From Quantification and Intensification to Slack Regulation: Adjectival ALL*

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1 Introduction

This paper presents a novel empirical contribution to the open debate concerning the syntactic and semantic analysis of the lexical item *all* and its cognates in the Indo-European languages. I will henceforth use the term *ALL* to refer to the items that show the relevant pattern as a class. More specifically, a particular focus will be placed on the *ALL* in the languages of the Romance family (ex. French *tou(te)s*, Italian *tutto*, Romanian *tot-* etc.). Thus, sentences that will be studied will be the French example in (1) and the Italian example in (2).

(1) **Toutes** les filles ont sauté dans le lac.
ALL the girls have jumped in the lake
'All the girls jumped in the lake.'

(2) **Tutte** le ragazze sono saltate nel lago.
ALL the girls were jumped in the lake
'All the girls jumped in the lake.'

I will also discuss, in a more preliminary way, similar examples from languages that have a plural/singular 'all/whole' alternation, such as the German example in (3).

(3) Der **ganze** Apfel ist rot.
The ALL apple is red.
'**All of** the apple is red/The **whole** apple is red.'

The majority view in the literature is that *all* and its cognates are universal quantifiers (i.e. have a meaning that is roughly equivalent to the meaning contributed by the $\forall$ symbol in predicate logic). Some recent analyses in this vein are (Winter 2001), (Zweig 2008), and (Champollion 2011). However, an alternate style of analysis has also been proposed, one in which the contribution of *all* to the meaning of the sentence is pragmatic, not quantificational. The main advocates of this style of analysis are (Lasersohn 1999) and (Brisson 2003). In particular, Lasersohn proposes that *all* is, what he calls, a **slack regulator**: an item that eliminates (or

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significantly reduces) 'pragmatic slack' or imprecision associated with its complement. In other words, according to this approach, the function of *ALL* is to force a more precise interpretation of its complement.

In this paper, I present a new argument in favour of the 'slack regulator' style of analysis, against the quantificational style of analysis. The argument comes from previously undiscussed data concerning the use of *ALL* in the adjectival domain in Romance (and some similar examples from languages of the Germanic family). From a typological perspective, English *all* has a very limited distribution, appearing primarily in the nominal domain (attaching to DPs (cf. the gloss of 1))[1]. However, in many other languages, ALL appears in the adjectival domain[2], as shown in the examples below:

(4) a. *French:* La salle est **toute** vide.
The room is ALL empty

b. *Italian:* La stanza è **tutta** vuota.
The room is ALL empty

c. *German:* Das Zimmer ist **ganz** leer.
The room is ALL empty
'The room is completely empty' (lit. **all** empty)

Based on an investigation of the distribution and interpretation of adjectival ALL, I argue that a universal quantifier approach cannot account for the interpretative pattern that we observe in data. More specifically, I show that we find interpretations of adjectival *ALL* that are *intensive*, not universal. Furthermore, I show that these interpretations are systematic and predictable based on the scale structure class that the adjective belongs to, a state of affairs which, I argue is unexpected under the quantificational analysis. On the other hand, I argue that the observed distribution and interpretations of *ALL* with both adjectives and DPs is straightforwardly expected under an analysis of this lexical item as a slack regulator that eliminates the *borderline cases* of its complement. The notion of a *borderline case* of a predicate will be defined in the body of the paper.

The article is organized as follows: in section 2, I present the 'quantification vs slack regulation' debate in the literature and introduce Lasersohn's notion of pragmatic slack, as it applies to DP constituents. Then, in section 3, I present the data associated with adjectival ALL, focusing particularly on the intensive interpretations of this item. Following this exposition, in section 4, I consider adopting an analysis in which there are two homophonous *ALL*s: a universal quantifier and an intensifier; however, I argue that such an analysis would make incorrect empirical predictions. Finally, in section 5, I present a new slack regulation analysis that accounts for the behaviour of ALL in both the DP and AdjP domains, and, in section 6, I make some concluding remarks concerning the relationship between universal quantification and slack regulation in natural language.

