

BARE HABITUALS AND PLURAL DEFINITE DESCRIPTIONS*

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Abstract

This paper investigates semantic and pragmatic differences between habitual sentences with adverbs of quantification and habitual sentences without adverbs of quantification, which I will call *bare habituals*. I will argue for the idea that bare habituals involve plural definite descriptions of events/situations, whereas habituals with adverbs of quantification involve quantification over singular events/situations.

1 Introduction

Habitual sentences are used to express non-accidental generalizations based on occurrences of a certain type of situation or event. For instance, if after observing a certain number of events of John having dinner with friends, one notices that in each one of those occasions he drank wine, one might be tempted to conclude that the overlapping between the dinner events and the wine-drinking events is not accidental, but something typical about John's habits. One way of expressing this conclusion is by means of a sentence like (1) below:

- (1) When John has dinner with friends, he always drinks wine.

Here, the relation between the type of event described by the adverbial clause and the type of event described by the matrix clause seems to be mediated by the adverb *always*, which brings about a universal flavor similar to the one associated with nominal determiners like *every* and *all*. In fact, adverbs of quantification (AQs) are a common ingredient in habitual statements. Besides *always*, English has others, such as *usually*, and *sometimes*, all contributing a particular force to the generalizations being expressed by the sentences containing them.

- (2) When John has dinner with friends, he usually/sometimes drinks wine.

Interestingly, AQs are not a crucial component of habitual sentences. Quite often, generalizations are expressed without the help of any overt AQ, as can be seen in (3), a sentence whose meaning seems quite similar to the meaning of (1) above:

- (3) When John has dinner with friends, he drinks wine.

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This similarity between habitual sentences with AOs and habitual sentences without them has led to a widespread view according to which, the absence of an adverb of quantification in (3) is only apparent, and that in fact, a covert, phonetically null AO is present in sentences like that as well (see Farkas and Sugioka 1983, Krifka, Pelletier, Carlson, ter Meulen, Chierchia and Link 1995, Cohen 1999), and references therein). Since then, the task of spelling out the meaning of this covert AO has been a central issue in the semantics of habituality, and the topic is still a controversial one. For example, are (1) and (3) synonymous? What about (2) with *usually* and (3)?

The aim of this paper is to investigate semantic and pragmatic differences between habitual sentences with AOs and habitual sentences without AOs, which I will call *bare habituals*. I will argue for the idea that bare habituals involve plural definite descriptions of events/situations, whereas habituals with AOs involve quantification over singular events/situations. More precisely, although I assume the presence of a silent habitual operator in the structure of bare habituals, I assign to this operator the meaning of the English definite determiner ‘the’ (modulo a sortal distinction). I will defend this view by highlighting crucial differences concerning minimal pairs with and without AOs, and also several parallels between the nominal determiner *the* and the silent habitual determiner. Thus, according to the view to be defended here, (1) can be paraphrased as ‘Every event of John having dinner with friend overlaps with an event of him drinking wine’, whereas (3) is better paraphrased as ‘The events of John having dinner with friends overlap with events of John drinking wine.’

The paper is organized as follows: in section 2, I discuss several contrasting pairs involving singular and plural noun phrases within which singular indefinites are embedded. This particular configuration will prove useful in bringing about certain differences concerning how singular, and especially plural, predicates are derived. Section 3 contains minimal background on event quantification. In section 4, I claim that similar differences exist in habitual sentences, and propose a similar treatment making crucial reference to plural events. In section 5, pragmatic differences between habituals with and without AOs are discussed and the similarity between plural definite nominals and bare habituals are highlighted. The emerging picture will then be that of bare habituals involving plural definite descriptions of events/situations, as stated in the brief conclusion in section 6.

2 Preliminaries

We start by looking at the internal structure of some complex noun phrases, and making assumptions about how singular and plural predicates are formed. We will first look at lexical predicates and then at derived ones.

2.1 Pluralities and Lexical Predicates

Consider the pairs of sentences below:

- (4) a. Every mother of a one-year old child agreed to sign this form.
b. #The mothers of a one-year old child agreed to sign this form.
- (5) a. Every wife of a graduate student came to the party.

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- b. #The wives of a graduate student came to the party.
- (6) a. I will visit every capital of an African country.
b. #I will visit the capitals of an African country.

