Presque and *almost* : how argumentation derives from comparative meaning

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1   Introduction

In this text, we focus primarily on the semantic properties of the French adverb *presque*. Although we consider only French for the syntax-semantics interface, there is no essential difference between *presque* and *almost*, as witnessed by the English transliterations of the French examples. Like *almost*, *presque* is two-sided. It expresses an approximation and, in this respect, is quite similar to other adverbs like *environ* ('about') or *à peu près* ('nearly'). Moreover, as observed by Ducrot (1972) and Anscombre and Ducrot (1976), it has *argumentative* properties. Superficially, this means that the occurrence of *presque* in a discourse segment A may constrain the other segments related to A. Parallel observations exist for *almost*, see Sadock (1982); Penka (2006); Nouwen (2006); Jayez and Tovena (2007); van Gerrevink and de Hoop (2007) and others.

The paper is organised as follows. In section 2, we present the main syntactic and semantic properties of *presque*. In particular, we draw attention to its double set of approximation and argumentation properties, and look at the issue of approximating values that are too vague, through a discussion of the context dependence of *beaucoup* ('many'). In section 3, we tackle the approximation side of *presque* and *almost*. The intuition behind our proposal is that the expression *almost P*, where P is a property, points to properties that must count as the same as P for some purposes, i.e. be indiscernible, but at the same time be ordered among themselves. We argue that indiscernibility may characterise approximators at large, but *presque* and *almost* share argumentative properties that do not follow from it. In section 4, we look into these properties and show that the $\neg P$ component of meaning is a conventional implicature, and that a comparative facet of meaning influences the argumentative behaviour of the two items. The syntax-semantics interface is presented in section 5. Extensions to other items and considerations on previous work are provided in section 6, rounding up the approach. Section 7 concludes the paper.

2 Characterisation

2.1 Main distributional properties

Categorially, *presque* can combine with gradable[1] and nongradable AdjPs (1) and with AdvPs (2).

(1) Paul était presque blond / idiot / mort
     Paul was almost blond / stupid / dead

(2) Paul a répondu presque (très) méchamment
     Paul answered almost (very) harshly

It can also combine with NPs (3a), verbs (3b), VPs (3c) or PPs (3d).

(3) a. Presque tous les étudiants ont résolu le problème
         Almost all the students have solved the problem
     b. Paul a presque disséqué chaque article
         Paul has almost dissected each paper
         'For each paper, Paul almost dissected it'
     c. Paul a presque renoncé à son projet
         Paul has almost given up his project
     d. Paul a agi presque comme son père
         Paul has behaved almost like his father

Presque cannot be considered a sentential adverb, as shown by the unacceptable sentence initial positioning in (4a) and pre-verb positioning in (4b), nor a manner adverb, cf. the unacceptable post-verb positioning in (4c), see Molinier and Lévrier (2000); Bonami et al. (2004).

(4) a. *Presque Paul a renoncé à son projet
          Almost Paul has given up his plan
     b. *Paul presque a renoncé à son projet
          Paul almost has given up his plan
     c. *Paul a renoncé presque à son projet
          Paul has given up almost PREP his plan

Presque cannot occur after a non-finite verb (5). In all other cases, *presque* occurs just before the phrase it adjoins to.

(5) *Paul a été accusé de renoncer presque à son projet
      Paul has been accused to give up almost PREP his plan

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[1]There are variations with gradable adjectives and adverbs. For instance, sentence (i) may be difficult to use, due to its requiring a previously identified shared standard for being 'big'. However, it remains acceptable . See Hitzeman (1992) and Morzycki (2001) for parallel observations on *almost*. On the contrary, sentence (ii) is perfect, a difference to which we return at the end of section 2.

(i) #Cette boite est presque grande ('This box is almost big')

(ii) Cette boite est presque trop grande ('This box is almost too big')

When it adjoins to quantified nominals, *presque* is subject to subtle differences. It is not always compatible with *la plupart* ('most'), *la majorité* ('the majority'), *la totalité* ('the totality'), *les deux tiers* ('the two thirds'), etc. However, an anonymous reviewer claims that, although *presque* is not compatible with *la plupart*, it is perfectly compatible with the others.[2] It turns out that the situation is more complex. In fact, all these nominals resist a combination with *presque* in subject position.

(6)   a.   ??Presque la plupart des étudiants ont   accepté   la   proposition du
               Almost   most   students have accepted the proposal   of the
               doyen
               dean

       b.   ??Presque la   totalité des   étudiants ont/a   accepté   la   proposition
               Almost   the totality of the students have/has accepted the proposal
               du   doyen
               of the dean

In object position or within PPs, there is more variation, as shown by (7).

(7)   a.   (?) Le   doyen a   contacté presque la plupart des étudiants
               The dean   has contacted almost   most   students

       b.   (?) Le   doyen a   contacté presque la   totalité des   étudiants
               The dean   has contacted almost   the totality of the students

       c.   Comme presque la plupart des chats, mon minou à moi est ce qu'
               Like   almost most   cats, my   own kitty   is what
               on appelle   un minou difficile[3]
               you may call a   fastidious kitty

These data are not isolated. Analogous examples exist for *pratiquement* and *quasiment* ('practically'). Moreover, expressions like *le/la* N *entier/entière* ('the whole' N) behave similarly.

(8)   a.   ??Presque la   planète entière est concernée par ce   problème
               Almost   the whole planet   is   concerned by this problem

       b.   Ce   problème concerne presque la   planète entière
               This problem   concerns almost   the whole planet

We conjecture that *la plupart des* N and similar expressions denote complex individuals or *groups*, rather than generalized quantifiers.[4] This accounts for the fact that they

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[2]This reviewer bases his/her claim on Google figures. This is not a reliable estimator since Google (i) does not 'see' obvious differences between, for instance, *presque la plupart* and *presque, la plupart* and (ii) does not filter out pages written by non-native speakers. We have performed a parallel investigation on a corpus of eleven years (1987-1998) of newspaper articles drawn from the French journal *Le Monde*. The results do not confirm those of Google, since, for instance, there is no occurrence of *presque la totalité* or *presque la majorité*. This leads us to think that it is very difficult to take the different figures at face value and that a preliminary classification of environments is needed to make sense of the results.

[3]From: `http://www.ciao.fr/Carrefour_Eminces_en_sauce_sachets__Avis_1061286`

[4]However, they select properties that are only true of subsets of N that satisfy the relative size constraint conveyed by the expression, e.g. that a subset must be the totality of N with *la totalité*, bigger than half the size of N for *la majorité*, etc.

are not modified by *presque*, which does not modify individuals. When the quantified nominal is in object position, *presque* can be analysed as a VP modifier. For instance, (7a) might mean something like 'The dean almost contacted the greatest part of students'. As for PPs, the improvement is due to the possible equivalence between *presque* Prep NP and Prep *presque* NP when the NP complement of the PP is associated with some quantity. For instance, *presque comme tout le monde* ('almost like everybody') and *comme presque tout le monde* ('like almost everybody') are both acceptable and hardly different.

The marked NPs are acceptable in elliptic answers (9) and can be the targets of elliptic *ou* ('or') corrections (10). We have no explanation for this difference, but we conjecture that it is related to the general fact that elliptic constructs do not require recovering the exact morpho-syntactic environment of the target sentences.

