24) is created in the same way as in Standard French: through the simple merging of the quantificational adverb *beaucoup* with the VP. We consider a base-generation analysis of this reading to be relatively uncontroversial. The rest of this paper will be devoted to the search for an analysis of the second reading of (24), the object-related reading.

2.2.1. Against a Base-Generation Analysis

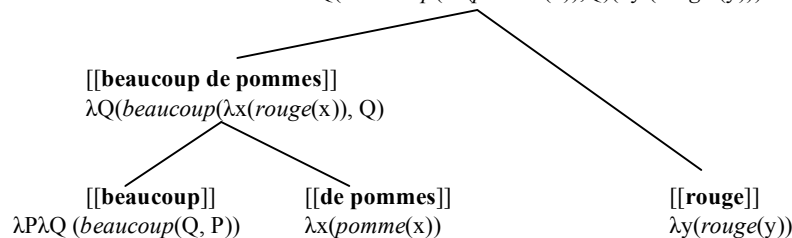
Having established that the analysis of QAD ER is base-generation, it now becomes relevant to ask what the derivation of QAD OR is like. Is it too formed by adjoining the quantifier *beaucoup* to the VP, or is (24-2) generated in the form of the sentence it is synonymous with, (25)?

- (25) J'ai réuni beaucoup de gens

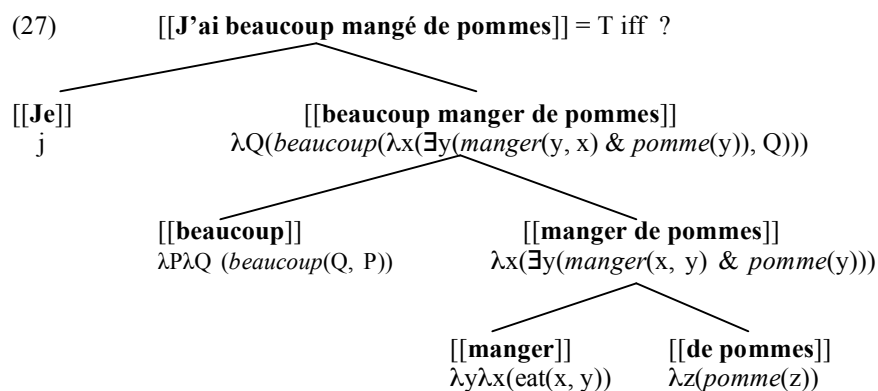
In this section we present a major argument against a base-generation analysis for (24-2) that comes from current assumptions about how the semantic composition of sentences with quantifiers takes place.

With the development of *Generalized Quantifier Theory* (Mostowski (1957); Barwise & Cooper (1980) and later work), we now have a greater understanding of how sentences with quantifiers are constructed and interpreted compositionally. In this framework, quantifiers such as *beaucoup* can be viewed as denoting second order functions that take a properties (functions from entities to a truth values) and yield *generalized quantifiers* (functions from properties to truth values). Thus in the sentence *Beaucoup de pommes sont rouges*, *beaucoup de pommes* combines with *de pommes* (a property) to form the generalized quantifier *beaucoup de pommes*. This function then takes the property *rouges*, and yields the value *true* just in case the intersection of apples and things that are red is greater than the contextually specified 'standard' value of the intersection of apples and red things, call it *n*.

- (26) $[[\text{beaucoup de pommes sont rouges}]] = \text{T iff } |\{x : \text{apple}(x)\} \cap \{y : \text{red}(y)\}| > n$
 $\lambda Q(\text{beaucoup}(\lambda x(\text{pomme}(x)), Q)(\lambda y(\text{rouge}(y))))$



The semantic interpretation of sentences proceeds by the step-by-step application of semantic rules to the result of merging two adjacent constituents. Thus a QAD sentence where *beaucoup* is base-generated adjacent to *manger de pommes* where quantification takes place over objects, not events, would have the form of (27).