When uttered in contexts in which it is common ground that each person has only one mother, men are not married to more than one woman, and South American countries have only one capital each, the b-sentences above sound rather strange, conveying information that go against these shared assumptions. They suggest the existence of multiple mothers of a single child, multiple wives of a single graduate student, and multiples capitals of a single South American country. On the other hand, the a-sentences all sound fine, totally compatible with what is common ground. At the origin of these contrasts is the singular/plural opposition overtly manifested in the pairs of nouns mother/mothers, wife/wives, and capital/capitals. That this is so can be seen by replacing the determiners *every* and *the* by other determiners without altering the number of the noun phrases. As attested below, in examples with the determiners *no* and *some*, the contrasts are preserved:

- (7) a. No mother of a one-year old child agreed to sign this form.
b. #Some mothers of a one-year old child agreed to sign this form.
- (8) a. No wife of a graduate student came to the party.
b. #Some wives of a graduate student came to the party.
- (9) a. I will visit no capital of an African country.
b. #I will visit some capitals of an African country.

Let us focus for the moment on the meaning of the noun phrases in question. Notice that these are headed by relational nouns, and that singular indefinites appear at the positions reserved for their first arguments. The only thing that distinguishes the members of the pairs above is the number associated with these NPs. If we assume with Link (1983) and much subsequent work that there are both singular and plural individuals, and that plural individuals have singular individuals as their minimal, proper parts, we can capture the contrasts described above by assigning the singular and plural NPs in (4)-(6) the denotations in (10)-(12), respectively:¹

- (10) a. $\llbracket \text{SG mother of a one-year old child} \rrbracket = \lambda x. \exists y : \text{child}(y) \wedge \text{mother}(x, y)$
b. $\llbracket \text{PL mother of a one-year old child} \rrbracket = \lambda X. \exists y : \text{child}(y) \wedge \text{mother}(X, y)$
- (11) a. $\llbracket \text{SG wife of a graduate student} \rrbracket = \lambda x. \exists y : \text{GS}(y) \wedge \text{wife}(x, y)$
b. $\llbracket \text{PL wife of a graduate student} \rrbracket = \lambda X. \exists y : \text{GS}(y) \wedge \text{wife}(X, y)$
- (12) a. $\llbracket \text{SG capital of an African country} \rrbracket = \lambda x. \exists y : \text{country}(y) \wedge \text{capital}(x, y)$
b. $\llbracket \text{PL capital of an African country} \rrbracket = \lambda X. \exists y : \text{country}(y) \wedge \text{capital}(X, y)$

Take (11), for example. For an individual to belong to the set represented in (11a), this individual has to be a (singular) woman married to a (singular) graduate student. But for an individual to belong to the set represented in (11b), the individual has to be a plurality

¹Variables ranging over pluralities will be represented with capital letters, and variables ranging over singularities with non-capital letters.

whose minimal parts are women married to the same graduate student. Thus, unless there is a graduate student with more than one wife, this set will be empty. That is why the sentence sounds funny with monogamy in the background.

The next task is to make the analysis compositional. I assume that two pieces are put together to form the inflected NPs above: a number morpheme (SG or PL) and a bare, ‘numberless’ noun phrase. I will follow Kratzer (2004), who proposes a semantic universal stating that all lexical predicates are cumulative. In the case of a one-place predicate \mathbf{P} , this means that if \mathbf{a} and \mathbf{b} are both members of \mathbf{P} , so is $\mathbf{a} \oplus \mathbf{b}$, the plural individual formed by \mathbf{a} and \mathbf{b} . Thus, the extension of bare noun phrases denoting one-place predicates may contain both singular and plural individuals. In the case of a 2-place predicate \mathbf{R} , we have that if both $\langle \mathbf{a}, \mathbf{b} \rangle$ and $\langle \mathbf{c}, \mathbf{d} \rangle$ belong to \mathbf{R} , then $\langle \mathbf{a} \oplus \mathbf{b}, \mathbf{c} \oplus \mathbf{d} \rangle$ also belong to \mathbf{R} .² Take the lexical predicate *wife* for instance, and suppose that Mary is John’s wife and Marta is Paul’s wife. Then, the denotation of *wife* would have the pairs $\langle \mathbf{mary}, \mathbf{john} \rangle$, $\langle \mathbf{marta}, \mathbf{paul} \rangle$, and $\langle \mathbf{mary} \oplus \mathbf{marta}, \mathbf{john} \oplus \mathbf{paul} \rangle$ as its members. Now, imagine John gives up monogamy and marries Susan too. Then, \mathbf{R} will have two more members: $\langle \mathbf{susan}, \mathbf{john} \rangle$ and $\langle \mathbf{mary} \oplus \mathbf{susan}, \mathbf{john} \rangle$. Finally, imagine that John and Paul are graduate students, and let us ask ourselves what the denotation of the predicate *wife of a graduate student* would be in this scenario, disregarding for the moment the question of how the indefinite and the noun combine to form this complex expression. We are looking for woman, or women, who are married to a graduate student. There are three: **mary**, **susan**, and **mary** \oplus **susan**.

