How many are 'several'? Argumentation, meaning and layers

Jacques Jayez
ENS-LSH
15 Parvis René Descartes
BP 7000
69342 Lyon cedex 07
e-mail : jjayez@ens-lsh.fr, tél. 04037376313

Abstract In this paper, I present an analysis of the French determiner *plusieurs* ('several'). I show that one can account for its two opposite properties, as described in (Bacha 1997, Gondret 1976), namely the fact that (i) *plusieurs* cannot refer to large quantities and (ii) is *augmentatif* (Gondret) or has a positive argumentative orientation in Ducrot's sense (Bacha), by hypothesizing that *plusieurs* is *layered*. This means that it conveys an asserted piece of information as well as an implicature, like items such as *peu* ('little'), *un peu* ('a little'), *presque* ('almost'), *à peine* ('barely', 'hardly') and others. This leads me, in particular, to make the notion of argumentative orientation more precise and to compare *plusieurs* and *quelques* ('some', 'a few'), which is a 'flat' (non-stratified) determiner.

Résumé Je présente ici une analyse du déterminant français *plusieurs*. Je montre que la tension entre ses deux principales propriétés, signalée dans (Bacha 1997, Gondret 1976), à savoir (i) son impossibilité de faire référence à des quantités importantes et (ii) son caractère *augmentatif* (Gondret) ou son orientation argumentative positive au sens de Ducrot (Bacha) s'explique par le fait que *plusieurs* est *stratifié*. Cela signifie qu'il comporte une information assertée et une information implicitée, à l'instar de certains autres éléments comme *peu, un peu, presque, à peine,* etc. Cela m'amène, entre autres, à préciser la notion d'orientation argumentative et le rapport entre *plusieurs* et *quelques* (non stratifié).

1. Introduction[1]

In this paper, I offer an analysis of the main properties of the French determiner *plusieurs* (analogous to *several* in English). It has been shown by Bacha (1997) and Gondret (1976) that *plusieurs* behaves in an unexpected way with respect to quantity. Intuitively, it seems to present the size of the set it refers to as small and large, depending on the linguistic environments one considers. I show that this behavior is caused by the *layered* character of *plusieurs,* that is, by the fact that, like *only* and other less well-known determiners and adverbials it conveys an asserted content and a non-asserted ('implicated') one. Moreover, the asserted content, which is a sort of comparison, is responsible for the so-called 'argumentative' properties of *plusieurs.* The

paper is organized as follows : in section 2, I present and discuss the central observations and suggestions in (Bacha 1997) and (Gondret 1976), in section 3, I factor out these observations, showing that the tension between the reference to a small vs. large quantity can be explained by the interaction between different layers of information; finally, in section 4, I present a detailed analysis of *plusieurs*, comparing it to *quelques* and *des*.

2 Gondret's and Bacha's analysis[2]

2.1 Gondret's proposal

Gondret (1976) notes that, contrary to what is claimed by some grammarians, *plusieurs* and *quelques* ('some', 'a few') cannot be distinguished by their reference to quantities. In fact, they both refer to small quantities. However, they differ by the perspective (*point de vue*) they introduce. *Quelques* is restrictive whereas *plusieurs* is *augmentatif*: the former implies that the speaker considers a small quantity in relation to a larger quantity; the latter that the speaker considers a small quantity in relation to unity (Gondret 1976, p. 147). This accounts for the fact that *plusieurs* is infelicitous in restrictive contexts, in contrast to *quelques*.

  (1a) *Seules ??plusieurs personnes ont compris l'allusion*
        'Only several persons understood the hint'
  (1b) *Seules quelques personnes ont compris l'allusion*
        'Only some/a few persons understood the hint'

Moreover, since *plusieurs* and *quelques* both refer to small quantities the anomaly of examples like (2) is readily explained.

  (2)   *L'univers contient* (??*plusieurs* + *quelques particules*)
        'The universe contains (several +a few) particles'

In addition, Gondret suggests that *plusieurs* is analogous to *plus d'un*. The hypothesis I develop in section 4 can be seen as a thorough elaboration of this remark.

2.2 Bacha's proposal

Like Gondret, Bacha (1997) observes that *plusieurs* is not appropriate in restrictive contexts and does not refer to large quantities either. She proposes that (i) *plusieurs* means a small/moderate quantity, like *quelques* and (ii) has a *positive argumentative orientation* (AO), in the sense of Anscombre and Ducrot (1983), by which she means that *plusieurs* is oriented towards large quantities (1997 : 52). This accounts for the observations in (1) and (2).

2.3 Discussion

One might object to Gondret and Bacha that *plusieurs* means roughly 'not a lot and not just a few'. However, it is unclear how to explain (1) in this way. Moreover such an assumption conflicts with (3b), which would then be a paraphrase of (3a) but sounds incoherent.

(3a) *Plusieurs étudiants ont compris mais ils ne sont pas nombreux*
'Several students caught the point but they are not many'

(3b) *Les étudiants qui ont compris ne sont ni très nombreux ni en petit nombre, mais* ??*ils ne sont pas nombreux*
'The students who caught the point are neither many nor just a few, but they are not many'

So, the 'double life' of *plusieurs* mentioned by Gondret and Bacha is not an illusion. However, their respective proposals raise two problems. First, the difference between the referential meaning and the non-referential one remains elusive. How do we know which one is selected to contribute to the semantics of a phrase or sentence? From the stipulation that *plusieurs* and *quelques* have the same referential meaning and from the fact that (1b) is possible, one might conclude that *seul* is sensitive to the referential meaning. From there, there are two possibilities. (i) *Seul* sees only the referential meaning, and ignores the non-referential meaning. But this solution predicts that *plusieurs* is appropriate with *seul* since its referential meaning is the same as that of *quelques*, a prediction which is not borne out (1a). (ii) *Seul* sees the non-referential meaning when it exists and sees the referential meaning otherwise. However, in the (4) series below, there is an argumentative relation between A and B.[3] Yet *quelques* and *plusieurs* pattern alike. Must we conclude that *quelques* has a non-referential meaning after all? But which one? Ducrot (1980) suggests that *quelques* has a positive orientation. If he is right, how do we explain the contrast (1a)-(1b)? More generally what difference is left between *quelques* and *plusieurs* if they both refer to small/moderate quantities and have a positive AO? If Ducrot is wrong, how do we explain the similarity of *quelques* and *plusieurs* in (4b)?