[1]Indeed, this lexical item has even been described by (Moltmann 1997) as 'deficient' compared to its cognates in the rest of the Indo-European languages.

[2]In some languages, it can even even appear in the verbal domain (cf. (Moltmann 1997) for German *ganz* and (Lemieux *et al.* 1985) for Québécois *tout*).

2 ALL: Quantifier or Slack Regulator?

In this section, I introduce two approaches to the analysis of English *all* when it appears in the nominal domain (i.e. in expressions like *all the girls*).

2.1 The Quantificational View

The traditional and very widely adopted view in the literature is that *all* in English (and *tout* in French; *tutto* in Italian, etc.) has a meaning that is either very similar or identical to the meaning of $\forall$ in predicate logic[3]. For example, if one opens a standard introductory logic text, it is a very common view that sentences with English *all* should be regimented using the $\forall$ symbol. For example, (Kalish *et al.* 1980) (p.130) suggest translating the sentence in (5) as in (6).

(5) *If **all** persons are mortal, then either there are exceptions or Socrates is mortal.*

(6) $(\forall \mathbf{x}(Fx \rightarrow Gx) \rightarrow (P \vee GA))$

However, as soon as one looks more carefully at the distribution and interpretation of *all*, it is clear that this expression cannot have exactly the same meaning as $\forall$. For example, *all* is possible with collective predicates like *gather* and *meet*. In this case, as shown in (7), the sentence with the subject prefixed by *all* is not equivalent to its translation with $\forall$.

(7) **All** the girls gathered. $\not\leftrightarrow \forall x(girl(x) \rightarrow gather(x))$

Furthermore, the distribution of *all* in the nominal domain is somewhat complicated: as discussed by (Dowty 1987), it is possible with some collective predicates like *meet* and *gather* (7), but not with others, like *to be numerous* or *to be a group of four* (8).

(8) a. ***All** the girls are numerous.
b. ***All** the girls are a group of four.

Thus, much of the work within the traditional style of analysis has involved proposing more and more subtle quantificational analyses that can account for patterns like (7) vs (8). For recent analyses that can account for the data discussed in this section, see, for example, (Winter 2001) and (Champollion 2011).

2.2 The Pragmatic Operator View

Although the 'universal quantifier' analysis has remained popular in the literature, almost since the beginning of the logical approach to natural language semantics, researchers (even since (Link 1983)) have been skeptical of this analysis for *all*. A first argument against the quantifier analysis comes from this element's puzzling syntactic distribution. As discussed by (Brisson 1998) (although she attributes this

[3]Note that, strictly speaking, in predicate logic, quantifier symbols ($\forall$, $\exists$) are treated syncategorematically; that is, no meaning is assigned to $\forall$ outside its use in well-formed formulas. However, a categorematic treatment of elements such as $\forall$ is given within generalized quantifier theory (cf. (Mostowski 1957)); thus, with this in mind, we can still talk of 'the meaning of $\forall$'.

observation to Barbara Partee (p.c.)), in English, *all* only attaches to constituents that are already quantified. For example, in most theories of the semantics of sentences with definite plurals and distributive predicates, the bare subject DP is universally quantified by a distributivity operator ((Link 1983), (Roberts 1987), among others). An argument in favour of the position that sentences with distributive predicates are independently universally quantified comes from the observation (originally made by (Kroch 1974) and further developed by (Lasersohn 1999)) that denying the universality of a sentence with a definite plural subject (such as (9)) results in a contradiction, as shown in (10).

(9) The townspeople are asleep.

(10) # Although the townspeople are asleep, some of them are awake.

Definite DPs in distributive contexts are one of the two kinds of DPs that can be felicitously prefixed by *all* in English, as shown below.

(11) **All** the townspeople are asleep.

