Section 1 Introduction

This article considers the principles which determine legitimate minimal domain internal antecedents for reflexive forms. By ‘minimal domain’ we mean roughly a single clause, but ultimately nominals are also relevant; see note 22. The paper offers novel critiques of the idea that these principles reduce to some elementary statement involving c-command or analogs thereof and proposes a novel relational account for certain documented constraints.

Turning to actual data, uncontroversially, English examples like (1) are grammatical, while those like (2) are not:

(1)a. Harriet described herself to Arthur.
   b. Harriet was described to herself by Milton.
(2)a. *Herself described Harriet to Arthur.
   b. *Herself was described to Harriet by Arthur.

At issue are the relative positions of a reflexive pronoun and its antecedent. What principle determines that (2a, b) are ungrammatical? A rough, initially valid descriptive generalization seems to be, of course, that while a subject can antecede a reflexive object in the same clause, an object cannot antecede its clausemate subject. It is now quite broadly assumed (i) that as in our descriptive generalization, (2a, b) are ill-formed for the same reason; call this the uniformity hypothesis (UH), and (ii) that, moreover, this reason reflects universal principles; call this the universality assumption (UVA).

Most common accounts of (2a, b), all variants of Chomsky's (1981, 1982, 1986) so-called binding theories, take the UH to follow from, and the UVA to be instantiated by, some variant of Principle A of those theories, which requires that an anaphor be bound, that is, c-commanded by, and coindexed with, an expression in the same fixed local domain, whose exact definition need not concern us. The account would depend on the assumption that at least these English reflexive forms are anaphors, and on the view that the subject of a clause asymmetrically c-commands all the elements of the verbal phrases of that clause. The number of partially different formulations of binding theories derivative from Chomsky (1981) is now remarkably large, so we make no attempt to cite even a sample. Common formulations include though that of Larson (1988: 336) to the effect that: “Thus reflexives and reciprocals (anaphors) must be c-commanded by their antecedents.” and that of Baker (1996: 49): “An anaphor must have a c-
commanding antecedent within its minimal clause.” The differences between various versions are not relevant to the argument of this work, which is that all variations on Principle A are disconfirmed as either (i) universally valid principles governing local antecedence of reflexives or (ii) valid principles governing local antecedence of *English* reflexives. Moreover, this disconfirmation takes a very general form, impugning both the UVA and the UH.

According to the received views, (2a, b) are bad because the reflexives asymmetrically c-command their antecedents, hence are not c-commanded by them and so are not bound, violating Principle A or its analogs. If, further, anything like Principle C of Chomsky’s binding theories is adopted, (2a, b) would be independently barred for violating that. This principle claims that a referring expression cannot be bound and the relevant antecedents are referring expressions bound by the reflexives.  

Even views not appealing literally to Principle A as such, including Pollard and Sag (1992, 1994), Reinhart and Reuland (1993), Bresnan (2000) and others, accept some version of the UH here.  

(3) Wilkins (1988: 205)

“There is another apparently syntactic condition on reflexivization which can also be resolved in terms of r-structure. Recall well-known examples such as (29).

(29) *Herself saw Jill.

The fact that reflexives cannot appear in syntactic subject position is generally discussed in configurational terms such as PRECEDE and/or C-COMMAND. Actually, this is a syntactic reflex of a certain property of functional structure as discussed by Keenan (1974). An external argument cannot depend on some property of its associated function (= predicate) for its reference.”


“Now the problem at hand is to explain the rather basic contrast between (21a) and (21b):

(21)a. John likes himself.

*John* and *himself* are coarguments in both cases, so θ-command by itself cannot distinguish these two. In the theory I will outline it is the presence of the external argument binder on the VP in these examples which rules out (21b) as a sort violation of condition (10C).

It is of course conceivable that (21b) is ungrammatical because there is a hierarchy of θ-roles, and the antecedent anaphor relation must respect that hierarchy, as proposed in Jackendoff (1972). While there may be such a hierarchy, and such a hierarchy may govern
binding, I feel that that is not the correct explanation for the contrast in (21).

Sometimes, when two arguments are internal, either may serve as the antecedent for a reflexive in the other, more or less, as in (22a,b). So if there is a hierarchy, it is partial, or only partially observed by binding rules, for internal arguments. On the other hand, if either argument is made external, then only the external argument may be the antecedent, regardless of which θ-role it is, and the judgments are sharp.

(22)a. The book was given by John to himself.
   b. The book was given to John by himself.
   c. John was given the book by himself.
   d. *Himself was given the book by John.
   e. John gave the book to himself.
   f. *Himself gave the book to John.

Clearly, there is something special about being the external argument, over and above anything having to do with a hierarchy of θ-roles.”

(5) Pollard and Sag (1992: 266)

“The restricted reformulation of Principle A that is required can be stated roughly as follows:

(16) An anaphor must be coindexed with a less oblique argument, if there is one.”

Similarly:

(6) Bresnan (2000: 218)

“This revised version of principle A predicts that reflexive subjects can exist but only when they are bound to an argument of a higher nucleus.”

There is then clearly broad current agreement that it is simply impossible for a subject reflexive to be antecedced by some clausemate. 4 Inter alia, this broadly agreed on view is specifically argued against in what follows.

Consider next cases in which neither the reflexive nor its antecedent are subjects:

(7)a. Bob described Lucille to herself.
   b. *Bob described herself to Lucille.
   c. The magicians separated Lucille from herself.
   d. *The magicians separated herself from Lucille.

Here also the facts are uncontroversial; apparently, an English direct object can antecedce a reflexive (prepositional) object but a reflexive direct object cannot be antecedced by another object of the same clause. Again, it is widely assumed that the badness of (7b, d) follows from the same universal principles
that block both of (2a, b). If the theory grounding this view assumes something like Principle A, a structure must be posited in which the reflexive direct object asymmetrically c-commands the PP object.

So far then we have indicated that a broad consensus takes all of (2a, b)/(7b, d) to be blocked by the same universal principle, commonly now taken as some variant of Principle A of Chomsky's binding theory or one of its analogous competitors. The rest of these remarks go beyond these basics to make the following points. First, Section 2 claims that crosslinguistic considerations argue that it is impossible for (2a, b)/(7b, d) to be blocked by some universal version of Principle A. Data from several languages argue that nothing like that principle can serve as an instantiation of the UVA for data like (2a, b)/(7b, d). All of the cited data are from Indo-European languages, moreover, those spoken in Europe, and much of it has been available for many years. Second, Sections 2 and 3 argue more specifically that it is not possible to viably maintain that a subject cannot be a reflexive anteceded by a clausemate. Third, Section 2 also observes that the non-English data exhibit seeming regularity of a sort that nothing like Principle A or its alternatives can capture. A key pattern is that the principles determining the proper distribution of reflexives distinguish different types of subject, with types given in a specific way. Fourth, Section 3 argues that internal to English itself, considerable evidence both attacks the viability of anything along the lines of Principle A analogs and supports the same distinction between subject types reflected in the languages of Section 2. While English does not offer direct counterexamples of the same sort provided by the other languages discussed, it does manifest other types of somewhat more complex or indirect counterexamples. Fifth, we suggest in Section 4 that a relationally defined notion of inverse reflexive is the key to an account of a wider class of reflexives than usually forms the basis for choosing between distinct accounts.