(9)   A – Combien   d'étudiants ont   réussi?
               How many students   have succeeded?
        B – Presque la   totalité
               Almost   the totality

(10)   La   totalité des   étudiants, ou presque, ont   réussi
         The totality of the students, or almost,   have succeeded

Unlike *tous les*, *chaque* is not always compatible with *presque* (11a), except in correction phrases (11b) and temporal expressions (11c). This is due to the fact that *chaque* NPs do not measure quantities. In particular, they cannot be used to answer a question about number or proportion (12). In contrast, temporal expressions with *chaque* do have a measure interpretation (13).

(11)   a.   ??Presque chaque étudiant a   compris
              Almost   each   student has understood
        b.   Chaque étudiant (, ou presque,) a compris (, ou presque)
              'Each student got it, or nearly so'
        c.   Presque chaque jour il y a   un problème
              Almost   each   day there is a   problem

(12)   A – Combien ont été convoqués?
               'How many did they summon?'
        B – ??Chaque étudiant
               'Each student'

(13)   A – Combien de fois Paul a-t-il été convoqué?
               'How often did they summon Paul?'
        B – Chaque jour
               'Each day'

However, certain examples show that the incompatibility with *chaque* NPs is not absolute, see (14a) that is a slightly modified version of an example suggested by a reviewer. In this sort of cases, the preferred reading is generic, habitual or dispositional, but not episodic, as evidenced by the contrast between (14a) and (14b). *Chaque* resembles *each* in that it demands distributive predicates. It seems that the crucial factor is the possibility for the predicate to characterise nonetheless the whole set of individuals.

This is the case whenever the set of eventualities referred to results from a 'global' situation, which affects each member of the set. For example, (14) conveys the idea that the topic in question is of special interest for the inhabitants as a whole. Further work is needed to offer a more precise account.

(14)   a.   Presque chaque habitant du village a une histoire à raconter à ce sujet
             'Almost each inhabitant from the village has some story to tell on this topic'
       b.   ??Presque chaque habitant du village a raconté une histoire
             'Almost each inhabitant from the village told some story'

Finally, when *presque* combines with an adjective, the adjective cannot occur in prenominal position (15a,b), in contrast with some French degree modifiers (15c).

(15)   a.   Un chat presque gentil
             a   cat almost   kind
             'An almost kind cat'
       b.   *Un presque gentil chat
              An almost   kind   cat
       c.   Un très / assez / bien   / trop gentil chat
             a   very / fairly / (quite/rather) / too kind   cat

After this short review of syntactic properties of *presque*, we turn to semantics. Two distinct sets of properties must be taken into consideration, namely the properties that come from its being an approximator, and its specific argumentative properties, first noted by Anscombre and Ducrot (1976). In both respects, *presque* parallels fairly closely *almost*. Table 1 shows that approximators are incompatible with existential determiners and compatible with numerals and universal determiners.

	presque	*à peu près*	*pratiquement*	*quasiment*	*en gros*
quelques	??	??	??	??	??
plusieurs	??	??	??	??	??
beaucoup	??	??	??	??	??
la plupart	??	??	??	??	??
la majorité	??	??	??	??	??
tous les	OK	OK	OK	OK	OK
num. NPs	OK	OK	OK	OK	OK

Table 1 : Approximators

In short, as for the approximation side, *presque* behaves like its fellow items. *Mutatis mutandis*, table 1 describes also the behaviour of *almost*. Notice that *presque + beaucoup* on the third row and its corresponding *almost + many* may not be rejected by all speakers, but whatever degree of acceptability is assigned to them, it is inferior to that of e.g. *almost every*. We come back to it in section 2.2. On the other hand, *presque* is unexpectedly different from other approximators in its argumentative properties, see the contrast between (16) and (17) from (Anscombre and Ducrot, 1976).

(16)   #Peu d'automobilistes dépassent le 120 km/h, presque 20%
        #'Few car drivers go faster than 120 km/h, almost 20%'

[intended: it is correct to say that few car drivers go faster than 120 km/h since they are (only) 20%]

(17) Peu d'automobilistes dépassent le 120 km/h, à peu près 20%
      'Few car drivers go faster than 120 km/h, about 20%'

2.2   Approximation and the context dependence of *beaucoup*

Generally speaking, approximations are defined on ordered sets with a more or less rich structure, e.g. partially ordered sets, linear orders (scales) or lattices. Approximators can apply to exact measures, degrees and sets of properties, see (18).

(18) a. A peu près   chaud
          Approximately hot   [degree]
      b. A peu près   pendant deux heures
          Approximately for   two   hours [measure]
      c. Paul a   presque réussi
          Paul has almost   succeeded
          [properties: Paul almost satisfied the set of properties that count as succeeding]

Approximation is open to pragmatic constraints and the felicity of approximation depends on different independent factors. For instance, approximation hardly makes sense on too precise quantities (Krifka, 2007). Symmetric problems arise with too vague quantities (see below). Next, existentials and small numbers may be problematic with approximators, as it seems important to make room for approximation. Thus, an expression like ??*A peu près deux étudiants* ('about two students'), generally sounds odd and, at best, a sort of substitute for 'one' or 'three'. Finally, there are intervention effects with NPIs, as discussed by Penka (2006).

As we saw in table 1, *beaucoup* does not easily accept to be approximated. The question is how to account for the contrast in (19).

(19) a. Cet exercice est trop difficile pour à peu près / presque 80% des
          This exercise is too difficult for   about   / almost 80% of the
          étudiants
          students
      b. ??Cet exercice est trop difficile pour à peu près / presque beaucoup
          ??This exercise is too difficult for   about   / almost many
          d'étudiants
          students

The answer builds on the fact that approximators are defined over operators that return values (degrees or results of measures) and are not 'too vague'. An operator is too vague when it is not (even) a function but is totally contextual, this is the case of *un grand/petit nombre* exemplified in (20). The number referred to cannot be approximated through the linguistic expression itself. A given number can be viewed as small or large depending on the context and this not just with respect to the cardinality of the set under consideration. For instance, 'a small number of students' can stand for

any proportion of the set of students, including 100% if the total set of students corresponds to a 'small' number in the context. The same observation applies to (19). Proportional quantifiers like *la plupart* ('most') are partly different, as shown by (21). The vagueness of 'most students' is real but limited. 40% or 50% would not be good proportions whereas they would be possible candidates for 'many students'.

(20) ??A peu près   un grand/petit nombre
      ??Approximately a   large/small number

(21) a. La plupart des étudiants, ou presque …
          Most   students, or almost …
      b. ??Beaucoup d'étudiants, ou presque …
          ??Many   students,   or almost …

The fact that approximators do not occur naturally with expressions that are heavily context-dependent accounts directly for their incompatibility with certain determiners like *quelques*, which are neither exact nor proportional but refer to 'moderate' quantities, where 'moderate' is context-dependent. This extends to gradable adjectives (see note 1). Following Cresswell (1976) and Kennedy (1997), we take adjectives like *grand* ('big') to signal that the possible degrees are beyond some threshold of bigness. In general, the determination of this threshold is largely left to context, hence the possibly problematic combination with *presque*. However, accommodating the existence of a fixed threshold improves the examples. The role of *trop*, mentioned in note 1, is to point to this fixed threshold (Jayez, 1985).