The other DPs that can combine with *all* are generic bare plurals. Bare plurals in English can have one of two possible (and structurally conditioned) interpretations. When they appear as the subject of an individual-level (i.e. permanent) predicate, they have a generic interpretation; whereas, when they appear as the subject of a stage-level (i.e. temporary) predicate, they receive an existential interpretation.

(12) **Generic:** Poets are vegetarians.

(13) **Existential:** Poets arrived late to the party yesterday.

Following work by (Carlson 1977), it is common to suppose that the generic interpretation in sentences like (12) is created by the presence of a generic quantifier that combines with the bare plural. With this in mind, we can observe that *all* is only possible with the generic bare plural, not the existential bare plural (as shown in 15). In other words, *all* only combines with the DP that has first combined with another quantifier[4].

(14) **Generic: All** poets are vegetarians.

(15) **Existential:** ***All** poets arrived late to the party yesterday

In summary, we see that *all* (at least in English) can combine with DPs that are independently universally or generically quantified. Furthermore, as discussed in (Brisson 1998), the distribution of this lexical item is limited to such DPs. Thus, we might wonder: **If not quantification, what is ALL's contribution to the meaning of the utterance that it occurs in?** I will now outline a second style of analysis that gives a pragmatic answer to this question.

[4]Note that this example is very puzzling for the analysis of *all* as a universal quantifier: Why can't 15 mean the same thing as *Every poet arrived late to the party yesterday*?

2.2.1 Pragmatic Slack

The pragmatic approach to the analysis of *ALL* is based on the observation that, depending on context, speakers might very naturally utter (9) if some small percentage of the townspeople is awake. In other words, sentences with definite plurals allow a certain amount of what is alternatively called *pragmatic slack* (Lasersohn 1999)/*non-maximality effects* (Brisson 2003) or *vagueness* ((Malamud 2006), (Burnett 2011)) with respect to how many parts of the subject DP need to be affected in order for the utterance to be felicitous. We can observe that prefixing *all* to the subject eliminates (or significantly reduces) the pragmatic slack: for (16) to be felicitous, every single townsperson must be asleep.

(16) All the townspeople are asleep.

(Lasersohn 1999) (p.523) describes the proposed difference between sentences with bare definite DPs and distributive predicates, and those with subjects prefixed by *all* as follows: he says,

> "This makes [9] truth-conditionally equivalent to [16]. The difference in meaning, I suggest, is not truth-conditional, but simply in how much pragmatic slack they allow, in how much deviation from the truth they permit the pragmatic situation to license."

In the next sections, I will present a new argument in favour of the analysis of *ALL* as a 'slack regulator'.

3 Adjectival ALL: The Data

This section presents the data associated with adjectival *ALL*; the main focus of this section is French *tout*, but, as we will see, similar patterns exist elsewhere in the Romance and Germanic language families.

3.1 The Basic Observation

The principle observation upon which my argument is based is the following: in the adjectival domain, *ALL* can have two different interpretations. Sometimes, as shown in (17) and (18), *ALL* seems to be synonymous with *completely*. I will call this 'completely' interpretation, the *completive/universal* interpretation.

(17) a. *French:* La salle est **toute** vide.
The room is ALL empty

b. *Italian:* La stanza è **tutta** vuota.
The room is ALL empty

c. *German:* Das Zimmer ist **ganz** leer.
The room is ALL empty
'The room is completely empty' (lit. **all** empty)

(18) a. *French:* Jean est **tout** chauve.
John is is ALL bald

b. *Italian:* Gianni è **tutto** pelato.
John is ALL bald

c. *(Austrian) German:* Hans ist **ganz** glazert.
John is ALL bald
'John is completely bald' (lit. **all** bald)

At first glance, it looks promising to analyze *ALL* in these examples as some kind of universal quantifier. As discussed by (Kamp & Rossdeutscher 1994), (Yoon 1996), and (Rotstein & Winter 2004) (and as will be further elaborated in section 4), the sentences in (17) and (18) have universal truth conditions: *tout vide* requires that its subject have the highest degree of emptiness; likewise, *tout chauve* requires its subject to have the highest degree of baldness. In fact, I suggest that the completive interpretation serves as an argument in favour of developing a unified analysis of adjectival ALL (*tout vide*) and nominal ALL (*toutes les filles*). Indeed, analyses unifying the completive adjectival and the universal nominal *ALL*s have already been proposed in the literature, for example, by (Junker 1995) for French *tout*.