Turning now to the role of the number morphemes, SG/PL, I take them to select the atomic/non-atomic individuals in a predicate extension, as represented in the lexical entries below:

- (13) a. $\llbracket \text{SG} \rrbracket = \lambda P. \lambda x. P(x) = 1 \wedge AT(x) = 1$
 b. $\llbracket \text{PL} \rrbracket = \lambda P. \lambda X. P(X) = 1 \wedge \neg AT(X) = 1$

Thus, in our previous example, the predicate *wife of a graduate student* will have two members, **mary** and **susan**, after combining with SG, and only one member, **mary** \oplus **susan** after combining with PL. This is what we desired.

2.2 Distributivity and Derived Predicates

Consider now the examples in (14) and (15) below, consisting, as in the previous subsection, of minimal pairs containing nouns that contrast in number. This time, however, the nouns are modified by relative clauses.

- (14) a. Every woman who has a six-month old child agreed to sign the form.
 b. The women who have a six-month old child agreed to sign the form.
- (15) a. In my family, every woman who married a professor is happy.
 b. In my family, the women who married a professor are happy.

²The idea generalizes trivially for other n-place predicates.

Interestingly, the b-examples do not sound strange. They do not suggest the existence of multiple mothers of a single child or multiple wives of a single professor. In fact, if we compare (14b) and (15b) to (4b) and (5b), repeated below as (16a) and (16b), we see that the first two are much better in this respect than the other two.

- (16) a. #The mothers of a one-year old child agreed to sign the form.
 b. #The wives of a professor came to the party.

One salient aspect of the examples in (14) and (15) is the clausal nature of the noun modifier, within which the singular indefinite is embedded. The relative clause is formed with the help of a relative pronoun, which moves to the periphery of the clause to create a derived predicate of individuals. I follow the proposal in Heim and Kratzer (1998), according to which syntactic movement generates an index node right below the landing site of the moved element, which is interpreted as a lambda-abstractor, binding co-indexed traces and/or pronouns in its c-command domain. This gives us the following (simplified) representation for the relative clause of (15a):

- (17) [who [1 [t₁ married a professor]]]

The relative pronoun itself is vacuous, perhaps only adding selectional requirements in the form of semantic features, such as +HUMAN in the case of *who*.

I would like to suggest that besides its role as a lambda abstractor, the index created by movement can also perform the role of a distributive operator, allowing a predicate to apply to the atomic parts of a plural argument.³ The idea is that this starred index can be part of the representation of the relative clause in examples like (14b) and (15b):

- (18) [who [1* [t₁ married a professor]]]

The structures in (17) and (18) receive the interpretations in (19) and (20), respectively:

- (19) $\llbracket \text{who } 1 \ t_1 \text{ married a professor} \rrbracket = \lambda x. \exists y : \text{professor}(y) \wedge \text{wife}(x, y)$
 (20) $\llbracket \text{who } 1^* \ t_1 \text{ married a professor} \rrbracket = \lambda X. \forall x : x \leq X \rightarrow \exists y : \text{professor}(y) \wedge \text{wife}(x, y)$

We have thus established a tight connection between syntactic movement and distributivity, and it should be clear now why there is a contrast between the interpretations of the sentences in the pairs below, all of them containing a plural noun phrase embedding a singular indefinite:

- (21) a. #The mothers of a one-year old child agreed to sign the form.
 b. The women who have a six-month old child agreed to sign the form.
 (22) a. #In my family, the wives of a professor are happy.