3 *Presque* **and approximation**

3.1 **Indiscernibility**

In this section, we start describing the meaning of *presque* as an approximator. The intuition we pursue is the following. *Presque P*, where *P* is a property, points to any *P′* such that *P* and *P′* are 'indiscernible'. 'Indiscernibility' cannot be simply understood with respect to particular consequences, since two incomparable propositions may have the same consequences in a given context. Rather, we must say that *presque* + property *P* refers to a property that has the same particular consequences as *P* in contexts where having strictly *P* is not crucial for those consequences to obtain. For instance, *presque rouge* ('almost red') refers to a property that involves some degree of redness and is equivalent to 'red' in contexts where having strictly 'red' is not crucial.

This kind of reasoning applies also to properties of events. Sentence (22) is ambiguous, see the discussion in Martin (2005) among others. It has a first reading according to which Paul did not make any noise but was on the verge of screaming. In any context where screaming and being in an emotional state conducive to screaming have the same consequences, 'almost screaming' has those consequences.

(22) Paul a   presque crié
      Paul has almost   screamed

Sentence (22) also has a second reading according to which Paul shouted almost to

the point of screaming. In any context where screaming and shouting loudly have the same consequences, 'almost screaming' has those consequences.

In order to capture the meaning of *presque*, we must be able to establish a comparison among properties when a range of values must 'count as the same', i.e. be indiscernible, but at the same time be ordered among themselves. We proceed in steps. We first identify what logical expressions we must order (descriptions, that is, roughly speaking, the body of λ-terms). Next, we define the two ordering relations we use (degree or model-based), subsuming them under a common notation, $\prec$, in definition (25). Finally, we come to indiscernibility itself: two descriptions are indiscernible when they share their non-logical consequences in a given context (definition 28). A threshold for a description is a description 'from which indiscernibility starts', that is, a description above or below which non-logical consequences do not vary.

In order to express identity of consequences in a simple way, we use the model-theoretic notion of satisfaction. Assuming some typed λ-calculus, for each λ-term, its body is an expression in higher-order logics, where the λ-bound variables are free variables.[5] For instance, a property $\lambda x.P(x)$ is paired with $P(x)$. Quite generally, a λ-term $\lambda \overrightarrow{x}.\Delta(\overrightarrow{x})$ is paired with a *description* $\Delta(\overrightarrow{x})$, or simply Δ. For instance, the λ-term corresponding to a verb *verb* in traditional Montague semantics has the form: $\lambda Q \lambda \overrightarrow{y}.Q(\lambda x.verb'(x, \overrightarrow{y}))$, where Q is a variable for generalized quantifiers. It is represented as $Q(verb'(x, \overrightarrow{y}))$. The usual restrictions on renaming apply. We will not insist on making the correspondence explicit every time, but the general rule of thumb is that we have in mind the λ-term when we need to combine things, and the description when we consider model-theoretic satisfaction.

As an example for degrees, consider the property of being red. An entity is 'red' if it exhibits a degree of redness equal or superior to a minimal degree required for qualifying as red. This can be represented as in (23).

(23) $\lambda x.red(x) = \lambda x.\forall y(redness\text{-}threshold(y) \Rightarrow \exists z(redness\text{-}degree(x,z) \,\&\, z \geq y))$

If a description $\Delta(x)$ involves degrees of a certain property P through a formula of the form $P\text{-}degree(x,t)$, we note $deg_{\mathscr{M}}(\Delta, P)$ the union of the sets of degrees that satisfy $P\text{-}degree(x, y)$ when x runs through all the values such that the model satisfies $\Delta(x)$.

(24)   Let $\Delta(x)$ be a description where $P\text{-}degree(x,t)$ occurs for some term t, $\mathscr{M}$ a model and g an assignment function. $deg_{\mathscr{M}}(\Delta, P)$ is defined as the following set of degrees:
$\bigcup \{Y : \exists g(\mathscr{M}, g \models \Delta(x) \,\&\, (y \in Y \Leftrightarrow \mathscr{M}, g \models P\text{-}degree(x, y)))\}$

In order to rank Δ's, we use a meta-relation $\prec$ which covers the two cases of model-entailment and degree ordering.

(25) $\Delta_1(x) \prec \Delta_2(x)$ whenever:
   a.   for every model-assignment pair $(\mathscr{M}, g)$, if $\mathscr{M}, g \models \Delta_2$ then $\mathscr{M}, g \models \Delta_1$ and, for at least one model-assignment pair $(\mathscr{M}, g)$, $\mathscr{M}, g \models \Delta_1$ and $\mathscr{M}, g \not\models \Delta_2$, or

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[5]See Aczel and Lunnon (1991) for a discussion of the 'parallel' versions of λ-calculus, where variable substitution is done in one pass.

      b.   for every $\mathcal{M}$, $deg_{\mathcal{M}}(\Delta_1, P) \subset deg_{\mathcal{M}}(\Delta_2, P)$ or each member of $deg_{\mathcal{M}}(\Delta_1, P)$ is strictly inferior to each member of $deg_{\mathcal{M}}(\Delta_2, P)$.

(25) allows for the 'at least' and 'exactly' readings of degree expressions. For instance, if x is red, one can consider that it exhibits every degree of redness between its maximal degree and zero (the 'at least' reading) or that it exhibits only one degree (the 'exactly' reading).[6] In the former case, $\Delta_1 \prec \Delta_2$ means that the set of redness degrees associated with Δ_1 is a strict subset of that associated with Δ_2. For instance, if we have several red and pink objects and assume that every red object is redder than every pink object, we get (26), where $\Delta_1(x)$ is *pink(x)* and $\Delta_2(x)$ is *red(x)*.

(26) $\bigcup\{Y : \exists g(\mathcal{M}, g \models pink(x)\,\&\,(y \in Y \Leftrightarrow \mathcal{M}, g \models pinkness\text{-}degree(x, y)))\} \subset$
        $\bigcup\{Y : \exists g(\mathcal{M}, g \models red(x)\,\&\,(y \in Y \Leftrightarrow \mathcal{M}, g \models redness\text{-}degree(x, y)))\}$

In the latter case, the degrees for pink objects are strictly inferior to the degrees for red objects and we have (27).

(27) $\forall d_1, d_2$
        $((d_1 \in \bigcup\{Y : \exists g(\mathcal{M}, g \models pink(x)\,\&\,(y \in Y \Leftrightarrow \mathcal{M}, g \models pinkness\text{-}degree(x, y)))\}\,\&$
        $d_2 \in \bigcup\{Y : \exists g(\mathcal{M}, g \models red(x)\,\&\,(y \in Y \Leftrightarrow \mathcal{M}, g \models redness\text{-}degree(x, y)))\})$
        $\Rightarrow d_1 < d_2)$

We are now ready to define indiscernibility for *presque*. In the definitions to come, it is understood that the interpretation of $\prec$ (model entailment or degree) is kept constant in the different clauses. C stands for any set of formulas. $C, g \models \Delta$ means that for any model $\mathcal{M}$, if $\mathcal{M}, g \models C$, then $\mathcal{M}, g \models \Delta$. We note $\Delta \models_C \Delta'$ the fact that, for every g, if $C, g \models \Delta$ then $C, g \models \Delta'$. In (28), C corresponds to a context of interpretation (not necessarily the actual context) and T to the set of consequences with respect to which two or more descriptions are indiscernible.

