On Some Pesky Counterexamples to the Partitive Constraint: A Squib[*]

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1. Introduction

The Partitive Constraint, introduced by Jackendoff (1977), is the restriction that the embedded NP of partitive construction must be definite. It has been pointed out by many (Ladusaw 1982, Abbott 1996, among others), however, that there are some pesky counterexamples to the Partitive Constraint. These problems then led several people to argue in favor of a pragmatic rather than a semantic account of the Partitive Constraint (see Reed 1991, 1996; Abbott 1992, 1996). In this squib, I show that these well-known counterexamples can in fact be explained with a semantic account via inverse linking in the sense of May (1977). That is to say, an account for the problematic partitives based on pragmatic or discourse principle, though informative, is probably unnecessary.

2. Partitive Constraint and Its Problems

The restriction that the embedded NP of partitive construction must be definite is well known in the literature as the Partitive Constraint (PC). As noted (cf. Jackendoff 1977, Ladusaw 1982), indefinite NPs, including those containing the quantifiers 'all' and 'few' are disallowed in the embedded position. Examples which violate PC are provided in (2).

(1) Some of the books/many of those books/each of these books

(2) *Some of all books/*many of no books/*each of few books

It has been pointed out by many (Ladusaw 1982, Abbott 1996, among others), however, that there are some counterexamples to the assumption that the embedded NP in partitives is always definite. Weak NPs do not have a generator and hence should not be allowed. However, there are cases in which weak determiners such as cardinals, 'several' and 'many' in the embedded position that bypass the restriction set by the Partitive Constraint. The classic examples are repeated below.

(3) That book could belong to one of three people (Ladusaw 1982: 240)

(4) Ants had gotten into most of some jars of jam Bill had stored in the basement

(5) Three quarters of half the population will be mothers at some point in their lives

(6) We put two strawberries on each of three pies (and kiwi slices on the rest) (Abbott 1996: 30)

To accommodate these problematic cases, revision to PC has been suggested. Ladusaw (1982), for example, suggests that the embedded NP must be, if not definite, at least specific in some sense. For instance, the speaker may have a particular group of individuals in mind and this group can function as the generator set in the denotation of the weak NP: [these examples] "are appropriately used only when the user has a particular group of individuals in mind… It seems that the pragmatic notion of an introduced discourse entity is relevant here" (p. 240). Consider the following example from Ladusaw (1982).

(7) That book could belong to one of three people

As Ladusaw points out, despite the fact that the embedded NP in (7) is not syntactically

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[*] I thank Jim Higginbotham for bringing this problem to my attention.

definite, it might be characterized as semantically referential or specific. The sentence in (7) invites a continuation like "- namely, Jane, Jacky and Robert", a kind of list-reading if one will. Or, it might be that the particular group the speaker has in mind consists of three people who have been looking at the book just before the time of utterance. Either way, Ladusaw states, it is not the case that the book in (7) could belong to just any three people for the sentence to be true.

Abbott (1996), however, rejects this approach on the basis of examples like (8).

(8) Every year only one of many applicants is admitted to the program

As pointed by Abbot in (8), there is not one particular group of individuals that the weak NP refers to; it is not semantically referential or specific. Thus, partitives containing weak NPs are still problematic for Ladusaw's (1982) semantic analysis of the Partitive Constraint. This led her and others (cf. Reed 1996) to argue in favor of a pragmatic rather than a semantic account of the Partitive Constraint.

3. Pragmatic Accounts of PC

Reed (1996) follows from previous studies (Heim 1988, Webber 1979) which have argued that the distribution of indefinite and definite noun phrases can be explained in terms of a discourse model. In the earlier discourse models, it was assumed that the occurrence of an indefinite NP creates a discourse entity which can be accessed by some later phrase(s). Consider the following simple version of discourse model, taken from Reed (1996:144).

(9) A storm came up suddenly and we weren't ready for it.

(10) The lightning hit a tree and a dog and the dog died.

(11) Some trees fell but they were old and rotten.

As pointed out by the proponents of discourse model, an indefinite noun phrase will evoke a discourse entity which may later be accessed by a pronoun or definite noun phrase. Thus the pronoun 'it' and the definite noun phrase 'the dog' can access discourse entities that were evoked by 'a storm' and 'a dog' in (9) and (10), respectively.

Along this line, Reed applies the idea to a pragmatic account of the Partitive Constraint. Specifically, she proposes that the function of partitives is to introduce subgroups of existing discourse groups. In terms of the notion "evoke/access", the partitive is said to access a discourse group and evoke a subgroup of them. The effect of the partitive function, accessing and evoking discourse entities, is illustrated in the following passage from Lilian Rubin's *Worlds of Pain* (cited in Reed 1996).

> But things change when an economy begins to contract. Because I have kept in touch with *many of the families* and, through *them*, heard about others, I already know of *some of those changes*…(Rubin 1976: 206)

According to Reed, 'many of the families' accesses a discourse group of families, which has been the subject of Rubin's chapter, and evokes a subgroup (= many) of them, which the following 'them' can access. 'Some of those changes' accesses indirectly a discourse group of changes evoked by association with the first sentence assertion that things change.

Thus, Reed claims that there is no formal restriction on determiners in partitives, but that the interpretation for partitives demands that the embedded NP access a discourse group. Now, indefinites may occur in partitives if explicit modification or the discourse context makes the discourse entity evoked by the indefinite more accessible, in the sense discussed earlier. In the following containing a partitive, the embedded NP is said to access a discourse group.