³I will limit attention here to atomic distributivity involving one-place predicates. Whether or not distribution to non-atomic parts or simultaneous distribution involving multiple arguments of a single predicate is needed is a controversial topic beyond the scope of this paper. For discussion see Schwarzschild (1996), Winter (2000), Beck and Sauerland (2000), Kratzer (2004), among others.

- b. In my family, the women who married a professor are happy.

Distribution is not possible in (21b) and (22b) because there are no predicates within the subject DPs, which were created by movement. In fact, I am assuming that the external argument of the relational nouns in these examples are never saturated by a individual-denoting entity in syntax. Thus, the representation of these DPs is the following:

- (23) [the [PL [mother/wife [of a one-year old child/a professor]]]]

The dependency of distributivity on movement is also compatible with the simplest cases that have been used in the literature on plurals to argue for the existence of distributive operators in the grammar. These are transitive sentences with a plural definite subject and a singular indefinite object. (24) is an example taken from Winter (2000), which can be used to describe a situation in which each woman was wearing a different dress:

- (24) The women were wearing a dress.

To allow for distributivity here, it is enough to assume that the subject of transitive sentences in English move from a base position inside the verb phrase to the specifier of a higher functional projection, an analytic move that has become standard in the Government and Binding tradition . Also relevant are cases involving raising predicates with plural subjects, as (25) below:

- (25) The boys seemed to a police officer to be drunk.

This sentence can be used to describe a situation in which every boy seemed to a different police officer to be drunk. Assuming the subject gets to its surface position via movement, the availability of a distributive reading is again expected.

2.3 The *i-within-i* Constraint

If distributivity is indeed tightly connected to syntactic movement, we expect that its availability correlates with other syntactic-semantic phenomena that are also dependent on movement. In the system of Heim and Kratzer (1998), which I am adopting here, variable binding is such a phenomenon. Take for example the case of binding of a pronoun by a quantifier phrase:

- (26) [everybody [likes his_i mother]]

In a structure like (26), if the quantifier does not move, the pronoun will be interpreted as a free variable, and the meaning of this structure will be assignment-dependent. In this case, the pronoun *his* would refer to a context salient individual. To get the reading according to which every *x* is such that *x* loves *x*'s mother, we have to move the quantifier, so that an index can be inserted and the derived predicate $\lambda x. x$ **loves x's mother** created:

- (27) [everybody 1 [*t*_i likes his_i mother]].

The dependency of both variable binding and distributivity on movement leads to the prediction that in cases where one is not available, the other should not be either. To see that this prediction is indeed borne out, consider the following pair of sentences from Jacobson (1994):

- (28) a. [The wife of the author of her_i biography]_i arrived.
 b. [The woman who married the author of her_i biography]_i arrived.

(28a) exemplify the so-called *i-within-i* constraint. The relevant fact here is that this sentence cannot mean ‘the woman x, such that x is the wife of the author of x’s biography arrived’. Interestingly, (28b), which one might have expected to mean exactly the same as (28a) can have such meaning. It seems that in the case of (28a), there is no potential binder for the pronoun, which remains free within DP. But notice that this is the same environment that we discussed before in connection to distributivity. There, we saw that plural NPs headed by relational nouns did not give rise to distributive readings within the NP. As I said, this should not be surprising anymore: no movement, therefore no distributivity and no binding. In (28b), with the noun being modified by a relative clause containing the pronoun, there is movement and movement creates a binding configuration, giving rise to the attested interpretation. Distributivity internal to NP, as we saw above, was also possible in these cases. In sum, I take all this as evidence that binding and distributivity are tied to the same formal mechanism, namely, syntactic movement.

3 Adverbial Quantification over Events

We now return to the main topic of this paper, namely, the semantics of habitual sentences. Recall our first example, repeated below as (29).

- (29) When John has dinner with friends, he always drinks wine.

We have talked informally about (29) as involving universal quantification over events, with the initial adverbial clause acting as the restrictor of the quantifier and the matrix clause (minus *always*) acting as the so-called nuclear scope. Let us make this a bit more explicit. I assume that verbs have an event argument, so that after they combine with their individual arguments, the resultant projection (assume it is VP) denotes a set of events. An AQ acts as an event determiner, that is, it combines with a set of events (its restrictor) to form a generalized quantifier (of events), which then combines with another set of events to yield a truth-value (cf. de Swart 1991).