(4a) *Ce n'est pas si mal* (= A) *puisque* (*quelques* + *plusieurs*) *étudiants ont compris* (= B)
'It's not too bad (= A) since (a few/some + several) students caught the point' (= B)

(4b) *Ce n'est pas terrible* (= A) *puisque* (??*quelques* + ?? *plusieurs*) *étudiants ont compris* (= B)
'It's not too good (= A) since (a few/some + several) students caught the point' (= B)

The second problem concerns the effect of *seul(ement)*. The standard analysis of *seul(ement)* ('only'[4]) (Ducrot 1972) runs as follows, in the language of generalized quantification.

(5) If *P* is a set of properties (a generalized quantifier),
    a. *Seul P Q* asserts that $\forall x\, (\neg P(x) \Rightarrow \neg Q(x))$
    b. *Seul P Q* presupposes that $\forall x\, (P(x) \Rightarrow Q(x))$

The argumentative sensitivity of *seul(ement)* and *only* has been noted in several places (e.g. Ducrot 1980, Nølke 1983, Horn 1996).

(6) *Seul un (petit + ??grand) nombre d'étudiants se sont inscrits*
    'Only a (small + large) number of students have registered'

Ducrot (1980 : 25) notes that if A is a plausible argument for B, *Seul(ement)* A becomes a plausible argument for ¬B. In his terms, *seul(ement)* inverts the AO of the proposition it applies to. The reason why this inversion mechanism does not work for a proposition of the form *plusieurs P Q* is mysterious. On the basis of the contrast in (6), one might conjecture that *seul(ement)* A is anomalous whenever A has a positive AO. In that case, however, we face the same difficulty as above: either Ducrot is right in supposing that *quelques* and *plusieurs* share the same AO, and their difference with respect to *seul(ement)* is not explained, or he is wrong and their similarities are not explained.

Another potential problem comes from the fact that the phenomenon studied by Gondret and Bacha is not isolated. In fact, *peu* ('little', adv.) (Ducrot 1972), *un peu* ('a little') (Ducrot 1972), *presque* ('almost') and *à peine* ('hardly', 'barely') (Ducrot 1972, 1973, 1980, Jayez 1987, 1988) raise similar questions, as evidenced by (7) and (8).

context : eating food is a sign of improvement
(7a) *Il a seulement (un peu + peu) mangé*
    'He only ate (little + a little) food'
(7b) *Il va mieux puisqu'il a (??peu + un peu) mangé*
    'He is better since he ate (little + a little) food'
(7c) *Il ne va pas mieux puisqu'il a (peu + ??un peu) mangé*
    'He is not better since he ate (little + a little) food'

(8a) *Il a seulement presque fini son repas*
    'He only almost finished his meal'
(8b) *Il va mieux puisqu'il a presque fini son repas*
    'He is better since he almost finished his meal'
(8c) *Il ne va pas mieux puisqu'il a ??presque fini son repas*
    'He is not better since he almost finished his meal'

(8d) *Il a seulement à peine fini son repas*
'He only barely finished his meal'
(8e) *Il va mieux puisqu'il a ??à peine fini son repas*
'He is better since he barely finished his meal'
(8f) *Il ne va pas mieux puisqu'il a à peine fini son repas*
'He is not better since he barely finished his meal'

Such examples suggest that there is something more general than an isolated constraint on *plusieurs*. In the next section, I show how these observations can be organized in two coherent types of environments and what sort of explanation they point to.

3. Streamlining the data

3.1 Seul(ement)

My first task will be to clarify the status of *seul*(*ement*). Under the standard analysis (Ducrot and Horn), *seul*(*ement*) requires that a set of *alternatives* be conceivable (see Ducrot 1972 and Rooth 1996 inter al.). The intuition is that, in a sentence like (9), *seul* makes sense only if other people than Jean had the opportunity, possibility or obligation to come.

(9) *Seul Jean est venu*
'Only John came'

According to Jacobs (1983)[5], the German particle *nur* ('only') indicates that the proposition it modifies is low on some appropriate scale of alternatives. Klinedinst (2005) extends this proposal to English with some modifications (p. 7, n7). So, in (9), the proposition that John came occupies the lower region of any scale that makes sense for interpreting A as 'weak'. A natural interpretation is that the number of people who came (one) is particularly weak on a scale of possible numbers. Another interpretation is that the fact that John came is of low relevance under a certain perspective. For instance, if Mary is the only person capable of fixing the computer, the following dialogue suggests that the alternative that John came is weaker that the alternative that Mary came or that John and Mary came.

(10) X – Did Mary came?
Y – No, only John

If we extend this line of analysis to the French *seul*(*ement*), we can account directly for the fact that:
(i) items that are associated with low positions are possible (11a).[6]
(ii) Items that are associated with context-dependent scale positions are possible (11b).
(iii) Items that are associated with high positions are infelicitous (11c).

(11a) *Seul (un petit nombre + peu + ...) d'étudiants se sont inscrits*
'Only (a small number of + few + ...) students registered'

(11b) *Seul(s) (quelques + la moitié des + 40% des + ...) étudiants se sont inscrits*
'Only (some/a few + one half of the + 40% of the + ...) students registered'

(11c) *Seuls (??beaucoup d' + ??la majorité des + ??la plupart des + ...) étudiants se sont inscrits*
'Only (many + a majority of + most + ...) students registered'

At this point, the question is: why does *plusieurs* pattern like *beaucoup* ('many') or *la plupart* ('most')? The crucial observation is that items that convey an indication of superiority with respect to some (possibly contextually given) threshold are anomalous with *seul*(*ement*), because they exclude low values for this threshold, see (12).

(12) *Seuls (??plus de + ??au moins) 10 étudiants se sont inscrits*
'Only (more than + at least) 10 students registered'

In the next section, I argue that *plusieurs* conveys a similar piece of information; specifically, *plusieurs P Q* asserts that the number of *P*-objects that *Q* is superior to a threshold, hence its incompatibility with *seul*(*ement*). Under this view, *plusieurs* is not fundamentally different from *plus de* ('more than'), *au moins* ('at least'), *presque* ('almost'), etc., whose argumentative properties have been pointed out in (Jayez, 1987, 1988). Before going into the details, I have to clarify the status of *plusieurs* with respect to the discourse relations it can combine with.

3.2 Discourse relations
Consequence and justification discourse relations illustrate intuitively AO (4a,b, 7b,c, 8b,c,e,f). Jayez (1987, 1988, 1998) and Merin (1997, 1999 in particular) have argued that AO is an *informational* phenomenon.[7] (13) summarizes the main idea.