(12) The dog was stoned by two of some boys playing in that field.

(13) Only one of many people who saw the accident would testify.

In (12) and (13), for example, it is the presence of an identifying description in the discourse model which allows the indefinite to access the discourse entity - the first identifies particular boys by the adverbial 'playing in that field' and the second the particular individuals by the relative clause 'who saw the accident would testify.'

Abbott (1996) also claims that there is no formal (syntactic or semantic) restriction on the embedded NPs in partitives. Instead, she likewise proposes that pragmatic principles determine the well-formedness of partitives. The pragmatic principle that Abbott claims is a very general one that prohibits mentioning entities unless there is some reason for mentioning them. In making her case, Abbott first asks us to consider the following examples.

(14) *One of several students

(15) *Most of some jars

(16) *Few of many questions

As pointed out by Abbott, there are two main things to notice about these examples. One is that they are given without any context - not even a surrounding sentence - and the other is that we know what they mean; we can interpret them without any trouble at all. While the examples cited as ungrammatical are odd in isolation, Abbot has reasons to think that they are not *un*interpretable, but rather unusual for quite general pragmatic reason and that if they can be provided with a suitable context, they would sound more natural. For example, contextualization should turn examples that are judged ill-formed into well-formed constructions.

(17) I haven't looked closely at the response pattern, but I'm sure that each student only answered few of many questions they might have been able to get with a little thought (Abbott 1996: 41).

(18) ?John was one of several students

(19) John was one of several students who arrived late

As argued by Abbott, outside of any context at all, one's reaction to (14)-(16) is one of being left holding an empty bag: "one wants to know why the 'outer' containing group needs to be mentioned at all" (Abbott 1996:41). According to Abbott, this does not mean that the containing group has to be specific in some sense - e.g. to exist or be identifiable in the discourse. All it means is that some reason must be provided for mentioning the outer group and all that is needed is sufficient prepositional or contextual material to explain the relevance of the embedded NP, as the examples in (17) and (19) have shown.

4. Inverse Linking: An Alternative Proposal

It is interesting that the very things that made the partitive counterexamples pesky (*Ants got into most of some jars*, *Only one among many applicants is admitted*) are not addressed in the discourse-based accounts – namely, the embedded quantifiers themselves. In this brief note, it is suggested that discourse-based accounts are probably unnecessary or appears to be irrelevant at best if we consider them as cases of inverse linking in the sense of May (1977). Indeed, the structures and operations employed to account for inversely linked sentences can be used to account for the counterexamples in the partitive literature.

Inverse linking is a term coined by May (1977) to describe the most salient readings of sentences such as (20). The importance of the phenomenon is seen in the following sentence that has inverse linking combined with pronominal binding.

(20) Someone from every city despises it

What is interesting about this sort of sentence is that the embedded quantifier phrase preferentially receives a wide-scope interpretation. For example, the sentence in (20) can be interpreted with the quantifier "every city" binding the pronoun 'it'. That is, 'every city' has scope over 'someone' so that it is naturally read as meaning that for each city, there is at least one person that despises that city.

(21) [someone from every city] despises it

  → [∀ cities x][∃y in x] y despises x

Syntactically, the interpretation is such that the embedded quantifier (every city) is raised out of the clause.

Figure 1
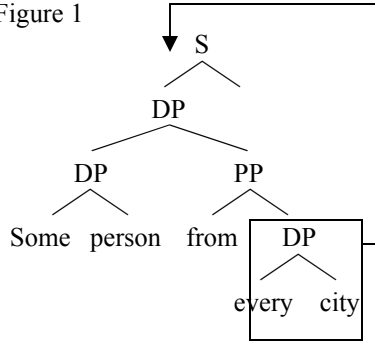
As May shows, on the standard assumption that this form of binding requires c-command, and on the assumption that the object position of the preposition does not c-command the verb phrase, 'every city' must move from its apparent surface position to a higher position c-commanding the pronoun.
    Now, we can do the same with those pesky counterexamples pointed out in the partitive literature. Take the example in (22a) for instance.

(22)(a) Ants got into most of some jars.

Here we also have a case of inverse linking, just like 'someone from every city' or 'some pen for every person'. The basic idea is this: Originally we have the first quantifier c-command the second quantifier. To get the right interpretation, 'some jar' is raised out and gets wide-scoped, leaving behind [Most of t] and what we have is variable, an R-expression and R-expressions are definites. We derive the semantics of (22a) below.

(22)(b) [∃X: | X| > 2 & (∀y ∈ X) jar (y)][Most z ∈ X] ants got into z

Similarly for (23a), where the second quantifier 'many' is moved out to bind the pronoun and we get the inversely linked interpretation in (23b), i.e. there is many applicants such that only one of its members is admitted.

(23)(a) Only one among many applicants is admitted
    (b) [∃X: many (X) & (∀y ∈ X) applicant (y)][One z ∈ X] applicants is admitted

The idea of binding of plural by non-c-commanding quantifier has also been discussed in Higginbotham (1987). What is of importance to note here is the general form of the argument employed: syntactic constraints can explain the restricted interpretation of inversely linked constructions, and thus provide evidence that covert QR exists as a mechanism for explaining (20), as well as the pesky counterexamples in the partitive literature. That is, there is perhaps have no need to look further to a pragmatic account than the known semantic restrictions involving quantification.

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