(28) Δ_1 is *left*-indiscernible from Δ_2 w.r.t. T and C whenever
      a. $\Delta_1 \prec \Delta_2$,
      b. $\Delta_2 \not\models T$,
      c. $\Delta_2 \models_C T$ and,
      d.   if for every Δ_3 such that $\Delta_1 \prec \Delta_3 \prec \Delta_2$ it is the case that $\Delta_3 \models_C T$, then $\Delta_1 \models_C T$.

In words, Δ_1 ($\prec \Delta_2$) is *left*-indiscernible from Δ_2 whenever it has the same set of consequences as all other descriptions closer to Δ_2. This is dependent on the context (C and T) and does not necessarily hold for true logical consequences of Δ_2, hence the $\Delta_2 \not\models T$ condition. There is a very natural counterfactual reading of indiscernibility.[7] Using *presque* $\Delta_2[a]$ for some entity a implies that, in the actual situation, say $\mathcal{M}_0$, $\Delta_2[a]$ is false. The situations C one could consider, for example, are all those situations that differ from $\mathcal{M}_0$ in that (i) they are compatible with or satisfy $\Delta_2[a]$ and (ii) $\Delta_1[a]$ and its T-indiscernible variants satisfy T. At this point, we must eliminate two possible sources of confusion. First, a counterfactual situation C of that type can be

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[6]For an analysis of scales and their entailment properties, see Horn (1972, 1989, sec. 4.4).

[7]See Ziegeler (2000) for the relation between *almost* and counterfactual interpretations.

markedly different from the actual situation. It is judged similar with respect to T only, not in general. For instance, a situation where Paul forgot his passport could be very different from a situation in which he almost forgot it, a situation where a bomb killed the president could be very different from a situation where he was only almost killed, etc. Second, indiscernibility concerns only those consequences of the T-indiscernible $\prec$-weaker variants of Δ_2 that are considered at some point in discourse, not each and every consequence. For instance, in the bomb example, there is nothing in definition (28) which requires that the long-term consequences of the explosion or the physical damage done to the president be included in T. In general, the interpretation is not constrained beyond general considerations of contextual appropriateness and communicative relevance. This distinguishes the very general notion of indiscernibility presented here from more demanding conditions on the similarity of worlds.

One can devise a symmetric definition for indiscernibility on the 'right', i.e. when $\Delta_1 \succ \Delta2$.

(29) Δ_1 is *left*-indiscernible from Δ_2 w.r.t. T and C whenever
   a. $\Delta_2 \prec \Delta_1$,
   b. $\Delta_2 \not\models T$,
   c. $\Delta_2 \models_C T$ and,
   d.   if for every Δ_3 such that $\Delta_2 \prec \Delta_3 \prec \Delta_1$ it is the case that $\Delta_3 \models_C T$, then $\Delta_1 \models_C T$.

Given some description Δ_2, many descriptions can be *left*-indiscernible or *right*-indiscernible from Δ_2. We introduce *thresholds*, that is, descriptions beyond or below which we have *left* or *right*-indiscernible descriptions with respect to Δ_2.

(30) Δ is a *left*-threshold of Δ_2 w.r.t. C and T, *left.thr.*$_{C,T}(\Delta, \Delta_2)$, whenever (i) Δ is not *left*-indiscernible from Δ_2 and (ii) every Δ_1 such that $\Delta \prec \Delta_1 \prec \Delta_2$ is *left*-indiscernible from Δ_2 w.r.t. C and T. Similarly, Δ is a *right*-threshold of Δ_2, *right.thr.*$_{C,T}(\Delta, \Delta_2)$, whenever Δ is not *right*-indiscernible from Δ_2 and every Δ_1 such that $\Delta_2 \prec \Delta_1 \prec \Delta$ is *right*-indiscernible from Δ_2 w.r.t. C and T.

In the following, we omit C and T in order to simplify notation. For instance, we use *left.thr.*(Δ, Δ_2) instead of *left.thr.*$_{C,T}(\Delta, \Delta_2)$. Indiscernibility might be defined with $\preceq$ instead of $\prec$. This is largely a matter of convenience or convention. For instance, nothing in section 4.3 would be essentially different if we used $\preceq$.

3.2   Two problems with indiscernibility

In view of the previous section, one would be tempted to think that the argumentative properties of *presque* are a consequence of indiscernibility. For a property P, *presque P* would be equivalent to P in the context. So, the non-logical conclusions one can draw from P could also be drawn from *presque P*. This view raises two difficulties.

First, there is a strong intuition that *presque P* points to an indiscernible value *but* implies $\neg P$. For instance *presque rouge* 'almost red' implies 'not quite red', *presque 18* implies 'slightly less than 18'. If we substitute this implied value for *presque P* in (16), the oddness disappears (31). It is then unclear why this piece of information is not readily available to argumentation.

(31)   Peu d'automobilistes dépassent le 120 km/h, (légèrement) moins de 20%
        'Few car drivers go faster than 120 km/h, (slightly) less than 20%'
        [intended: it is correct to say that few car drivers go faster than 120 km/h since
        they are (only) (slightly) less than 20%]

Moreover, the very idea that *presque P* is argumentatively aligned with *P* is misleading.
If things were so simple, the oddness would persist when we replace *presque P* by *P*.
But this is not the case (32).

(32)   Peu d'automobilistes dépassent le 120 km/h, 20%
        'Few car drivers go faster than 120 km/h, 20%'
        [intended: it is correct to say that few car drivers go faster than 120 km/h since
        they are 20%]

It turns out that *presque P* is somewhat stronger than *P* in some cases. This is an un-
expected observation, that the next section will contribute to make sense of.

4   *Presque* as a two-layered element

4.1   Two solutions and their problems

Ducrot (1972, 262-266) proposes that *presque* has two meaning components. *Presque
P* presupposes ¬*P* and entails that the denoted property is close to *P*. According to
him, discourse attachments tend to bypass presupposed propositions. This is what he
calls *loi d'enchaînement* (1972, 81) ('linking law'). Given the linking law, the fact that
the ¬*P* part is ignored in examples like (16) is no longer mysterious.

Ducrot is well aware that *presque P* may be argumentatively stronger than *P* in
some sense. He accounts for the difference by a Grice-style reasoning. Being presup-
posed, ¬*P* is taken for granted. ¬*P* is all the more likely to be part of the common
ground as *P* is high on some scale. For instance, it is *a priori* more plausible that some-
body is not 7 feet tall than the contrary. In addition, according to him, by indicating
that 'almost *P*', the speaker is all the more informative as she considers high values for
P. So, the status of presupposition and informativity conspire to favour interpretations
in which *P* is an upper element on some scale(s).

Each of these claims is problematic. If *presque* presupposed ¬*P*, this would be re-
flected in the standard tests for presupposition. However (33a) does not presuppose
that Mary did not succeed, in contrast with (33b), which presupposes that Mary has
been smoking, and (34a) is rather unintelligible, in contrast to (34b).