(13) A is an argument for B iff the addition of A to an information state where A is not established (i.e. a genuine update with A) raises the probability of B (Merin) or any proof of A can be integrated (as a subproof) in a relevant proof of B (Jayez).

I will stick to the probabilistic framework in this paper because it is more flexible, developed and well-understood than the proof-theoretic approach. More work is required to compare it to the
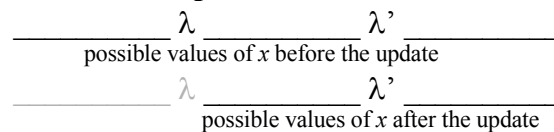
(allegedly) more general plausibility calculus (Friedman and Halpern 2001). A crucial result needed here is recorded in (14).

(14) Let $\oplus$ note the operation of eliminative update.[8] Let s (an information state) be a set of possible worlds, if $s' = s \oplus A$, $s' \neq s$ and $s' \neq \varnothing$, then $P_s(A) < P_{s'}(A)$, where $P_s(A)$ notes the probability of A in s.

As made clear in (Merin 1997), the probabilistic analysis of AO does not (necessarily) characterize *conclusive* pieces of argumentation, but it accounts for the well-known intuitive phenomenon of argumentative 'orientation' or 'direction', in particular with threshold-comparison items. Informally, the fact that a value x is superior to the threshold λ increases the probability that x is superior to any $\lambda' \geq \lambda$ because the set of situations that make $x > \lambda'$ false decreases. More precisely, we have (15), illustrated in (16).

(15) Let (O,λ) be a linear order such that $x = o_i$ is represented in the information state for any $o_i \in O$, then any update with $x > \lambda$ (resp. $x < \lambda$) raises the probability of $x > \lambda'$ for any $\lambda' \geq \lambda$ (resp. of $x < \lambda'$ for any $\lambda' \leq \lambda$).

(16) **Effect of an update with $x > \lambda$**

$$\underline{\hspace{3cm}}\,\lambda\,\underline{\hspace{3cm}}\,\lambda'\,\underline{\hspace{2cm}}$$
possible values of x before the update

$$\underline{\hspace{3cm}}\,\lambda\,\underline{\hspace{3cm}}\,\lambda'\,\underline{\hspace{2cm}}$$
possible values of x after the update

Merin's approach also accounts for the observation by Jayez (1988) that existential information has the same AO as universal quantification, see (17), a fact which is a direct consequence of (18).

(17) (*Quelques + certains + tous les*) *étudiants ont réussi, donc l'examen n'était pas si difficile*
'(Some/A few + certain + all the) students passed, so the exam was not that difficult'

(18) The update of s with $\exists x\ \phi(x)$ raises $P_s(\forall x\ \phi(x))$ for any expression ϕ.

Taken together, the probabilistic approach and the scalar analysis of *seul*(*ement*) adapted from Jacobs explain why *quelques* and *plusieurs* are similar and different. (i) Since they are both probability raisers, they behave in the same way when AO only is at stake. (ii) In contrast, they behave differently when relative position on a scale is at stake, as with *seul*(*ement*).

Summarizing, in this section, I have shown that hypothesizing that *plusieurs* conveys an indication of superiority can account for

its behavior in combination with *seul*(*ement*) and in the context of certain discourse relations. However, I have not shown that *plusieurs* does convey that indication. Nor have I explained how it is compatible with the dual observation that *plusieurs* refers to a small or moderate quantity. The next section is devoted to this task.

4. Flat and layered items

4.1 Assertion and implicature

It has long been observed that certain lexical items do not have a uniform semantic structure: they contribute information at (at least) two levels. *Only* (Horn 1969, 1996), *peu* and *un peu* (Ducrot 1972), *presque* and *à peine* (Ducrot 1972, 1973, 1980, Jayez 1987, 1988) have been split into two information layers corresponding to an asserted content and a presupposed or implicated content. I will use *implicature* as a cover term for conventional implicatures and presuppositions, without taking any stance towards their (possible) difference or identity.

Generalizing slightly Ducrot's (1972) *loi d'enchaînement* ('connection law' or CL), Jayez (1987, 1988) notes that discourse connection through discourse relations such as consequence or justification can only make use of asserted content (20).

> (19) **CL** (Ducrot, 1972 : 81)
> Discourse relations triggered by coordinating conjunctions different from *et* ('and'), subordinating conjunctions different from *si* ('if') or by the content of discourse segments cannot be based on presupposed material.
> (20) Discourse relations based on the information state of one particular agent are problematic when they are based on non-asserted material.

(20) concerns mainly presuppositions and conventional implicatures.[9] Assuming (19) or (20) (or whatever version is relevant), we predict that presuppositions and conventional implicatures may be difficult to access through standard discourse relations (justification, contrast, etc.). Merin (2003, section 10)[10] provides a rationale for Ducrot's CL on the basis of the following claim on presuppositions.

> (21) Let a context C be a (possibly infinite) set of probability constraints on a fixed propositional Boolean algebra. If p is a presupposition at C, then p is true at C.

Given a context C, justification, explanation or consequence discourse relations signal that a proposition is positively relevant to another proposition in C, p being positively relevant to p' in C

iff the probability of *p'* given *p* in *C* is strictly superior to the probability of *p'* in *C*, in symbols $P(p'|p,C) > P(p',C)$. It follows that a presupposition can never have positive relvance to any other proposition in any context *C*. Nor can it be positively influenced by any other proposition.[11] It is then predicted that any discourse relation that would present a proposition *p'* as motivating or being motivated by a presupposition *p* would create an anomaly.

This approach raises two problems. One, in certain cases, it is possible to assert the existence of a causal relation between *p* and *p'* without *motivating* either one with the help of the other. For instance, (22) can be interpreted as asserting that the cause of John taking to smoking is the fact that he was afraid of cancer. Of course, this interpretation is hardly natural. A more natural interpretation would be that John did not smoke because he was afraid of cancer. But that interpretation would require that we connect the fact that John was afraid of cancer with the *presupposition* of *Jean a commencé a fumer* ('John has started smoking'), which seems impossible. However, it is unclear why it should be, since we can, in general, mention a cause of an established proposition, see (23), where the (potential) proof complexity of first order logic is presented as a cause of its (well-known) undecidability.