The examples above display an established pattern in French, Italian, and German; however, it is worth noting that English also has completive adjectival *all*, although it appears to be less productive and limited only to certain dialects. Nevertheless, the examples in (19) from (Bolinger 1972) (p.47) are acceptable.

(19) a. The can is **all** empty.
b. Some of the buds are **all** shut, but others are **all** open.
c. Is he **all** well again?
d. Everything **all** set?

This being said, other times, ALL seems synonymous with *very* or *really*, as shown below. I will call this interpretation the *intensive* interpretation.

(20) **content/contento/glücklich** 'happy'
a. *French:* Jean est **tout** content.
John is is ALL happy
b. *Italian:* Gianni è **tutto** contento.
John is ALL happy
c. *German:* Hans ist **ganz** glücklich.
John is ALL happy
'John is really happy' (lit. **all** happy)

(21) **triste** 'sad'
a. *French:* Jean est **tout** triste.
John is is ALL sad
b. *Italian:* Gianni è **tutto** triste.
John is ALL sad
'John is really sad' (lit. **all** sad)

(22) **petit/klein** 'small'

a. *French:* Maria est **toute** petite.
Maria is ALL small
'Maria is really small.'

b. *German:* Maria ist ja noch **ganz** klein.
Maria is still PRT ALL small
'Maria is still really small.'

As mentioned, in this context, *ALL* appears to have the function of an intensifier. Thus, the French sentence *Jean est tout content* is roughly synonymous with the corresponding expression with *très* 'very': *Jean est **très** content*. Again, English has this intensive use (possibly in a more restricted version[5]), as shown in the examples from (Bolinger 1972) (p.47) below.

(23) a. He was **all** foolish in his embarrassment.
b. This is **all** nasty and old; throw it away.
c. I'm just **all** heartsick with the news.
d. It's **all** neat and tight.

From these examples, we can observe that the sentences in (20) and (21) have existential, not universal, truth conditions: *tout content* requires its subject to have **some** degree of happiness significantly higher than the contextual 'happiness' standard, but not necessarily the highest degree possible. Note that the availability of intensive *ALL* is subject to a fair amount of speaker, register, and even constructional variation. For example, for most speakers of French, *tout* is awkward in predicative contexts with *grand* 'tall/big'; thus, we might wonder to what extend the pattern is truly productive.

(24) ?Marie est **toute** grande.
Marie is ALL tall
'Marie is really tall'

This being said, intensive *tout* with *grand* exists in many constructions, such as (25), and some speakers find that (24) becomes acceptable in the context of talking to a small child (26)[6].

(25) a. un **tout** grand merci
a ALL big thankyou
'a very big thank you'

[5]English *all* also seems to have a more productive exclamative adjectival *all*, which frequently requires the presence of *and stuff/shit*. This use of *all* differs from the uses discussed in this talk in its interpretation and its distribution. For example, exclamative *all* is possible with non-scalar adjectives.

(1) And then his ex-girlfriend comes in, **all** pregnant **and stuff**!

(2) You're a disrespectful fucktard that's causing a ruckus when a fine upstanding citizen is getting **all** commemorated!
–Jason Stackhouse, "True Blood" Season 3, Episode 8.

I leave establishing the relationship between exclamative *all* and slack regulator *all* to future research.

[6]I thank Nausicaa Pouscoulous for bringing my attention to this pattern.

b. ouvrir **tout** grand
open ALL big
'to open very wide'

(26) Marie est rendue **toute** grande!
Marie is become ALL big
'Marie is all grown up!'