(33)   a.   Paul pense que Marie a presque réussi
              'Paul thinks that Mary almost succeeded'
        b.   Paul pense que Marie a cessé de fumer
              'Paul thinks that Mary has stopped smoking'

(34)   a.   #Si Marie a échoué, je suis content qu'elle ait presque réussi
              #'If Mary failed, I am glad that she almost succeeded'
        b.   Si Marie a fumé, je suis content qu'elle ait cessé
              'If Mary has been smoking, I am glad she stopped'

The Gricean reasoning proposed by Ducrot is open to objections. First, if ¬P is not a presupposition, one reason for preferring high values evaporates. Let us assume for the sake of argument that Ducrot is right in assuming that ¬P is presupposed. If P were a small value, ¬P would be *a priori* implausible but could be forced into the common ground by a preliminary assertion. In that case, *presque P* entails that the denoted value is close to P. There is no longer any reason for P to be high on a scale since P has been explicitly presented as low. Yet, *presque* is not totally appropriate under interpretations where 'almost P' is a justification for a judgement that positions an entity in the lower part of a scale. In (35), the first assertion ('Paul is very light') makes it plausible that P (the property of weighing 52 kg) is low on the weight scale. In this perspective, 'almost 52 kg' should not be more problematic than a standard approximation like 'about 52kg', but it is.

(35)   a.   #Paul est très léger puisqu'il pèse presque 52 kg
            #'Paul is very light since he weighs almost 52kg'
       b.   Paul est très léger puisqu'il pèse environ 52 kg
            'Paul is very light since he weighs about 52 kg'

In subsequent work, Ducrot abandoned the Gricean view (Ducrot, 1980, 1983) for the notion of *argumentative scale*. Arguments in favour of a proposition can be ordered along scales: $x >_A y$ if and only if x is a better argument than y with respect to the conclusion A. *Presque* selects argumentative scales that are homomorphic to degree scales. Specifically, *presque d* (where d is a degree) is appropriate for any property P and proposition A such that having P to d is a better argument for A than having P to d' for $d' < d$. This new approach accounts for contrasts like the one in (35). Since 'Paul weighs almost 52 kg' is an argument in favour of 'Paul is very light', and the weight scale is non-homomorphic to the argumentative scale (the lesser the weight of x the more likely the conclusion 'x is light'), the argumentative link is predicted to be deviant.

However, as shown in Jayez (1987), this revised theory is not entirely satisfactory. First, the idea of argumentative strength is unclear. There is no self-evident explicit definition of 'being a better argument than'. Second, it seems that assigning to *presque* a particular argumentative profile misses possible generalisations. For instance, the behaviour of *presque* is parallel to that of *plus de* ('more than')—compare (16,17) with (36)—although nothing in the theory leads one to expect this analogy.

(36)   a.   #Peu d'automobilistes dépassent le 120 km/h, plus de 20%
            #'Few car drivers go faster than 120 km/h, more than 20 %'
       b.   Peu d'automobilistes dépassent le 120 km/h, moins de 20%
            'Few car drivers go faster than 120 km/h, less than 20 %

Jayez (1987) keeps the idea that *presque P* presupposes ¬P but adds a new element. He claims that (i) *presque P* entails that the actual value for P is *superior* to a proximity threshold and (ii) that the argumentative properties are not intrinsic semantic aspects but are derived from this comparative facet. We think that his comparative analysis is on the right track, and we adopt it, but Jayez's (1987) proposal as such inherits the presupposition problem of Ducrot's. It also suffers from some technical uncertainty about the proper way of calibrating the derivation mechanism. However, if such a mechanism was available, it would serve as the basis for explaining the similarity between

presque and *plus de*. We contribute precisely on this point.

4.2   A new approach

The proposal we develop in this section comes in two parts.

- We reanalyse the ¬*P* part as a *conventional implicature*, instead of a presupposition.
- We derive the argumentative properties of *presque* from a comparative facet of meaning, following Jayez (1987), but using Merin's (1999) decision-theoretic approach for calibrating the derivation mechanism.

4.2.1   The implicature of *presque*

In Jayez (2005), it is proposed that certain determiners like *plusieurs* 'several' convey simultaneously a conventional implicature and an entailment, and that this two-layered nature explains the apparent divorce between their referential and argumentative properties. We apply the same analysis to *presque*. As we saw in section 4.1, the ¬*P* part of *presque* cannot be a presupposition. It cannot be a conversational implicature either, since it is not cancellable, as evidenced by (37).

(37)   ??*Paul a presque été élu président, mais il a été élu président*
         ??'Paul was almost elected president, but he was elected president'

¬*P* could be a conventional implicature. It has been noted (Jayez, 2005) that conventional implicatures, as characterised by Potts (2005) for instance, behave like presuppositions with respect to Ducrot's 1972 linking law, that is, they resist discourse connection in monologues.[8] For instance, in (38), the preferred interpretation is that the reason for smashing the hedge was that it is a beautiful array of flowers. In contrast, the interpretation using the conventional implicature, that is 'It is unfortunate that my neighbour smashed the hedge because it was a beautiful array of flowers', is not available.

(38)   #Unfortunately, my neighbour smashed the hedge, because it was a gorgeous array of flowers

The advantage of classifying ¬*P* as a conventional implicature is that (i) this is compatible with the basic observations (non-cancellability, insensitivity to presupposition tests) and (ii) the absence of effect of the negative value of *presque* on discourse directly follows, see the second paragraph of section 3.2. More precisely, we claim that *presque*

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[8]The arguments offered in Nouwen (2006) are in favour of the conventional implicature option that we defend here. However, Nouwen seems to refrain from drawing the conclusion that *almost* conveys a conventional implicature, because he seems to assume that, in that case, the negative part of *almost* should be involved in normal discourse attachments. The interest of Ducrot's linking law is precisely that it can be extended to conventional implicatures, thus sparing us the trouble of explaining how part of meaning—the negative part of *presque* and *almost*—can be conventional (i.e. non-cancellable) and non-conventional (i.e. escape discourse attachments) at the same time. In fact, it is characteristic of non-central information (presuppositions and conventional implicatures) that it is invisible or poorly visible in discourse.

P conventionally implicates that the actual value P' is 'below' P, that is $P' \prec P$. This restriction takes care of the cases where P', being above P, could entail P under an 'at least' interpretation of scalar properties.

4.3   The entailment layer

The implicature layer does not account for the argumentative properties of *presque*. In order to deal with them, we propose that *presque P* entails that the actual value is *superior* to a *left*-threshold of P, as defined in (30). Note that this assumption preserves the intuitive reading of *presque P*: the actual value is lower than P but indiscernible from P in the context.

Let us consider now Anscombre and Ducrot's example (16). It entails that there is some *left*-threshold of the 20% value, and that the actual value is superior to this threshold. We summarise this entailment by *left.thr.*(20%) < 20% and *left.thr.*(20%) < v. The intended interpretation is that 'almost 20% of the drivers drive faster than 120km/h' is a justification of 'few drivers drive faster than 120 km/h'. We represent the latter proposition as $v <$ *few.thr.*(*drivers*), where *few.thr.*(P) denotes a 'fewness' threshold for P. Suppose a belief state where it is not known whether these three pieces of information are true or false. In the traditional formalisation of such uncertainties, we have several possibilities (types of worlds), which, in the case at hand, are described by the respective positions of the four relevant points, i.e. 20%, *left.thr.*(20%), *few.thr.*(*drivers*) and v. We are interested in knowing whether the addition of the entailed content makes the targeted conclusion—i.e. $v <$ *few.thr.*(*drivers*) 'more plausible'—that is, eliminates some possibilities that contradict the conclusion. The problem has a general form, made explicit in (39).