Section 2 Non-English Facts

2.1 Remark

This section briefly reviews a range of non-English facts which indicate that analogs of Principle A are not the proper mechanism for characterizing the distribution of locally anteceded reflexive forms even in certain Indo-European languages, specifically French, Albanian and Greek.

2.2 French

First, as briefly discussed in Postal (1989: 9), while apparently all French speakers accept (8a), some accept (8b) as well: 5

(8)a. J’ai décrit Lucille à elle-même.
   “I described Lucille to herself”

b. J’ai décrit elle-même à Lucille.
   “I described herself to Lucille”
Each of (8a, b) has a reading in which the reflexive pronominal form is anteceded by the nominal Lucille. But no matter how one analyzes the syntax of the verbal phrases in (8), it is not possible under any reasonable assumptions for the antecedent to (asymmetrically) c-command the reflexive in both (8a, b). For evidently if the direct object position filled by Lucille in (8a) c-commands the indirect object position filled by the reflexive, then that same indirect object position can c-command the direct object position in (8b), as required by Principle A to allow (8b), only if the two positions c-command each other. While that would keep (8b) consistent with a necessary c-command principle, it fails to block the English analog of (8b) or that example itself for the French speakers who reject it. Moreover, mutual c-command in such cases is incompatible with any analog of Principle C, which bars coindexed c-commanded referring expressions, like Lucille. In short, if Principle A is consistent with data like (8) and their English analogs, it does very little to account for the facts. This conclusion excludes, of course, measures which would claim that (8b) has a radically different verbal phrase structure than (8a), an assumption which would be, as far as we know, unmotivated by anything other than the implications just discussed. Given the clear parallelism between structures like English (7) and French (8), one concludes that the grammaticality of (8b) argues that no version of Principle A can be the grounds for the ill-formedness of (7b, d) or, for that matter, for the ill-formedness of (8b) for those variants of French in which it is ill-formed.

Of course, the French facts themselves are hardly overwhelming or conclusive, especially given the fact, also noted in Postal (1989: 11-12), that while (8b) seems to have a morphologically parallel passive, namely, (9b), this lacks a reading involving antecedence, in accord with the predictions of a Principle A account.

(9)a. Lucille₁ a été décrite à elle-même₁.
   b. *Elle-même₁ a été décrite à Lucille₁.
   “HER₁ was described to Lucille₂”

While grammatical, (9b) is so only where the subject pronominal is an emphatic designating a different individual than the indirect object. ⁶

2.3 Albanian

The French-based argument against Principle A is reinforced and extended by the situation in Albanian, as described in Hubbard (1980, 1981). The relevant facts have been discussed in Sells (1988) and Williams (1988), the latter already having raised the issue of their compatibility with binding theories containing Principle A. A background observation is that Albanian has relatively free word order and a rich case system.

Consider first the situation involving reflexive antecedence between direct and indirect objects. Hubbard
showed that unlike the variant of French which allows antecedence in either direction, as in (8), and opposite to the situation in English, which allows a direct object to antecede an indirect object but not conversely, Albanian only allows the pattern where the indirect object (dative-marked) antecedes the direct object (accusative marked); all the data in (10) and (11) are from Hubbard (1981: 43-45). Note that Drita is a female name.

(10)a. artisti i a trego veten Dritës.
      artist-NOM CL CL show self-ACCUS Drita-DAT
      “The artist showed Drita₁ to herself₁”

b. artisti i a trego Dritës veten
     artist-NOM CL CL show Drita-DAT self-ACCUS
     “The artist showed Drita₁ to herself₁”

These examples show that the indirect object can antecede the direct object, regardless of their word order. In contrast, regardless of word order, a direct object cannot antecede an indirect object reflexive:

(11)a. *artisti i a trego Dritën vetes
      artist-NOM CL CL show Drita-ACCUS self-DAT
      “The artist showed Drita₁ to herself₁”
      (irrelevantly ok on reading “The artist₂ showed Drita₁ to himself₂”)

b. *artisti i a trego vetes Dritën
     artist-NOM CL CL show self-DAT Drita-ACCUS
     “The artist showed Drita₁ to herself₁”
     (irrelevantly ok on reading “The artist₂ showed Drita₁ to himself₂”)

These facts combine with those from English and French to suggest that either direction of antecedence between direct and indirect object is in principle permitted by universal grammar. If so, languages which restrict the possibilities in one way or another, even under assumptions of mutual c-command between such elements, appeal to distinct principles for that purpose. In short, arguably, in this subdomain, Principle A and its analogs are at best useless for determining the attested range of reflexive form grammaticality.

The facts of Albanian reflexive linkages involving subjects are initially much more in line with those of English and French. In general, a subject can antecede a nonsubject reflexive but not conversely. So sets like (12) are typical (data from Hubbard, 1981: 87, 88).

(12)a. Murati i flet vetes
       CL speak self-DAT
b. vetes i flet Murati
self-DAT CL speak Murati-NOM
“Murati₁ speaks to himself₁”
c. *vetja i flet Muratit
self-NOM CL speaks Murati-DAT
d. *Muratit i flet vetja
Murati-DAT CL speaks self-NOM
“Murati₁ speaks to himself₁”

Again, word order is irrelevant.

However, despite cases like (12c, d), there are two situations in which Albanian allows reflexive subjects to be anteceded within the same clause. First, as Hubbard makes clear, in contrast to either variant of French or English, when a direct object is anaphorically linked to an indirect object, as in (10), under passivization, the only possibility is that the accusative reflexive direct object of the active yields a nominative reflexive subject in the corresponding passive (data from Hubbard, 1980: 47-48):

(13)a. vetja i u tregua Dritës prej artistit
self-NOM CL show Drita-DAT by artist
b. *vetes i u tregua Drita prej artistit
self-DAT CL show Drita-NOM by artist
“Drita₁ was shown (to) herself₁ by the artist”

Since Hubbard argued independently, on the basis of subject/verb agreement, case marking and the floating of intensive reflexives, that the Albanian passive construction is a personal and not an impersonal one, grammatical reflexive subject passives like (13a) are seriously threatening to accounts of anaphoric relations via any analog of a universal version of Principle A. This challenge is stronger than that from nonsubject data, as it is much less plausible (hence much less tempting) to posit symmetrical c-command between subjects and nonsubjects than between pairs of nonsubjects. But without that, cases like (13a) represent counterexamples to claims that subject reflexives cannot be internally anteceded by cooccurring objects.