I therefore conclude that, from a grammatical perspective, intensive ALL is productive (at least in French); however, the contexts in which it is appropriate to use such a construction deserve further study.

3.2 Summary

In this section, I have shown that there are uses of *ALL* in the adjectival domain that are universal. Furthermore, I suggested that these cross-domain parallels serve as an argument in favour of developing a unified analysis of nominal and adjectival *ALL*. Finally, I have also shown that there are uses of *ALL* in the adjectival domain that are intensive; i.e. not universal. The existence of uses of *ALL* as an intensifier raises a problematic question for the approach that attempts to analyze this element as similar to $\forall$: **If *ALL* is a universal quantifier, why does it lose its universal force in examples like (20) and (21)?**

4 A Homophony Analysis?

In this section, I examine a way of preserving the $\forall$ analysis, while incorporating the intensifier data discussed in the previous section. The proposal is to adopt a suggestion by (Junker 1995), namely, that there are two homophonous *ALL*s in the lexicon: ALL_1 (a universal quantifier) and ALL_2 (an intensifier). If we are working in a degree semantics framework for the analysis of adjectival predicates, we might treat ALL_1 as contributing some universal quantification over degrees and ALL_2 as a context-dependent degree modifier. Thus, a possible analysis for the interpretations of French *tout* is shown in (27).

(27) **Possible analysis for French *tout*:**
a. **Quantifier:** $[\![\text{tout}_1]\!] = \lambda P \lambda x\ (P(x, d)\ \&\ \forall \mathbf{d}'(d' \neq d \rightarrow d > d'))$
b. **Intensifier:** $[\![\text{tout}_2]\!] = \lambda P \lambda x\ (\exists \mathbf{d}(P(x, d)\ \&\ d \text{ is much greater than } d_s))$.

Although, at first glance, this analysis would seem to be able to account for both interpretations of *tout*, in the next subsection, I argue that it makes incorrect empirical predictions.

4.1 Argument Against a Homophony Analysis

I argue that the homophony analysis presented above is empirically insufficient to account for the data since a principled generalization governs the distribution of the completive/intensive interpretation:

(28) **Empirical generalization governing the interpretation of adjectival ALL:**
The completive and intensive interpretations of *ALL* are in complementary distribution.

a. If P is a *total absolute* adjective, then $ALL\ P$ has a completive interpretation.

b. Otherwise, $ALL\ P$ has an intensive interpretation[7].

The generalization presented above makes reference to certain adjectival subclass distinctions known as *scale structure* distinctions. As discussed in many works (i.e. (Cruse 1986), (Kamp & Rossdeutscher 1994), (Yoon 1996), (Rotstein & Winter 2004), (Kennedy & McNally 2005), (Kennedy 2007), (Burnett 2012), a.o.), the set of scalar adjectives in languages like English and French can be partitioned into subclasses based on the properties of the orderings (also known as *scales*) that these predicates are associated with. I refer the reader to the works cited above for detailed justification of these proposals, but, for the purposes of this paper, it suffices to note that the patterns of the association of a particular adjective with a particular kind of scale that are generally accepted are the following:

1. Total absolute adjectives (29) are associated with scales that have maximal elements (i.e. top endpoints).

   (29) **Total Absolute Adjectives:**
   bald, empty, clean, smooth, dry, straight, flat, closed...

2. Partial absolute adjectives (30) are associated with scales that have minimal elements (i.e. bottom endpoints).

   (30) **Partial Absolute Adjectives:**
   dirty, bent, wet, curved, crooked, dangerous, awake...

3. Relative adjectives (31) are associated with scales that have neither maximal nor minimal elements (i.e. open scales).

   (31) **Relative Adjectives:**
   tall, short, expensive, cheap, nice, friendly, intelligent, stupid, narrow, wide...

We can now verify (using data from French) that the generalization in (28) indeed holds.

