

Apposing intensional quantifiers. *peu, presque...**

Francis Corblin

Université Paris-Sorbonne
& Institut Jean Nicod (CNRS)

ABSTRACT.

This paper provides a solution for a puzzle introduced in the literature by Anscombe and Ducrot (1983) and used by them for demonstrating the need for an argumentative layer in the semantics of natural language items. This puzzle involves crucially the French quantifiers *peu* (few) and *presque* (almost); it is based on the oddness of sentences like (1): “Peu d’automobilistes dépassent le 80, presque 20%” (Few drivers go over 120, almost 20%).

The proposal aims at deriving the facts without the need of any argumentative layer. It is based on three main parts: a deeper investigation of the kind of construction illustrated by (1) analyzed as a specifying apposition; a semantics for the intensional quantifier *peu* as conveying a comparison to a subjective norm; a proposal for explaining how the scalar semantics of *presque* triggers the same intensional implicature than comparatives of superiority (*more than x*), although it entails, in most cases, *less than a*.

The proposal predicts which pairs of quantifiers (intensional or extensional) are accepted in the construction illustrated by (1) on the basis of the necessity to interpret the apposed quantifiers as being “more precise”, i.e. as eliminating some alternatives introduced by the initial one. If both quantifiers have an intensional content, as in (1), only quantifiers expressing the same relation (inferiority or superiority) to a standard of comparison can satisfy the specification relation. This derives (1) as odd because it is impossible to interpret it as a specifying apposition, *peu* and *presque* conveying antagonistic intensional judgments.

This paper takes as a starting point a well-known puzzle introduced by the authors Anscombe and Ducrot (1983: 20):

(1) ?*Peu d’automobilistes dépassent le 120, presque 20%.*

Few drivers go over 80 m.p.h, almost 20%.

The authors note that (1) is, for most French speakers, “bizarre”, and violates some constraint which are usually respected.

Anscombe and Ducrot argue that to explain why such sentences are odd, it is necessary to postulate a separate layer of meaning, unrelated to the denotational meaning of the quantifiers *peu* and *presque*, a layer of meaning specifying the “argumentative orientation” of each of these two quantifiers. In brief, they argue that *peu* and *presque* have opposite argumentative forces that prevent one of the quantifiers from being used to “support” the other in (1).

To my knowledge, although the example is well-known and occasionally used, there have been no attempts at providing an explanation of (1) challenging Anscombe and Ducrot’s view that to solve the puzzle we need a separate layer of meaning dealing with the argumentative orientation of lexical items. The only proposal I am aware of for trying to derive the oddness of sentences like (1) without taking argumentative orientations as primitives is Jayez and Tovenà (2008), but as I will show in detail, if their proposal tries

* Acknowledgments.

(contra Anscombe and Ducrot) to show that argumentative orientations can be deduced from the informative content of the quantifiers, they accept the main part of the argumentative approach of Anscombe and Ducrot.

The aim of this paper is to provide a solution to the puzzle without any recourse to argumentative considerations, a solution based on the semantics of the kind of construction illustrated by (1) and on the semantics of the quantifiers *peu* (few) and *presque* (almost). To provide this solution, I will adopt a somewhat different view of (1) and analyze the sentence as a case of apposition involving two intensional quantifiers. To elaborate on this proposal, two issues will have to be considered. First, the semantics of apposition involving quantifiers, an issue that has received less attention than have other appositive structures, perhaps because the paradigmatic quantifiers (e.g., *no* and *every*) cannot be used in appositive structures (see a.o. Potts 2007). However, once one accepts an expanded notion of quantifier, one must concede that quantifiers appear in structures like (1) that have all of the appearance of appositions. The basic part of the proposal is the semantics of apposition between quantifiers in relation to *specification*, a view rather common in the literature. I will confirm that this semantics gives the expected results for predicting which pairs of extensional quantifiers are acceptable and which pairs are not in structures similar to (1).

The second ingredient of the proposal concerns the semantics of intensional quantifiers. The semantics of quantifiers like *few* and *many* is a difficult challenge for formal semantics, a point made repeatedly by many influential studies (Keean & Stavi 1986, Partee 1988, Lappin 2000). In this paper, I will only try to make the minimal assumption needed for the solution of puzzles such as (1). This assumption amounts to analyzing intensional quantifiers in a comparison between the actual cardinality or proportion and what I will call a *subjective norm*. The minimal assumption regarding *norms* is that they are the estimated value of the actual quantity in a different world, freely chosen by the speaker as a standard of comparison. The semantics of *presque* and similar expressions like *almost* in English, or *quasi* in Italian is also a difficult matter discussed in many studies (Saddock 1981, Hitzeman 1992, Sevi 1998, Penka 2005, Horn 2002, Nouwen 2006, Del Prete & Amaral 2010, a.o.). The main teaching of the literature is that the semantic of such items associate a *polar* and a *proximal* component (Horn), and is inherently *scalar* (Saddock, Hitzeman, Penka, Del Prete & Amaral). What is required in order to provide a semantic explanation for the mismatch illustrated by (1), is a way of drawing a link between such a semantics and the kind of judgment expressed by intensional quantifiers like *peu*.

We will show that this is part of a more general problem, since among extensional quantifiers some pattern with *presque* in (1) like *plus de 20%* (more than 20%), although some are perfect in this context like *à peu près 20%* (about 20%), or *less than 20%* (less than 20%). To solve this problem and pave the way for an explanation of (1) it will be argued that intensional implicatures can be derived from the semantics of extensional comparatives and scalar items like *presque*, but not from approximation expressions like *à peu près* (about). The basic fact is illustrated by (2). If one asks someone how much she makes, and get the answers:

- (2) a. Less than 2.000.
 b. About 2.000.
 c. Almost 2.000.

Although (2)b conveys no implicature, (2)a conveys the implicature that this salary is judged lower than some standard, and (2)c the implicature that this salary is seen as not that bad. Independent evidences that such intensional implicatures do occur will be provided, and some general rules for deriving the correct implicature from the extensional semantics of the quantifier will be given. The main challenge is to explain why *less than 2.000* and *almost 2.000* generates divergent intensional implicatures, although their extensional semantics are

close. The main claim of the proposal will ground this difference on the semantic difference between a comparative quantifier like *less than a* and a scalar quantifier like *almost a*.

By combining the semantic constraints on apposition and the semantics of quantifiers (including intensional quantifiers, and quantifiers triggering intensional implicatures), the proposal should be able to predict which judgment will be associated with any combination of quantifiers in the type of sentence illustrated by (1), on the sole basis of the semantics of the quantifiers themselves, and in particular to predict the kind of judgment received by (1) which is neither agrammatical, nor semantically anomalous, but as Anscombe and Ducrot themselves put it, just “bizarre”.

1 Anscombe and Ducrot’s observations and arguments

Anscombe and Ducrot observe that the structure exemplified by (1) categorizes the quantifiers into two sets.

Some quantifiers, such as *presque*, are acceptable in (1) if they are introduced by *mais* (but) but are unacceptable in (1) without *mais*: *plus de* (more than), *au moins* (at least), pattern with *presque* (almost).

Some quantifiers are acceptable in (1): *moins de* (less than), *au plus* (at most), etc. The adjunction of *mais* with these quantifiers makes the sentence awkward.

Anscombe and Ducrot note that the quantity expressed in (1), “20%”, is not a relevant parameter of the problem and that almost any other proportion yields the same judgments with regard to whether the sentence is odd or not. The fact is that for any *a* accepted as *few*, the structure (1) is bizarre for *presque a*.

To account for the observed distribution, the authors adopt the following analysis of (1): structures such as (1) are acceptable if the detached element (*presque 20%*) can be interpreted as an argument supporting the choice of the initial quantifier (*peu*).

In order for a quantifier to be used as an argument in support of another one, both quantifiers must have the same “argumentative orientation”. Sentence (1) is atypical because *peu* has a negative argumentative orientation and *presque* has a positive one.

Because of space considerations, I cannot go into the details of Anscombe and Ducrot’s argumentative theory, which is not the focus of this paper. My objective is to contest the claim that argumentative theory is needed to address the facts exemplified in (1), and thus I will only briefly mention some consequences of their approach.

They insist that the argumentative orientation of lexical items is not related to their denotational semantics and must be added to their definition within a separate layer of meaning. The first obvious drawback to this is that it makes the semantics more complex by introducing “argumentative orientation” as a new primitive in the definition of lexical items. They even suggest that the components of this meaning layer enter into a compositional process when combined: they claim that the adjunction of *mais* (but) “reverses” the argumentative orientation of the quantifiers involved in examples such as (1) and this is how they explain that the adjunction of *mais* makes acceptable sentences unacceptable in the absence of *mais*.

One may think that this is a high price to pay for solving a puzzle, and a natural question is the following: Is it possible to derive the observed facts without accepting Anscombe and Ducrot’s argumentative theory, in a more classical and parsimonious approach?

2 Revisiting the data

Anscombe and Ducrot's implicit analysis of (1) is that (1) is a short version of a two-sentences discourse such that the second sentence must support the first one:

- (2) S1: *Peu d'automobilistes dépassent le 120.*
 Few drivers go over 120.
 S2: *Presque 20% (d'automobilistes dépassent le 120).*
 Almost 20% (of drivers go over 120).

I think that this is the only hypothesis compatible with their view that the separated element (*presque 20%*) must "argue for" or "support" its host sentence (*Peu d'automobilistes dépassent le 120*). It is not possible to claim that B supports A without assuming that A and B are propositions.

Discourse theories such as RST (Mann & Thompson 1988) define a specific discourse relation, JUSTIFY, and recent work such as that of Biran and Rambow (2011) provides a good sample of sentences intuitively interpreted as justifications. Although Anscombe and Ducrot's analysis is anterior and formulated in different terms, it is likely that discourse-oriented studies would translate Anscombe and Ducrot's view in terms of *justification*.²

Here is one example of justification from Biran and Rambow:

- (3) Justification: Our first heading is quite long, and against our MOS, it contains most of the title of the article.
 Claim: I suggest we shorten it to "Topics".

Here is a short invented example:

- (4) Claim: I cannot work with him.
 Justification: He is too stupid.

However, even if one accepts viewing at structure (1) with a discourse-oriented eye, it does not look like a *justification*, and it is easy to establish this with a test.

In a fully acceptable realization of structure (1), it is possible to add the expression *to be (more) precise* without any change regarding acceptability or meaning:

- (5) *Beaucoup d'automobilistes dépassent le 120, presque 20% pour être précis.*
 Many drivers go over 120, almost 20% to be precise.

But in general, it is impossible to add this expression and to preserve a *justification* interpretation, as illustrated by (6):

- (6) Claim: I cannot work with him.
 Justification: He is too stupid, # to be precise.

Discourse theorists would likely consider the hypothetical discourse (2) as illustrating an *elaboration*, S₂ making more precise the assertion S₁.

Of course, one might argue that if S₂ can be interpreted as a more precise reformulation of S₁, it is not impossible to see S₂ as an argument supporting S₁³; the analysis of Anscombe and Ducrot would be correct after all, but would just miss the specific property of such examples.

This can be illustrated for extensional determiners as in (7):

- (7) John wrote more than four papers. He wrote six.

Since S₂ entails S₁, it is true that the assertion of S₂ can be taken as an argument supporting the assertion of S₁, but this does not capture the specificity of the relation illustrated by (7): in

² This is precisely what is done in Jayez and Tovena (2008).

³ I am grateful to an anonymous reviewer for pointing out that justification and specification are not mutually exclusive.

(7) the second sentence does more than merely supporting the initial claim, it replaces this claim by a stronger one, a property not shared in general by sentences interpreted as justification.

A second point worth revisiting is precisely the underlying assumption that (1) should be analyzed as hypothetical discourse (2). After all, (1) is a sentence, and most grammarians would say that it is a case of *apposition*. The large amount of literature on this topic thus becomes a resource worth exploring and possibly incrementing using new observations based on (1), since the topic of apposition between quantifiers is not among the best documented in the literature.

This might lead as well to a different view regarding the role of *mais*. For Anscombe and Ducrot, *mais* is a rescuer for otherwise unacceptable combinations because it reverses the argumentative orientation of the quantifier it introduces. But if versions without *mais* are analyzed as appositions, while versions with *mais* are coordinations, this leaves open the possibility that the observed differences arise solely from the difference between coordination and apposition.

There is an independent way to establish this point. If it is true that a structure such as (1) is governed by semantic constraints inherited by the fact that it is an apposition (and not a coordination), the very same semantic constraints should apply for any type of quantifier, even for those that are purely extensional and have at face value nothing to do with argumentative values or subjective judgments. I will test this below.

However, the crucial quantifiers of (1), *few* and *almost*, are quantifiers conveying an intensional content. The constraints observed by the authors should be related to what we have to say otherwise about intensional quantifiers and, if possible, used to shed light on their properties.

A last point, unnoticed by Anscombe and Ducrot, is that there is at least one quantity, namely \emptyset , that violates the empirical generalization stating that the argument *a* of *presque a* has no effect on the acceptability of the structure (1): *zero* or equivalent negative quantifiers such as *aucun* (no one), in contrast to any other number or proportion, are ideal with *presque* but unconventional with *mais*.

(8) *Peu d'automobilistes, presque aucun, ne dépassent le 120.*

Few drivers, almost none, go over 120.

(9) *?Peu d'automobilistes, mais presque aucun, ne dépassent le 120.*

Few drivers, but almost none, go over 120.

This appears to be a puzzle within the puzzle that requires an explanation.

3 Apposition vs. coordination

The construction illustrated by (1), with a bare detached quantifier, would be considered by many grammarians an *apposition*, although such examples are not among the most studied cases of the phenomenon: the initial quantifier phrase plays the role of an anchor (ANCH) and the detached constituent plays the role of an apposition (APP).

Cases in which both ANCH and APP are quantifiers have not received much attention in the literature. It is well known that the quantifiers *every* and *no* cannot be ANCH, but many expressions considered as quantifiers in most semantic approaches (generalized quantifier theory and DRT as well) behave as ANCH in appositive constructions.

(10) *La plupart des personnes présentes, des étudiants, ont protesté*

Most persons present, some students, have protested.

(11) *Trente pour cent des étudiants, les plus faibles, ont choisi ce sujet.*

Thirty percent of the students, the weakest, have chosen this subject.