Hubbard also shows that Albanian allows reflexive subjects in one other construction, which he analyzed in relational grammar terms as involving inversion, that is, demotion of a subject to indirect object in a non-passive clause where the direct object advances to subject. Thus there are pairs like these (data from Hubbard, 1980: 84):

(14)a. Agimi e kujton kengën
Agimi-NOM remembers song-the-ACCUS

b. Kenga i kujtohet Agimit
song-NOM CL remembers Agimi-DAT

“Agimi remembers the song”

That is, some transitive clauses with nominative subject and accusative direct object have intransitive alternatives in which the nominative subject corresponds to a dative surface object and the accusative object appears as a nominative subject.

Strikingly, when the two nominals of the intransitive variant are anaphorically linked, the reflexive form must appear as the nominative subject, regardless of word order (data from Hubbard, 1980: 90-91):

(15)a. vetja iu çudit Agimit
self-NOM surprised Agimi-DAT

b. *Agimi iu çudit vetes
Agimi-NOM surprised self-DAT

c. *vetes iu çudit Agimi

“Agimi surprised himself”

In Hubbard's terms, there is a clear generalization: reflexive subjects are possible in Albanian only if the subject is an initial direct object (hence a ‘derived’ subject, in one terminology) and is anteceded by an indirect object. Hence a non-derived subject, that is, one in an active clause, cannot be a reflexive anteceded by an indirect object, as already in effect shown by the contrast between (12a, c). Moreover, even a passivized direct object reflexive is bad if not anteceded by an indirect object; see note 8. We claim that Hubbard's demonstration that local antecedence of subject reflexives depends on the fact that the subject is ‘derived’ is a critical aspect of the phenomenon under discussion. That is, the fact that Principle A type accounts and their kin fail to reference a distinction between inter alia ‘derived’ and ‘non-derived’ subjects is a key to their failure to properly characterize the local antecedence possibilities of reflexives.

2.4 Greek

Greek data support the conclusions drawn from the Albanian facts cited by Hubbard. Our sources are Anagnostopoulou and Everaert (1995, 1999), Everaert and Anagnostopoulou (1996), and a very kind personal communication of September 25, 2000 from Elena Anagnostopoulou to PMP.

First, Everaert and Anagnostopoulou (1996) and Anagnostopoulou and Everaert (1999) show, although with very few examples, that Greek has certain instances of nominative subject reflexives with clusemate antecedents. These seem to be possible largely in cases parallel to those Albanian sentences analyzed by Hubbard as instances of relational inversion. These authors refer to the relevant clauses as
involving ‘inverse-linking psych verbs’.

(16) O eaftos tu tu aresi tu Petru

   the self his-NOM CL-DAT like the Peter-DAT

   “Peter₁ pleases himself₁”

Agnagnostopoulou and Everaert (1999:109) note that such nominative subjects are not possible in ordinary transitive clauses, as in (17), and state a key generalization parallel to that seen to hold of Hubbard's treatment of Albanian (which they do not cite), namely: “Our analysis correctly predicts that the Greek nominative anaphor is licensed solely in derived subject positions.”

(17) *O eaftos tu ton antipathi ton Petro

   the self his-NOM CL dislikes the Petros-ACCUS

   “Himself₁ dislikes Petros₁”

Agnagnostopoulou’s private message further specified that:

(18) “The sentences where a nominative anaphor can be found without any problem in Greek are based on experiencer object verbs. Not only cases where the antecedent is a dative but also cases where the antecedent is an accusative, that is, ‘preoccupare’-type verbs, which in English and Italian license anaphors inside NP-s (picture-NPs).”

She gave the example:

(19) O eaftos tu ton provlimatizi/apasxoli/enoxli ton Petro

   The self his (Nom) Cl (Acc) puzzles/worries/bothers the Peter (Acc)

   “Peter puzzles/worries/bothers himself”

She also stated that other well-formed examples are found with certain unaccusative verbs, illustrating with one verb of existence:

(20) Tu Petru tu apomeni o eaftos tu

   The Peter (Gen) cl(Gen) is-left-3sg the self his (Nom)

   “All Petros has left is himself” (literally, “His self remains to Petros”)

This is significant if, as the specification ‘unaccusative’ suggests, this is also a case where the nominative subject is a ‘derived’ subject, and thus in accord with the generalizations already seen for Albanian.

Turning to passive cases, Agnagnostopoulou informed us that well-formed nominative reflexive examples are difficult to find, but that (21) is “more or less, ok”:

(21) ?[O eaftos tu] i [tu] i perigraftike [tu Petru]i apo ton psichiatro me ta pjozoira xromata

   The self his (Nom) cl (Gen) was-described the Peter (Gen) by the psychiatrist with the most lively colours.

   “Peter₁ was described to himself₁ by the psychiatrist with the most lively colors”
One notes that in this case, the reflexive is anteceded by the indirect object. Antecedence by the passive agent is totally impossible:

(22) *O eaftos tu kategorithike apo ton Petro
    The self his (Nom) was-accused by the Peter
    “Peter was accused by himself”

The key point is that while (21) may be marginal, it nonetheless contrasts with the totally impossible (22). This we take to indicate further that in Greek, as in Albanian, internally anteceded reflexive subjects are in principle possible if they are ‘derived subjects’, subject to other conditions, e.g. indirect object antecedence but not passive agent antecedence.

A final piece of Greek support for this conclusion derives from analogs of the English raising to subject (e.g. with seem) construction. Everaert and Anagnostopoulou (1996) note that in the Greek analog of this construction, the subject cannot anteced the experiencer, contrary to the situation in English:

(23) *O Petros fenete sti Maria eksipinos.
    The Peter seems to the Mary intelligent
    “Peter seems intelligent to Mary”

This raises the question of whether the inverse situation with the experiencer anteceding the subject is possible. Anagnostopoulou specified that the answer involves a complication. Specifically, she noted that sentences like [(24)] are never very good in Greek, for independent reasons.

(24) ?*O Petros fenete sti Maria eksipinos
    The Peter seems to the Mary intelligent
    “Peter seems intelligent to Mary”

While a PP-experiencer is not good in such examples, a genitive clitic doubled experiencer is:

(25) O tis Petro tis tis Marias eksipnos.
    The Peter (Nom) Cl (Gen) seems the Mary (Gen) intelligent
    “Peter seems intelligent to Maria”

Anagnostopoulou then observed that Genitive anaphors in Greek are not good (see Agnagnostopoulou and Everaert, 1999). This renders it difficult to find a way to test for the key issue here. The question reduces to whether there is a contrast between (23) and:

(26) O eaftos tu tu fenete tu Petru eksipnos
    The self his (Nom) Cl-(Gen) seems the Peter (Gen) intelligent
    “Peter seems intelligent to himself”
Her judgment was that “I think this is not bad, it is certainly much better than [(23)] above.”