Exactly how syntactic material is mapped onto this tripartite structure formed by an adverbial quantifier, a restrictor and a nuclear scope is a much debatable matter. Fronted adverbial clauses, such as the *when*-clause in (29), for example, seem to be systematically interpreted as restricting the quantifier. When not in initial position, however, they can be mapped into the restrictor or the nuclear scope, each choice being accompanied by a characteristic intonational contour (Rooth 1985, Johnston 1994). The following examples from Rooth (1985) illustrate the point (capital letters indicate focus):

- (30) a. John usually SHAVES when he is in the shower.

- b. John usually shaves when he is the SHOWER.

(30a), with intonational focus on the verb forces the adverbial clause to be interpreted as part of the restrictor. The sentence would mean that most events of John being in the shower overlap with events of him shaving. (30b), with focus on *shower* forces the adverbial clause to be part of the nuclear scope only, giving rise to a reading saying that most events of John shaving overlap with events of him being in the shower. Adverbial clauses themselves are not necessary ingredients in creating tripartite structures associated with habituality. Sometimes, contextual clues and intonation alone are enough. For example, in a discussion about John's working habits, one can utter (31), meaning that every event of John working is an event located in his office.

- (31) John always works in his OFFICE.

In this case, the material of the matrix clause is split into two parts, one going to the restrictor, the other to the nuclear scope.

An investigation into the complexities involved on the mapping to tripartite structures is well beyond the scope of this paper. Therefore, I will content myself here with dealing with representations in which the relevant pieces are already in place (though I will make some claims concerning the internal structure of the pieces.).⁴

4 Bare Habituals and Plurality

With this much as background, consider the following scenario: You know that John, a pop singer, is busy right now writing a new romantic song. You need to talk to him, but you don't know where he is. You tell a friend that you will call him at home, but your friend discourages you, replying with (32):

- (32) John always writes a romantic song at the MAIN STREET PUB.

What your friend is trying to tell you here is that whenever John is writing a romantic song, he does that at the Main Street Pub, so you would not find him at home. (32) is a habitual sentence in which material from the matrix clause ends up acting as the restrictor of the adverbial quantifier. In this case, it is the predicate denoted by the verb phrase (excluding the locative) that serves this function, as schematized below:

- (33) John always writes a romantic song [at the pub]_F

Quantifier: \forall_e

Restrictor: $\lambda e. \exists y : \text{romantic song}(y) \wedge \text{writes}(j, y, e)$

Nuclear Scope: $\lambda e. \text{at_the_pub}(e)$

Any event of John writing any romantic song will belong to the restrictor set. Notice the presence of a singular indefinite within VP in (32), which makes the predicate of events combining with the AQ in (33) structurally similar to the nominal predicates we discussed

⁴For in-depth discussions of this topic, see among others von Stechow (1994) and Partee (1995), and the references therein

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in section 2 in connection with examples like (5a), repeated below as (34). And indeed, they behave just the same, with the indefinite scoping inside the restrictor.

(34) Every wife of a graduate student came to the party.

Now, compare (32) with its counterpart without an adverb of quantification:

(35) #John writes a romantic song at the MAIN STREET PUB.

Contrary to (32), (35) sounds quite odd in this context. It cannot be used to express a generalization over events of John writing romantic songs. To the extent that it is possible to make sense of it at all, it suggests that John has the habit of writing the same song again and again, always at the pub. In fact, it sounds as weird as (36), an example in which it is clear that a specific song is at issue.

(36) #John writes that romantic song at the MAIN STREET PUB.

Replacing the verb *to write* by another verb that gives rise to a repeatable event helps in this case, but notice that we are still talking about multiple events involving the same song. (37), for instance, could be used in a context in which you and I know that John was hired by a department store to play a certain Christmas song. I know it was Filene's, but you think it was Macy's. You say you are going to Macy's to watch him playing, but I advise you not to, by using sentence (37).

(37) John plays a Christmas song at FILENE'S.

But (37) cannot be used to generalize over events of John performing Christmas songs. Notice that the behavior of the singular indefinite in (35) mirrors the behavior of singular indefinites inside plural noun phrases that we discussed before in cases like (5b), repeated here as (38):

(38) #The wives of a graduate student came to the party.