Moreover, many quantifiers occur as APP in appositive constructions; this is well known for indefinites, but it is also true for other quantifiers:

- (12) *Beaucoup d'étudiants, plus de 40% d'entre eux, n'ont pas pu être inscrits.*
Many students, more than 40% of them, could not be enrolled.

Many authors (del Gobo 2003, De Vries 2002 after Koster 1995, 2000) claim that appositive nominals *specify* the DP that precedes them, the second DP providing further information about the first one. This view is clearly expressed in Del Gobo (2003) as follows: “De Vries (2002) maintains that appositive nominals specify the DP that precedes them; that is, the second DP provides further information about the first DP. He proposes to analyze the apposition and the DP it modifies as two coordinated constituents. The type of coordination involved is specifying coordination (Koster 1995, 2000), in which the apposition denotes a logical subset of the referents denoted by the DP it modifies.”

Although I do not think it appropriate to consider apposition a type of coordination (as we will see, there are strong differences that this terminological choice would blur), the general semantic analysis of apposition by these scholars seems to be accurate, and I will apply it to the special case of apposed quantifiers illustrated by (1). Huddleston and Pullum (2002) proposed a distinction between *specifying* and *ascriptive* appositions, the use of epistemic expressions such as *to be more precise* being a test for recognizing specifying appositions. As was already noted, the case illustrated by (1) is also a case that licenses the adjunction of this epistemic expression. We can thus consider that (1) is a case of specifying apposition⁴ and extend the analyses provided for this construction in the literature for dealing with cases like (1).

These analyses are based on the claim that apposition between two DPs is licensed in general if the denotation of APP is a “logical subset” of the denotation of ANCH. What is required for analyzing examples such as (1) as appositions is to determine how this general principle can be applied to the special case of apposed quantifiers.

The case exemplified by (1) is a special case of apposition because it involves two quantifiers and because APP is reduced to a bare quantifier:

(13)

QUANT ₁	A	B	QUANT ₂
Few	drivers	go over 120	Almost 20%
ANCHOR			APPOSITION

The semantic counterpart of the reduction of APP to a bare quantifier is that APP is interpreted as a quantifier over A, the restrictor of the ANCH (compare (1), with a bare quantifier, and (10), in which APP has its own restrictor).

According to the generalized quantifiers theory (Barwise & Cooper 1981, Keenan & Stavi 1986), two kinds of quantifiers must be distinguished: cardinal quantifiers and proportional quantifiers. *Cardinal* quantifiers *Q-A-B* convey an information about the cardinality of the intersection set $|A \cap B|$, and *proportional* quantifiers convey an information about the proportion $|A \cap B|/|A|$. Let us use *q* as a common label denoting either $|A \cap B|$ or $|A \cap B|/|A|$ depending of the category of the quantifier.

⁴ To discuss at length the comparison between this special case involving quantifiers and appositions involving proper names and descriptions looks impossible without losing the thread of the paper. “Specifying apposition” is probably a notion which should be conceived differently when operating between designators or when operating between quantifiers. It is more easy to say that a quantifier specifies another one (it leaves open less alternatives) than to say that a designator specifies another designator.

The classical presentation of the semantics of individual quantifiers defines the constraint each of them imposes on q , for instance: *More than three A-B* $\leftrightarrow |A \cap B| > 3$

This presentation allows to define the information conveyed by a quantifier as the set of alternatives it leaves open for q :

(14) Information-set of a quantifier

$I^Q: \{q_1, q_2, q_3, \dots, q_n\}$

for any q_i such that $q=q_i$ is not eliminated by the assertion of Q .

q_{i+1} is the successor of q_i in the linear order relevant for q .

A simple application of the schema tells us that the information conveyed by *more than three* regarding a given natural number q is that q is a member of the disjunction $\{4 \vee 5 \vee 6 \vee \dots\}$. q is a constant, and what a quantifier does is giving some information about q , i.e. keeping only some alternatives alive for the value of this constant.

To be interpreted as an APP, a quantifier must be interpreted as characterizing the same q than its ANCH (either $|A \cap B|$ or $|A \cap B| / |A|$) and must *specify* the information given by ANCH about q , (it must be more precise than ANCH). This intuitive characterization can be formalized as follows

(14) Constraint on specifying apposition.

In order for a bare quantifier Q^{APP} to be interpreted as an apposition to a quantifier Q^{ANCH} of its host sentences, three conditions must be satisfied:

1. I^{ANCH} must have more than one element;
2. Q^{APP} must be interpreted as holding of the same q than Q^{ANCH} ;
3. I^{APP} must be a proper subset of I^{ANCH} .

A parallel between (15), an apposition, and (16) involving two sentences might be useful for clarifying the underlying analysis of apposition we are using.

(15) Few students were present, four to be precise.

(16) The present students were few; they were four, to be precise.

What apposition does in (15) is exactly what the second sentence does in (16). Just as it is impossible to reverse the order of ANCH and APP, it is impossible to reverse the order of the two sentences of (16):

(17) *Four students were present, few to be precise.

(18) *The present students were four; they were few, to be precise.

This strongly connects apposition and the use of plural pronouns, as the comparison of (15) with (16) shows: APP can be considered a predicate of the discourse referent made accessible by ANCH in its host sentence. This connection has been often made in the literature (see, for instance, Demirdache 1991, Nouwen 2006, a.o.). A full discussion of this issue is far beyond the scope of this paper, although one point might be worth noting: There are two quantifiers that cannot be used as ANCH, *every* and *no*. They are precisely those that do not license plural pronouns.⁵

⁵ I owe to an anonymous reviewer the following data and comment about the sentence (i) :

(i) Many students didn't stay for the Q&A at the end, less than a third.

« This sentence, according to native speaker informants, means that less than a third of the students STAYED, i.e. it involves complement anaphora in the appositive. » This example is very interesting since it would establish that for the licensing of what Moxey and Sanford (1993, 1998) calls *complement set reference* (but see for a different analysis Corblin 1996), plural pronoun and apposition pattern alike. As noted by the reviewer (i) cannot count as a counter example for my analyses, since the anchor and the apposition do not apply to the same intersection set.

Some comments are in order about (14). I take it as a constraint on the kind of construction illustrated by (1) identified as “specifying apposition”. The initial empirical test used to single this construction is the possibility to add *to be (more) precise* before Q^{APP} . As the discussion to follow will make clear, it will be helpful to add other empirical tests since the initial one may fail to distinguish neatly specifying apposition from other constructions.

In the construction illustrated by (1), it is impossible to add one of the following items: *donc* (thus), or *c’est-à-dire* (that is to say). We illustrate the whole set of empirical tests on the basis of a fully acceptable realization of the construction (1) under (19):

- (19) A larger set of empirical tests for specifying apposition
- a. *Peu d’automobilistes dépassent le 120, moins de 20%.*
Few drivers go over 120, less than 20%.
 - b. *Peu d’automobilistes dépassent le 120, moins de 20% pour être précis.*
Few drivers go over 120, less than 20% to be precise.
 - c. *Peu d’automobilistes dépassent le 120, * donc moins de 20%.*
Few drivers go over 120, thus less than 20%.
 - d. *Peu d’automobilistes dépassent le 120, * c’est-à-dire moins de 20%.*
Few drivers go over 120, that is to say less than 20%.

The constraint (14) stipulates that if I^Q is a singleton, it cannot be an ANCH for any APP. This is directly connected to the basic intuition that APP eliminates some alternatives left open by ANCH.

One can argue that this prediction is borne out, at least when the potential ANCH and APP belong to the same category (they are both cardinal or both proportional): it is not easy, for instance to imagine a possible bare quantifiers interpreted as APP for host sentences like *43 students (exactly) passed*, or *47% (exactly) of the students passed*.

But considering mixed pairs of quantifiers (cardinal/proportional) introduces less simple issues. For cardinal quantifiers, I^Q is a set of numbers, and for proportional quantifiers I^Q is a set of proportions. A strict application of (14) predicts that no specifying apposition can hold between cardinals and proportionals, but things are slightly more complicated.

If Q^{ANCH} satisfies the condition (1) of (14), i.e. if it contains more than one element, specifying apposition is licensed between cardinal and proportional:

- (20) *More than 40% of the students, to be precise 484, were present.*
 (21) *More than 40% of the students, * thus 484, were present*
 (22) *More than 400 students, to be precise 41% , were present.*
 (23) *More than 400 students, *thus 41% were present*

If Q^{ANCH} does not satisfy condition (1), if its information set is a singleton, one can doubt whether the resulting sentence is a genuine specifying apposition. Although a sentence like (24) is, in general, accepted by speakers⁶, since (25) is accepted as well, it casts serious doubt on the analysis of (24) as a specifying apposition (see above):

- (24) *Exactly 453 workers, to be precise 41% of the staff, were fired.*

⁶ I am very grateful to an anonymous reviewer for introducing the following example:

(i) *Exactly a third of the students, 32 to be precise, arrived for dinner.*

The sentence looks fine, seems to be interpreted as a case of specifying apposition, although the anchor is *exactly a third*. My reviewer asks whether (i) could be seen as « some sort of metalinguistic apposition ». I am not sure I would commit myself to such an analysis. All I can say is that since *thus* can be added it is not a genuine case of specifying apposition. (See the next footnote for some comments on all the cases implying a switch proportional/cardinal).

(25) Exactly 453 workers, thus 41% of the staff, were fired.

This indicates that the condition (1) of (14) is the crucial part of the constraint. For explaining that proportions might be interpreted as making more precise information given by cardinals, or vice versa, it is just required to accommodate that it is possible to convert one information into the other, if one has access to the cardinal of the restrictor set $|A|$.⁷ In (20), the information set of *more than 40%* is the set of proportions superior to 40%; if one knows what is the value of $|A|$, this information is equivalent to a set of cardinals; interpreting *484* as a specifying apposition means that one accepts to interpret 484 as a subset of this set of cardinals.

There is a sharp contrast between specifying apposition as just defined for bare quantifiers and the semantic relations expressed by explicit conjunctions such as *mais* (but), *et* (and), or *donc* (thus) which can also introduce a detached bare quantifier as many examples used in the previous discussion establish. Without going into a more detailed analysis of these semantic relations, it might be suggested that many empirical observed differences between these expressions and specifying apposition come from the fact that all these semantic relations are free from the semantics constraints formulated in (14) for specifying apposition. I will only give a brief illustration based on comparative quantifiers and involving *et* and *mais*:

(26) Plus de 20 personnes sont venues, et moins de 30.

More than 20 persons came, and less than 30.

(27) Plus de 20 personnes sont venues, mais moins de 30.

More than 20 persons came, and less than 30.

(28) Plus de 20 personnes sont venues, ? moins de 30.

More than 20 persons came, less than 30.

Sentences (26) and (27) are fully natural, although (28) is not. A prediction of the present proposal is that (28) is not a well-formed specifying apposition, just because it does not satisfy the “subset” constraint of (14).

(29) Information sets of *more than 20* and *less than 30*

$I^{\text{more than } 20} : \{ 21, 22, 23, \dots \}$

$I^{\text{less than } 30} : \{\emptyset, 1, 2, \dots, 29\}$

It is immediately apparent from (29) that $I^{\text{less than } 30}$ is not a proper subset of $I^{\text{more than } 20}$. This explains that (28) is odd if there is no other construction than “specifying apposition” for interpreting a detached bare quantifier.⁸ (26) and (27) shows that coordination is free from this constraint. The intuitive difference illustrated by (26)-(28) is that a coordinated bare quantifier just add an additional constraint on $|A \cap B|$, and all is needed is that this very same set can satisfy both the initial constraint and the additional one. Intuitively, a coordinated bare quantifier conveys “another information” regarding the cardinality of the set, whereas the

⁷ Nevertheless all the speakers I asked find that the switching from a cardinal to a proportional in examples like (20) which they accept to recognize as a specifying relation, are not fully natural. I think this is so because to switch from cardinal to proportion is intuitively perceived as giving another information about the set $A \cap B$, even if it can contribute, by inference to make the information conveyed by ANCH more precise.

⁸ This affirmation is probably too strong. « Specifying apposition » seems to be the preferred option for relating a detached bare quantifier deprived of any explicit conjunction to a quantified expression of its host sentence, but some speakers accept to rescue (28) by means of an implicit conjunction « and ». These speakers concede that this is not a very natural way to convey the meaning, and that to use an explicit « and » would be much more natural.

hallmark of a specifying apposition is that it just eliminates some alternatives left alive by the anchor.

We will now attempt to derive the semantics of quantifiers in apposition and the conditions under which they can be combined by relating more precisely the “subset semantic constraint” and the semantics of individual quantifiers. The first step will be to sketch a typology of quantifiers based on the properties relevant to the problem under consideration.

4 Intensional vs extensional quantifiers

Keenan and Stavi (1986) set *intensional* quantifiers such as *few* and *many* apart from quantifiers accessible to the theory of generalized quantifiers because the truth of sentences using these quantifiers cannot be determined even if one has access to a perfect quantitative knowledge of the model.

This provides a test for splitting quantifiers into two categories:

(19) A test for intensionality

If two speakers can agree on the extension of q and can disagree on whether the quantifier applies, the determiner is intensional. A quantifier is extensional otherwise.

According to this test, *few*, *many*, and *almost a* are intensional, and *six*, *more than six*, *exactly six*, and *about six* are extensional.

4.1 Apposing extensional quantifiers

The above proposal about specifying apposition derives some non-trivial predictions regarding extensional quantifiers which can be tested, since there is no disagreement about the truth conditions of such quantifiers.

The crucial part of the proposal is the “proper subset condition” according to which a specifying apposition is licensed only if the information set of APP is a proper subset of the information set of ANCH.

A direct prediction is that no quantifier interpreted as “precise”, i.e. a quantifier having a singleton as information set, can be an ANCH for a specifying apposition.

A potential host-sentence like (30) does not license any bare quantifier as a specifying apposition.

(30) 23 étudiants exactement ont réussi.

23 students exactly passed.

Any try for interpreting a detached bare quantifier in this host sentence does not instantiate this construction, but is based on an implicit coordination.

(31) 23 étudiants exactement, peu, ont réussi.

23 students exactly, few, passed.

(32) 23 étudiants exactement, moins de 30, ont réussi.

23 students, less than than 30, passed

The above tests (**to be precise/thus*) confirm that (31) and (32) are not specifying appositions.

The proposal makes also non-trivial predictions regarding comparative quantifiers.

Consider the couple of examples (33)/(34):

(33)? More than five students passed, less than ten.