Thus we conclude that despite the marginality of some relevant examples, in three distinct respects, (inversion cases, passive cases, raising cases), Greek supports the idea that a reflexive subject anteceded by a clausemate is possible, but only if that subject is ‘derived’.

**Section 3 English**

3.1 A and only B

A rather unusual English formation whose previous discussion if any we are unaware of will be referred to it as the [A, and ONLY B,] construction. Some examples appear in (27).

(27)a. Valerie, and ONLY Valerie, said anything.
   b. *Valerie, and ONLY Michael, said anything.
   c. Valerie, and ONLY she, said anything.
   d. *She, and ONLY Valerie, said anything.
   e. We fed gorillas and ONLY [gorillas /*orangutans].
   f. Some gorilla and ONLY [some/*a certain] gorilla escaped.
   g. She and ONLY she/*her complained (compare: Joe and her complained).

When identity of denotation is impossible, as in *(27b), the construction is ill-formed. The nominal in the B position can be a pronominal anteceded by that in the A position, but not conversely (Cf. (27b) vs. *(27c)).

It appears that the essential points made in what follows for [A and ONLY B] cases hold as well for [A but not ONLY B] ones; but we ignore these in the text. The capitalization of the word only indicates that it must be contrastively stressed, so that expression B cannot be (e.g. *Valerie, and only VALERIE, said anything).

From the present perspective, the key point is that a reflexive can appear in the B position if it also appears in the A position:

(28) Abigail praised herself and ONLY herself.

One asks then what principles control the distribution of [A and ONLY B] expressions in cases when A and B are reflexives. Certain clear constraints seem to parallel those for simple reflexives.

(29)a. Fred praised himself (and ONLY himself).
   b. *Himself (and ONLY himself) praised Fred.
   c. The book was assigned to Mary by herself (and ONLY herself).
   d. *Significant praise was received from herself (and ONLY herself) by Mary.
   e. The book was assigned by Mary to herself (and ONLY herself).
But more relevant to present goals is that, despite parallels like (29), the distribution of reflexive [A and ONLY B] structures is less constrained than that of simple reflexive forms.

(30)a. *Himself was described to Otto by Francine.
   b. Himself and ONLY himself was described to Otto by Francine.  

(31)a. *Francine described himself to Otto.
   b. Francine described himself and ONLY himself to Otto.

(32)a. *The book was assigned to herself by Mary.
   b. The book was assigned to herself and ONLY herself by Mary.

(33)a. *Tom discussed herself with Barbara.
   b. Tom discussed herself and ONLY herself with Barbara.

There are then for [A and ONLY B] reflexive cases two sorts of subenvironments of those contexts where simple reflexives are barred. In one type, illustrated by e.g. (29b, d), the [A and ONLY B] cases are equally impossible; but in another, illustrated by (30)-(33), [A and ONLY B] reflexives are grammatical for us in contexts where simple reflexives are not.

We propose to distinguish these two classes of subenvironments terminologically as follows. Contexts where [A and ONLY B] reflexives are as ungrammatical as simple reflexives will be referred to as strong antireflexive contexts, while those where [A and ONLY B] reflexives contrast with simple reflexives and are grammatical will be called weak antireflexive contexts.

So the subject context in sentences like (29b) and the prepositional object context in (29d) are strong antireflexive contexts, since the [A and ONLY B] reflexive is as ungrammatical in these positions as the simpler one. But the subject context in sentences like (30b), the direct object contexts in (31a), (33a) and the prepositional object position in (32a) are weak antireflexive contexts, since the [A and ONLY B] reflexive is grammatical although the simpler one is not. Of course, this is a simplification since what is really at tissue are not DP contexts per se but rather relations between antecedent/reflexive pairs. But the simplification should generate no confusion.

Moreover, we also find in part that the following subject positions are weak antireflexive contexts:

(34)a. *Herself seemed to Stella to be wise.
   b. %Herself and ONLY herself seemed to Stella to be wise.

(35)a. *Herself was really interesting to Stella.
   b. Herself and only herself was really interesting to Stella.
However, while both authors find (35b) passable, only one accepts (34b), a contrast we cannot account for.

Viewed in isolation, the division between strong and weak antireflexive contexts might not be of much significance. But it takes on importance because of two kinds of parallels between English weak antireflexive environments and other facts. The first involves a partial connection between the English [A and ONLY B] data and that documented for reflexives in French, Albanian and Greek. The latter data revealed that a variety of contexts permit reflexives in positions where grammaticality is either inconsistent with Principle A and its analogs or at best part of patterns which such principles provide no basis for. Those included (some) object positions and ‘derived’ subject positions. Notably then, all the English subject positions which are weak antireflexive contexts are arguably ‘derived’ subject positions; see Section 4.1. The implication is then that weak antireflexive positions are contexts not ruled by any analog of Principle A.

The second reason for suspecting the importance of the distinction between weak and strong antireflexive contexts involves phenomena distinct from [A and ONLY B] structures. For the next section argues that there is a feature of English which differentiates even simple reflexives in such a way as to correlate with the weak/strong difference.

3.2 Salvageability
Recall now basic reflexive data like that in (2)/(7), which reveals patterns of contrasting grammaticality and ungrammaticality:

(36)a. Harriet described herself to Arthur.
   b. *Herself described Harriet to Arthur.
   c. Harriet described Arthur to himself.
   d. *Harriet described himself to Arthur.
   e. *Himself was described by Harriet to Arthur/to Arthur by Harriet.

While all of (36b, d, e) are definitively ungrammatical, one can consider the interaction of such examples with various extraction constructions like clefting, topicalization, pseudoclefting, etc. These have the property of being able to take reflexive forms as arguments. But the results of taking the images of clauses like (36b, d, e) under the extractions turn out not to be uniform.

Consider first clefting:
(37)a. It was HERSELF that Harriet described to Arthur.
   b. *It was HERSELF that described Harriet to Arthur.
c. It was HIMSELF that Harriet described Arthur to.

d. %It was HIMSELF that Harriet described to Arthur.

e. %It was HIMSELF that was described by Harriet to Arthur.

Examples (37a, c) simply illustrate that in English it is sometimes possible to grammatically cleft from clausal position P a reflexive which is grammatical in P. Case (37b) illustrates that it is sometimes impossible to grammatically cleft from clausal position P a reflexive which is ungrammatical in P, evidently the expected results.

However, unexpectedly then, (37d, e) reveal at least marginally grammatical clefting from a configuration in which an uncelfted reflexive is ungrammatical. That is, in these cases of a direct object reflexive anteceded by the object of a PP, (37d), and a passive subject reflexive anteceded by a passive by phrase, (37e), clefting of the reflexive yields improved grammaticality, although it fails to do that for the non-passive subject reflexive in (36b). We will say that violations of the constraint in the former, whatever it is, are unsalvageable by clefting, while the ungrammaticalities in (36d, e) are (to some extent) salvageable (for some speakers).