(22) ??*C'est parce qu'il avait peur du cancer que Jean a commencé a fumer*
'It is because he was afraid of cancer that John has started smoking'
(23) It is because first order logic can give rise to a combinatorial explosion that it is undecidable

Two, as argued in (Jayez and Rossari 2004) and (Potts 2005) there are non-presuppositional conventional implicatures that correspond to updates, that is to possibly new information, not to pre-supposed material, for instance supplements (parenthetical adverbs, appositive phrases) or expressives (epithets, *expressions de qualité* in Milner's (1978) terminology). E.g., in (24a), one must distinguish between the asserted content, i.e. John's declaration and the conventional implicature that John was head of the department. The CL applies to the implicature as well.

(24a) John, a former head of the department, said he does not approve of the new policy
(24b) John, a former head of the department, said he does not approve of the new policy. ??So he has some experience
intended: as a former head, he has a certain experience

I conclude that, in spite of its interest for a theory of informational relevance, Merin's proposal does not explain why

presuppositional *and* non-presuppositional implicatures obey CL. Jayez and Rossari (2004) and Jayez (2004a,b) claim that conventional implicatures and presuppositions are not standard updates, i.e., updates of the common ground. Roughly speaking, whereas the asserted content is intended to be added to the shared knowledge, the conventionally implicated or presupposed content is intended to be added to what the discourse agents believe that the speaker believes (in other terms, their image of the speaker's beliefs). The reader is referred to (Jayez 2004b) for a detailed justification of this claim. Under this view, it is no surprise that, if a discourse relation targets the common ground, an attempt to use the implicated content instead may lead to an anomaly. The question then arises why discourse relations should generally concern the common ground?

I have only a speculative remark to offer here. Following Searle (1969),[12] let us define the *point* of a speech act of a certain type as the publicly intended minimal effect of any act of the same type. For instance, the point of an assertion A is an update of the common ground. The fact that A conveys an implicature can be extremely important but remains distinct from the point of A. Implicatures are not necessary components of speech acts. In contrast, the point of an act is what makes the act what it is. I conjecture that discourse relations have to target the obligatory layer of speech acts, that is, the layer that is intended to have an effect on the common ground in the case of assertions because, being an obligatory ingredient of every communicative assertive intervention, this layer cannot be ignored in the construction of discourse coherence.

In addition to CL, some other empirical phenomena have been pointed out in the recent literature: they include the impossibility of direct refutation by *non* ('no') (Jayez and Rossari 2004, Potts 2005) or by *C'est faux* ('It's false'), the impossibility of combining with implicative relations triggered by conditional sentences and of constituting a frontier for discourse attachment (Jayez and Rossari 2004). However the clearest test, that is the refutation-based one, is not watertight because it is based on the default interpretation rather than on an explicit completion, see (25) vs. (26), where A $\sim$> B notes that the default interpretation of A is or entails B and %X notes that the evaluation of X varies with speakers.

(25a) X – *Il a un peu mangé*
        'He ate a little'
     Y – (*Non + C'est faux*)
        '(No + It's false)'
    $\sim$> 'He (practically) did not eat'
    $\sim$/> 'He ate a lot'

(25b) X – *L'examen était un peu difficile*
        'The exam was a little difficult'
     Y – (*Non + C'est faux*)

'(No + It's false)'
~> 'The exam was not difficult'
~/> 'The exam was really difficult'

(26a) X – *Il a un peu mangé*
    'He ate a little'
    Y1 – *(%Non + %C'est faux), il a beaucoup mangé*
      '(No + It's false), he ate a lot'
    Y2 – *(Non + C'est faux), il n'a pas mangé du tout*
      '(No + It's false), he did not eat at all'

(26b) X – *L'examen était un peu difficile*
    'The exam was a little difficult'
    Y1 – *(%Non + %C'est faux), il était très difficile*
      '(No + It's false), it was very difficult'
    Y2 – *(Non + C'est faux), il n'était pas difficile*
      '(No + It's false), it was not difficult'

Speakers vary in their perception of (26a,b,Y1). One might argue that the speakers who accept such discourses actually react in a metalinguistic way, commenting upon the choice of the adverb *un peu* ('a little'). But if, as proposed in (Ducrot, 1972), *un peu* asserts the existence of an indeterminate quantity and presupposes that it is small, speakers' reaction amounts in fact to taking the presupposition into account in their answer. This shows that the *Non*/*C'est faux* test is not as robust as one may wish.

    I will use instead the discourse marker, *au contraire* ('on the contrary'). Whereas *au contraire* may convey an objection (like *non*), it cannot refute a presupposition (unlike *non*), see (27).

(27) X – *Il a cessé de fumer*
    'He stopped smoking'
    Y1 – *Non, il n'a jamais fumé*
      'No, he never smoked'
    Y2 – *Au contraire, ??il n'a jamais fumé*
      'On the contrary, he never smoked'
    Y3 – *Au contraire, il a continué de plus belle*
      'On the contrary, he continued more than ever'

I have no explanation for this particular behavior of *au contraire* but I suspect that it may be due to its antonymic character. *Au contraire* does not simply assert that the rejected proposition is false (like *non*), it adds the information that the opposite proposition is true. This is seen very clearly when *au contraire* is used to reject a scalar proposition. In this case it must introduce a symmetric proposition on the scale. Rev2 notes that Merin's *linear semantics* (1997, section 7) provides a useful theoretical background. To give a simple example, if the relevance of a proposition A to a proposition B, $r_B(A)$, is defined by $\log[P(B|A)/P(\neg B|A)] + \log[P(\neg B)/P(B)]$,[13] it is possible to show that two contradictory propositions have symmetric relevance measures, i.e. $r_B(A) = -r_B(\neg A)$ (Merin 1997, lemme 1, p. 18) and that pairs

of propositions based on lexical antonyms may be defined as having symmetric relevance measures with respect to the class of their argumentative targets. It is interesting to note in this connection that the refutation formula *C'est l'inverse* ('Quite the reverse') has the same property.

(28) X – *Il a cessé de fumer*
         'He stopped smoking'
       Y1 – *C'est l'inverse, ??il n'a jamais fumé*
         'Quite the reverse, he never smoked'
       Y2 – *C'est l'inverse: il continue de plus belle*
         'Quite the reverse: he smokes more than ever'

The effect of *au contraire* is illustrated in (29) with *peu* and *un peu*.