(34) More than five students passed, more than ten.

Although *more than five* and *less than ten* are compatible and can be *conjoined* for characterizing the cardinality of a set, they cannot combine in specifying appositions because the I-set of *less than ten* is not a subset of the I-set of *more than five*.

On the contrary, the prediction is that (34) should be acceptable, the I-set of *more than ten* being a proper subset of the I-set of *more than five*.

The proposal predicts, more generally, that no pair of differently oriented comparatives (*more than/less than*) can form a valid specifying apposition.

Another prediction of the proposal is that quantifiers of approximation (*around a, between a and b*) can be acceptable as APPs of comparative ANCH, since I^{APP} can be a subset of I^{ANCH} :

(35) More than fifty students, about sixty, passed.

If the ANCH/APP relationship is reversed, as in (36), the sentence becomes awkward:

(36) ? About sixty students, more than fifty, passed.

This is a prediction of the proposal because $I^{more\ than\ fifty}$ is not a subset of $I^{about\ sixty}$.

Some speakers accept (36) but it is very likely that when doing so, they interpret the sentence as (37):

(37) About sixty students, so (therefore) more than fifty, passed.

In other words, they interpret the sentence as a type of implicit coordination, not as an apposition. The problem is that we assume that a bare detached quantifier is, by default, interpreted as an apposition, which does not exclude that it can be interpreted as an implicit conjunction. This blurs the data regarding acceptability because an impossible apposition can be resolved as an implicit conjunction. Nevertheless, some tests can be used for establishing that when speakers find (36) acceptable, they do not interpret it as an apposition. For instance, the adjunction of *therefore* is incompatible with an apposition because apposition must add new precision about the quantity *q*. However, *therefore* can be inserted in (36) without altering its acceptability or meaning. Compare, in contrast, what the adjunction of *therefore* makes of (35), i.e., an unacceptable (or false?) sentence:

(38) ? More than fifty students, therefore about sixty, passed.

4.2 Intensional quantifiers

Thus far, we have only defined intensional quantifiers negatively, by contrasting them to extensional quantifiers. A positive semantic analysis is needed to attempt to understand the interaction with the constraints on appositions.

(38) Intensional quantifiers—a tentative partial definition:

If Q is an intensional quantifier, in $Q-A-B$, Q expresses a comparison between q , the actual cardinality $|A \cap B|$ or the proportion $|A \cap B|/|A|$ and a subjective constant n , a norm.

A norm is the estimated value of q in some possible world considered by the speaker as the relevant standard of comparison. A norm can be: what q should be, q might have been, q is in most words, q is with regard to other contextual parameters, etc.

This definition derives the distinctive property of intensional quantifiers: two speakers can agree on the exact value of q but disagree that an intensional quantifier holds for q ; this is because the choice of the *norm* is a subjective matter, and speakers can disagree about what is the relevant norm to be chosen as a standard of comparison.

It derives as well the possibility of combining intensional quantifiers with typical adjuncts such as *for x*, *compared with*, etc. It relates them to implicit comparatives such as *tall* or *expensive* (Kennedy 2001) and to predicates of personal taste (Lasersohn 2005). The literature on “faultless disagreement” emphasizes that taste judgments are assertions about norms (Sundell 2011), and Barker (2002, 2013) discusses the dynamics of these norms in discourse. I will not discuss these issues⁹, just using this working definition for characterizing the semantics of the quantifiers brought into focus by the initial puzzle (1).

(39) The semantics of *peu* (few) as an intensional quantifier in (1):

<i>Peu</i>	<i>d'automobilistes</i>	<i>dépassent le 120</i>	<i>presque 20%</i>
Few	Drivers	go over 120	almost 20%
$q = D \cap D > 120 / D $ $q < n$			

n is a subjective value chosen by the speaker. As for q , we know since Partee (1988) that it is not uncontroversial to decide whether q is a cardinal or a proportion. This issue does not seem to be crucial for the ongoing discussion, and since the detached constituent is a proportion (20%), we assume, for the sake of simplicity in (39) that *peu* is interpreted as a proportional quantifier.

⁹ An anonymous reviewer notes that although *almost a* is certainly subjective, it is not comparable to predicates of «personal taste», as shown by the impossibility to combine *almost a* with the main test used for recognizing predicates of personal taste, namely *trouver que* (to find), in French.

(i) ? Je trouve qu'il a presque 20 ans.

I find he is almost 20.

(ii) Je trouve que c'est presque exagéré.

I find it is almost exaggerated.

I fully agree with the reviewer that *presque* is not licensed in the scope of *trouver* unless its argument (e.g ; *exagerated* in (ii)) is itself licensed on its own.

I think this is a very interesting observation leading to distinguish expressions like *almost a*, or *more than a*, which have an extensional content, and an intensional *implicature*, from « purely intensional » expressions like *many*, *few*, or *tall*, i.e. expressions having intensional meaning as their *asserted* content. A simple hypothesis would be that *trouver que* selects for argument an intensional asserted content, and, in the case of *presque a*, or *more than a* finds only an extensional content which does not satisfy its selection requirement.

In line with the above approach to the information conveyed by a quantifier, we can define the I- set conveyed by the intensional quantifier *peu*. It is similar to the I-set of extensional comparatives (see (29) above), except that its maximal element is an unknown constant, n .

(40) Information set of the intensional quantifier *peu* (few)

$$I^{\text{peu}} = \{0\%, \dots, n\%\}$$

n being an unknown constant, the information set of *peu* is not very selective! The more the context allows to be more precise about n the more extensional information *peu* conveys. A deep discussion of the way this contextual restriction of acceptable values for n is achieved would be of the utmost interest, but it does not seem to be crucial for the present discussion¹⁰. I will try to proceed, thus, by remaining maximally open to any possible value for n , and by providing a solution of the puzzle compatible with the choice of any arbitrary value for n . The only value the present approach leads to rule out for n is 100% because in case this value is chosen, the quantifier conveys no information, the domain of variation assigned to q being the whole set of possible values.

4.3 Extensional appositions to the intensional quantifier *peu*

Many extensional quantifiers can be APPs for the intensional quantifier *peu*:

(41) Peu d'étudiants, 10% en tout, ont réussi l'examen.

Few students, 10% in all, passed the exam.

Again, this is a prediction of my proposal considering the semantics of *peu* just introduced: n being implicit and subjective, the choice by the same speaker of a definite value in an appositionive structure is interpreted as being more precise, i.e., as denoting a subset of the I-set of *peu*.

Apposition is licit because there is nothing in the unspecified I-set associated to *peu* that makes it impossible to take 10% as a proper subset of this set; as a consequence, the subjective value n , the norm of the speaker, becomes less private: asking to interpret 10% as an apposition to *peu* commits the speaker to disclose that the norm she chose when using *peu* is more than 10%. So when one is committed to (41), one is committed as well to the judgment that any ratio up to 10% would have been *peu*.

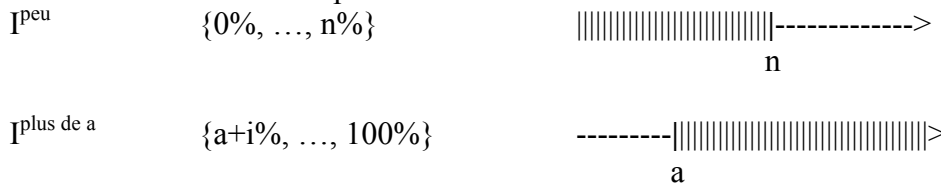
(42) Schematic representation of the apposition (41):

<i>Peu</i>	<i>D'étudiants</i>	<i>ont réussi l'examen</i>	<i>10% en tout</i>
	$q = E \cap R / E $ $q < n$ $I^{\text{peu}} = \{0\%, \dots, n\%\}$		$I^{10\%} = \{10\%\}$
Specification asserted by apposition :		$q=10\%$	
Accommodated condition:		$I^{\text{peu}} = \{0\%, \dots, 10\%, \dots, n\%\}$	

The prediction is, in general, that any precise quantifier (such as *10% in all*) is a licit apposition and is interpreted as being inferior to the norm chosen by the speaker when using *peu*. Only pragmatic considerations can limit the choice of the precise quantifier: the sentence

¹⁰ Anscombe and Ducrot themselves remind us that virtually any proportion is accepted in (1) after *presque*. So nothing related to the value one accepts for n would explain why (1) is odd.

might become unconventional if the choice of this precise quantity reveals that the speaker is using a norm that is too far from what the hearer is prepared to accept. The proposal also predicts that some extensional quantifiers cannot be APPs for the quantifier *peu*. Any comparative of superiority, for instance is ruled out. To understand why this is so, consider the terms of the problem:



The only n value that makes APP a proper subset of ANCH is, $n = 100\%$, a very trivial and unlikely choice for a norm, since as noted previously such a choice makes the quantifier uninformative.

The proposal thus predicts that comparatives of superiority *more than a*, when strictly interpreted as covering the interval between the successor of a and the maximal value¹¹, are ruled out for the specifying relation exemplified by (1).

In contrast, any comparative of inferiority *moins de a* (less than a) is expected to be acceptable with the associate commitment that the speaker's norm n is superior to a . Both predictions are borne out. As a rule, when speakers are asked out of the blue to judge couple of sentences like (43), they say that the a -version is odd, and the b -version perfect.

- (43) a. Peu d'étudiants ont réussi, plus de 40%
 Few students passed, more than 40%
 b. Peu d'étudiants ont réussi, moins de 40%
 Few students passed, less than 40%

The only restriction on the acceptability of the full range of numbers or proportions for a comparative of inferiority comes from the domain of variation one accepts for *peu*. If one considers that *peu* is restricted to a domain of small numbers, one accepts only for APP an I-set bound to the same range. This is not, however, an argument against the proposal. On the contrary, it is a confirmation: the apposition is licit if I^{APP} can be interpreted as a subset of I^{ANCH} .

To sum up, let us consider (44), a close variant of (1):

<i>Peu</i>	<i>D'étudiants</i>	<i>ont réussi l'examen</i>	<i>moins de 10%</i>
	$q = E \cap R / E $ $q < n$ $I^{peu} = \{0\%, \dots, n\% \}$		$I^{10\%} = \{0\%, \dots, 10-i\% \}$
Specification asserted by apposition :	$q < 10\%$		
Accommodated condition:	$I^{peu} = \{0\%, \dots, 10\%, \dots, n\% \}$		

The proposal predicts that the only extensional quantifiers that can fail to satisfy the associated semantic constraints of *few* are unbound comparative determiners; approximation quantifiers (*about 100%*, *between 50 and 80%*) and precise quantifiers (*exactly 34%*) will be accepted because there are successful accommodations for the implicit norm n allowing to satisfy the subset condition on the I-sets.

¹¹ We will come back later on the conversational interpretation of comparatives (« more than a , but not very far from a »).

5 Intensional appositions to the quantifier *few*

The original example (1) is based on the impossibility of using *presque a%* (almost *a%*) as an APP to the ANCH *peu* (few).

5.1 The semantics of *presque*

The literature on *almost* and corresponding items in other languages has not as its primary objective to explain the phenomenon illustrated by (1), although (1) itself is sometimes used in discussions regarding the semantic of these items (e.g. Horn 2002), and even if the « positive rhetorical force » of such items (Schwenter 2002) is given as one of their distinctive features, as compared to the *barely* class associated to a “negative” force.

In what follows, I will try to sum up the main teaching of the literature on the semantics of *presque*, with a particular interest towards the central issue discussed in this paper: to what extent the semantics assumed for *presque* can provide a basis for explaining what is characterized by Anscombe and Ducrot as its positive argumentative force.

The semantics of *almost* and its kins in other languages exhibits the following salient features.

1. *Almost* is a poly-categorical term having syntactic scopes over verbs (e.g. *dead*) adjectives (e.g. *empty*), adverbs (e.g. *easily*), quantified nominals (e.g. *two kilometers*), bare quantifiers (e.g. *5%*), nouns (e.g. *professor*). For a study focusing on this aspect, see Morzycki (2001).
2. *Almost* is a scalar term in the sense that it can be interpreted if its syntactic argument can be interpreted as a degree on a scale. This property is recognized in many studies on the topic; Del Prete and Amaral (2010) is the most recent proposal strongly focusing on this property.
3. The relevant notion of scale for *almost* is not just Horn’s scales (Horn 2002) but a broader notion: “(...) it seems too strong a requirement that the scale selected by *quasi* be provided by the modified expression in terms of a Horn scale. Admittedly, in some cases, the ordering between the alternatives may be independently given by the lexicon (as in the case of quantifiers), but it doesn’t have to be the case: the scalar representation can be provided by the discourse or extra-linguistic context, to meet the requirement of *quasi* that a scale be available. The general conclusion seems to be that scalar representations other than Horn scales have to be considered. The entailment-based scale is just one type of scale that may be selected by the semantic restrictions of *quasi*. » (Del Prete and Amaral 2011).

What Horn (2002) calls « simple rank orders » provide also relevant scales for *almost*¹². In a (Horn’s) scale « <X,Y>, ...Y... unilaterally entails ...X... : if is hot it is warm ; in a rank order <<X,Y>>, ...Y... unilaterally entails ¬ ...X... : if they are married, they are not engaged » (Horn, 2002 : 69). According to Horn (op. cit.), *almost d* and *d* are interpreted as degrees on a rank order:

(45) Rank orders : some examples (quoted from or inspired by Horn 2002).

- << ... -1°C, 0°C, +1°C,...>>
- << assistant professor, associate professor, full professor>>
- << half-dead, dead>>
- << A, B, C, D>>
- << empty, half-full, full>>
- << almost VP, VP>>

¹² « If incompatible pairs like *sick* and *dead* or doing something and almost doing it are « scalar in some sense », it is not the sense of true scalar terms but rather of rank orders (Lehrer 1974 ; Hirschberg 1991 ; Horn 1989, 2000) ». Horn (2002 : 69).

A distinction might be in order here between the necessity of interpreting the syntactic argument of *almost* in context as a degree on a scale (many notions of scale might satisfy this requirement), and the scalar relation entailed by the assertion of *almost d* which returns a rank order $\langle\langle \text{almost } d, d \rangle\rangle$.

4. *Almost* items embody two meaning components : a proximal component, and a polar component (Horn 2002):

Proximal component : when applied to the degree d provided by its syntactic argument, *almost* will return a degree d' which is close to d . The same is true for terms of approximation like *about*.