To account for this behavior, I would like to suggest that bare habituals involve plural definite descriptions of events. More precisely, I would like to propose that the structure of bare habituals contain a covert definite determiner, meaning what the nominal determiner *the* means (modulo a sortal distinction). This silent determiner appears at the same position that AQs appear in other habitual sentences. For (35), I assume that the following representation feeds the interpretive system:

(39) John writes a romantic song [in that pub]_F

Determiner: THE_e

Restrictor: $\lambda E. \exists y : \text{romantic song}(y) \wedge \text{writes}(j, y, E)$

Nuclear Scope: $\lambda E. \text{in that pub}(E)$

Given what we said before when we dealt with cases like (8), a quick inspection at (39) should be enough to understand why the indefinite is behaving the way we have just

described. In (39), the restrictor is a set formed by plural events whose minimal parts are different events of John writing the same song. But that presupposes that one can write the same song more than once, giving rise to the oddness we attributed to that sentence. This is just the same explanation we gave to the oddness associated with (8), which presupposed the existence of multiple wives of a unique man. Moreover, (39) contrasts with (32) containing the AQ *always* precisely because the restrictor of *always* is a set of singular events. The same explanation was behind the contrast between (34) and (8). The only difference is the absence of overt morphology related to number distinctions in the event domain.

Consider now cases in which a singular indefinite appears within an adverbial *when*-clause:

- (40) a. When John writes a romantic song, he always goes to the Irish pub.
 b. When John writes a romantic song, he goes to the Irish pub.

Despite the fact that the adverbial clauses act as restrictors in both (40a) and (40b), there is no contrast between them, and neither presupposes that John keeps writing the same song again and again. This should not be surprising, if we recall previous examples from section 2 in which singular indefinites were embedded in a relative clause modifying a head noun.

- (41) a. In my family, every woman who married a professor is happy.
 b. In my family, the women who married a professor are happy.

If we assume that *when*-clauses are a kind of relative clause (maybe a free relative), then the same explanation we offered for why (41b) is fine becomes available for (40b) as well. Recall that the crucial point was the assumption that relative clauses are derived by movement and movement gives rise to distributivity. Thus, the structure of the *when*-clause in (40b) would be as in (42) below, and the representation of the sentence would be as in (43):

(42) [when [1* [t₁ John writes a romantic song]]]

(43) When John writes a romantic song, he goes to the Irish Pub

Determiner: THE_E

Restrictor: $\lambda E. \forall e : e \leq E [\exists y : \text{song}(y) \wedge \text{write}(j, y, e)]$

Nuclear Scope:⁵ $\lambda E. \exists E' : \text{go to the Irish Pub}(E') \wedge \theta(E, E')$

The restrictor in (43) is a set of pluralities, with their minimal parts being events of John writing (different) songs. The definite description refers to the maximal element in this set, which would be the sum of all events in which John writes a romantic song. In the case of (40a), distributivity is not even necessary, since I am assuming that *always* is, so to speak, inherently distributive, quantifying over singular events only.

(44) When John writes a romantic song, he always goes to the Irish Pub

⁵The predicate θ stands for a relation between events, which I assume is contextually determined. Possible values include spatial-temporal proximity, overlap, etc. See Rothstein (1995) for relevant discussion.

Quantifier: \forall_e

Restrictor: $\lambda e. \exists y : \text{song}(y) \wedge \text{write}(j, y, e)$

Nuclear Scope: $\lambda e. \exists e' : \text{go to the Irish Pub}(e) \wedge \theta(e, e')$

5 Bare Habituals and Definiteness

Plurality has hitherto been the central issue in our discussion of the contrasts between habituals with AQ and bare habituals. Although we have explicitly treated bare habituals as involving definite descriptions, we have not relied as much on the definite character of the silent habitual determiner as we have on its selection for plural predicates. It was this feature that played the most crucial role in teasing apart that determiner and AOs, such as *always*, which were treated as selecting for singular predicates. In this section, it is definiteness that will play the central role, and the contrasts we will be looking at will crucially involve definite descriptions and quantifier phrases.

Our first contrast is illustrated by the following pair of negative sentences:

- (45) a. The boys didn't come.
b. Every boy didn't come.