(39)   Given 4 variables x, y, z, v[9] ordered by $\leq$ and an epistemic state S (i.e. a set of worlds), where all the possibilities on $((x, y, z, v), \leq)$ are realised, does $S \oplus (x < y \,\&\, v > x)$, where $\oplus$ is the eliminative update operator, raise the probability that $v < z$?

The answer is negative. To see why, consider the effect of updating with $(x < y \,\&\, v > x)$. We have the three linear configurations shown below.

$$x \text{———} v \text{———} y$$
$$\overset{\textstyle y}{x \text{———} v}$$
$$x \text{———} y \text{———} v$$

As an example, take the first configuration and try to insert z in different positions. This gives the seven following possibilities. Three of them satisfy $v > z$, three satisfy $v < z$ and one satisfies $v = z$.

$$(z)\text{———}\overset{\textstyle (z)}{x}\text{———}(z)\text{———}\overset{\textstyle (z)}{v}\text{———}(z)\text{———}\overset{\textstyle (z)}{y}\text{———}(z)$$

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[9]To wit, $x =$ *left.thr.*(20%), $y =$ 20%, $v =$ the actual value and $z =$ *few.thr.*(*drivers*).

For the other cases, there are three vs. one and one, and five vs. one and one possibilities. On the whole, eleven possibilities satisfy $v > z$, whereas five satisfy $v < z$ and three satisfy $v = z$. In the initial belief state, all possibilities are equally distributed, in the resulting state the proportion is in favour of $v > z$.

It has been independently proposed by Merin (1999) that the argumentation relation of Anscombre and Ducrot reflects *relevance* in the following sense.

(40)   In an epistemic state $S \not\models \neg A$, A is positively (negatively) relevant to B whenever the probability of B in $S \oplus A$ is higher (lower) than the probability of B in S.

More precisely, if we adopt the framework of Kripke models and assume probability distributions Prob_W on sets W of information points ('worlds'), we need the following minimal assumptions to make sense of (40). p_W denotes the set of points in W where p is true.

1. $W' \subset W'' \subseteq W$ entails $\text{Prob}_W(W') < \text{Prob}_W(W'')$ (probability ordering $<$ is homomorphic to $\subset$).
2. if $W' \subset W$, $\neg p_{W'} \subset \neg p_W$, and $p_{W'} = p_W$, then $\text{Prob}_{W'}(p) > \text{Prob}_W(p)$.

The definition of relevance then comes out as (41).

(41)   Let W denote any set of propositional information points and Prob_W any probability distribution on W. p is positively (resp. negatively) relevant to p' whenever for every W such that $W \not\models p$, $W \not\models \neg p$, $W \not\models p'$ and $W \not\models \neg p'$, $\text{Prob}_{W \oplus p}(p') > \text{Prob}_W(p')$ (resp. $\text{Prob}_{W \oplus p}(p') < \text{Prob}_W(p')$).

In this perspective, the argumentative properties of *presque* emerge when the entailed content has positive or negative relevance with respect to some proposition. There is no need to postulate a special argumentative value. What we *do* need in our approach is the comparative value ($v > left.thr.(y)$ above), which is independently found to play a role for other items (*plusieurs* 'several', *plus de* 'more than', *moins de* 'less than', *à peine* 'hardly').

The linking law of Ducrot (1972) can be extended to conventional implicatures to account for the fact that the 'negative' part of *presque* is less easily exploited than the 'positive' one. However, the linking law is best conceived as a preference that can occasionally be defeated, as evidenced by examples (42) that most speakers deem natural.

(42)   a.   Paul n'a que presque dix-huit ans
               'Paul is only almost eighteen'
        b.   Le livre n'est pas cher, seulement presque 20 euros
               'The book is cheap, only almost 20 euros'

We conjecture that the orientation imposed by *ne que* and *seulement* ('only') is responsible for this reversal of preference.[10]

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[10]Interestingly, this observation is not replicated with *plusieurs* ('several'), as noted in Jayez (2005). More work is needed to determine what factors could account for the difference. We conjecture that the indiscernibility facet of *presque* is crucial here.

5 The syntax-semantics interface

For compactness, we use a categorial grammar presentation, see Steedman (2000). As usual, we use / and \ for left-associative and right-associative connectives. Capital roman characters refer to syntactic categories (N,V, etc.), variables X, Y, etc. refer to strings. Semantic denotations are assigned to strings: $[\![X]\!]$, $[\![Y]\!]$, etc.. Features of the general form attribute = value or attribute ≠ value can be assigned to strings as needed. In section (2.1), we saw that *presque* can adjoin to AdjPs, AdvPs, NPs, PPs, Vs, and VPs. Accordingly, we have the possibilities in (43).

(43) **Adjectives**
   Syntax: Y:AdjP/X:AdjP   Semantics: $[\![Y]\!] = [\![presque]\!]([\![X]\!])$
   Adverbs
   Syntax: Y:AdvP/X:AdvP   Semantics: $[\![Y]\!] = [\![presque]\!]([\![X]\!])$
   NPs
   Syntax: Y:NP/X:NP   Semantics: $[\![Y]\!] = [\![presque]\!]([\![X]\!])$
   PPs
   Syntax: Y:PP/X:PP   Semantics: $[\![Y]\!] = [\![presque]\!]([\![X]\!])$
   VPs (with an auxiliary)
   Syntax: Z:(Y[aux=true]\(NP\S))/X:(Y[aux=true]\(NP\S))
   Semantics: $[\![Z]\!] = [\![presque]\!]([\![X]\!])$
   VPs (without auxiliary)
   Syntax: X:(NP\S)[tense=finite]\Y:(NP\S)[tense=finite]
   Semantics: $[\![Y]\!] = [\![presque]\!]([\![X]\!])$
   Vs (with an auxiliary)
   Syntax: Z:V/X:(Y[aux=true]\V)
   Semantics: $[\![Z]\!] = [\![presque]\!]([\![X]\!])$
   Vs (without auxiliary)
   Syntax: Y:V/X:V[tense = finite]
   Semantics: $[\![Y]\!] = [\![presque]\!]([\![X]\!])$

When *presque* adjoins to an AdjP, an AdvP, a PP or a VP, it semantically modifies a property. When it adjoins to an NP, it modifies a generalized quantifier. When it adjoins to a verb, it modifies an object of type $((ett)et)$. In each case, the contribution of *presque* is similar. It entails that the actual degree or set of properties is above (≻) some indiscernibility threshold and implicates that it is below (≺) the degree or set of properties denoted by the expression modified by *presque*. The degree or property interpretation depends on the modified expression. In the spirit of Potts (2005), we represent the semantic contribution of the modifier as a two dimensional object, specifically a pair $\langle E, CI \rangle$, where E is the entailed content and CI the implicated content. The parallel descriptions corresponding to the three cases have the following form, where X is the string to which *presque* adjoins.

(44) AdjPs, AdvPs, PPs and Vps
   $[\![X]\!] = \Phi(x)$, x being of type e.
   NPs
   $[\![X]\!] = \Phi(P)$, P being of type (et).