Polar component : a commitment to *almost P* entails a commitment to *not P*. This property strongly contrasts *almost* to other terms of approximation.

5. There is, in principle, an alternative formulation for the polar component of *almost*. Considering that *almost* takes as input a degree d on a scale provided by its syntactic argument, and returns another (close) degree d' such that $\langle\langle d', d \rangle\rangle$ is a rank order (see above), what is presented as the « polar » component of its meaning can also be presented as an inferiority condition $d' \prec d$, meaning that d' is strictly lower than d on the relevant rank order. Note that from the definition of rank orders, it follows that *almost P* entails *not P*. When applied to the degree d provided by its syntactic argument, *almost* will return a degree d' strictly inferior to d in the relevant rank order. This meaning component is the one which triggers the entailment $\neg P$, from *almost P*, hence the fact that it can be said « polar » by many scholars.

I take the features 1-4 to be the less controversial part of the literature on *presque*, and 5 just as an alternative presentation of the polar component of *almost* emerging rather straightforwardly from previous works (especially Horn 2002).

The proposal of Del Prete and Amaral (2010) provides a very nice synthesis and implementation of this general picture: the semantics they propose for the Italian *Quasi* is a good illustration of 1-5.

(46) The semantics of the Italian *Quasi* (Del Prete and Amaral (2010).

Quasi(...[a]_F...) entails (for some $d < [[a]]$ & close($d, [[a]]$))(...d...)

But there are also many aspects of the semantics of *Presque/almost* on which there are strong disagreements, and most of them are related to the somewhat paradoxical properties of this expression: although the term (by assertion, entailment, presupposition, implicature ?, it depends of one's own theory) conveys a negative meaning (cf. the « polar » component) it has not the properties which usually come with negative expressions, for instance it does not license NPIs. The French *presque* patterns with positive sentences, and not with negative ones, in what concerns the licensing of NPIs. Moreover, in the scope of some other expressions, one can doubt that *presque* actually expresses a negative meaning. Examples corresponding to the French (47) are discussed in the literature (see Nouwen 2006):

(47) Je suis heureux que presque tous mes amis soient venus pour mon anniversaire.

I am glad that almost all my friends were at my birthday party.

It is not clear why (47) does not mean: "I am glad that [(a proportion of my friends close to 100% came) \wedge \neg All my friends came)]. According to most speakers, (47) means : « I am glad that a proportion of my friends close to 100% came ». The postulated « polar » part of the meaning looks, so to speak « unexpressed » in similar contexts.

The inferiority variant of the polar component (cf. 5 above) fares only slightly better. If *presque* asserts that the ranking on a scale is lower, we expect that its behavior will be close to

the one of comparative of inferiority like *moins de*. As far as NPI licensing is concerned, *presque a* does not pattern with *less* for NPI Licensing, and for scope phenomena like (47) *presque* and overt comparatives of inferiority behave differently; (48), in contrast to (47) means “ I am glad that less than 100% of my friends came”:

- (47) Je suis heureux que moins de 100% de mes amis soient venus.
I am glad that less than 100% of my friends came.

As for the main topic of investigation of this paper, none of the alternatives leads to expect the observed facts. In what we take as close discourse equivalents of the schema (1), both an overt negation and a comparative of inferiority are fine, although *presque* is not :

- (48) Peu d’automobilistes dépassent le 120. # Il sont presque 20%.
Few drivers go over 120. They are almost 20%.
(49) Peu d’automobilistes dépassent le 120. Ils ne sont pas 20%.
Few drivers go over 120. They are not 20%.
(50) Peu d’automobilistes dépassent le 120. Il sont moins de 20%.
Few drivers go over 120. They are less than 20%.

In order to maintain that a polar component is part of the semantics of *almost* while some expected consequences do not obtain, many scholars claim that a mere conjunctive analysis cannot work, and introduce a layered semantics, for « backgrounding » the polar component, which would explain why although present, it does not trigger the same effects than an overt negative expression.

A large variety of implementations have been proposed using classical resources (entailment, implicatures- conversational or conventional, presuppositions, inferences) for classifying the polar component as a conveyed content not part of the foreground asserted meaning. Horn (2002 : table 23) gives a concise picture of the proposed solutions and introduces himself a new proposal distinguishing two layers of meaning : asserted meaning and (merely) entailed meaning.

- (51) Example of a layered semantics for *almost*. Horn (2002)

	Asserted	Entailed
Proximal component <i>Almost</i>	+	+
Polar component <i>Almost</i>	-	+

The great advantage of Horns’s proposal is that it escapes the problems of all the treatments admitting that the polar component is not entailed (and would be just a presupposition or an implicature) while it gives nevertheless a layered semantics back-grounding the polar component and paving the way for explaining that it can be invisible for some semantic processes. Its drawback is of course that it has to introduce a new layer (« entailed but not asserted ») for solving the problem, which might look *ad hoc*.

Although I cannot here discuss the relative merits of the different implementations for backgrounding the polar component of *almost*, it might be worth noting that as it is presented in Horn (2002) the issue reminds other cases, namely cases in which a given expression might be equivalent to another one without having the same semantic *representation*. For instance the meaning of *to refuse* and *to not accept* are, to a large extent, equivalent, but we have good reasons for stating that no negation is introduced by *to refuse*, since for instance no scope relations typical of genuine negation can be observed. A way of treating the fact, is to make a distinction between the semantic representation proper (as in Discourse Representation

Theory), and truth conditionally equivalent formulas obtained by means of some deductive system: in the case of *refuser* for instance, the semantic representation is identical to any other positive verb (hence no scope effects) and a meaning postulate associated to *refuser* would insure that any sentence with *refuser* has the same entailments than the corresponding sentence with *ne pas accepter*.

Another known case involves anaphora: although *It is not true that Jane has no cat* is equivalent to *Jane has a cat*, only the latter sentence can license *It is on the mat*; in DRT terms, both sentences, although true in the same worlds do not have the same semantic representation, hence have different semantic effects on their context.

In other words, Horns's *assertoric inertia* might be related to a larger class of phenomena: « entailed but not asserted » (Horn's term) might be a manifestation of « entailed but not represented » a notion needed elsewhere in the linguistic theory according to some scholars.

5.2 The semantics of *presque* in the light of (1)

For the sake of the present discussion, I will accept as a working hypothesis that it is correct to assume that the polar (or inferiority) component of *presque*, although entailed is backgrounded, or inert, or not part of the semantic representation.

I will now try to show that this assumption is not sufficient for explaining the behavior of *presque* as compared to other quantified expressions.

What one can predict on the basis of *backgrounding* of the polar component of *presque* is just that *presque* will *not have* the properties of items in which such a component is present but not backgrounded. In other words it is expected that *presque A* should behave as the expressions under B:

A. Quantified expressions with a polar (or inferiority) component :

Aucun (0%), moins de 20%
no, less than 20%.

B. Quantified expression without any polar (or inferiority) component:

20%, environ 20%, entre 20 et 25%, (un peu) plus de 20%
20%, about 20%, between 20 and 25%, (slightly) more than 20%.

But this does not make any definite prediction for *presque*, since among the expressions which do not have a polar component, some are fine (*20%, environ 20%, ...*), but some are not (*more than 20%*). So assuming that the polar or inferiority component of *peu* is backgrounded does not explain why *presque* is not acceptable in (1).

If one looks more carefully to the data, what shows up as having the same acceptability status than *presque* is the comparative of superiority *more than 20%*.

A worth trying idea is that it is for the same reason than both expressions have similar behavior, and it might be more easy to propose first an explanation for *more than 20%*, coming back afterwards to the case of *presque*.

5.2.1 Comparatives and their intensional implicatures.

Expressions like *more than a A B*, have a literal reading: if *a* is a cardinal, they assert that the cardinality of $A \cap B$ is superior to *a*. In this literal, implicature-less reading, their I-set is unbound: $I^{\text{more than } a} = \{a+1, a+2, \dots\}$; if *a* is a proportion, $I^{\text{more than } a} = \{a+i\%, \dots, 100\%\}$.

In any formal discourse (science, law, technical instructions, etc.), this is the only available reading. If the law regarding taxes stipulates that people earning more than 2000 € will have a tax rate of 30%, this applies to any income exceeding this amount.

As already said, in one sticks to this reading, there is a logical explanation for the impossibility to use a comparative of superiority as APP to an ANCH interpreted as a comparative of inferiority: it is just impossible to consider the information conveyed by any comparative of superiority as being a subset of the information conveyed by any comparative of inferiority.

But expressions like *more than a* have also a conversational reading, enriched by the application of Gricean maxims. Nobody can assert seriously that her grand mother is more than twenty, although it is true. Especially when the speaker knows the exact number, or when she knows approximately it, the restricted reading entails, in addition to the literal meaning, that as far the speaker knows, the cardinality of the set is not far from *a*. This explains nicely the “more than twenty years old” grand-mother example. Roughly speaking, a mere comparative like *plus de a*, when enriched with this implicature, conveys an information close to the one conveyed by *un peu plus de a* (slightly more than *a*).

The content of this conversational implicature can be compared to the proximal meaning component of *presque*: both express proximity, but only *presque* expresses a very close proximity, the implicature associated to *more than* just indicates a mere proximity. A full discussion regarding this proximal implicature of comparatives is far beyond the scope of the present paper. It will be enough to assume that it is necessary to postulate this implicature for explaining many linguistic facts which cannot be explained on the basis of a mere logical literal meaning of comparatives.

But considering again the (1) schema, once admitted that the enriched content of *more than a* is “more than a and close to a” there is no longer any explanation for the oddity of sentences like (52) :

(52) ? Peu d’automobilistes dépassent le 120, plus de 20%.

Few drivers go over 120, more than 20%.

Considering that *peu* conveys the information that the actual ratio is under an unknown constant *n*, and *plus de 20%* the information that this ratio is superior to 20% and close to 20%, there is no logical reason to predict the oddity of (52). The sentence should be fine under the accommodation that the speaker’s value for *n* exceeds 20%, plus the closeness margin open by the implicature.

Suppose for instance that in (52) the implicature under discussion adds the information that the actual ratio is between 20% and 21%; there is no more logical basis then for predicting the oddity of (52). The sentence (52) should be as fine as its close variant (53):

(53) Peu d’automobilistes dépassent le 120, entre 20 et 21%.

Few drivers go over 120, between 20 and 21%.

But (53) is fine although (52) is not.

It would be hopeless, I think, to escape this failure by rejecting any recourse to implicatures and by maintaining that (52) is odd on purely logical basis, because *more than a* covers all the values from *a+i* to 100%, and for two reasons at least: it looks rather counter intuitive to eliminate implicatures in a sentence having as a crucial piece *peu*, which, being subjective and vague, has no place in formal discourses, hence is typical of conversation; (1) and (52) are seen as odd, or bizarre, and not perceived as ill-formed, as a logical mismatch would predict.

At this point, what we have to provide is an explanation for the behavior of *two* expressions patterning alike in the schema (1), *plus de a* and *presque a*.

Many convergent data establish that *more than a*, in conversation, conveys often the subjective judgment that *q*, the actual quantity, is superior to a standard of comparison, and that *less than a* conveys the opposite judgment.

For example, if someone presents her own salary as being “more than a ” she invites the hearer to conclude that she finds that the amount is not that bad. If someone presents her salary as “less than a ”, she invites the hearer to draw the opposite conclusion. So no speaker happy with her salary, or just finding that by comparison to relevant others, it is not bad, would present it as being “less than a ”, whatever a is.

Other evidences are based on examples involving *because of* and *in spite of* and illustrated by contrasts like (54)/(55):

(54) A cause de la crise, l’entreprise a engagé moins de 15 personnes cette année.

Because of the crisis, the firm hired less than 10 persons this year.

(55) ?A cause de la crise, l’entreprise a engagé plus de 10 personnes cette année.

Because of the crisis, the firm hired less than 10 persons this year.

If a speaker believes that the more the crisis the less the jobs, she finds (54) fine, and (55) odd, even if she knows that the firm hired 12 persons. Opposite judgments are associated to *despite*, and in these contexts, *more than* and *less than* patters, respectively, with *many* and *few*:

(56) Despite the crisis, the firm hired more than 10 (/many) persons.

(57) ? Despite the crisis, the firm hired less than 10 (/few) persons.

Without giving a full analysis of those examples, one might suspect that *few* and *less than* pattern alike because they share the same intensional judgment taking q the actual quantity as being higher than the expected norm in the scope of the initial expression.¹³

To take stock, comparatives expressions (*more than a*, *less than a*) come, in conversation with the implicature that their use conveys an intensional judgment co-oriented with their extensional meaning:

<i>More than a</i>	<i>literal meaning :</i>	$q > a$
	<i>Proximal implicature</i>	$q \cong a$
	<i>Intensional implicature</i>	$q > n$

To postulate this intensional implicature is a way of deriving many empirical data leading to assign a “positive rhetorical force” (Anscombe and Ducrot 1983, Horn 2002) to comparatives of superiority, and a negative force to comparatives of inferiority.

The fact that there is a correlation between the extensional meaning and intensional implicatures of comparatives leads to think that the implicature is not part of a separate layer of meaning, with no relation to the literal extensional meaning (“informationnel” in Anscombe and Ducrot’s terms). It cannot be by accident that comparatives of superiority conveys a co-oriented intensional judgment, and comparatives of inferiority an opposite one.

The first task is thus to suggest a way of relating the intensional implicature of comparatives to their literal meaning. It will, then, remain to deal with the unexpected observation that

¹³ There are strong differences between items expressing an intensional content (like *peu*), and expressions triggering a comparison to a norm as an implicature (like *less than a*). Only the first class, as already noted, is licensed in the scope of « trouver que ». Another comment of a reviewer points to the fact that genuine intensional expressions like *few* or *tall* allow to express the standard of comparison (*small for a basket player*, *few cars for a week-end*, *few as compared to last year*), whereas expressions just conveying intensional implicatures do not allow any adjunct interpreted as the relevant standard. Both contrasts indicate that only for expressions like *few* or *tall* is the intensional judgement a part of the content.

presque behaves exactly as a comparative of *superiority*, although all we know for sure about its semantics makes it rather close to a comparative of *inferiority*!

5.2.2 Deriving the intensional implicature of comparatives

A common sense approach to the question may take as a starting point the fact that *more than a* is literally a comparison of the actual quantity q , to a standard of comparison ranked lower than it, namely a .