Clearly, if something like Principle A or more generally some kind of single UVA-based condition were responsible for all of (36b, d, e), it would be quite mysterious that clefting would salvage one reflexive but not the others. How could a uniform cleft construction interact with different types of ungrammatical antecedent/reflexive pairs putatively all ungrammatical for the same reason and yet salvage only some? Moreover, the contrast between (37b) and (37e) also challenges the UH.

The argument from clefting is strengthened by the fact that asymmetric salvaging of ungrammatical antecedent/reflexive pairs is (i) found with other extractions besides clefting and (ii) manifests in parallel ways; that is, these other phenomena can salvage just those cases which clefting can. So, consider topicalization, with respect to which, one finds, alongside (36), the parallel (38). 13 Here and below capitalized reflexives again represent strongly stressed forms:

(38)a. HERSELF, I learned later that Harriet had described to Arthur.

b. *HERSELF, I learned later had described Harriet to Arthur.

c. HERSELF, I learned later that Harriet had described Arthur to.

d. %HIMSELF, I learned later that Harriet had described to Arthur.

e. %HIMSELF, I learned later had been described by Harriet to Arthur.
Patterns essentially parallel to those in cleft and topicalization constructions are seen in copular/focus cases.

(39)a. The one who Harriet described to Arthur was HERSELF.
    b. *The one who described Harriet to Arthur was HERSELF.
    c. The one who Harriet described Arthur to was HIMSELF.
    d. %The one who Harriet described to Arthur was HIMSELF.
    e. %The one who was described by Harriet to Arthur was HIMSELF.

And the same thing appears in regular and inverse pseudocLEFTs, as in (40) and (41):

(40)a. What Harriet compared to Arthur was HERSELF.
    b. *What compared Harriet to Arthur was HERSELF.
    c. What Harriet compared Arthur to was HIMSELF.
    d. %What Harriet compared to Arthur was HIMSELF.
    e. %What was compared by Harriet to Arthur was HIMSELF.

(41)a. HERSELF was what Harriet compared to Arthur.
    b. *HERSELF was what compared Harriet to Arthur.
    c. HIMSELF was what Harriet compared Arthur to.
    d. %HIMSELF was what Harriet compared to Arthur.
    e. %HIMSELF was what was compared by Harriet to Arthur.

Even if the constructions cited so far exhausted those which yield reflexive violation salvageability, they would represent a prima facie nonnegligible challenge to received ideas about reflexive antecedence. 14

Summing up so far, we see that despite the UH, English ungrammatical reflexives divide into at least two classes, roughly characterizable as in (42):

(42)a. Unsalvageable ungrammatical reflexives: when such reflexives are clefted, topicalized, ‘focused’, etc., their ungrammaticality is unaffected.
    b. Salvageable ungrammatical reflexives: clefting, topicalization etc., of such reflexives in some cases renders the result grammatical.

So far, we have cited only one sort of unsalvageable reflexive, subjects of an active clause anteceded by some other phrase of the clause, and two sorts of salvageable reflexives, subjects of passive clauses and objects anteceded by following phrases. There are further exemplars of each type.

A salvageable reflexive subject violation independent of passivization is found in Subject Raising
structures like (43):

(43)a. *Herself seemed to Audrey to be quite lovely.
    b. It was HERSELF that seemed to Audrey to be quite lovely.
    c. %HERSELF, I am sure seemed to Audrey to be quite lovely.
    d. The one who seemed to Audrey to be quite lovely was HERSELF.
    e. What seemed to Audrey to be quite lovely was HERSELF.

And another salvageable reflexive subject violation is seen in psychological adjective cases like (44).

(44)a. *Himself was interesting to Cardoza.
    b. %It was HIMSELF that was interesting to Cardoza.
    c. %HIMSELF, I am sure was interesting to Cardoza.
    d. %The one who was interesting to Cardoza was HIMSELF.
    e. %What was interesting to Cardoza was HIMSELF.

Finally, paradigm (45) reveals a salvageable nonsubject reflexive violation in (45c), and an unsalvageable one in (45d):

(45)a. The book was assigned to Mary by herself.
    b. The book was assigned by Mary to herself.
    c. *The book was assigned to herself by Mary.
    d. *The book was assigned by herself to Mary.
    e. It was HERSELF that the book was assigned to deliberately by Mary.
    f. *It was HERSELF that the book was assigned by deliberately to Mary.

The next section considers the implications of the salvage phenomenon in the context of the earlier discussion of crosslinguistic patterns of reflexive antecedence which are at best unexpected in currently received terms.

**Section 4 Conclusions**

4.1 Correlations

While some of the English data of Section 3 may be problematic, we believe that overall they nonetheless support important theoretical conclusions. Because beyond whatever the [A and ONLY B] cases and the salvage cases might show in isolation, their implications are strengthened by two types of correlation. First, the two independently characterized phenomena are themselves significantly parallel:

(46)a. If an internally antecedent subject reflexive in context P is salvageable, an internally antecedent [A and ONLY B] reflexive in P is grammatical.
    b. If an internally antecedent object reflexive in context P is salvageable, an internally antecedent [A and ONLY B] reflexive in P is grammatical.
c. If an internally antecedent PP object reflexive in context P is salvageable, an internally antecedent [A and ONLY B] reflexive in P is grammatical.

The following paradigms briefly reillustrate these generalizations; (47)-(49) document (46a).

(47)a. *Herself was praised by Jane.
   b. %It was HERSELF that was praised by Jane.
   c. Herself and ONLY herself was praised by Jane.

(48)a. *Herself appeared to Ruth to be a strong candidate.
   b. %It was HERSELF that appeared to Ruth to be a strong candidate.
   c. Herself and ONLY herself appeared to Ruth to be a strong candidate.

(49)a. *Herself was interesting to Ruth.
   b. %It was HERSELF that was interesting to Ruth.
   c. Herself and ONLY herself was interesting to Ruth.

Paradigm (50) supports (46b):

(50)a. *Nadine described himself to Farouk.
   b. %It was HIMSELF that Nadine described to Farouk.
   c. Nadine described himself and ONLY himself to Farouk.

And, finally, paradigm (51) supports (46c):

(51)a. *The letters were sent to himself by Larry.
   b. %It was HIMSELF that the letters were sent to by Larry.
   c. The letters were sent to himself and ONLY himself by Larry. 16

Recalling terminology introduced earlier, all these cases can be summed up by saying that if a simple English reflexive is salvageable in context P, then P is a weak antireflexive context. 17 This English-internal correlation evidently supports the idea that the properties differentiating weak from strong antireflexive contexts are nonaccidental. This claim is reinforced by the fact that all the English-internal evidence from subject reflexives arguably reveals a further more specific positive generalization:

(52) If R is a grammatical internally antecedent reflexive subject, R is a ‘derived’ subject.