Assuming for the sake of argument that it is unproblematic to merge the constituents *manger* and *de pommes* (since this can be easily done with a semantic rule such as Chung & Ladusaw (2004)'s *Restrict* and then by closing existentially), the nominal quantifier, which takes two functions as arguments, will take the function defining the set of apple-eaters as its first argument. The generalized quantifier *beaucoup mangé de pommes* needs to take another property as its argument; however the only element left in the derivation is the individual *je*. Thus, the derivation will crash. Note that even if we invoke a somewhat ad hoc type-shifting rule that transforms the individual *je* into the property of being *je* ($\lambda x(\text{je}(x))$) so composition can proceed, this would predict that the object reading of *J'ai beaucoup mangé de pommes* would be true just in case the cardinality of the intersection of apple-eaters and the set containing myself is greater than the standard value of the intersection of these two sets. Since $\{x: \text{je}(x)\}$ contains a single member, the largest value that the cardinality of its intersection with the set of apple-eaters can have is 1. Thus, a simple semantic derivation by adjacency would predict that (27) would be true only if I normally do not eat apples, but am doing so at the moment of utterance. This is extremely bizarre and, most importantly, not what the object reading of *J'ai beaucoup mangé de pommes* means. Thus there seems to be no transparent way of creating the object reading with *beaucoup* merged externally into the left periphery of the VP.

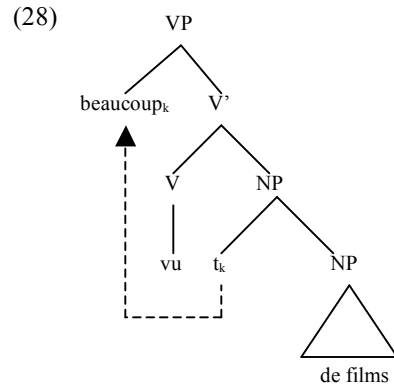
3. The Movement Analysis

An immediate way of solving the semantic composition problem is to propose that (24-2) is indeed generated as (25) and that the quantifier is interpreted in its base position. This is the route taken by Cyr (1991).

3.1 Cyr (1991)

Following Pollock (1989: 369). Cyr proposes that all QAD sentences are

base-generated with canonical quantification and that subsequent optional raising of the quantifier out of the NP yields the surface word order. This allows the object quantification reading to be straightforwardly explained.



However, her main argument for movement is not the semantic problem that QAD OR raises, but a series of data concerning extraction. She shows that QAD constructions are always ungrammatical when they would involve movement of the quantifier out of a syntactic island. Sportiche (1981) showed that extraction from a prepositional phrase is impossible in French. Correspondingly, the sentences in (29), where the quantifier is hypothesized to have been raised, are ungrammatical.

- (29) a. *Ils ont **tellement**_i volé dans t_i de magasins
 ‘They stole in so many stores’
 b. *On l’a **beaucoup**_i suggéré à t_i d’amis
 ‘We suggested it to a lot of friends’
 c. *Je suis **assez**_i parti avec t_i de baggages
 ‘I left with enough baggage’
 d. *Tu as **trop**_i compté sur t_i de départs
 ‘You relied on too many people leaving’
 (Cyr (1991 : 32))

3.2. Against a Movement Analysis

Although a movement analysis would render the semantics of the QAD object reading unproblematic, in this section, we argue that it is far from being the obvious correct analysis.

A first objection to Cyr’s argument for movement is based on data from extraction sentences. Although it is true that, was there indeed movement from inside the DP, (29) would be predicted to be ungrammatical; however, the sentences found in the example are ungrammatical not only on the QAD object reading, but also in the Québec French ER reading and Standard French ER reading, i.e. both cases where it is likely that no movement has occurred.¹⁰ Thus, the claim that (30) is a reliable predictor of movement is somewhat undermined

¹⁰ Cyr would not find this observation troubling, as i) she does not make a distinction between the object reading and the event reading in QF and ii) she wishes to argue, despite Obenauer’s data, that a movement analysis is appropriate for QAD in Standard French as well.

by these data.

Our second objection to a movement analysis for QF QAD Object reading is of a theoretical nature. If we look at other movement analyses of discontinuous quantified noun phrases cross-linguistically, we can see that a major difference exists between the discontinuous QP in other languages and the hypothesized one in Québec French: in other languages, the sentence with the moved quantifier is not semantically and illocutionarily identical to the one where the quantifier is in situ. For example, Reinholtz (1999) provides a movement analysis of a phenomenon similar to QAD in Swampy Cree. In this language, the full range of quantificational determiners can be separated from their restriction, as shown in (30).