(32) **Total Adjectives → Completive Interpretation:**
tout chauve, tout vide, tout propre, tout lisse, tout sec, tout droit, tout plat, tout fermé...

(33) **Partial Adjectives → Intensive Interpretation:**
tout sale, tout tordu, tout mouillé, tout courbé, tout croche, tout réveillé...

(34) **Relative Adjectives → Intensive Interpretation:**
tout grand, tout petit, tout cher, tout gentil, tout nul, tout étroit...

[7]Note that this generalization describes only scalar adjectives; adjectival *ALL* is generally ungrammatical with non-scalar adjectives, although cf. footnote 5.

These patterns give us the following argument against the homophony analysis: If *tout* was ambiguous between a quantifier and an intensifier, we should expect sentences with total absolute adjectives (total AAs) to be ambiguous between a completive and intensive interpretation. Note that there is no incompatibility between total absolute predicates and intensification, as shown (35). (Recall that that the *tout* that appears with relative adjectives and partial absolute adjectives is roughly synonymous with the intensifier *très* 'very').

(35) **Total AAs are compatible with intensification:**

a. Jean est **très** chauve.
Jean is very bald
'Jean is very bald.'

b. La salle est **très** vide.
The room is very empty
'The room is very empty.'

However, this prediction is not borne out: in fact, sentences with total adjectives and *tout* are not ambiguous. One way to see this is by contrasting an expression like *tout vide* 'lit. ALL empty' with a truly completive expression like *complètement vide* 'completely empty'. As shown in (36), the result is a contradiction.

(36) # La salle est **toute** vide, mais elle n'est pas **complètement** vide.
The room is ALL empty, but it NEG-is not completely empty
Lit. 'The room is ALL empty but not completely empty.' (contradiction)

If the expression *toute vide* were truly ambiguous, as predicted by the homophony analysis, there should be a non-contradictory reading of (36), one along the lines of (37). But such a reading does not exist.

(37) La salle est **très** vide, mais elle n'est pas **complètement** vide.
The room is very empty, but it NEG-is not completely empty.
'The room is very empty, but it's not completely empty.'

Furthermore, sentences with *très* strongly imply (or perhaps even entail) the negation of their counterparts with *tout*. If there was an independent intensifier *tout* in the grammar, the relation between the two sentences in (38) should not hold.

(38) La salle est **très** vide. ⊨ La salle n'est pas **toute** vide.

Therefore, based on these patterns, I conclude that a homophony analysis overgenerates intensive interpretations with total absolute adjectives, and that the observed interpretative variation should be derived from the linguistic context in which *ALL* appears from a single underlying lexical meaning.

4.2 Summary

In this section, we saw that adjectival ALL has a completive/universal meaning when it appears with adjectives whose associated scales have a top endpoint (total AAs), and I have argued that we would like to unify the universal use of adjectival

ALL with the universal use of nominal ALL. Additionally, we saw that adjectival ALL has an intensive meaning when it appears with adjectives whose associated scales have no top endpoint (relative adjectives and partial AAs). We saw furthermore that completive ALL and intensive ALL are in complementary distribution; therefore, I argued that we should unify these two interpretations into one lexical item. In other words, we would like a unified analysis of the modifier in the three examples shown below.

(39) a. **Toutes** les filles ont sauté dans le lac.
ALL the girls have jumped in the lake.
'All the girls jumped in the lake.'

b. La salle est **toute** vide.
The room is ALL empty.
'The room is completely empty.'

c. Jean est **tout** petit.
Jean is ALL small
'Jean is really small.'

In the next section, I provide a sketch of such an analysis.

5 A Simple Slack Regulation Analysis

My proposal is the following: What definite plurals ('the girls') and scalar adjectives ('small', 'empty' etc.) have in common is that these constituents have *vague/imprecise* uses. Correspondingly, I propose that ALL applies to a constituent X and eliminates X's **borderline cases**, which, as we will see, is a notion defined w.r.t. pragmatic slack/vagueness/imprecision (for the purposes of this paper, I will use these terms interchangeably).