Consider a brief analysis of the salary example. One knows the exact amount of one's salary, and when asked, does not want to deliver the exact amount. In principle one might answer (*about a, more than a, less than a, ...*). An implicature might arise from the option chosen by the speaker, via a mechanism close to the one which is classically used for explaining why to present an event E_1 before an event E_2 triggers, via the maxim of manner, the conversational implicature that E_1 occurs before E_2 . For the case in discussion, the idea is that if the speaker chooses to give information about q by comparing it to a lower quantity (a) the choice is not made at random and is significant. Very often, speakers have, and express, their subjective judgments about quantities, and it is likely that the speaker have a judgment about her salary with relation to other standards (the salaries of others, what she earned before, what she needs, etc.). Especially when a speaker does not give the exact amount while knowing it, it is coherent to infer that her choice is directed towards letting the hearer infer her intensional evaluation. And choosing to present her salary as higher than a , if she respects the maxim of manner, implies that the hearer is invited to infer that her salary is also higher than her own subjective *norm*. As it would be a violation of the maxim of manner to present E_1 before E_2 in order to let infer that E_1 is after E_2 , it would not be cooperative to choose a presentation of q as superior to a , for conveying that q is inferior to what is judged the "normal or expected value for q ".

Such a way of deriving the observed intensional implicatures of comparatives looks no more (and no less) controversial than other applications of the maxim of manner.

The intensional judgment associated to comparatives has the same properties, for instance than the " $E_1 > E_2$ " implicature. It is a conversational implicature, it is defeasible, it arises anytime the speaker is supposed to be fully cooperative, and it is much more likely anytime the context leads to expect an intensional evaluation (similarly an ordering of events is more likely in narrations).

If such an intensional implicature can be so derived, it can justify most of the rhetoric effects of comparatives, either positive (*more than*), or negative (*less than*). This implicature is strongly grounded on the literal meaning of comparatives, and derived as a conversational implicature in a classical way. Nothing like a separate layer of meaning for argumentative forces is needed.

5.2.3 Deriving the intensional implicature of *presque*

As already recalled, *presque* exhibits all the positive rhetoric effects of a comparative of *superiority*. Moreover, to background its polar (inferiority) meaning component, as already discussed, only helps not to predict the intensional implicature of comparative of inferiority, but does not lead to predict the same implicature than comparative of superiority.

There are two alternatives :

1) what is responsible for these positive rhetoric effects, is not a conversational implicature, but a meaning component of *presque*. This does not force to see it as argumentative in nature, as Anscombe and Durot's claim, but this is accordance to their view that the positive rhetoric effects cannot be predicted from the other meaning components of *presque*. The most

conclusive argument against this choice is empirical: the kind of ill-formedness illustrated by (1) is not perceived as a mismatch involving semantic features, but rather as a pragmatic incoherence¹⁴.

2) The intensional judgment conveyed by *presque* is an implicature. But we are left with the burden of explaining why *presque* triggers the same implicature than a comparative of *superiority*.

So what we need is a way of explaining why items having the semantics of *presque* (scalar, proximal, and polar) regularly trigger a conversational implicature implying that for the speaker, *q*, is superior to her subjective norm.

The explanation I suggest is that *presque* presupposes not only a scale (see above) but also an actual, typical or expected *progression* along this scale.¹⁵

Roughly speaking, to say that someone is «now almost dead» implies that she is closer to her death now, than she was before. Using *almost* here presupposes that the speaker presents the degree to which the process is achieved as a step in a progression. It presupposes, thus a comparison of *superiority* taking the actual degree as higher on the death scale, than what was this degree previously. To say that one's salary is *presque 2000 €* presents the actual amount as a degree in a progression: it might presuppose that this salary was previously inferior, or that the speaker is considering that this salary is higher than expected, etc...

To be more general, *presque* requires not only a scale, and a degree on the scale provided by the syntactic argument (the "limit" in Del Prete and Amaral 2010 terms); it presupposes in addition that the actual degree evaluated in the sentence is presented as a step in a *progression* going upward from a lower value towards higher degrees on the scale.

This property of *almost* items has been repeatedly noted in the literature under different guises: "Relevant examples are the temporal ordering of the scalar alternatives *in quasi alle 3pm*, or the sequence of steps leading to the culmination point in the complex event structure of an accomplishment predicate, as in *quasi dimostrò il teorema* (cf. Amaral 2006, Winter 2006, Caudal and Nicolas 2005). Another case in point is the case of "rank orders" (Horn 1972, 2002), (...). In this case, intuitively, the only possible ordering between the scalar terms involves a temporal progression that is correlated with a change in status." (Del Prete and Amaral 2010).

Amaral and Prete (2010:56) discusses the (58)/(59) contrast :

(58) Leo si trova quasi a Roma.

Leo is almost in Rome.

(59) Leo si trova all'incirca a Roma.

Leo is approximately in Rome.

They explain that, in Italian, *quasi* modifies the semantics of the PPs by adding the meaning of a spatial path, while *all'incirca* simply means that 'Leo is somewhere near Rome' (path not implied).

Almost items are very often used for degrees which vary in time: age, salary, degree of achievement of a process, etc., although there are apparent counter examples illustrated under (60) and (61):

(60) La Grèce compte presque 10.000 îles.

Greece has almost 10.000 islands.

(61) Ce fleuve mesure presque 1000 kms

This river is almost 1000 kilometers long.

¹⁴ I am grateful to an anonymous reviewer for having made clear to me that (1) cannot be considered as a genuine semantic mismatch, and should be better understood as involving an implicature violation.

¹⁵ We use, for convenience, the term « *scale* » for Horn's scales and rank orders.

The sentence (60) does not convey the meaning that the actual number of Greek islands is a degree in a progression in time. There is a way nevertheless to recover a progression: measurement itself, or counting, might be conceived as a process which goes up on a scale (numbers, distances) and stops when the relevant dimension of the relevant entity is found.

To sum up, when admitted that the semantics of *presque* is associated to the presentation of a degree as a step in an upward progression on a scale, an assumption which receives some credit in the literature and is motivated by considerations independent of the issue we are dealing with, it is more easy to explain why *presque* shares the « positive rhetorical effects » of comparative of superiority.

On the basis of its semantics, *presque* presents a number or ratio as a degree in a progression (scalarity) and very close to the next higher degree on this scale (proximity). This way of presenting q , implies a presentation of q as higher than lower values on this scale, and this is why it triggers the same intensional implicature than a comparative of *superiority*.

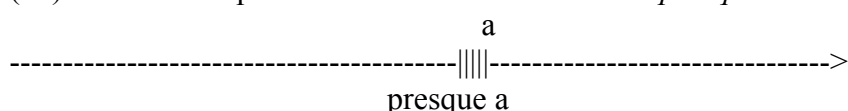
As already discussed, comparative of superiority triggers a conversational implicature noted « $q > n$ », meaning that for the speaker q is a value higher than what she considers as the relevant standard of comparison for the cardinal or ratio q . It is assumed, then, that *presque a* triggers the same implicature. By choosing to present her evaluation of the degree as *presque a*, the speaker invite the hearer to infer that for her, q is superior to what she takes as the relevant standard of comparison.

I think that postulating this intensional implicature offers a basis for many discourse effects evoked by the general label « positive rhetorical effects », including many argumentative effects discovered by Anscombe and Ducrot, but I will not go into this for maintaining the focus on a solution of the puzzle (1).

5.2.4 Some differences between *presque* and genuine comparatives

Presque a entails that the actual quantity or proportion q is ranked on a scale strictly under the position occupied by a :

(62) Schematic representation of the denotation of *presque*



Note that the natural order of numbers is not always the one that must be considered, which makes it impossible to say merely that *presque a* implies *less than a*.

Consider, for instance, plugging in a new refrigerator. Normally, it is expected that the temperature will gradually decrease to the desired one.¹⁷

Consider the interpretation in this context of (63):

(63) The temperature inside the refrigerator is almost 4° now.

This implies, at least in the preferred reading, that the temperature is *above* 4°, and this implication does not hold for the corresponding sentence with *less than*:

(64) The temperature of the fridge is less than 4° now.

Sentence (64) implies that the temperature is under 4°. This scalar interpretation of *presque* and the fact that it is highly sensitive to contextual scales and progressions is relevant for

¹⁷ This has been noted by Sadock (1981), who observes that “It is almost 0°C” can apply to situations in which the temperature is higher or lower than 0°C depending on the progressive falling or rising of the temperature in context.

explaining why *almost nothing* has a standard literal meaning denoting a small quantity, although *less than nothing* is only a stylistic device for emphasizing “nothing”; we will return to this.

As in most cases, however, and by default, the scale used by *presque* is the natural order of numbers, in the context of the present discussion, it will be often be assumed, by convenience, that *almost a* implies “less than a”.

5.2.5 A note on the contrast *presque a/à peine a*

The contrast between *presque* (almost) and *à peine* (barely) is relevant for the present discussion since *à peine* as noted by Ancombre and Ducrot is fine in (1). Without considering the semantics of *à peine* for itself (for a detailed study see Jayez 1987), the present proposal should at least make explicit why *à peine*, although sharing many features with *presque* does not have « positive rhetorical effects » but instead negative ones, and patterns with comparative of inferiority for the tests introduced above.

As the literature teaches us, *à peine* and *presque* share many features: they both require that *a* denote a degree on a scale, and they return a degree on this scale¹⁸ very close to *a*. The assumption that *à peine*, like *presque*, presupposes a *progression* is also highly plausible. Examples comparable to the data noted by Del Prete and Amaral (2010) for Italian are easy to find in French. If one is travelling by train, for instance, she can say, for denoting her localization *l* (65) or (66):

(65) Nous sommes presque à Rouen.

We are almost at Rouen.

(66) Nous sommes à peine à Rouen.

We are barely at Rouen.

But if one wants to denote the same *l* as the place she is living or staying, both (67) and

(68) are ill-formed :

(67) *Nous sommes presque à Rouen.

We are almost at Rouen.

(68) *Nous sommes à peine à Rouen.

We are barely at Rouen

And in contexts like plugging a new refrigerator (see above), *presque* and *à peine* patterns alike.

The main dissymmetry I am aware of is the impossibility to combine *à peine* with universals:

(69) J'ai lu presque tous ses livres (presque 100% de ses livres).

I read almost all her books (almost 100% of her books).

(70) *J'ai lu à peine tous ses livres (à peine 100% de ses livres).

I read barely all her books (barely 100% de ses livres).

And this extends to the bottom element of a scale:

(71) Presque (*à peine) aucun de ses livres n'est connu.

Almost (*barely) none of her books is famous.

¹⁸ In French, when asked whether *à peine a* implies « less than a », or « more than a », many speakers hesitate. For instance they would accept « Je gagne à peine 1000 euros » (I earn barely 1000 euros) as true, if I earn 990 euros, but true as well if I earn 1005 euros. And they make, moreover a difference between *1000 euros à peine*, which prefers the reading « more than 1000 euros » and *à peine 1000 euros*, which allows more easily the reading « less than 1000 euros ».

As noted above (see fn. 18) the extensional content of *à peine a* in French makes it rather close to a term of close approximation. A sentence like (71) can be used by a speaker who knows she left at 7h.57, but also by a speaker who knows she left at 8h.02.

(72) Il était à peine huit heures quand je suis partie.

It was barely 8 o'clock when I leave.

It is unlikely, thus, that the derivation of an intensional negative judgment for *à peine* can be obtained as a conversational implicature from its denotational content as we did for *presque* and for extensional comparatives.

But there is a specific property of *à peine* which might be relevant. *A peine* does not combine with any degree on a scale; we noted above that it cannot combine with top and bottom elements of a scale (*all/none*). It cannot combine either with degrees on a scale which are considered as high:

(72) Cet élève est à peine (presque) moyen.

This pupil is barely average

(73) Cet élève est *à peine (presque) bon (excellent).

This pupil is barely good (excellent).

For instance, the intuition concerning the contrast (65)/(66) is that *à peine* is natural if Rouen is just a stage of a longer travel, and *presque* if Rouen is the terminus of the travel. For a rank order like *soldat* < *caporal* < *lieutenant* < *general*, the combination with *à peine* is natural if *à peine a* can be contrasted to a higher degree *a'* on the scale. (74) is natural because a progression towards higher degrees is considered:

(74) De Gaulle était à peine lieutenant quand il écrivit ce livre.

De Gaulle was barely lieutenant when he wrote this book.

My suggestion is thus that *à peine a* conveys an intensional judgment different from *presque* because its semantics implies the selection of a degree *a* on a scale, which is judged low, i.e. which cannot be in the upper part of the scale. This would explain why a conversational implicature presenting *q*, the actual quantity, as lower than a standard or comparison is conveyed. The main argument in favour of this approach is that there are selectional constraints on the argument of *à peine a*, which does not hold for *presque a* and which are related to the evaluation of *a* as being low on a scale.

5.3 A solution for the initial puzzle

Examples such as (1) combine two quantifiers conveying intensional judgments: *peu* and *presque* (*few* and *almost*).

The semantic content of *peu* asserts that *q* is inferior to the subjective standard of comparison chosen by the speaker for evaluating *q*, which leaves the information set of *peu* maximal.

The semantic content of *presque a* asserts that *q* is close to a limit *a*, and inferior to it. Its information set is restricted and should be interpreted without any problem as a subset of the I-set of *peu*. Interpreting *presque a* as a specifying apposition to *peu* is thus possible under accommodation, in principle, and derives the relation: $q < a < n$.

This result is accepted by all speakers, who nevertheless find that (1) is odd. And they express the same judgment when *presque a* is replaced by *more than a*.

So the problem is precisely that it is not possible to use a quantifier conveying an intensional implicature (e.g. *presque a*, *à peine a*, *more than a*, *less than a*) as a specifying apposition to a quantifier expressing an opposite intensional content. Note that it is a constraint which does not hold for other constructions like coordination, for instance; for coordination, the orientation of the respective implicatures only plays a role for selecting *et* or *mais* as

illustrated by the acceptability differences (75)/(76) and (77)/(78):

(75) Peu de conducteurs, mais plus de 30%, dépassent le 120.

Few drivers, but more than 30%, go over 120.

(76) ?Peu de conducteurs, mais moins de 30% dépassent le 120.

Few drivers, but less than 30% go over 120.

(77) Peu de conducteurs, et moins de 30% dépassent le 120.