- (30) **Niso** kî-sipwêhtêwak **awâsisak**
 two PERF-leave.PLUR child.PLUR
 'The two children left' (Reinholtz (1999:201))

What makes (31) different from a QAD sentence is that, as Reinholtz reports, when the quantifier is separated from the noun phrase, it receives a focussed interpretation. Thus a more correct gloss for (30) would be 'The TWO children left'. The differences between discontinuous noun phrases in Cree and French are crucial to our understanding of the QAD construction. In the Minimalist program (Chomsky (1995) and subsequent work), the application of the syntactic rule MOVE is driven by the presence of formal features on individual lexical items. An item that is generated with a feature needs to have this feature checked before the end of the derivation for the sentence to be constructed properly. In Swampy Cree, the presence of a [+focus] feature that is checked at the left periphery of the sentence on the quantifier can be justified based on the discourse properties of (30). However, since there do not seem to be any such formal differences between canonical quantification and the QAD OR reading in QF, it is contrary to the minimalist nature of the architecture of the grammar for movement-inducing feature to be generated on this particular subset of quantifiers. Therefore, a movement analysis cannot be justified for the QAD object reading within this framework.

There exists, however, a possible motivation for the raising of a constituent that includes the quantifier in QAD sentences this is consistent with minimalist assumptions. We are referring here to the *Quantifier Raising* (QR) rule of May (1977; 1985). It has been claimed in these works and others that quantified noun phrases in object position cannot be interpreted in a grammar whose sole interpretation rule is *function application*. May proposes that, in order to be interpreted, the entire QNP raises and adjoins to the sentential syntactic node where function application can apply. If May is right, then the QNP raises to a preverbal position regardless of whether it is a QAD sentence or not. However, although solving the semantic composition problem and syntactic motivation problem, an analysis that holds that QAD is simply a semi-overt realization of QR runs into a series of issues concerning the principled spelling out of these expressions. For one, there is no obvious explanation for why it is only the quantifier that is spelled out, rather than the entire DP. Also, the fact

that QAD is only possible with a subset of quantifiers while, in theory, they all raise, is unexplained. Moreover, other empirical facts argue against a QNP movement analysis. According to our speakers, the *de*-phrase in a QAD sentence with an intensional verb, such as *chercher* ‘to seek’, is always interpreted as *de dicto* on the object-related reading, even if a prepositional phrase is inserted that forces a *de re* reading.

- (31) Hier, à la bibliothèque, j’ai beaucoup cherché de livres
pour mon travail de syntaxe
‘Yesterday, at the library, I searched for many books for my syntax
paper’
(a) ...parce qu’une longue bibliographie donne l’air
intelligent *de dicto reading*
‘... because a long bibliography makes one look intelligent’
(b) *...notamment Kayne (1975), Obenauer (1983) et
Vinet (2001) *de re reading*
‘...notably, Kayne (1975), Obenauer (1983), and Vinet (2001)’

An analysis which proposed movement of the QP past the verb would predict that it would always be interpreted as *de re*, exactly the opposite of what is the case. Therefore, there seem to be problems with both a base-generation analysis and a movement analysis for the object-reading of QF QAD.

4. Conclusion

In this paper, we have reviewed the work on the Quantification at a Distance construction in French. We have shown that the two main lines followed by the previous analyses have been unsuccessful in account for the entire range of data involved in all dialects in which QAD is possible. We have shown that there exists a major interpretative difference between QAD sentences in Standard French and those in French spoken in Quebec: while SF sentences have a single-event related reading, the same expressions in QF are ambiguous between an event reading and an object-related reading. We have argued that, while an approach that treats QAD in standard French and the event-reading of QAD in Quebec French as adverbial may be correct for those readings in those dialects, the object reading in QF remains mysterious. We have shown that neither a straightforward base-generation nor a movement analysis is problem free. We therefore claim that it is this reading, rather than the ER reading of SF to which most of the work on QAD has been devoted, that is the true case of quantification “at a distance”, and that the solution to the problem of QAD in Quebec French is of vital importance to our understanding of both the nature of dialectal variation and the syntax and semantics of discontinuous constituents.

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