The formal implementation of this analysis could be done in many ways. However, the development of an appropriate framework for modelling vagueness and pragmatic slack across categories and the integration of a fully formalized analysis of *ALL* within them goes far beyond the scope of this short paper[8]. Nevertheless, to give an idea of how the analysis works and how we can propose a single underlying meaning for *tout* when it applies to DPs and different kinds of AdjPs, in this final section, for each relevant kind of constituent, I will describe what their borderline cases are and how the analysis of *ALL* as a borderline case eliminator predicts the correct interpretation[9].

5.1 Borderline Case Elimination

How do we diagnose borderline cases? A long-standing characterization (which dates back to (Peirce 1901)), which we might call the *epistemic* characterization, is one in which the borderline cases of a predicate are those individuals that give rise

[8]However, see (Lasersohn 1999), (Cobreros *et al.* 2010), and (Burnett 2012) for some examples.

[9]Note that, as observed by (Lasersohn 1999) for pragmatic slack, constituents prefixed by *ALL* are subject to higher-order vagueness. Thus, a more accurate description of *ALL* might be as a *first order* borderline case eliminator.

to uncertainty with respect to whether they satisfy the predicate. Another more recent characterization, which we might call the *syntactico-semantic* characterization (based on experimental work by (Alxatib & Pelletier 2010), (Ripley 2011) (a.o.)), is one in which borderline cases of a predicate are that can satisfy overt contradictions with a vague predicate.

In the next subsections, for each of the four classes of constituents (relative adjectives, partial AAs, total AAs, and definite plurals), I describe what their borderline cases are and how the analysis of ALL as a 'borderline case' eliminator creates the desired interpretation.

5.1.1 Relative and Partial Adjectives

The standard view of relative adjectives is that they are evaluated with respect to a comparison class (cf. (Klein 1980)), and their extension is determined by a contextually given standard value. An individual is in the extension of a relative predicate just in case they satisfy the predicate to a degree higher than that contextual standard. Suppose, for the sake of illustration, that we are evaluating the heights of children in grade three and applying the relative predicate *small*. Anyone taller than 4ft1" (the average) is going to be clearly not small, and anyone under 3ft2" is going to be clearly small. But what about kids that measure 4ft?, 3ft11"? Are they *small* or *not small*? Both? Neither? Thus, by the epistemic characterization, these children are the borderline cases of *small* in this context. Furthermore, recent experiments (i.e. (Alxatib & Pelletier 2010), (Ripley 2011)) have shown that participants accept overt contradictions of the form in (40) with individuals meeting the uncertainty condition[10].

(40) a. Mary is both small and not small.
b. Mary is neither small nor not small.

In summary, for relative adjectives like *small*, there exist individuals to whom we seem to be able to meaningfully apply both the predicate and its negation. Recall my proposal that applying *ALL* excludes these individuals, leaving only the individuals that clearly satisfy the predicate. Thus, we expect that elements like *tout* should create an intensive interpretation with relative adjectives. This prediction is borne out.

We find a parallel situation with partial absolute adjectives like *dirty*. As discussed by (Kamp & Rossdeutscher 1994), (Yoon 1996), (Rotstein & Winter 2004) (a.o.), partial predicates have existential truth conditions: An individual is in the extension just in case they satisfy the predicate to some non-zero degree. This being said, in most contexts, adjectives like *wet* and *dirty* still have borderline cases: Is a pair of pants with a couple of specks of dirt in it *dirty* or *not dirty*? It seems unclear. Likewise, for such individuals, it seems like overt contradictions are possible, as shown below.

(41) These pants are both dirty and not dirty.
(They have some dirt on them, but I don't need to wash them yet.)

[10](Alxatib & Pelletier 2010) studied the predicate *tall*, and (Ripley 2011) studied the relative predicate *near*.

