Maximize Presupposition! as Blind, Local Blocking

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1. Global Pragmatics *Maximize Presupposition!* (hf. MP) has been generally stated as a pragmatic maxim roughly along the following lines (Heim 1991, Sauerland 2003, Percus 2006):

Global Pragmatic MP If S, S' are alternatives equivalent in context c (under some theory of alternatives), and S carries stronger presuppositions than S', one must use S rather than S' in c.

1. {# A / the} sun is shining

2. {# All / both} of John's eyes are blue.

However, Percus (2006, hf. P) observes that there are pairs of sentences S, S' which do not differ at all in their presuppositions, yet still seem to be subject to something like MP:

3. Every man who has exactly two sons gave {#all / both} his sons some candy.

4. If John has exactly two sons and {#all / both} his sons are bald, then Mary is happy

Both the *all* and *both* variants of (3) and (4) are defined in all contexts, so one should find no blocking effects here. P suggests the following modification. First, he orders lexical items according to a notion of presuppositional strength (p-strength), which he defines so that, eg. *the* is p-stronger than *a*, *both* is p-stronger than *all*, etc. Then he revises the MP statement as follows:

Percus' Global Pragmatic MP If S, S' are alternatives, and $S' = S[\alpha/\beta]$, i.e. S' is just like S except it contains lexical item α at some terminal node where S contains β, and β is p-stronger than α, S and S' are equivalent in c, and S is felicitous in c, then one must use S in c.

2. Local Checking of MP There are at least two difficulties with Percus' MP maxim. First, it seems difficult to motivate conceptually. Why should pragmatics concern itself with which lexical items are found in structures when their differing contributions to the sentences containing them are filtered out at the root? It would seem far more natural to assume a theory of interpretation that makes use of local contexts (eg. Heim 1983, van der Sandt 1992, Schlenker 2008) and say that MP, as originally stated, is correct, except that the context in which it gets checked is the local context for each embedded sentence. I propose that this is indeed the case:

MP is Checked Locally If ϕ is uttered in c, check that MP is satisfied for each S embedded in ϕ in S's local context c', c' a (not necessarily proper) subset of c.

When ϕ's CCP $+\phi$ is defined in c, i.e. when $+S$ is defined in S's local context for each S embedded in ϕ, Local MP and Percus' MP are equivalent. However, they differ whenever there is an S such that $+S$ is not defined, i.e. they come apart whenever there's the option to accommodate (including, crucially, local accommodation). Here, the facts seem to support Local MP:

5. John went to a club last night. {A / the} bouncer at the door, the only one working that night, frisked him on his way in.

6. {A / the} king of France didn't come; there is no king of France!

Under Percus' MP, the felicity of the sentences with the definite *the* should suffice to block the use of the sentences with the indefinite *a*. Under Local MP, since the presuppositions of *the* are not met in their local context, MP simply doesn't apply.

Deriving MP as Scalar Implicature Despite the temptation to do so, it has been argued (Heim 1991, Sauerland 2003, Percus 2006) that MP cannot be derived from a theory of scalar implicature. The reason offered for this conclusion is that one cannot make appeal to Grice's maxim of quantity, for the alternatives that are considered in MP-competitions are *contextually equivalent.* Thus it is argued that MP must be stated as a primitive of pragmatic theory. The only exception is Schlenker (2006), who attempts at least a partial derivation of MP using results from multiagent epistemic logic, and following more directly suggestions of Stalnaker (2002). He ends his paper

by presenting examples (7) and (8), which display effects quite similar to MP, and suggests that they might be teaching us that MP should be derived from a theory of scalar implicature:
7. John assigned the same grade to all his students. He gave an A to {all / #some} of them.
8. Every professor who assigned the same grade to each of his students gave an A to {all / #some} of them.
I will take up his suggestion here by building on recent work in the theory of scalar implicature (Fox 2006, Magri 2007, Chierchia, Fox, and Spector 2008). According to such theories, the scalar implicatures of a sentence ϕ are computed within the grammar by a process of *innocent exclusion*, which is sensitive only to the logical entailment relations between scalar alternatives. The system is thus blind to contextual information and, in particular, to contextual equivalence among its alternatives. Magri (2007) uses this framework to develop the following notion of oddness:
Magri Oddness If the strengthened meaning of S (truth-conditions plus scalar implicatures) contradicts the common ground, S will be odd.
This oddness principle would, for example, rule out the *some* sentence in (7) because it generates the implicature 'not all,' which contradicts the common ground information that all of John's students got the same grade. (8) teaches us further that Magri Oddness (MO) should be checked locally, for embedded sentences in local contexts. I propose that MO suffices to eliminate the stipulation of MP as primitive:
MP and MO MP follows as a consequence of MO.
Assuming that a sentence entails its presupposition, a sentence with *the/both* logically entails the corresponding sentence with *a/all*, etc. Thus use of *A sun is shining*, for example, generates the implicature that there is not a unique sun. This contradicts our world-knowledge, and the result is Magri Odd. Indeed, all the examples of MP violation above can be derived as instances of MO, including, crucially, local violations of MP like (3)/(4) (given that MO applies locally, cf. (8)). However, Magri warns us that a derivation of MP from MO will not succeed in the general case:
Context: All children inherit the last name of their father.
9. #Every child of Couple C has a French last name.
10. The children of Couple C have a French last name.
Why is (9) odd? Magri assumes, first, that (9) and (10) are alternatives. Second, he argues that, due to distributive predication, (10) has a homogeneity presupposition that (9) lacks (either all the children of Couple C have a French last name or none of them do). Thus, (10) has a stronger presupposition than (9). However, despite this, note that (9) and (10) end up logically equivalent. As such, appeal to innocent exclusion does nothing here. Magri concludes that we cannot escape from stipulating a principle that is sensitive to the presuppositional information of alternatives alone, something very much like MP. I reject this conclusion by rejecting the assumption that (9) and (10) are alternatives (they wouldn't be under Katzir's 2007 general theory of scalar alternatives, since (10) is strictly more complex due to its DIST operator). The oddness of (9), I believe, is due its tendency to be read with focus on *every*, which suggests that it is answering the question, *how many of the children of Couple C have a French last name?* This is an odd question to raise in such a context, and so the oddness of (9) supervenes on the oddness of the question it is answering. When we control for this, the oddness goes away:
(11) I don't know what exactly John knows about the inheritance patterns of all these children and their families, but he does know that every child of Couple C has a French last name
(12) A: Who has a French last name?
B: Well, John, Mary, every child of Couple C, and my neighbours