Sentence (45a) with a plural definite as its subject is true if, and only if, none of the boys came. If at least some of them did, then it is false. This is somewhat surprising. Imagine the boys in question are John and Bill. Then the positive sentence 'The boys came' is equivalent to 'John came and Bill came'. But then the negative sentence (45a) should be equivalent to 'It is not the case that 'John came and Bill came'', which is compatible with 'John came but Bill didn't come'. What is peculiar then to negative statements with plural definite descriptions is the fact that they seem to validate inferences from $\neg F(A)$ to $\neg F(a_1) \wedge \neg F(a_2) \wedge \dots \wedge \neg F(a_n)$, where a_1, a_2, \dots, a_n are the minimal parts of the plural individual A. (45b) behaves differently. It can be true even if some boys came, but others did not.

We will not look for an explanation for this asymmetry. What is relevant for us here is the fact that plural definites, but not universal quantifiers, give rise to 'excluded middle' or 'all or nothing' effects, as attested by the contrast discussed above.⁶ Now, what about habitual sentences? Here we also observe a similar contrast in that only bare habituals give rise to 'excluded middle' effects. Consider (46):

- (46) a. When Bob gets hurt, he doesn't cry.
b. When Bob gets hurt, he doesn't always cry.

(46a) is false if Bob cries approximately half of the times in which he gets hurt. (46b), on the other hand, can be true in such a situation. This is exactly parallel to what we just discussed in connection with DPs, and it receives a straightforward explanation, once we assume that bare habituals involve plural definite descriptions of events.

Our second point is based on the following considerations: there is a sense in which sentence (47a) is stronger than (47b). Although it is not clear where exactly the difference

⁶See Löbner (1985) for discussion.

resides, hearers are prompt to judge (47a) as expressing a bolder statement than (47b).

- (47) a. When my dog sees a blond girl, it always barks.
 b. When my dog sees a blond girl, it barks.

This is reminiscent of the phenomenon discussed by Brisson (1998), where she detected a similar contrast between plural definite descriptions and universally quantified expressions. For example, she observed that (48a), but not (48b), can be true in a situation which contains twelve girls, and in which only eleven jumped into the lake.

- (48) a. The girls jumped into the lake.
 b. Every girl jumped into the lake

Whether this difference in judgments reflects differences built into the truth conditions of these sentences, or purely pragmatic phenomena (Gricean acts of charity?) is an important question that requires further investigation. What I want to stress here is the parallel between bare habituals and plural definite DPs on the one hand, and habituals with the AQ *always* and universally quantified statements on the other.

Acknowledging that bare habituals are ‘weaker’ than their counterparts with *always* may lead to the conclusion that the silent habitual operator should have the meaning of a proportional quantifier whose force is weaker than that of a universal quantifier. For instance, it could mean something like ‘usually’, ‘generally’, or ‘typically’. However, contrary to habitual sentences with these quantifiers, bare habituals do not give rise to implicatures denying the corresponding universal statements, as the examples below attest.

- (49) a. When John arrives at work, he is sober.
 b. When John arrives at work, he is usually/generally/typically sober.

Notice the dramatic consequences this difference may have on the use of these habitual sentences. Imagine we are trying to defend John from rumors that he works drunk. Something like (49a) would be the right kind of thing to say in his support. (49b), however, would produce the opposite effect, suggesting that he sometimes arrives drunk at work. The use of this sentence might in fact be a good, subtle way of rising the level of suspicion against John’s bad working habits.

Once again, Aqs behave like their corresponding quantificational determiners, whereas the silent habitual operator behave like a definite determiner.

- (50) a. The dogs barked.
 b. Most dogs barked.

(50b) implicates that not every dog barked, whereas if (50a) implicates something, it is that every dog barked.

6 Conclusion

In this paper, I contrasted the semantics and pragmatics of habitual sentences with and without adverbs of quantification (AQ), and claimed that whereas an analysis based on

quantification over singular events is adequate for the ones with AQs, the ones without them, which I called ‘Bare Habituals’, are best analyzed as involving plural definite descriptions of events. I assumed the presence of a silent habitual operator for bare habituals, but I assigned to this operator the meaning of the English definite determiner *The* (modulo a sortal distinction). Several differences were discussed concerning minimal pairs with and without AQs, and several parallels were established between the plural nominal determiner *The* and the silent habitual determiner. Taken together, they point to the conclusion that plurality and definiteness are crucial ingredients in the interpretation of bare habituals.

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