Few drivers, and less than 30% go over 120.

(78) ?Peu de conducteurs, et plus de 30% dépassent le 120.

Few drivers, and more than 30% go over 120.

In the current proposal, intensional content or implicature associated to a quantifier are represented as a comparison between q and a subjective constant n , freely chosen by the speaker as a standard of comparison.

In general, it seems sound to allow each occurrence of an intensional quantifier in a sentence or in a discourse to freely select the subjective norm it takes as a standard of comparison, even for characterizing the same quantity. One is free to say things such as (79) or (80):

(79) A. Have you many students in your course?

B. Well, compared with the number last year, they are few, but considering the number of essays I will have to read, I would say they are many.

(80) Dix étudiants inscrits; c'est à la fois peu et beaucoup.

Ten students enrolled; this is at the same time few and many.

In other words, as a rule, a speaker can switch from a standard of comparison to another one and assert that a given q is inferior to one standard n , and superior to another standard m . This is why it is not impossible in principle, and for the same speaker, to assert that a given quantity is, at the same time *peu* (few) and *beaucoup* (many).

But to do so is not possible in any context. Consider for instance simple discourses such as (81) and (82):

(81) ?*J'ai peu d'argent. J'ai presque 200 €.*

I have little money. I have almost 200€.

(82) *J'ai peu d'argent, mais j'ai presque 200 €.*

I have little money, but I have almost 200 €.

The discourse relation most speakers want to associate with (81) is *elaboration*, and many find that this discourse is not well formed, whereas example (82) is perfect and would be analyzed by discourse theorists as a *contrast*.

As already noted, elaboration rests on the same semantic relation than apposition, i.e., a specifying relation. The analysis given §3 for extensional quantifiers holds that the semantics of specifying apposition requires a subset relation between the extensional information conveyed by APP and the information conveyed by ANCH.

But, up to now, we considered only the extensional information conveyed by quantifiers. For quantifiers like *peu* (few) and *beaucoup* (many), it is necessary to add that an intensional information is conveyed, which leads to associate to them an intensional information set, *I-set*, represented in (83):

(83) *I-set* of the intensional quantifier *peu*

$$I^{peu} = \{0\%, \dots, n\%\}$$

n being an unknown constant on proportions, the extensional information conveyed by the quantifier remains what was noted under (40). To be brief, the extensional information conveyed by *peu* specifies the possible range of values (very large) and the intensional information specifies the location of the value w.r.t. the standard of comparison (under the standard).

Now quantifiers like *presque*, *more than* (see above) trigger an intensional implicature which can also be represented by an *I-set*:

(84) *I-set* (implicature) of the quantifier *presque*.

$$I^{presque} = \{m\%, \dots\}$$

Once admitted that the proper-subset constraint on specifying relations applies to intensional *I-set* as well, it follows that no specifying apposition can be fully successful from *presque* or *plus de* to *peu*: there is no choice of n and m such that $\{m\%, \dots\}$ is a subset of $\{0\%, \dots, n\%\}$, except for $n = 100\%$, an unlikely choice as already discussed for the licensing of genuine extensional comparatives APP to the intensional ANCH *peu* (see above §4.3). In other words, *peu* conveys the information that q is a value inferior to a subjective standard n ; in order for an APP quantifier to be interpreted as making the information conveyed by an ANCH quantifier more precise, if APP conveys an intensional information, this information must be interpreted as covering a subset of the intensional information conveyed by ANCH; what makes it impossible in the case of *peu/presque* is that the *I-set* of *peu* contains any value inferior to a subjective constant n , and the *I-set* of *presque* contains any value superior to a subjective constant m . If n and m take the same value, the subset relation cannot be satisfied; but it cannot be satisfied either under any other accommodation and for the same logical reasons that make impossible to interpret an extensional comparative of superiority (*more than a*) as a specifying apposition for an extensional comparative of inferiority (*less than b*), see above §3.

And this derives exactly the kind of mixed judgment speakers express about cases like (1). They can perfectly accept the *extensional* facet of the semantic specification: *peu* gives no definite information about the actual quantity, and *presque, a* is much more precise. This corresponds, in my proposal, to the fact that the *I-sets* of the quantifiers can be in a proper subset relation via accommodation.

But they cannot fully accept the example as well formed because the intensional information of the second quantifier cannot make more precise the intensional information of the first one.¹⁹

The proposal predicts also that any quantifier deprived of any positive intensional judgment (i.e. deprived of any implicature of form $q > m$) will be fine as a specifying apposition to *peu*. Some acceptable quantifiers are just deprived of any intensional implicature like *three, about three*, others trigger a negative intensional implicature ($q < m$) which can be made a proper subset of the *I-set* of *peu*.

This explanation of the oddness of (1) relies on the same general principles which apply to extensional determiners.

Another line of explanation, resting on principles needed elsewhere, would make the same prediction. It relies on the observation that intensional subjective standard of comparison used by a speaker for evaluating a given q are persistent, and cannot be changed without explicit marking. It is true that (79) and (80) above suppose that the speaker considers two different constants for evaluating a given q , but the speaker declares explicitly that she is doing so. If not, as in (81), the sentence is odd. The general underlying principle is formulated in (85):

(85) Intensional constants are persistent by default

If an intensional constant n is used for evaluating a quantity q by a speaker S , it remains valid for any other intensional evaluation of q by S , in the absence of any explicit indication of the contrary.

¹⁹ Some informants say that (1) gives the impression that the speaker « changes her mind » about the quantity, instead of making her judgment more precise.

For instance, in terms of commitments, by making an intensional judgment, a speaker is committed to the choice a norm, a standard of comparison for q , and this commitment that this norm is the relevant standard, can only be removed by an explicit discourse move.²⁰ If this general principle holds, once assumed that specifying apposition is not an explicit indication of an intensional move, a sentences like (1) is odd because it amounts to the same kind of intensional contradiction than a sentence like (86), to be compared to the acceptable (87):

(86) Many students came. # They were few.

(87) The students who came were many, but few, as compared to my expectations.

According to this line of explanation, (1) is a construction imposing that the very same constant n be used for evaluating q , and the speaker is incoherent, since she says that q is higher and lower than the very same constant.

(88) An analysis of (1) as an intensional contradiction.

Few	Drivers	go over 80	almost 20%
$q < n$			$q > n$
“intensional” contradiction			

The two lines of explanation are compatible in principle and leads to the same results for the crucial examples considered. The second one is presented as a mere suggestion resting on more general claims regarding intensional variables that we do not intend to defend in this paper.

The first line of explanation, based on the subset relation is also much more precise, and can derive contrasts like (89)/(90):

(89) Beaucoup d’automobilistes dépassent le 120, énormément.

Many drivers go over 120, lots of them.

(90) ? Enormément d’automobilistes dépassent le 120, beaucoup.

A huge number of drivers go over 120, many.

If *beaucoup* (many) is associated to an *I-set* covering all of the values higher than a constant n , and *énormément* (lots) is associated to an *I-set* covering only the highest of the values higher than a constant m , it is more easy to interpret $I^{\text{énormément}}$ as a subset of I^{beaucoup} than to accept the opposite relation. The mere assumption than a unique standard of comparison has to be used does not make any difference between (89) and (90).

²⁰ More should be said on this topic, in particular on the relation between commitments and the dynamic semantic of norms proposed by Barker (2002, 2013). My suggestion about the persistence of norms, is for me an application of the idea that a speaker remains committed to her previous contribution except she removes it. To introduce a subjective norm for evaluating a quantity q leaves the very same norm n valid for any other evaluation of q by the introducer of n , in the absence of any indication of the contrary. A full discussion of the principle would open new issues regarding norms that cannot be discussed at length in this paper.

5.4 Extension to other cases

The previous analysis is based on two main claims: example (1) is a specifying apposition; to explain that it is odd, it is necessary to admit that *presque* generates an intensional implicature, and it is not sufficient just to assume that the inferiority component of *presque* is backgrounded.

It might be interesting to explore briefly how the second claim can be extended to different cases, e.g. to other discourse relations.

Consider the following contrast due to an anonymous reader:

(91) Sam solved almost 3 questions out of 4, so he performed decently.

(92) ?Sam solved less than four questions, so he performed decently.

Without going into a detailed analysis of the relation illustrated by (91), let us assume that *P* so *Q* is fully natural if accepting *P* can be presented as a cause or a justification of *Q*.

In order to explain the acceptability difference (91)/(92), it is necessary to admit that the “less than” component of *almost* is backgrounded, and, does not prevent to establish the discourse relation, as it does in (92), in which it is asserted.

But this is not the whole story. Consider the close variants:

(93) Sam solved 3 questions out of 4, so he performed badly.

(94) Sam solved 3 questions out of 4, so he performed decently.

Both are equally acceptable, whereas (95) is not:

(95) ? Sam solved almost 3 questions out of 4, so he performed badly.

In other words, among expressions that do not assert “a less than” component, some accept both *badly* and *decently*, others, like *presque* accepts only *decently*. To assume that *presque* does not assert the meaning component “less than” does not explain why *presque*, in the considered context, rejects *badly*.

In order to explain the facts, the additional claim that *presque* triggers an implicature of superiority to a norm is necessary. In (93) and (94), *3 out of four* has no intensional implicature, and can thus be used as an argument leading to either conclusion. But in the case of *presque*, an intensional implicature of superiority can only support a positive judgment (*decently*). It is expected that *many*, which expresses an intensional judgment of superiority, and comparative of superiority, triggering this judgment as an implicature, will behave exactly in the same way, a prediction, which is borne out, as illustrated by (96) and (97):

(96) Sam solved many questions, so he performed decently/*badly.

(97) Sam solved more than three questions out of four, so he performs decently/*badly.

It is also necessary to consider briefly the status of the intensional implicature of *presque* when it takes as syntactic argument other categories than quantifiers, for instance predicates or adjectives like in *presque fini*, *presque mort* (almost finished, almost dead). In the examples focused in the paper, the argument of *presque* is an arbitrary degree on a scale (a cardinal or a proportion). When *presque* takes a predicate as argument, or an eventuality, its semantic argument is the maximal degree on a scale (the full satisfaction of the predicate, or the final degree of realization of the eventuality). Since the actual degree of realization of *presque* is presented in an upward progression (as any argument of *presque*), the conversational implicature discussed above for arbitrary degrees is expected, and the speaker let infer that the degree of realization of the eventuality is higher than her own standard of comparison. This explains why *presque P* has a “positive rhetorical force”, something that the backgrounding of its negative component alone does not predict, exactly as for *presque a*.

5.5 A note on *mais* (but) and intensional persistence

Anscombe and Ducrot observe that *mais* makes acceptable what is odd with bare quantifiers, and odd what is fine when it is not present (see above §1). What has been claimed up to now in this paper is that *mais* being part of a different construction, it is not concerned by the subset constraint, which is only the hall-mark of specifying apposition.

This predicts that *mais* can be fine in case a bare quantifier (interpreted as APP) is odd, but it does not predict that *mais* is not accepted when a bare quantifier interpreted as APP is fine.

The study of the construction represented by a detached *mais* introducing a bare quantifier is not in the scope of the paper, and would require deeper investigations.

Only some remarks can be made in the light of the present discussion.

First, there are some properties establishing that *mais* and *et* pattern alike and contrast sharply with apposition for introducing bare quantifiers. *Mais* and *et* cannot be used with a precise quantifier, i.e. a quantifier having a singleton as I-set:

(98) ?J'ai rencontré peu d'étudiants, mais (et) trois.

I met few students, but (and) three.

And this is even more difficult if the ANCH quantifier is extensional:

(99) *J'ai rencontré plus de vingt étudiants, et (mais) vingt-quatre.

I met more than twenty students, and (but) twenty-four.

(100) *J'ai rencontré moins de vingt étudiants, mais cinq en tout.

I met less than twenty students, but five in all.

Secondly, *mais* and *et* when accepted, and in contexts in which apposition is not licensed, do not contrast strongly:

(101) Plus de vingt étudiants, et (mais) moins de quinze, sont venus.

More than twenty students, and (but) less than fifty, came.

So, in an example like (101) it is not obvious that it is the lexical content of *mais* which is crucial, but it is more likely the common property of *mais* and *et* as conjunctions, which is relevant.

I think, thus, that the suggestion of Anscombe and Ducrot that the licensing of *mais* comes from the fact that it reverses the argumentative orientation of its complement, is not general.

In many cases; both *mais* and *et* are licensed, although *et* is not supposed to reverse argumentative orientation.

Nevertheless, in the context of intensional quantifiers, things might be different, since the *mais* version of (1) is more natural than its *et* version:²¹

(102) Peu d'automobilistes dépassent le 120, mais (? et) presque 20%.

Few drivers go over 120, but (?and) almost 20%.

For the current proposal, taking intensional quantifiers as comparison to subjective norms, *mais* and *et* are just typical signals that a standard of comparison can be replaced by a new one. This is why they can be used in sentences like (103):

(103) 2000 €, c'est peu, mais (et) c'est beaucoup.

2000 €, it is little, but (and) a lot.

This indicates that coordination connects two different judgments, licensing even to consider two different standards of comparisons for the very same quantity, in contrast to the elaboration-specification relation in focus in this paper. As to the preference for *mais*

²¹ Note that the judgments of speakers are not very clear-cut. Some do not make a big difference between *et* and *mais* in such examples.

in (103), it is not that surprising if *mais* is preferred to *et* when there is a contrast between the two conjuncts: the first conjunct expresses the inferiority of q to a norm, and the second one the superiority of q to another one.

6 A comparison with Jayez and Tovena (2008)'s proposal

Jayez and Tovena (2008) is the only attempt I know for solving the puzzle (1). Their proposal rests on the assumption inherited from Anscombe and Ducrot that the relation exemplified by (1) is argumentative in nature: they assume that the relevant discourse relation between the detached constituent and the host sentence is the relation *justification*, and they attempt to explain that the semantics of *presque* prevents this item from being interpreted as introducing a justification for the host sentence.

We gave arguments above against the analysis of the detached constituent as a justification, but this not a crucial point, since justification and elaboration are not always mutually exclusive: to specify can be interpreted as justifying by being more precise. A deeper difference is that the present proposal analyzes the construction as an apposition, which derives that the detached constituent applies to the same quantity q than the first one, a point taking for granted in the author's discussion, but left implicit, although it cannot be predicted by the mere notion of justification. In other words, the authors are in fact dealing with a couple of reconstructed sentences "Few drivers go over 120", and "They are almost 20%" without giving any analyze of why (1) is so interpreted.