Vs with complements
$[\![X]\!] = \Phi(Q, \vec{x})$, Q being of type $(\vec{e}\,t)\,t$ and $\vec{x}$ being a vector of individual variables.

(45)   Given contextual parameters C and T,
$[\![presque]\!]_{C,T} = \lambda\Delta(\vec{v}).\langle\exists\Delta'(\vec{v}),\Delta''(\vec{v})(left.thr._{C,T}(\Delta',\Delta)\,\&\,C \models \Delta''\,\&\,\Delta'' >_{C,T} \Delta'),$
$\neg\exists\Delta'(\vec{v})(C \models \Delta'\,\&\,\Delta' \succeq \Delta)\rangle$

We provide a set of examples illustrating definition (45).

(46)   *Presque rouge* 'almost red'
$\langle\exists\Delta'(x),\Delta''(x)(left.thr._{C,T}(\Delta',[\![red]\!]_C(x))\,\&\,C \models \Delta''\,\&\,\Delta'' >_{C,T} \Delta'),\neg\exists\Delta'(x)(C \models \Delta'\,\&\,\Delta' \succeq$
$[\![red]\!]_C(x))\rangle$
Presque tous les étudiants 'almost every student'
$\langle\exists\Delta'(P),\Delta''(P)(left.thr._{C,T}(\Delta',[\![every\ student]\!]_C(P))\,\&\,C \models \Delta''\,\&\,\Delta'' >_{C,T} \Delta'),\neg\exists\Delta'(P)(C \models$
$\Delta'\,\&\,\Delta' \succeq [\![every\ student]\!]_C(P))\rangle$
détester presque 'to almost hate'
$\langle\exists\Delta'(Q,x),\Delta''(Q,x)(left.thr._{C,T}(\Delta',[\![hate]\!]_C(Q,x))\,\&\,C \models \Delta''\,\&\,\Delta'' >_{C,T} \Delta'),\neg\exists\Delta'(Q,x)(C \models$
$\Delta'\,\&\,\Delta' \succeq [\![hate]\!]_C(Q,x))\rangle$

Let us now analyse Anscombre and Ducrot's example (16). We assume the following correspondences (C and T are left implicit).

1. $[\![peu\ de]\!] = \lambda P,P'.\|P\,\&\,P'\| \prec few.thr.(P)$,
   where *few.thr.*(P) is a 'fewness' threshold for P.
2. $[\![peu\ d'automobilistes]\!] = \lambda P.\|[\![drivers]\!]\,\&\,P\| \prec few.thr.([\![drivers]\!])$,
3. $[\![peu\ d'automobilistes\ dépassent\ le\ 120\ km/h]\!] =$
   $\|[\![drivers]\!]\,\&\,[\![fast]\!]\| \prec few.thr.([\![drivers]\!])$.
4. $[\![20\%\ des\ automobilistes]\!] = \lambda P.\|[\![drivers]\!]\,\&\,P\| = 0.2\|[\![drivers]\!]\|$
5. $[\![presque\ 20\%\ des\ automobilistes]\!] =$
   $\lambda P.\langle\exists\Delta'(P),\Delta''(P)(left.thr.(\Delta',\|[\![drivers]\!]\,\&\,P\| = 0.2\|[\![drivers]\!]\|)\,\&\,\Delta''\,\&\,\Delta'' > \Delta'),$
   $\neg\exists\Delta'(P)(\Delta'\,\&\,\Delta' \succeq \|[\![drivers]\!]\,\&\,P\| = 0.2\|[\![drivers]\!]\|\rangle$
6. $[\![presque\ 20\%\ des\ automobilistes\ dépassent\ le\ 120\ km/h]\!] =$
   $\langle\exists\Delta'([\![fast]\!]),\Delta''([\![fast]\!])(left.thr.(\Delta',\|[\![drivers]\!]\,\&\,[\![fast]\!]\| = 0.2\|[\![drivers]\!]\|)\,\&\,\Delta''\,\&\,\Delta'' > \Delta'),$
   $\neg\exists\Delta'([\![fast]\!])(\Delta'\,\&\,\Delta' \succeq \|[\![drivers]\!]\,\&\,[\![fast]\!]\| = 0.2\|[\![drivers]\!]\|$

Under this form, we see that the intended discourse relation of justification connects (α) and (β). (γ) is kept apart since it stands for the implicated content. (β) says that the actual proportion of 'fast' drivers (those who pass 120 km/h) is superior to an indiscernibility threshold. As explained for (39), such a connection would violate positive relevance.
(α) $\|[\![drivers\,\&\,fast]\!]\| \prec few.thr.([\![drivers]\!])$
(β) $\Delta'([\![drivers]\!],[\![fast]\!]) \prec \Delta''([\![drivers]\!],[\![fast]\!])$
(γ) $\Delta''([\![drivers]\!],[\![fast]\!]) \prec \|[\![drivers]\!]\,\&\,[\![fast]\!]\| = 0.2\|[\![drivers]\!]\|$

It is possible to extend (45) to cases where the indiscernibility-threshold is on the right, which seems necessary to interpret examples like (47). In such cases, the speaker presumably intends to signal that, for Paul, the property of being eighteen and three months is not, with respect to the targeted conclusions, significantly different from the property of being eighteen. While nothing crucial hinges on the admission of two

symmetric thresholds instead of one, it seems that the default option for *presque* is left-indiscernibility.

(47)   Paul est encore très jeune: après tout, dix-huit ans et trois mois c'est presque
         dix-huit ans
         'Paul is still very young: after all, eighteen and three months, it's almost eigh-
         teen'

6   Extensions and discussion

As noted above, the kind of approach we defend can be extended to other items. Since *plus de* ('more than') and *moins de* ('less than') have a comparative instruction directly built into their semantics, they exhibit similar or symmetric behaviours to that of *presque*. This is true also of *au moins* ('at least') and *au plus* ('at most'), although their detailed semantics is complex. As noted already in Ducrot (1972), *à peine* ('hardly') can be described as symmetric to *presque*, as illustrated in (48).

(48)   a.   ??Beaucoup d'automobilistes dépassent le 120 km/h, à peine 20%
                ??'Many drivers drive faster than 120 km/h, hardly 20%'
         b.   Peu d'automobilistes dépassent le 120 km/h, à peine 20%
                'Few drivers drive faster than 120 km/h, hardly 20%'

A major difference with *presque* is that *à peine P* implicates *P*, hence the oddness of (49b).

(49)   a.   Paul a presque dix-huit ans, mais il n'a pas dix-huit ans
                'Paul is almost eighteen, but he is not eighteen'
         b.   ??Paul a à peine dix-huit ans, mais il n'a pas dix-huit ans
                ??'Paul is barely eighteen, but he is not eighteen'

Another difference is that *à peine* seems to be even less natural than *presque* in contexts that violate relevance. It is possible that *à peine* is preferably associated with low values. This would account for contrasts like those in (50), noted in Jayez (1987).