That English passive subjects and subject-raised ones are ‘derived’ should be uncontroversial. The case of the reflexive subjects of psychological adjectives is less clear. But they also fall into the category of ‘derived’ subject reflexives if an inversion analysis (in relational grammar terms) of such cases with e.g. interesting, astonishing, etc., is correct, that is, one in which the to-phrase represents an initial subject, and the final subject an initial direct object. 18
Second, and more specifically, the fact that the apparent role of the notion ‘derived’ subject in the description of English reflexive antecedence stems from a genuine principle is naturally further buttressed by the fact that to a significant extent, English subgeneralization (46a) parallels the facts in Albanian and Greek. Hence one sees the existence of clear parallels for passives between English (47), Albanian (13a) and Greek (21), for subject raising cases between English (48) and Greek (26), and for psychological predicates between English (49), Albanian (15a) and Greek (16).

Of course, (52) can only subsume both simple and [A and ONLY B] reflexives if there is a notion reflexive DP which covers both simple reflexives (herself) and complex phrases of e.g. the form herself and ONLY herself. However, it is difficult to see how the distribution of the more complex forms could reasonably be described in the absence of such a characterization, given the distributional parallels between the simpler and more complex types. But if it is correct that [A and ONLY B] reflexives are instances of the notion reflexive DP, then, as well as the indirect evidence based on salvageability, English provides more direct evidence that standard conceptions of the antecedent/reflexive relation are flawed.

The consequences of (52) can be spelled out further. First, what we called the UH in Section 1 cannot be maintained. The principles which determine that non-‘derived’ subject reflexives cannot be internally anteceded, see Section 4.2, must be in part distinguished from those which determine that some, but as we have argued here, only some, ‘derived’ subject reflexives also have this property. Second, simply on the basis of the subject generalizations, any principle which entails that no subject can ever be internally anteceded is not tenable. For (52) means, of course, that:

(53) An English reflexive DP, can be anteceded within its own minimal clause by a distinct DP which not only fails to c-command DP, but which is in fact asymmetrically c-commanded by it.

Hence Chomsky's Principle A in any of its variants, and other views which have been designed to have many of the same consequences, in particular, the consequence that a subject reflexive can never be properly anteceded by another element of its own minimal clause, must be rejected.

The conclusion that reflexive form antecedence is not governed by an inviolable principle along the lines of Principle A or its analogs casts new light on the limited evidence from French, English and Albanian that certain nonsubject reflexives can have internal antecedents which at best do not asymmetrically c-command them. Given the general untenability of a c-command constraint, there is no a priori basis for assuming that the relevant object reflexives are c-commanded at all by their antecedents. If viable, this conclusion partially calls into question a broad range of work which has been driven in part by the idea
that whenever grammatical local domain reflexive antecedence between objects or PPs is grammatical, the antecedent must c-command the reflexive. \(^{22}\) Whatever else can be said about reflexive antecedence, it just turns out not to provide a definitive basis for conclusions about c-command relations between constituents.

4.2 A Possibly Inviolable Antecedence Constraint on Subject Reflexives

The negative conclusions just reached, implying that UVA principles like Principle A and analogs must be rejected, create a series of problems. For without such principles, a multitude of in fact ungrammatical reflexives would appear to be in general unblocked by known conditions. Even though nothing in principle then precludes, for instance, all clause-internally anteceded reflexive subjects, the known examples inconsistent with such a claim appear to involve exclusively ‘derived’ subjects, those which would arguably owe their subject status to movement in transformational terms and to what are called advancements in relational grammar terms. \(^{23}\)

One reasonable hypothesis which can though partially fill the lacunae is that it is truly impossible in natural languages for what relational grammar accounts roughly regard as an initial subject reflexive to be anteceded from within its own clause. Very informally:

(54) An initial reflexive subject cannot be anteceded by another DP in the same minimal clause. \(^{24}\)

Since (54) says nothing about ‘derived’ subjects of any kind, it fails to indicate that they cannot be locally anteceded reflexives, and, unlike Principle A type views, it is consistent with the sort of data cited earlier from Albanian, Greek and English.

4.3 Constraints on Inverse Reflexives

Despite what we have taken to be the existence of grammatical locally anteceded (noninitial) subject reflexives, and despite principle (54), multitudes of other such cases are also not well-formed, including the unsalvaged English simple reflexive cases. Just so, while it has been argued that there are grammatical locally anteceded direct object reflexives not anteceded by subjects, many such cases are also ungrammatical, e.g the unsalvaged simple reflexive objects in English. These ungrammaticalities must thus be attributed to principles distinct from (54) or various versions of Principle A, seemingly principles of considerably less generality.

It would be tempting to suggest initially for English and possibly many analogous languages that the relevant principles are word-order based. One might claim that English simply excludes simple reflexives which precede their antecedents. This view is in accord with the conclusions of Jackendoff (1990), a quite lonely voice over recent decades arguing for the role of word order in anaphora and against overwhelming
reliance on notions like c-command; see also Williams (1994: 188-189).

However, while we see no theoretical objection to reflexive antecedence constraints which appeal to word order, such constraints do not underlie in particular the ungrammaticality of English salvageable but unsalvaged reflexives. First, there are grammatical instances of English simplex reflexives preceding their antecedents, some already cited:

(55)a. I proved to have contradicted themselves at least once those foreign reporters over there.
   b. THEMSELVES, I proved those foreign reporters to have contradicted at least once.
One difference between these cases and the earlier ones where a reflexive cannot grammatically precede its antecedent is that in the latter both antecedent and reflexive are in unextracted positions, so-called A(rgument)-positions in one framework, while in the former, at least one is not. If one adopts this terminology for its familiarity, the generalization might appear to be:

(56) If a simple reflexive expression $R$ and its antecedent $AT$ are both in superficial A-positions, then $AT$ precedes $R$.

However, principle (56) is not an adequate approach to salvageable simple reflexives.

Consider the ungrammatical but salvageable subject reflexive violations in (57a) and the ungrammatical but salvageable direct object reflexive violations in (58a):

(57)a. *He believes herself to have been praised by Melissa.
   b. %HERSELF, he believes to have been praised by Melissa.
   c. *Melissa, he believes herself to have been praised by.
   d. *By Melissa, he believes herself to have been praised.

(58)a. *He believes them to have never described herself to Melissa.
   b. %HERSELF, he believes them to have never described to Melissa.
   c. *Melissa, he believes them to have never described herself to.
   d. *To Melissa, he believes them to have never described herself.

While all of (57c, d) and (58c, d) satisfy (56), they are clearly as ungrammatical as the unsalvaged cases in (57a) and (58a). These data reveal a fundamental, previously ignored asymmetry with respect to the salvaging phenomena. Namely, this turns out to be achievable by the salvage constructions only if the ‘target’ of those constructions is the illicit simple reflexive form; it is not achieved if the ‘target’ is the antecedent. But a word-order principle like (56) predicts exactly a nonexistent symmetrical salvaging situation. 25
Moreover, other types of extractions which effect the word order of antecedent/salvageable reflexives but do not involve extraction of the reflexive form also yield salvageable structures which satisfy (56) but remain ungrammatical. That is, extraction of a phrase containing the antecedent also fails to contribute to salvageing.