(29) X – *Il a beaucoup mangé*
         'He ate a lot'
       Y1 – *Au contraire, il a ??un peu mangé*
         'On the contrary, he ate a little'
       Y2 – *Au contraire, il a peu mangé*
         'On the contrary, he ate little'

As noted by rev1, the distribution of *un peu* calls for an explanation. *Un peu* is compatible with *seulement* (7a), but (29Y1) shows that is does not refer to a small quantity. Ducrot (1972) claims that *un peu* asserts the existence of an indeterminate quantity and presupposes that it is small. This hypothesis accounts for the observations; *un peu* can be modified by *seulement* because it does not refer to a 'low' or 'high' position on a scale (see section 3.1); (29Y1) is odd because *au contraire* demands that the position on the scale be low (in contrast with *beaucoup*), whereas *un peu* is neutral in this respect. Similar examples can be constructed with *presque* and *à peine*.

4.2 Plusieurs *and* quelques

The *au contraire* test shows certains limits with *plusieurs*. (30a,Y1) gives the expected result, but (30b,Y1) fails to convey an interpretation like 'On the contrary, they are many'. The problem is only apparent, however. It comes from the implicit assumption that the asserted content of *plusieurs* is the indication of a large quantity. The assumption proves too strong: *plusieurs* asserts only that the quantity referred to is superior to a certain threshold, whose exact position on the salient quantitative scale is left undetermined, though constrained *via* the implicated content, as we will see shortly. An indication of superiority does not entail that the quantity referred to is large or small. *Au contraire* demands that the assertion determine a symmetric point on the scale, a requirement which is not satisfied by *plusieurs*, whose

behavior is in this respect entirely parallel to that of other comparative items (31).[14]

(30a) X – *Beaucoup d'étudiants ont réussi*
'Many students passed'
Y1 – *Au contraire, il y en a ??plusieurs*
'On the contrary, several of them did'
Y2 – *Au contraire il y en a peu*
'On the contrary, few of them did'
(30b) X – *Peu d'étudiants ont réussi*
'Few students passed'
Y1 – *Au contraire, il y en a ??plusieurs*
'On the contrary, several of them did'
Y2 – *Il y en quand même plusieurs*
'Still, several of them did'
(31) X – *Peu d'étudiants ont réussi*
'Few students passed'
Y1 – *Au contraire, il y en a ??plus de trois*
'On the contrary, more than three of them did'
Y2 – *Au contraire il y en a ??au moins trois*
'On the contrary, at least three of them did'
Y3 – *Il y en quand même (plus de + au moins) trois*
'Still, they are' ('more than' + 'at least') 'three'

I conclude that the asserted content of *plusieurs* is basically comparative, which explains the observations of section 3 on its AO and its distribution in (30). Let me underline the fact that the AO of *plusieurs* is an *effect* of its comparative value, not an 'intrinsic' argumentative property. More precisely, (30aY1) is clumsy because Y1 objects to X on the basis of the fact that there are more students than a certain threshold-quantity. This is an infelicitous move in general, because the fact that $q > \lambda$ cannot be used as a reason to believe that q is 'small', 'weak', etc. In probabilistic terms the fact that $q > \lambda$ cannot raise the probability that $q < \lambda'$ for any λ'. (30bY1) is odd because the fact that $q > \lambda$ is not a sufficient reason to believe that q is high, as *au contraire* requires.

In addition, *plusieurs* has an implicated content, which corresponds to Bacha's and Gondret's remark that the determiner cannot refer to a large quantity. This gives us the provisional definition (32).

(32) *Plusieurs* is 2-layered:
1. *Plusieurs P Q* asserts that the number of *P*-ers that *Q* is superior to a certain threshold λ.
2. *Plusieurs P Q* implicates that this number is 'small'.

Incidentally, (32) explains Corblin's (2002b) two observations that *plusieurs* is neither appropriate (i) with approximators such as *exactement* ('exactly') or *à peu près* ('about') nor (ii) with *au*

plus ('at most'). (i) corresponds to the fact that *plusieurs* does not assert the existence of a precise quantity, (ii) to a conflict with the AO (*au plus* conveys a comparative instruction of the form $q \leq \lambda$) . The comparative information conveyed by *plusieurs* is perhaps related to the comparative origin of the Old French *plu(i)sor* (< *pluriores*); however, *plu(i)sor* was compatible with the definite article and the universal quantifier *tot* and meant essentially 'many' or 'most' (Buridant 2000:172-174). So, it is difficult to draw firm conclusions from this etymology.[15]

Turning to *quelques*, we can summarize its main properties as follows. (i) *Quelques* refers to a small or moderate quantity (33a). (ii) It is compatible with *seuls*; so it does not assert that the quantity it refers to is high on some relevant scale or higher that some threshold (33b). (iii) It has the AO effect that characterizes existentials (33c); so, it asserts existence.

(33a) *Quelques supporters, ??à peu près deux cents, ont envahi la pelouse*
'Some/A few fans, about 200, invaded the playground'

(33b) *Seuls quelques étudiants ont compris*
'Only some/a few students caught the point'

(33c) *L'examen n'était pas si difficile, puisque quelques étudiants ont réussi*
'The exam was not that difficult since some/a few students passed'

I conclude that *quelques*, as a quantifier, has a general form:
$\lambda P, P'. \exists X (P(X) \& C(|X|) \& P'(X))$,
where X is a set and C is a condition on X's cardinal $|X|$.

4.3 Des, quelques, plusieurs*: vagueness and smallness*

Corblin (1987, 1997, 2002a,b) and Paillard (2002) contrast the three determiners *quelques*, *plusieurs* and *des*. Of their observations, I consider only those that might be problematic for the present analysis. (a) Paillard observes the contrasts in (34) and (35). They are probably due to categorial differences: *plusieurs* cannot be adjectival (34) and *quelques* cannot be pronominal (35).

(34) *Les (??plusieurs + quelques) N*
'The (several + few) N'

(35) (*Plusieurs + ??Quelques*) *des N*
'(Several + A few) of the N'

(b) Corblin observes that *plusieurs* and *quelques* cannot occur in a predicative NP, see (36)[16]. The parallel with *des* could be misleading, however. Dobrovie-Sorin and Laca (2003), elaborating on Attal 1976, Bosveld-de Smet 1997, Dobrovie-

Sorin 1997 in particular, show that certain uses of *des* in French correspond to bare nouns in Romance languages and should accordingly be ignored in certain environments where they are not indefinites in a strong sense.

(36)   *Ces animaux sont (des + ??quelques + ??plusieurs) baleines*
'These animals are (plural morpheme + a few + several) whales'

(c) Paillard notes an incompatibility of *des* and *plusieurs* with exceptive turns (37).