The premises of the authors regarding the construction (1) are the following:

- A. The construction is accepted if a discourse relation of justification can be established;
- B. in order to be a justification of p , q must increase the probability that p is true;
- C. conventional implicatures are not relevant for establishing discourse relations.

The semantics they give for *peu* is roughly the same than to the one defended in the present proposal: *peu* asserts that q is lower than an unknown constant x , a "threshold of fewness". For *presque* they assume the following view: "(...) *presque P* conveys two pieces of information. It entails (main content) that the actual value or degree of P-ness is superior to a threshold beyond which it is possible to assign 'approximately P' to an entity." *Presque* conveys, moreover, the information « not P » or « inferior to P »; but this information is a conventional implicature. In other words among the arsenal of techniques used for backgrounding the inferiority component of *presque* (see Horn 2002), they choose the option to keep it apart from the main content as a CI.

This analysis is rather different from the one defended in this paper, the only common feature being that *presque* expresses a comparative of superiority. But in the authors analysis it is a comparison to a threshold of proximity to P , not to an intensional norm as in my proposal. Moreover, they make use of the notion of conventional implicature for "backgrounding" the "not P" (or inferiority) component, whereas I have recourse to the "+ entailed, - asserted" of Horn (2002).

What the authors try to show is that given the semantics of *peu* and *presque*, it is impossible to use the latter as a justification of the former, hence to admit that *presque* is "positively relevant" in Merin 1999's term, for *peu*.

For any possible relative position of x (the fewness threshold) and t (the approximately a threshold) w.r.t. a scale s , the authors evaluate the relevance of the second judgment to the first, i.e. whether accepting the *presque-assertion* increases (or decreases) the probability of

the *peu*-assertion. They give no detail as to the method for deriving the relevance values, and provide only the following results:

$x = t$: inconsistent
 $t >_s x$ inconsistent
 $t <_s x$ negative

This means for instance, that in case one's fewness threshold x , is lower than t , a value in the close proximity of a , the two judgments "the drivers were few" and "the drivers were almost a " are inconsistent. Since no configuration is assigned a positive relevance, no relation of justification can be established and this is why, according to the authors, (1) is not accepted (see the B premise above).

But the decision to assign the crucial "negative" value in the case $t <_s x$ is for me controversial. If we take into account the "less than a " component of *presque a*, we obtain a "slightly less than a " content which, at least intuitively, seems positively relevant. Suppose for instance that one's fewness threshold regarding the number of students passing the exam is 50%; if one learns that *slightly less than 30% passed*, it increases her inclination to believe that *few passed*. I would thus end with the value "positive" instead of "negative" which gives for the author's theory the wrong prediction that (1) should be acceptable.

In order to discard this "less than" component, the authors have not only to assume that it is not visible for discourse relations (a rather controversial claim), but also that it is invisible for computing relevance (an even more controversial claim). This latter claim would, for instance, conclude that all parentheticals, if analyzed as conventional implicatures (as in Potts 2007), have no relevance effects, which looks false.

I must say that even if the "less than a " component is made invisible or inactive, I do not see how the value "negative" can be assigned for $t <_s x$. In that case, the active part of the semantics of *presque a* is roughly "more than a ", a degree under a and very close to a ". And for me, in general such information has no relevance (neither positive nor negative) w.r.t. *peu*. Consider the context (104):

(104) A: Jean a lu moins de 50 livres?
 Did Jean read less than 50 books?
 B: Il en a lu plus de quatre.
 He read more than four.

For my own intuition, B's answer has no relevance for preferring a negative or a positive answer to A's question. To assign a negative relevance value, as the authors do, would lead to conclude, for instance, that if I know that your brother is more than four, I should be less inclined to bet that he is less than 20 than if I had no information about your brother's age. This is rather difficult to understand. A way for B's answer to become relevant for the issue would be to interpret "more than four" as "five or six or seven", but in that case one ends up with "positive relevance", exactly as for *presque* when its "less than component" is taken into account (cf. supra). Note that this restricted interpretation (*more than 4 = 5 or 6* and not any quantity over 4) is very frequent, if we are correct (see above §5.2.1) as a result of a conversational implicature. Again, in order not to predict positive relevance, the author's proposal must exclude another kind of implicature, i.e. conversational implicatures, from the computation of relevance mechanisms, a decision which should be motivated since at face value it looks rather counter-intuitive.

My analysis of Jayez & Toven's proposal is thus that it relies on some controversial premises but also that it would require, to be fully evaluated, a precise way of computing relevance in the crucial cases, which is not explicitly given in the paper. As I understand it, I am not convinced that it makes the right prediction.

7 A note on “almost nothing”

The combination of *almost* with *everything* and with *nothing* has been invoked in many linguistic discussions regarding the common semantic nature of the latter expressions but is more rarely considered *per se*.

Generally speaking, *presque* cannot combine with any quantifier. It combines well with precise quantifiers but less easily with non-precise ones. Precise quantifiers can be defined as quantifiers having a singleton as I-set, and non-precise quantifiers as quantifiers having more than one element in their I-set. *n exactly*, and at least for the sake of the present discussion, bare quantifiers (*n*, *n%*), are precise quantifiers, and most other quantifiers are non-precise:

(105) *Elle a presque 20 ans exactement.*
She is almost twenty years old.

(106) * *Elle a presque à peu près 20 ans.*
She is almost about twenty years old.

Considering that *everything* and *nothing* denote definite quantities and are, thus, precise quantifiers²³, they qualify for being modified by *presque*. The mere possibility of combination, thus, does not support the view that *nothing* is universal, as assumed in the early discussion about the nature of N-words such as *nothing*, but only that *nothing* denote a definite quantity, as does *20*, for instance.

Two things remain to be explained.

- 1) How does the meaning of *presque* combine with these particular quantifiers to derive the attested meaning?
- 2) Why is *almost none* acceptable in the (1) schema as an APP to the ANCH *few*, a fact unnoticed by Anscombre and Ducrot, who claim that the value of *a* does not change the oddness of *presque a* in (1)?

1) The combination of *almost* and *nothing/everything*

First, there is a clear contrast between *presque a* and the comparative quantifier *moins que a* if *a* is instantiated by *rien* (nothing) or *tout* (everything). In French, *un peu moins que rien* (slightly less than nothing) is ill-formed for many speakers, and *moins que rien* (less than nothing) can only be interpreted as a trope. In contrast, *presque rien* is commonplace and is commonly used for a very small quantity. The following table sums up the data:

²³ A natural assumption is that *nothing* or *no N* is equivalent to 0%, and that *everything*, or *all Ns* is equivalent to 100%, i.e. that they are equivalent to precise proportional quantifiers.

(107) Combination of *presque* (almost) with *rien* (nothing) and *tout* (everything).

	+ <i>rien</i>	+ <i>tout</i>
<i>Presque</i>	Colloquial: “slightly more than nothing”	Colloquial: “Slightly less than everything”
<i>Moins que</i>	Trope: “nothing and even less”	Not used
<i>Plus que</i>	Not used.	Trope: “everything and even more”

These data are expected if *moins que/plus que* are extensional comparatives operating on an increasing scale inherited from their argument: “*moins que rien*” has no literal meaning and can only be acceptable as a trope; the same is true for “*plus que tout*”; *moins que tout* and *plus que rien* are not used, possibly because they are extensionally equivalent to the meaning of *quelque chose* (some). The adjunction of *légèrement* (slightly) supports this view:

“*légèrement moins que rien*” is ill-formed for most speakers because *légèrement* rules out the interpretation as a trope and because there is no literal interpretation; “*légèrement moins de 100%*” is correct because *légèrement* prevents the trivial equation with *some*. Conversely, the adjunction of *légèrement* makes the combination of *plus que* with the expression of the totality ill-formed (the trope is no longer available) and the combination with the expression of nullity interpretable (*légèrement plus de 0%*).

The very different behaviors of *presque a* may be interpreted as confirmation that *presque* is not an extensional comparative (meaning “less than *a*”) but a scalar item meaning “immediately under *the degree a* on a scale” (see above).

This view explains, without any stipulation, that *presque tout* (almost everything) is colloquial. Items interpreted as universal quantifiers (*all, every, 100%*) are naturally interpreted as denoting the highest degree on scales. The semantics of *presque a* defended in this paper defines it as selecting the degrees on the relevant scale that are immediately inferior to the degree identified by *a*.

Note that this does not explain directly why *presque* can combine with *aucun* (no one) or *rien* (nothing). Normally, *almost nothing* should denote the degrees immediately inferior to *nothing* (which of course do not exist) and should be as unacceptable as the expression “slightly less than nothing”.

Penka (2006) proposes to explain the licensing of *almost nothing* by the conjunction of two properties: 1) *almost* (as *less than*, or *at least*) is an operator associated with a scale; and 2) the negative operator introduced by *nothing* reverses the scale otherwise associated with *almost*.

Roughly speaking, although *almost everything* implies “less than everything” because the associated scale has *everything* as its top element, *almost nothing* implies that “nothing” becomes the top element of the relevant (reversed) scale and denotes the portion of the scale immediately inferior to *nothing* (i.e., above it in the standard scale).

Although I think that scale reversal is a correct way to explain why *almost nothing* means “slightly more than nothing”, I do not think it is sufficient to say as Penka (2006) does, that scales used by scalar operators are reversed under negation. This is a general view that should

apply to *almost* but also to other scalar operators such as *at least* or *less than*, which are also scalar operators in Penka's approach.

Thus, it would be expected that *less than nothing*, for instance, is grammatical and means "slightly more than nothing", which is not the case, as shown above.

I think that the key to understanding the specific property of *presque* here is that *presque*, but not true comparatives such as *less than*, takes the scales induced from its argument just as a default, whereas true comparatives inherit strictly the scalar properties of their arguments.

Consider in this respect the interaction between numerals and the pair *almost/less than*.

A numeral *n* provides a degree on an increasing scale. For a comparative such as *less than*, only this increasing scale is accessible, and "*less than n*" can only mean "inferior to *n*" on this increasing scale; *less than zero* and *less than nothing* behave exactly as though *zero* and *nothing* were just ordinary numbers: either they denote a negative number or, if that is impossible, the expression is ill-formed and is only acceptable as a trope. If negation *per se* were a scale reversal, it would license (and even impose) the interpretation of *less than nothing* as "more than zero".

The specific property of *presque a* is that the orientation of the scale on which it denotes degrees inferior to *a* is only induced by *a* as a default and remains open to contextual effects. We have already encountered a manifestation of this in the refrigerator example. If the context makes salient a decreasing scale (we might also say a decreasing progression along a scale), *almost 0°C* can be extensionally equivalent to "more than 0°C". This example is interesting because there are degrees inferior to zero and nevertheless, *almost 0°C* is, in this context, ambiguous. But it is also interesting because the same possibility to operate on a decreasing scale and to interpret *presque a* as "more than a" is not a specificity of "zero" or of negative quantifiers, but can be realized with any degree on a scale, if the context makes salient a decreasing progression on a scale (see above). So negative quantifiers like *nothing* are not a necessary condition for interpreting *presque* on a decreasing scale, but at most a sufficient condition. We will see that things are even more complicated.

The correct generalization is that *almost* is highly dependent upon its context for selecting the orientation of its scale—its argument being a number, induces by default an increasing scale—but the discourse context (see the fridge case) may induce a decreasing progression, and *presque* can choose one or the other.

One can observe, nevertheless, that there is a very strong tendency to prefer the default and to consider that when a natural number is an argument of *presque*, it licenses an interpretation of *presque* w.r.t. an increasing scale. Only very specific situations can allow the interpretation of a number on a decreasing scale, and this decreasing interpretation is never obligatory: in most cases, subjects maintain the increasing interpretation as a possibility.

We can now return to the case of *presque rien*. *Rien* is by default interpreted as the bottom degree on an increasing scale, which means that there is no degree under the degree associated with *rien*. *Moins que rien* is ill-formed (and only acceptable as a trope) because it has no choice but to operate on this increasing scale.

Using *presque rien* presupposes that there are degrees immediately inferior to *rien*, but *presque* as opposed to *moins que* is not bound to the increasing scale associated with *nothing*. It is only a default that is ruled out by the non-existence of degrees inferior to *nothing*. Note that *zero* will have the same effect if there are no inferior degrees:

(108) *J'ai fait presque zéro fautes.*

I made almost zero mistakes.

The only way to satisfy the presupposition is to accommodate that the scale used by *presque* is a decreasing scale having *nothing* or *zero* as its *top* element. The resulting interpretation is

that *almost* nothing denotes degrees immediately inferior to this top element on a decreasing scale. This phenomenon is not a specificity of *presque rien* (see the refrigerator example). The only peculiarity of *presque rien* is that it is *rien* which forces to operate - on a decreasing scale, whereas in the refrigerator example, it is the context that makes a decreasing scale salient.

A prediction of this analysis is that in *presque a*, no other *a* than *nothing, zero, or 0%* can make *obligatory* an interpretation “slightly *more* than *a*”, and this prediction is borne out. For any other quantity, the only accessible interpretation is “slightly *less* than *a*”, see for example the contrast between (109) and (110):

(109) *Presque aucun étudiant n'a de bourse de thèse.* (more than 0)

Almost no student has a grant for her dissertation.

(110) *Presque 1% des étudiants obtiennent une bourse de thèse.* (less than 1%).

Almost 1% of the students have a grant for their dissertation.

2) The second matter to explain is why *presque rien*, or *presque 0%*, in contrast to any other *presque a*, is appropriate in (1).

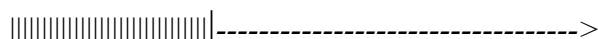
The mere application of the present proposal derives the acceptability from a comparison of the I-sets and *I-sets* of the quantifiers *peu* and *presque 0%*.

The extensional information-set of *presque 0%*, computed on the basis of the decreasing scale considered above, includes the ratio superior to 0% and close to it: roughly: $\{0,1\%, 0,2\%, \dots, p\}$, p being a proximity threshold w.r.t. 0%. The specification constraint is more than easy to satisfy, and gives, under accommodation the result: $0\% < q < p < n$. We learn only that n the standard of comparison of the speaker is higher than the close proximity of 0%, which is not very informative.