Under the analysis in which lexical items like *tout* subtract the borderline cases from their complements, in a parallel manner to modification with relative adjectives, we correctly predict an intensive interpretation.

(42) Marie est toute petite.
Marie is really small.
'Marie is very small' **(Intensive interpretation)**

(43) Ma robe est toute sale.
My dress is ALL dirty
'My dress is really dirty' **(Intensive interpretation)**[11]

5.1.2 Total Adjectives and Definite DPs

Following many authors (ex. (Yoon 1996), (Rotstein & Winter 2004), (Kennedy & McNally 2005) (a.o.)), I assume that total absolute adjectives have universal truth conditions. In particular, an individual is in the extension of a total predicate just in case they satisfy the predicate to the highest degree (the endpoint of the scale). However, as observed by (Pinkal 1995), (Lasersohn 1999) and (Kennedy 2007), when we are speaking loosely, we can apply these predicates to individuals that are not at the endpoint. Suppose, for illustration, that we are applying the total predicate *bald*, and we are evaluating the baldness of men on the street. Men with zero hair are clearly bald, and men with full heads of hair are clearly not bald. However, borderline cases with total AAs appear as soon as we deviate from the endpoint of the scale. What about men with a few hairs on their head? A quarter head of hair? It seems unclear. Similarly, it seems appropriate to say, of Homer Simpson, that he is both *bald* and *not bald*: he has some hair, but is certainly close enough to the endpoint of the scale to be loosely described as *bald*. Under my 'borderline case eliminator' proposal, modification by *tout* subtracts all the individuals that are not at the top endpoint of the *baldness* scale. Thus, we correctly predict a completive/universal interpretation.

Finally, we briefly consider the interpretation of *tout* with definite DPs in distributive contexts. As discussed in section 2, I assume that a plural distributive predicate is true of a group *the girls* just in case it affects ever member of the group. However, also as discussed in section 2, speaking loosely, we can apply the distributive predicate even if some irrelevant parts of the subject are not affected. In this way, like with total predicates, borderline cases appear as soon as we deviate from the top element of the (mereological) scale. For example, is *The girls jumped in the lake* true if one or two of the girls stay dry? Similarly, as observed by (Brisson 2003), definite DPs with distributive predicates allow contradictions of the form in (44)[12].

[11] This sentence also has a 'mereological' interpretation which describes how the parts of the subject are affected by the partial predicate. For the purposes of this paper, I assume that this interpretation is created by Q-float: *toute* applies to the subject (*ma robe*) and the result is a universal/completive interpretation as discussed below.

[12] Negation works differently with DPs such that contradictions involving negation are very different from the same contradictions with scalar adjectives (cf. the literature on the *homogeneity effect* (Fodor 1970)).

(44) The campers jumped in the lake, but Mary, a camper, decided to stay dry.

The analysis developed in this paper predicts that adding *ALL* should eliminate all the cases where the predicate affects less than the entire group denoted by the subject. In other words, we correctly predict a universal interpretation.

(45) Jean est **tout** chauve.
Jean is ALL bald.
'Jean is completely bald' **(Universal interpretation)**

(46) Toutes les filles sont arrivées
ALL the girls are arrived
'All the girls arrived.' **(Universal interpretation)**

6 Conclusion

In this paper, I presented new data on the distribution of ALL in the adjectival domain. I argued that it is not obvious how to extend a universal quantifier analysis to the intensive use of adjectival ALL. On the other hand, I argued that a slack regulator analysis in which ALL applies to a vague or imprecise constituent and eliminates its borderline cases captures both the contribution of nominal ALL to the meaning of the utterance it appears in and the interpretative variation in the adjectival domain. I therefore conclude that the distribution and interpretation of adjectival ALL constitutes a strong argument in favour of the 'slack regulator' approach, against the 'universal quantifier' approach to the analysis of the semantics and pragmatics of expressions like *all* and *tout* in human languages.

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