(59)a. *They believed himself to be astonishing to Joe.
   b. %It was HIMSELF that they believed to be astonishing to Joe.
   c. Astonishing to himself though they believed Joe to be,
   d. *Astonishing to Joe though they believed himself to be,

One must then search for a different principle to account for (57c, d) and (58c, d) and to provide a reconstruction of the circumstances under which extractions actually salvage ungrammatical simple reflexives. Our best guess is that the right principle will be relational, in the sense of appealing to notions like subject, direct object, indirect object, etc. We adopt the relational grammar notation of numerical abbreviations for the names of these relations, each name viewed as the label of an arc in the formal structure representing the relations.

(60) subject (1), direct object (2), indirect object (3), ….

We also appeal to a ranking of these relations based formally on a ranking of the symbols (arc labels) taken as their names, specifically, at least that of (61):

(61) Arc A outranks arc B if and only if A’s label precedes B’s label in the sequence:

1, 2, 3, X (X ≠ 1, 2, or 3)

One can then informally define the notion of inverse reflexive, as in (62):

(62) Definition
A reflexive expression R is an inverse reflexive if and only if the last central arc headed by R outranks the last central arc headed by the local antecedent of R.

This says in effect that R is an inverse reflexive if it is a final 1 locally anteceded by a final 2, 3 or X, a final 2 locally anteceded by a final 3 or X, or a final 3 locally anteceded by a final X. Notably, the reflexives in (57a) and (58a) are then inverse reflexives, instantiating antecedence of a 1 by an X and of a 2 by an X, while the ill-formed variant of (63) instantiates, we suggest, antecedence of a 3 by an X:

(63) The book was sent Jack/*herself by Melissa.

With this notion in hand, and adopting an informal terminology which takes the ‘target’ of one of the salvage constructions to have been extracted, one can account for the relevant data with the following parochial constraint:

(64) An English, simple inverse reflexive must be extracted.
Plausibly, the same notion can be used to describe facts in other languages. So, the dialects of French which allow (8b) but ban its corresponding passive might involve a constraint entailing minimally that an inverse reflexive has to be a final direct object; Albanian might manifest a constraint that an inverse reflexive must be a direct object (passivized or not) anteceded by an indirect object, and other languages might simply ban all inverse reflexives.

4.4 Generalizing the Results

We have recognized a notion of inverse reflexive to describe a variety of facts from English which were argued to clash with the implications of any universal principle designed to imitate the consequences of Chomsky's Principle A. Evidently, Principle A is only one element of a group of related principles in the same tradition which appeal principally to the notion c-command to describe relations between pairs of DPs. Other such principles have been invoked to describe triggering of negative polarity items, binding of pronominal forms, etc. We suspect that in many such cases, evidence similar to that appealed to here will show that c-command is not an adequate basis for the facts and suggest that an analog of the inverse reflexive relation may be relevant. While space precludes serious discussion here, it is worth mentioning one case.

It has often been claimed that a pronominal form antecedced by a quantified DP antecedent must be c-commanded, hence bound, by the antecedent; see e.g. Barss and Lasnik (1986), Aoun and Li (1993), Baker (2001). This is normally taken to be the basis for facts like (65):

\[(65)\]
\[
\begin{align*}
\text{a. Every student}_1 & \text{ respects his}_1 \text{ teacher.} \\
\text{b. } & \text{His}_1 \text{ teacher respects every student}_1. \\
\text{c. } & \text{They convinced every foreign student}_1 \text{ that the professor respected her}_1. \\
\text{d. } & \text{They convinced her}_1 \text{ that the professor respected every foreign student}_1.
\end{align*}
\]

Such claims are seemingly attacked by perfectly grammatical cases like (66), in which c-command does not hold between antecedent and pronoun and yet a bound variable interpretation is unproblematic.\(^{30}\)

\[(66)\] Every professor's\(_1\) neighbor respects her\(_1\).

More directly relevant to the present inquiry are cases like (67) and (68):

\[(67)\]
\[
\begin{align*}
\text{a. Every professor}_1 & \text{ praised his}_1 \text{ relatives.} \\
\text{b. } & \text{His}_1 \text{ relatives praised every professor}_1. \\
\text{c. } & \text{They convinced every foreign student}_1 \text{ that the professor respected every foreign student}_1.
\end{align*}
\]

\[(68)\]
\[
\begin{align*}
\text{a. They described every professor}_1 \text{ to his}_1 \text{ neighbors.} \\
\text{b. } & \text{His}_1 \text{ relatives were praised by every professor}_1.
\end{align*}
\]

(68a) They described every professor\(_1\) to his\(_1\) neighbors.

b. ?They described his\(_1\) neighbors to every professor\(_1\).

The pronouns in cases like (67c) and (68b), although not c-commanded by their quantifier antecedents
and in fact c-commanding them in surface forms, seem to us to be reasonably acceptable on a bound variable reading and thus to sharply contrast with the truly impossible (67b).

Moreover, any doubts about (67c) and (68b) vanish in correspondents where the pronominal DPs are extracted:

(69)a. His\textsubscript{1} affinal relatives, I am sure were praised by every professor\textsubscript{1}.
   b. His\textsubscript{1} next door neighbors, I am sure they described to every professor\textsubscript{1}.
   d. It was his\textsubscript{1} affinal relatives that I am sure were praised by every professor\textsubscript{1}.

On the contrary, extraction seems to do nothing to improve e.g. (67b):

(70)a. *His\textsubscript{1} next door neighbors, I am sure praised every professor\textsubscript{1}.
   b. *It was his\textsubscript{1} next door neighbors that I am sure praised every professor\textsubscript{1}.

In short, it appears that in the environments we took to define inverse reflexives, there is at worst a possibility of salvaging (in an obvious sense) quantifier DP/pronominal antecedence cases which are commonly taken to require a c-command relation. This is as unexpected in received terms, e.g. those which appeal to the crossover explication of note 30, as the reflexive salvageings discussed earlier. And just as the reflexive data undermine Principle A style accounts, the bound variable data undermine straightforward appeals to c-command combined with crossover accounts.

Clearly then, a general investigation of such matters in terms which take into account the inverse relation is suggested, as this concept may be of potential relevance to antecedence by quantifier DPs just as it is to the antecedence of reflexives.

Notes

**We are indebted to an anonymous reviewer for a multitude of detailed suggestions and criticisms which have led to great improvements in this paper. Also thanks to Brian Joseph for some input about Greek glosses.

1 The issues raised here about reflexives may well have partially parallel variants involving reciprocals. To avoid unwieldy multiplication of the number of examples though, we limit all citations to reflexives.