(37)   *Sauf (??des + ??plusieurs + quelques)* N
'Except (Plural morpheme + several + some/a few) N'

In fact, *plusieurs* is out because of its AO (*sauf ??plus de 4 étudiants* 'except more than 4 students'). *Des* is better if the partitive interpretation emerges (38). So the problem is the accessibility of the partitive interpretation.

(38)   *Tout le monde a fait des objections, sauf des étudiants qui n'avaient pas lu le texte*
'Everybody objected, except some students who had not read the text'

(d) Paillard also notes an incompatibility between *quelques* and *différents* (39).

(39)   (*Des + Plusieurs + ??Quelques*) N *différents*
'(Plural morpheme + Several + Some/A few) different N'

The observation is difficult to evaluate in isolation and should be interpreted in the light of a semantic analysis of *différent(s)* (see Laca and Tasmowski 2001, Tovena and Van Petheghem 2003) Moreover, the oddness disappears in other, similar, environments and *certains* gives rise to a similar observation (40), at least when *différents* is taken to mean 'mutually different'.[17]

(40a)   *Quelques* N *variés*
'Some/A few various N'
(40b)   *Quelques* N, *tous différents*
'Some/A few N, all (mutually) different'
(40c)   *Certains* N ??*différents*
'Certain (mutually) different N'

(e) Finally, Bacha and Paillard mention the fact that *des* and *quelques* are odd in certains disjunctive environments (41).

(41) *Un ou* (??*des* + *plusieurs* + ??*quelques*) N
   'One or (Plural morpheme + several + some/a few) N'

I have no explanation for this observation, but it might not be quite robust.

(42) *Selon les cas, un étudiant ou quelques étudiants pourraient être candidats*
   'Depending on circumstances, one student or a few students might apply'

In view of the previous comments, I do not think that these additional observations cast doubt on the current analysis, although they certainly show that the interaction with other phenomena (partitivity, mutual difference) has to be studied further.

   I finally consider the problem of 'vagueness'. Corblin and Paillard both assume that the semantics of *des*, *quelques* and *plusieurs* results from their 'vagueness'. According to Corblin, the indefinites are not members of the series of numbers and cannot help us to contrast the reference set and the domain set. Paillard defends the claim that *des* and *plusieurs* are vague whereas *quelques* refers to a (referentially) fixed and (informationally) unspecified quantity. In fact, (43) shows that Paillard's proposal is too strong. *quelques* and *plusieurs* can be used as an answer to a how-many question. So, *plusieurs* is not 'more unspecified' than *quelques* and the frontier, if any, separates *des* and the other two, as suggested by Corblin.[18]

(43) X – *Combien d'étudiants se sont inscrits?*
      'How many students did register?'
   Y – (*Plusieurs* + *Quelques uns* + ??*Des étudiants*)
      (Several ones + A few ones + Students)

(44) confirms that *des* is less constrained that *plusieurs* and *quelques* and shows that the latter two are not (significantly) proportional. For instance, (44d) is strange even if the range of possible companies encompasses the world. In this respect, *quelques* and *plusieurs* are similar to interval indicators ('between *m* and *n*').

(44a) *Des étudiants, en* (*petit* + *grand nombre*), *se sont inscrits*
   'Some students –(a few ones + many ones)– registered'
(44b) (*Quelques* + *Plusieurs*) *étudiants, en* (*petit* + ??*grand*) *nombre, se sont inscrits*
   '(Some/A few + Several) students – (few in number + many ones) – registered'
(44c) *Des officines, au nombre de 321 à l'heure actuelle,*

proposent un hébergement web gratuit
'Some small companies, 321 at the moment, offer free web hosting'

(44d) (*??Quelques* + *??Plusieurs*) *officines, au nombre de 321 à l'heure actuelle, proposent un hébergement web gratuit*
'(A few + Several) small companies, 321 at the moment, offer free web hosting'

(44e) (*Quelques* + *Plusieurs*) *officines, au nombre de 32 à l'heure actuelle, proposent un hébergement web gratuit*
'(A few + Several) small companies, 32 at the moment, offer free web hosting'

The examples in (43) and (44), as well as the previous discussions of AO motivate the two following definitions.

(45) **Plusieurs P Q**
Asserted content : $|P \cap Q| > \lambda$ for some integer λ.[19]
Implicated content: $f_{pl}(|P \cap Q|) \approx 1$, where f_{pl} is an appropriate fuzzy function such that $f_{pl}(0) = f_{pl}(1) = 0$

(46) **Quelques P Q**
Asserted content : $f_{ql}(|P \cap Q|) \approx 1$, where f_{ql} is an appropriate fuzzy function such that $f_{ql}(0) = f_{ql}(1) = 0$

In these definitions, I have used fuzzy functions, specifically functions of type $\mathbf{N} \to [0,1]$, which return a real number between 0 and 1 for every natural number.[20] There is an ongoing debate on the nature and usefulness of fuzziness (see Smith 2001 for a recent defence of the notion). Whereas I am reluctant to connect sets and real numbers as is done in fuzzy logics, I have at the moment no other option to propose. Concerning *des*, I follow Corblin in hypothesizing that it has no (fuzzy) quantitative import. One might accordingly propose something like (47).

(47) **Des P Q**
Asserted content: $|P \cap Q| \geq 2$

But there is an obvious problem with (47): the information $|P \cap Q| \geq 2$ should give rise to argumentative effects since *des* is defined in effect as *au moins deux* ('at least two') in (47). The examples in Corblin and Paillard's descriptions make it very clear that *des* has no argumentative *scalar* property. Moreover, as we saw in (43), *des* cannot be used to answer a how-many question, whereas *au moins deux* can. There are least two ways out. One might deny that *des* is amenable to a generalized quantification representation, perhaps because it is not an indefinite. In this case, what its semantic contribution is remains to be spelled out. Alternatively one might propose a modification of (47), in which

des is considered as 2-layered rather than flat.[21]

(48) ***Des P Q***
Asserted content : $P \cap Q \neq \varnothing$
Implicated content : $| P \cap Q | \geq 2$

Since I can offer no principled reason for choosing between these two possibilities, I will leave the question open.