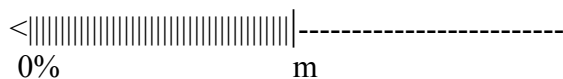
The intensional sets have also to satisfy a subset relation in order to produce an acceptable sentence. The *I-set* of *peu* is $\{0\%, \dots, n\}$. The prediction of the proposal is that the *I-set* of *presque 0%* is $\{0\%, \dots, m\}$. In order to see why this is so, remember that the intensional implicature is derived from the progression on which *presque* operates: it was claimed that *presque a* conveys the intensional judgement that q , the actual quantity is above a standard of comparison located under q in this progression. The progression being decreasing, the standard of comparison m is above q in the standard increasing scale on which *peu* is based.

(111) *I-sets and scales of peu and presque aucun*

Peu



Presque aucun



The subset constraint can be satisfied under accommodation, which predicts that the sentence is acceptable. If one chooses the second line of explanation requiring that the two constants n and m are unified, it is also true that they can be.

We might thus consider that this correct prediction is an argument in favor of the present proposal.

Some comments are in order about other situations in which *presque* rests on a decreasing progression, but with other argument than *aucun*, or *0%*.

Consider the hypothetical discourse (112):

(112) Le pourcentage de nos comptes supérieurs à 100.000 € ne cesse de décroître: 25% en 2010, 23% en 2011, 15% en 2012. Aujourd'hui, il nous reste peu de ces comptes,

presque 10%.

The proportion of our accounts higher than 100.000 € is in constant diminution: 25% in 2010, 23% in 2011, 15% in 2012. Today we have few such accounts, almost 10%.

The judgment of the speakers is as follows: the highly preferred way to interpret *presque 10%* extensionally is “less than 10%”, and under this interpretation, (112) is odd.

This is a clear difference with *0%*, which is, in the same context, interpreted as “more than 0%” and acceptable.

Moreover, it seems that if *presque n%* is not used as an apposition to *peu*, but alone, things are slightly different :

(113) Le pourcentage de nos comptes supérieurs à 100.000 € ne cesse de décroître: 25% en 2010, 23% en 2011, 15% en 2012, presque 10% aujourd’hui.

The proportion of our accounts higher than 100.000 € is in constant diminution: 25% in 2010, 23% in 2011, 15% in 2012, almost 10% today.

Speakers tend to interpret in (113) *presque 10%* as “more than 10%” and find the succession acceptable.

So if *presque a* used alone can find in the context a decreasing progression, and be interpreted extensionally as “more than a”, this possibility is much less accessible when *presque a* is used as an apposition to *peu*. We suggest the tentative following explanation. As already noted before, although *presque* can be interpreted w.r.t. a decreasing progression salient in context, this interpretation is always in competition with a default interpretation w.r.t. to an increasing scale. All the previous examples involving the falling/raising of temperature give rise to a genuine ambiguity. The context of apposition to *peu* has two effects: it makes salient the increasing scale presupposed by *peu*, and it expects the apposed constituent to convey a more precise evaluation, which does not suppose a scale reversal. In other words, the syntactic construction reinforces the default interpretation and discards the discourse context saliency of a decreasing interpretation.

What is actually different in the case *0%* is just that it rules out any possibility to interpret extensionally on an increasing scale because there is no ratio under *0%*. It is thus interpreted as an explicit indication that the default interpretation is not accessible, and no other value for *a* in *presque a* have this property of overruling the default.

The generalization is finally that *almost a* is a licit apposition to *few* if and only if *almost a* implies *more than a*, which means that there are some reasons to interpret *presque a* in relation to a *decreasing* scale. The particularity of *nothing* is that it is the only lexical expression that makes it *obligatory* to interpret *almost* in relation to a decreasing scale.

8 Conclusion

The solution of Anscombe and Ducrot’s initial puzzle (1) provided in this paper rests crucially on a deeper semantic analysis of its parts and avoids any recourse to an argumentative layer of meaning.

The key parts of the proposal are an analysis of intensional quantifiers as implying a comparison with a subjective norm, a semantics of *presque* deriving as an intensional implicature, a *superiority* comparison with a norm, and a view of the relevant construction as a specifying apposition which can only hold if the information conveyed by the apposed constituent is a subset of the information conveyed by the anchor quantifier.

Technically, it was made use of the notion of Information-set for representing the information conveyed by a quantifier defined as the set of possible values left alive by the assertion that a quantifier holds of its restrictor and scope. Two distinct information-set were used, an extensional I-set conveying information about the extension of the set, and an intensional I-set conveying information as to the comparison of the actual value to a subjective norm.

In opposition to Anscombe and Ducrot, I defended the claim that some extensional quantifiers trigger intensional implicatures which are deductible from their extensional content. I established this for extensional comparatives like *more than*, *less than*, and provided an explanation for deriving a similar intensional implicature from the extensional semantics of *presque*. The proposal borrows the notion of “non-asserted” meaning component of Horn (2002) for dealing with the polar component of *presque* and elaborates on the notions of scale and progression used by Del Prete and Amaral (2010).

It was claimed that this intensional implicature is responsible for the “positive rhetorical effects” of *presque*, and the key for explaining why *presque a* patterns on this with comparatives of superiority (more than).

It might be useful to make clear, part-by-part, how this proposal and Anscombe and Ducrot’s approach compare.

Anscombe and Ducrot insist that the denotational semantics of *presque* cannot explain its behavior and that something else must be added to its meaning. I took the opposite view and tried to explain that it is not by accident that the denotational meaning and the intensional implicature are realized by the same item.

They claim that a separate layer of meaning, argumentative in nature, is what is needed for explaining (1). I disagree on this and I have tried to show that a more “primitive” component of meaning expressing subjective judgments comparing actual quantifies to relevant standard of comparison is all what is needed. In my view, intensional judgments are not argumentatives forces, even if intensional evaluations can play a role for argumentation.

As to (1) Anscombe and Ducrot just say that it is bizarre (although they concede they find it in a journal). My analysis account for the mixed judgments triggered by the example by deriving it as a partial satisfaction of a general constraint on specifying apposition, the subset constraints on information sets: (1) is extensionally well-formed, but violates the subset constraint regarding intensional information sets.

The proposed solution had to collect different ingredients and for each of them could only adopt working hypotheses, and stick to minimal claims without being able to discuss at length the different issues they raise. Among the topics which would deserve further discussions and investigations is the notion of specifying apposition between quantifiers, the nature of *norms* used by intensional quantifiers, and the derivation of intensional implicatures from extensional contents.

REFERENCES

- Amaral, P. 2006. On the semantics of *almost*. Paper presented at the Annual Meeting of the Linguistics Society of America, University of New Mexico.
- Anscombe, J.-C. et O. Ducrot. 1983. *L'argumentation dans la langue*. Pierre Mardaga, Bruxelles.
- Barker, Chris. 2002. The Dynamics of Vagueness. *Linguistics and Philosophy* 25, no. 1 (2002): 1–36.
- Barker, Chris. 2013. Negotiating Taste, *Inquiry: An Interdisciplinary Journal of Philosophy*, 56:2-3, 240-257
- Barwise, Jon and Robin Cooper. 1981. Generalized quantifiers and natural language. *Linguistics and Philosophy* 4(4):159–219.
- Biran, Or, & Rambow, Owen. 2011. Identifying Justifications in Written Dialogs by Classifying Text as Argumentative. *Int. J. Semantic Computing*, 5(4), 363–381.
- Caudal, P. & Nicolas, D. 2005 . Types of degrees and types of event structures. In C. Maienborn and A. Wöllstein (Eds.), *Event Arguments: Foundations and Applications*, 277-300. Tübingen: Niemeyer.
- Corblin, F. 1996. Quantification et anaphore discursive: la référence aux complémentaires. *Langages* 123, pp. 51-75.
- Del Gobbo, Francesca. 2003. *Appositives at the interface*. Ph.D. dissertation, University of California, Irvine.
- Del Prete, Fabio & Amaral, Patricia. 2010. Approximating the limit: the interaction between quasi ‘almost’ and some temporal connectives in Italian, *Linguistics and Philosophy* 33.2, p. 51-115.
- Demirdache, Hamida. 1991. Resumptive chains in restrictive relatives, appositives, and dislocation structures. Ph.D. dissertation, MIT.
- Ducrot, O. 1973. *La preuve et le dire*, Paris, Mame.
- Emonds, Joseph E. 1979. Appositive relatives have no properties. *Linguistic Inquiry* 10. 211–242.
- Espinal, Maria-Teresa. 1991. The representation of disjunct constituents. *Language* 67. 726–762.
- Hitzeman, Janet: 1992. The Selectional Properties and Entailments of “Almost”. in C. P. Canakis, G. P. Chan, and J. Marshall Denton (eds.), *Papers from the 28th Regional Meeting of the Chicago Linguistic Society*, 225-238.
- Horn, L. 2002 . Assertoric inertia and NPI licensing. CLS 38 Part 2, ed. by Mary Andronis, Erin Debenport, Anne Pycha, Keiko Yoshimura, 55–82. Chicago: University of Chicago.
- Horn, L. 1989. *A Natural History of Negation*. Chicago. University of Chicago Press.
- Horn, L. 2000. Pick a theory: Not just any theory. *Negation and polarity: Syntactic and semantic perspectives*, ed. by Laurence Horn and Yasuhiko Kato, 147–92. Oxford: Oxford University Press.
- Horn, Laurence, R. 2011. Almost forever. In E. Yuasa, T. Bagchi, and K. Beals eds. *Pragmatics and Autolexical Grammar*. In honor of Jerry Sadock, John Benjamins.
- Huddleston, Rodney, and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press
- Jayez, J. and Tovenà, L. 2007, Discourse inference and the meaning of *presque*, *Proceedings of ESSLLI Workshop on Quantifier Modification*, Dublin.
- Jayez, Jacques, & Tovenà, Lucia. 2008. *Presque and almost* : how argumentation derives from

- comparative meaning, *Empirical Issues in Syntax and Semantics* 7, O. Bonami & P. Cabredo-Hofherr (eds.) 2008, pp. 217–239.
- Jayez, Jacques. 1987. Sémantique et approximation : Le cas de presque et à peine. *Linguisticae Investigationes*, XI, 1, p.157-196.
- Keenan, E. and J. Stavi. 1986. A semantic characterization of natural language determiners. *Linguistics and philosophy*. 253-326.
- Kennedy, Christopher 2001. Polar opposition and the ontology of degrees . *Linguistics and Philosophy*, 24:1.33–70.
- Koster, Jan. 2000. Extraposition as parallel construal. Ms, University of Groningen.
- Lappin, S. 2000 . An intensional parametric semantics for vague quantifiers. *Linguistics and Philosophy*. 599-620.
- Lasersohn, P. 2005. Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy*, 28, 643–686.
- Lehrer, A. 1974. *Semantic Fields and Lexical Structure*, Amsterdam: North Holland.
- Hirschberg, J. 1991. *A Theory of Scalar Implicature*. New York: Garland.
- Mann, William, & Thompson, Sandra. 1988. Rhetorical structure theory : Towards a functional theory of text organization. *Text*, 8, 243–281.
- McCawley, James D. 1988. Parentheticals and discontinuous constituent structure. *Linguistic Inquiry* 13. 91–106.
- Merin, Arthur, 1999. Information, relevance, and social-decision making: Some principles and results of decision-theoretic semantics. In Moss, Lawrence S. Jonathan Ginzburg, and Maarten de Rijke (eds.), *Logic, Language and Computation*, 179–221. CSLI Publications.
- Morzycki, Martin. 2001. *Almost* and its kin across categories. in R. Hastings, B. Jackson and Z. Zvolenszky (eds), *SALT XI*, 306-325, Ithaca, NY: Cornell University.
- Moxey, Linda M. & Anthony J. Sanford. 1993. *Communicating quantities: A psychological perspective*. Hillsdale, NJ: Lawrence Erlbaum.
- Moxey, Linda M. & Anthony J. Sanford. 1998. Complement set reference and quantifiers. *Proceedings of the 20th Annual Conference of the Cognitive Science Society: August 1–4*. University of Wisconsin-Madison, 734–739. London: Lawrence Erlbaum.
- Nouwen, R. 2006 Remarks on the Polar Orientation of *Almost*. Van de Weijer, J. and Los, B. *Linguistics in the Netherlands 2006*. Benjamins
- Partee, B. 1988. Many Quantifiers, in *Proceedings of the Eastern States Conference on Linguistics*, 383-402.
- Penka, D. 2005. *Almost: A Test?* In Paul Dekker and Michael Franke (Eds.) *Proceedings of the 15th Amsterdam Colloquium*. Amsterdam, ILLC/Department of Philosophy.
- Penka, D. 2006. *Almost* there : the meaning of *almost* in Christian Ebert and Cornelia Endriss (Eds.). *Proceedings of Sinn und Bedeutung 10*. ZAS Papers in Linguistics, Nr. 44, Berlin. 275-286.
- Potts, Christopher. 2007. Conventional implicatures : A distinguished class of meanings. In Gillian Ramchand & Charles Reiss (eds.), *The Oxford handbook of linguistic interfaces*, 475–501. Oxford: Oxford University Press.
- Ross, John R. 1967. Constraints on variables in syntax. Ph.D. dissertation, MIT.
- Sadock, J. 1981. *Almost*. In *Radical Pragmatics*, ed. by Peter Cole, 257–271. New York: Academic Press.
- Sadock, J. 1987 *Nearly* and *almost*, *Language Log* 24, June 2007, <http://itre.cis.upenn.edu/~myl/language-log/archives/004640.html>.
- Schwenter, S. 2002 Discourse context and polysemy: Spanish *casi*, *Romance phonology and variation*. Selected papers from the 30th Linguistic Symposium on Romance Languages, ed. by Caroline Wiltshire and Joaquim Camps, 161-75. Amsterdam: John Benjamins.
- Sells, Peter. 1985. Restrictive and non-restrictive modification (Technical Report CSLI-85-

28). Stanford, CA: CSLI.

Sevi, A. 1998. A Semantics for *Almost* and *Barely*. M.A. thesis, Tel-Aviv University.

Sundell, T. 2011. Disagreements about Taste. *Philosophical Studies* 155 : 267–88.

Vries, Mark de. 2006. The syntax of appositive relativization: On specifying coordination, false free relatives and promotion. *Linguistic Inquiry* 37. 229–270.

Winter, Y. 2006. Closure and Telicity across Categories. Extended version of the SALT16 paper, available at <http://www.cs.technion.ac.il/~winter>