(50)   a.   ??Le thé est à peine brûlant
                ??'The tea is hardly very hot'
         b.   Le thé est à peine chaud
                'The tea is hardly warm'

The semantics of *à peine* is given in (45).[11]

(51)   Given contextual parameters C and T,
         $[\![\text{à peine}]\!]_{C,T} = \lambda\Delta(\overrightarrow{v}).\langle\exists\Delta'(\overrightarrow{v}),\Delta''(\overrightarrow{v})(right.thr._{C,T}(\Delta',\Delta)\,\&\,C\models\Delta''\,\&\,\Delta'' <_{C,T} \Delta'),$
         $\neg\exists\Delta'(\overrightarrow{v})(C\models\Delta'\,\&\,\Delta' < \Delta)\rangle$

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[11]We disregard the temporal uses of *à peine* in this paper. They seem to be amenable to a variant of (51), though.

As explained in Jayez (1987), (51) predicts that *à peine* will not be felicitous with *maximum standard* gradable adjectives like *brûlant*, that is, adjectives which require that their argument possess a maximal degree of the denoted property (Kennedy and McNally, 2005; Kennedy, 2007). It is difficult to imagine degrees above a maximal degree, which explains the relative infelicity of (50) and similar examples.[12] However, other examples cannot be disposed of in the same way (Jayez, 1987). We won't go into them here and will consider (51) as a first try, probably in need of correction and precision.

Unexpectedly, expressions like *autant de … que (de) …* ('as many as') also have argumentative properties. Again, this was noted by Anscombre and Ducrot, see the contrast in (52) and Anscombre (1975, 1976) for a detailed analysis.

(52) a. #Paul n'est pas très prolifique puisqu'il a écrit autant d'articles que Marie
           #'Paul is not highly productive since he has written as many papers as Mary'
      b. Paul est très prolifique puisqu'il a écrit autant d'articles que Marie
           'Paul is highly productive since he has written as many papers as Mary'

It is certainly difficult to see how equality can convey argumentative preferences. This difficulty has sometimes led to a rejection of the very idea of ascribing argumentative force to these items (de Cornulier, 1984). Granted that the notion of equality and the contrast in (52) support conflicting intuitions in this case, we submit that the solution lies in a division of labour between implicature and entailment. Specifically, *autant* implicates $\preceq$ and entails $\succeq$. In this way, equality is preserved but kept unbalanced.

(53) $[\![autant]\!] = \lambda P, \lambda P'. \langle \|P\| \geq \|P'\|, \|P\| \leq \|P'\| \rangle$

Returning to *presque*, two further points are worth mentioning. First, it has been observed by Martin (2005) that *faillir de* 'to be on the verge of' et *presque* are significantly different in certain cases, illustrated in (54).

(54) a. ??Paul a failli réussir, en fait il a réussi
           'Paul has been on the verge of success, in fact he succeeded'
      b. Paul a presque réussi, en fait il a réussi
           'Paul almost succeeded, in fact he succeeded'

This suggests that *faillir*, in contrast to *presque*, is not sensitive to *perspectives* in the sense of Jayez and Beaulieu-Masson (2006). The intensional entities that *presque* qualifies can be 'objective' or open to evaluation. In the former case, there is no difference between *faillir* and *presque*, as shown by (55).

(55) a. ??Paul a failli gagner la course, en fait il a gagné
           ??'Paul has been on the verge of winning the race, in fact he won'
      b. ??Paul a presque gagné la course, en fait il a gagné
           ??'Paul almost won the race, in fact he won'

When an entity is open to evaluation, we observe that it can be nested in the characteristic constructions for viewpoints, in French *je trouve que* (≈ 'I deem that') and *de ce*

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[12]Jayez (1987) shows that combining *à peine* with such adjectives is possible in particular contexts.

point de vue 'in this respect', see (56).

(56)   a.   De ce point de vue / Je trouve que Paul a réussi
            'In this respect / I deem that Paul succeeded'
       b.   #De ce point de vue / Je trouve que Paul a dix-huit ans
            #'In this respect / I deem that Paul is eighteen'

Faillir simply implicates that the actual value is below the target value, but *presque* implicates that this is the case either objectively or under a given perspective. When the perspective-based reading is possible, a correction by *en fait* 'in fact', or equivalent expressions, is also possible and signals a perspective change. The integration of this sensitivity in the semantics of *presque* is left for future work.

Finally, we comment briefly on recent analyses of *almost* in terms of possible worlds (Morzycki, 2001; Nouwen, 2006). Nouwen, for instance, characterises what he calls *intensional* approaches as saying that *almost* ϕ is true whenever $w \models \phi$ for some w close to the actual world. He argues that, in order to account for an example like (57), a scalar approach has to postulate a scale based on the VP denotation and is likely to run into problems at this stage, because *qualify* does not give access to what is relevant, i.e. Travis' efforts, in the interpretation of the sentence.

(57)   Travis almost qualified for the long-jump final

We agree with Nouwen that, in itself, the VP does not provide sufficient cues for interpretation. Still, this does not condemn a scale-based theory, at least if we take 'scale' in the very general sense of 'ordering'.

First, if we assume—as we did in this paper—that the indiscernibility scales are contextual, the difference between our 'scalar' theory and an intensional one seems to be rather thin. In fact, we need a minimum of scalar structure to inform a *counterfactual* reasoning (Ziegeler, 2000). According to (57), Travis did not qualify. Either he did not achieve the degree of performance needed for qualifying or he had not all the necessary properties. However, there is a set of conclusions that are left untouched by the difference between a genuine qualification and Travis' unsuccessful attempt. For instance, Travis was, anyway, a valiant competitor, proved that he was able to qualify, to beat the long-jump record, etc. It seems that we have two options. We can order these indiscernible degrees or set of properties on a scale, in the very general sense of a ranking, *or* decide for an intensional analysis. In the latter case, we would say that, in some world minimally different from the actual one, Travis qualified. This world corresponds to a counterfactual paraphrase: 'If Travis had qualified, things would not have been very different from what they are'. Such a world would be described with the help of the untouched set of conclusions that we mentioned. That is, 'a minimally different' world means a world in which, except for the fact that Travis qualified, the 'rest' is as in the actual world. But, as we explained just after definition (28), the 'rest' must only include what we have described as the propositions that do not crucially depend on Travis' success. It is not required, in addition, that the worlds where Travis succeeds be extremely close to the actual world, because the consequences of Travis' success or failure could be remarkably different. So, it seems that resorting to an intensional approach is perfectly legitimate but cannot use a general mechanism of modal similarity between worlds.

Second, we have made clear that it will be very difficult to account for the argumentative properties of *presque, almost* and other items without some notion of comparison ($<$ or $\leq$) between a 'limit' (threshold) and a value. An intensional analysis has, in any case, to make room for the notion.

7   Concluding remarks

In this paper, we have provided an integrated description of the main properties of *presque* and its English counterpart *almost*. On the one hand, we have characterised their behaviour as approximators via the notion of indiscernibility of descriptions, defined as contextual equivalence with respect to a variable set of conclusions. On the other hand, we have provided an account of their argumentative properties in connection with the approximation value. *Presque P* (and *almost P*) conventionally implicates $\neg P$ and entails that the actual value is superior to the left threshold of *P*, but indiscernible from *P* for the purposes at issue. The usefulness of the notion of threshold goes beyond this specific case, on to items such as *à peine* ('hardly') and *au moins* ('at least'). Furthermore, the two-layered approach defended in this paper extends to other classes of elements that exhibit argumentative properties, including expressions of equality like *autant de … que (de) …* ('as many as'). We have thereby offered reasons to reduce the argumentative properties of these items to the type of comparative semantics which has been independently advocated for adjectives.

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