5. Conclusion

What I tried to do in this paper can be summarized in one formula : I attempted to trim out the factors that account for the coexistence of seemingly incompatible properties in the case of *plusieurs* (Bacha 1987, Gondret 1976). This led me to investigate more closely the 2-layered structure of certain items, initially proposed by Ducrot (1972), and to show that argumentative orientation, as mentioned in the literature, is an effect of the asserted information in a decision-theoretic framework *à la* Merin. More generally, the notion of information layer proves crucial in the study of discourse connection (see Jayez 1988, where conversational moves are explicitly treated as multidimensional phenomena) and the distinction between 'meaning' and argumentation is a manifestation of the layering and of the comparative content of the asserted information attached to certain items.

References

Anscombre, J.-C. (ed.), 1995, *Théorie des Topoï*, Paris, Kimé.

Anscombre, J.-C. and Ducrot, O., 1983, *L'argumentation dans la Langue*, Liège-Paris, Mardaga.

Attal, P., 1976, « A propos de l'indéfini *des* : problèmes de représentation sémantique », *Le Français Moderne*, 44, p. 126-142.

Bacha, J., 1997, « Entre le plus et le moins : l'ambivalence du déterminant *plusieurs* », *Langue Française*, 116, p. 49-60.

Bosveld-de Smet, L., 1997, *On Mass and Plural Quanti-fication. The Case of French* des/du-*NPs*, Ph.D. dissertation, Groningen, ILLC.

Buridant, C., 2000, *Grammaire Nouvelle de L'Ancien Français*, Paris, SEDES.

CAREL, M. and DUCROT, O., 1999, « Le problème du paradoxe dans une sémantique argumentative », *Langue Française*, 123, p. 6-26.

CAREL, M., 2001, « Argumentation interne et argumentation externe au lexique : des propriétés différentes », *Langages*, 142, p. 10-21.

CORBLIN, F., 1987, *Indéfini, Défini et Démonstratif*, Genève, Droz.

CORBLIN, F., 1997, « Les indéfinis : variables et quantificateurs », *Langue Française*, 116, p. 8-32.

CORBLIN, F., 2002a, *Représentation du Discours et Sémantique Formelle*, Paris, Presses Universitaires de France.

CORBLIN, F., 2002b, « Les indéfinis entre quantification et référence », talk delivered at the *Indéfinis et Prédication* Colloquium, Paris, 3-5 October 2002, La Sorbonne, to appear in the Proceedings.
To be found at:
http://jeannicod.ccsd.cnrs.fr/documents/disk0/00/00/03/28/ijn_00 000328_00/ijn_00000328_00.pdf

DOBROVIE-SORIN, C. and LACA, B., 2003, « Les noms sans déterminant dans les langues romanes », in GODARD, D. (ed.), *Les Langues Romanes. Problèmes de la Phrase Simple*, Paris, CNRS Éditions, p. 235-279.

DOBROVIE-SORIN, C., 1997, « Existential arguments and existential predicates », in LAWSON, A. (ed.), *Proceedings of SALT VII*, Ithaca, CLC Publications.

DUCROT, O., 1972, *Dire et ne pas Dire*, Paris, Hermann.

DUCROT, O., 1973, *La Preuve et le Dire*, Paris, Mame.

DUCROT, O., 1980, *Les Échelles Argumentatives*, Paris, Éditions de Minuit.

DUCROT, O., 2001, « Critères argumentatifs et analyse lexicale », *Langages*, 142, p. 22-43.

FRIEDMAN, N. and HALPERN, J.Y., 2001, « Plausibility measures and default reasoning », *Journal of the ACM*, 48, p. 648-685.

GEURTS, B. and MAIER, E., 2003, « Layered DRT », unpublished Ms., University of Nijmegen.

Gondret, P., 1976, « 'Quelques, 'plusieurs', 'certains', 'divers': étude sémantique », *Le Française Moderne*, 2, p. 143-152.

Horn, L., 1969, « A presuppositional analysis of only and even », *CLS*, 5, p. 98-107.

Horn, L., 1996, « Exclusive company: *only* and the dynamics of vertical inference », *Journal of Semantics*, 13, p. 1-40.

Jacobs, J., 1983 *Fokus und Skalen: zur Syntax und Semantik der Gradpartikel im Deutschen*, Tübingen, Niemeyer.

Jayez, J., 1987, « Sémantique et approximation: le cas de *presque* et *à peine*, *Linguisticae Investigationes*, 11, p. 157-196.

Jayez, J., 1988, *L'inférence en Langue Naturelle*, Paris, Hermès.

Jayez, J., 1998, « A proof-theoretic non-scalar account of scalar inferences», talk delivered at *Preferably Non-Lexical Semantics*, Paris, 28-30 May 1998, University of Paris 7. To be found at: http://perso.ens-lsh.fr/jjayez/paris98.pdf

Jayez, J., 2004a, « Presuppositions and pedigrees for discourse markers », in Bonami, O. and Cabredo Hofherr, P. (eds.), *Empirical Issues in Syntax and Semantics 5*, p. 89-110.
Text available at http://www.cssp.cnrs.fr/eiss5/index.html.

Jayez, J., 2004b, « Pre-supposing », talk delivered at the *Workshop on Implicatures and Presuppositions*, Paris, 4-5 October, ENS Ulm. To be found at:
http://www.linguist.jussieu.fr/~amsili/Rech/jpi04/infopres.pdf

Jayez, J. and Rossari, C., 1999, « Pragmatic connectives as predicates. The case of inferential connectives », in Saint-Dizier, P. (ed.), *Predicative Structures in Natural Language and Lexical Knowledge Bases*, Dordrecht, Kluwer, p. 306-340.

Jayez, J. and Rossari, C., 2004, « Parentheticals as conventional implicatures », in Corblin, F. and de Swart, H. (eds.), *The Handbook of French Semantics*, Stanford, CSLI, p. 211-229.

Klinedinst, N., 2005, « Scales and *only* », Ms. UCLA. To be found at:
http://www.linguistics.ucla.edu/people/grads/klinedinst/manu/scales_and_only_v3.pdf.

Laca, B. and Tasmowski, L., 2001, « Distributivité et interprétations dépendantes des expressions d'identité ». In Kleiber, G., Laca, B and Tasmowski, L. (eds.), *Typologie des*

Groupes Nominaux, Rennes, Presses Universitaires de Rennes, p. 143-166.

MERIN, A., 1997, « If all our arguments had to be conclusive, there would be few of them », SFB 340 Technical Report 101, University of Stuttgart. To be found at: http://semanticsarchive.net/Archive/jVkZDI3M/101.pdf

MERIN, A., 1999, « Information, relevance, and social decision-making: Some principles and results of decision-theoretic semantics », in Moss, L.S., GINZBURG, J. and DE RIJKE, M. (eds), *Logic, Language and Computation*, Vol. 2, Stanford, CSLI, p. 179-221.

MERIN, A., 2003, « Presuppositions and practical reason. A study in decision-theoretical semantics», *Forschungsberichte der DFG-Forschergruppe in der Philosophie* 114, University of Konstanz. To be found at: http://www.semanticsarchive.net/Archive/WE1MmMwZ

MILNER, J.-C., 1978, *De la syntaxe à l'interprétation*, Paris, Seuil.

NØLKE, H., 1983, *Les Adverbes Paradigmatisants: Fonction et Analyse*, *Revue Romane*, 23, special issue.

PAILLARD, D., 2002, « Quelque N / quelques N », talk delivered at the *Indéfinis et Prédication* Colloquium, Paris, 3-5 October 2002, La Sorbonne. To appear in the Proceedings.

POTTS, C., 2005, *The Logic of Conventional Implicatures*, Oxford, Oxford University Press.

ROOTH, M., 1996, « Focus », in LAPPIN, S. (ed.), *The Handbook of Contemporary Semantic Theory*, Oxford, Blackwell, p. 271-297.

SEARLE, John R., 1969, *Speech Acts. An Essay in the Philosophy of Language*, Cambridge, Cambridge University Press.

SMITH, N. J.J., 2001, *Vagueness*, Ph.D. dissertation, Princeton University.

TOVENA, L. M. and VAN PETEGHEM, M., 2003, « Facets of 'different' in French: *différent* and *autre* », in BEYSSADE, C., BONAMI, O., CABREDO HOFHERR, P. and CORBLIN, F. (eds), *Empirical Issues in Formal Syntax and Semantics IV*, Paris, Presses de l'Université de Paris-Sorbonne, p. 63-79.

1 I am grateful to my two anonymous reviewers for their very perspicuous and helpful comments, suggestions and objections. They are duly credited on more specific points in these endnotes and in the text under the *personae* of rev1 and rev2. I also thank the audience at the 'Indefinites and Weak Quantifiers' conference (Bruxelles, January 2004) for their positive feedback, and my colleague Lucia Tovena for having accepted to check the pre-final version of this text. I am the only responsible for the remaining weaknesses and obscurities.

2 I thank rev1 for having pointed out the importance of Gondret's contribution.

3 Admittedly, one might dispute that there is an argumentative relation in (3). This would not square well, however, with any version of argumentation theory I know of : scales (Anscombre and Ducrot, 1983), (Ducrot, 1980), topoï (Anscombre 1995), semantic hubs (Carel and Ducrot, 1999, Carel, 2001, Ducrot, 2001).

4 See in particular (Horn, 1969) for the parallel analysis of *only*.

5 I owe this reference to rev2 who spared me a regrettable omission.

6 I disagree with Nølke (1983:129-130) on this point.

7 *Information* is not to be confused with what Ducrot called *informativité*, which concerns the description of the states of affairs that make up a/the world.

8 I.e., as usual, $s \oplus \phi = \{w: w \in s \ \& \ \phi \text{ is true in } w\}$.

9 The general problem of discourse linking across several discourse dimensions is complex and cannot be addressed here, see (Jayez 1988 : 158-163, Geurts and Maier 2003) for some suggestions.

10 This important reference was pointed out by rev2.

11 If *p* is the presupposition under consideration, since $\mathbf{P}(p,C) = 1$, we have $\mathbf{P}(p'|p,C) = \mathbf{P}(p' \ \& \ p,C)/\mathbf{P}(p,C) = \mathbf{P}(p')$ and $\mathbf{P}(p|p',C) = \mathbf{P}(p \ \& \ p',C)/\mathbf{P}(p',C) = \mathbf{P}(p',C)/\mathbf{P}(p',C) = 1 = \mathbf{P}(p,C)$.

12 Admittedly, this is a rather coarse and somewhat misleading rendition of Searle, but it is sufficient for my present purpose.

13 Intuitively, relevance thus defined measures the effect of A on the plausibility of B with a correction based on the intrinsic plausibility of B.

14 I deliberately ignore the possibility (at least for some speakers) of redeeming the dialogues (30b,X-Y1) and (31,X-Y1/Y2) by interpreting *peu d'étudiants* as 'less than expected' in a situation where the number of expected successes is quite small. The existence of this interpretation does not change anything substantial to the analysis.

15 The existence of examples like *Tuit li plusor furent de soie* ('most of them were made of silk') or *L'envioënt tut li plusur* ('Most people felt envy of him') (Buridant 2000, p. 173) is problematic. If *tot* means 'integrally' and the combination [plural definite + *plu(i)sor*~plural~] constitutes a proportional quantifier like *la plupart* ('most', 'the majority') in modern French, it is difficult to make sense of the examples. If *tot* is rather interpreted as 'each', a possible meaning is 'for most *x*, each *x P*'. The existence of a distributive *each*-reading for *tot* is indirectly suggested by Buridant when he connects it with the latin *omnis* (2000, p. 161).

16 I have adapted an example from Corblin (1987) to get rid of a possible quantity effect.

17 Since it is usually assumed that *certains* entails individuation, the fact that *certains* behaves like *quelques* might be problematic for Paillard's claim that *quelques* entails non-individuation, a property which he believes to be responsible for its incompatibility with *différents*.

18 Corblin notes that *des* is numerically the vaguest of the three items, but, if I understand correctly his position, this presupposes that it is an indefinite that we can directly compare with *plusieurs* and *quelques*.

19 I would personally set λ to 2 by default. However, this may vary with speakers. Moreover the value is probably context-dependent (see the possible adjustments with *au contraire*). The fuzzy functions f_{pl} and f_{ql} should not be proportional, as explained just before.

20 Rev2 expresses concern as to my use of 'fuzzy'. The functions I am considering here are membership functions over fuzzy sets. In the case at hand, the set if that of the admissible values for the finite cardinal of the GQ '*plusieurs* N' and the functions return the degree of membership of elements of **N** (the natural numbers) with respect to that set.

21 The fact that I considered *des* to be essentially plural (hence the ≥ 2 indication) is not relevant. The weaker indication $|P \cap Q| \geq 1$ would raise exactly the same problems if it was inserted into the asserted content (*au moins un* has the same argumentative properties as *au moins deux*).