2 A remarkable feature of Chomsky's binding accounts is that notions like 'anaphor' are not defined independently of the binding conditions. This means, minimally, that any testable content to the view depends on the interacting consequences of all the principles. For there is no way to claim independently of them that some form is or is not e.g. an anaphor. For instance, faced with the grammaticality of (i) nothing independently blocks analyzing \textit{them} as an anaphor.

(i) Most robots\textsubscript{1} have wires in them\textsubscript{1}.

This is at best precluded nontheoretically by the ugly factual consequences of positing an English anaphor
shaped them, then wrongly not blocked from positions like that in (ii):

(ii) *The robots placed wires in them.

A grave undealt with problem about the binding conditions, namely, that they do not properly take into account conjunction, is illustrated in e.g. (iii):

(iii)a. Clara might, and Stella certainly will, strongly defend herself.

b. It is HERSELF that Clara might, and Stella certainly will, strongly defend.

Here, the reflexive form is understood in some sense as linked jointly to both subscripted DPs, since (iii) is equivalent to (iv):

(iv) Clara might strongly defend herself, and Stella certainly will strongly defend herself.

But there is no coindexing of the reflexive in (iii) which captures this fact and is consistent with the desired result that the reflexive satisfies Principle A. What then in a Principle A framework could block (vb) and differentiate it from the salvaged (vc):

(v)a. It is Henry that Audrey thinks might effectively defend himself but Sally is sure will embarrass himself.

b. *It is HIMSELF that Audrey thinks might effectively defend Henry but Sally is sure will embarrass Eddie.

c. %It is HIMSELF that Audrey thinks might be effectively defended by Henry but Sally is sure will be embarrassed by Eddie.

3 A widespread view, due to Chomsky (1981: 193), is that Principle C is the basis for the strong crossover phenomenon, illustrated in (i)

(i) *Which activist did they persuade him the police would soon arrest?

Postal (2004: Chapter 7) argues that this view is unfounded.

4 Reflexive subjects with higher clause constituent antecedents are, of course, well-known in a variety of languages, e.g. Chinese, Marathi, Korean, Malayalam (see Huang, 2000, Chapter 2.3 for references). Postal (2006) argues that contrary to common assumptions, English also has such reflexives, in fact, several varieties. These are not of direct concern here, although they provide an independent challenge to concepts like Principle A, a challenge much discussed in the now extensive literature on so-called long distance reflexives; see e.g. Koster and Reuland (1991), Cole, Hermon and Huang (2001), Huang (2000), Cole, Harmon and Sung (1990) and Cole and Sung (1994) for discussion and references.

5 Postal (1989: 10) noted that the possibility in (8b), though not that in (8a), is limited to third-person nominals.

6 Den Dikken (1995: 224) cites one Italian informant, Maria Teresa Guasti, as the basis for the following binding judgments:
(i)a. *Ho mostrato Maria a se stessa.
   I-have shown Maria to herself
   b. Ho mostrato se stessa a Maria.
      I-have shown herself to Maria
      “I showed Maria to herself”

This pattern is the opposite of English and partially similar to that variant of French which allows (8b). But unlike the French variant accepting (8b), the Italian of Ms. Guasti is seen not to allow the ‘forward’ antecedence pattern.

However, we checked these Italian judgments with two Italian subjects, Franca Ferrari and Antonio Gulli (to whom we are indebted). Both reject (ib) while accepting (ia) and hence seem to manifest a reflexive pattern for objects parallel to English. Rendering a c-command-based account of the reflexive facts consistent with both variants of Italian might thus require positing distinct clause structures for cognate clauses in the two as well as distinct clause structures for different variants of French. These conclusions are, to say the least, implausible enough to suggest that c-command is not the appropriate feature, a conclusion supported by all that follows.

On the basis of (i) alone, Den Dikken (1995: 224 n42) concludes that the Italian goal phrase ‘must’ c-command the direct object. We would quarrel with such a necessity claim, but given the contrasts with our informants and hence either significant dialect variation or unclarity in the data, or both, it would be unwise for us to draw conclusions about Italian at this point.

While we do not know the passive facts for Den Dikken's informant, for the Italian speakers we consulted, the passives of (ia, b) behave like French (9):

(ii)a. *Maria e’ stata mostrata a se stessa da me
   “Marie was described to herself by me”
   b. *Se stessa e’ stata mostrata a Maria da me
      “Herself was described to Maria by me”

7 Woolford (1999: 270) describes the Albanian sentence in (i), taken from Hubbard (1980: 90), as having a dative subject and a nominative object (which controls verb agreement).

(i) Vetja iu çudit Agimit
   self (NOM) CLITIC (3SG.DAT) surprise (3SG.PAST.NONACTIVE) Agim (DAT)
   “Agim surprised himself”

She does not argue for this view, which conflicts with Hubbard's (1980, 1981) treatment, accepted here,
that the nominative form is the final (in relational terms) subject. The gross properties just cited, e.g. having nominative case and determining verbal agreement are, of course, diagnostic properties of final subjects in Albanian, as in many other languages.

8 The failure of a reflexive object in Albanian to yield a grammatical nominative reflexive in a passive except in indirect object cases like those already cited is illustrated in (i), where the subject reflexive is antecedent by the agent phrase.

(i) Hubbard (1980: 50)

*Vetja u fIUVa prej kapedanit

self (NOM) CLITIC invited by captain

“Himself was invited by the captain”

9 Some speakers allow the B nominal to be a nonpronominal which shares denotation with A, as in (i):

(i)a. Valerie, and ONLY [that bitch], said anything.
   b. %Valerie, and ONLY [the mother of your children], said anything.
   c. %I and ONLY [I /yours truly /*you /*they] will be allowed to play the xylophone.

10 One notes the singular verb agreement property in examples such as (30b), raising the issue of which coordinate DPs are singular, which plural, and according to what principles.

11 Constraints on reflexives parallel to those seen in (2)/(7b, d) arguably hold for cases in which the reflexive word is a conjunct:

(i)a. [*Bob and herself/*Herself and Bob] described Harriet to Arthur.
   b. [*Bob and herself/*Herself and Bob] were described to Harriet by Arthur.


These contrast with the coordinate analogs of (1) and (7a):

   b. Harriet was described to [Bob and herself/herself and Bob] by Milton.

Despite the obvious parallelisms, the principles usually invoked for (2)/(7b, d), Principle A or its analogs, are in general not shown to block (i) and (ii). Such an attempt might be successful if it appealed to something like the conjunction reduction approach of early transformational accounts. Under the latter, e.g. (ia) could have conjoined underlying structures of the form (iv) in which a Principle A analog could properly fail to be satisfied in one conjunct:

(iv) [Bob described Harriet to Arthur and herself described Harriet to Arthur]

12 Some previous treatments of examples like (36b, e) have claimed that they are ungrammatical because English lacks a nominative form for reflexives. Bresnan (2000: 218) made a proposal to this effect, and Woolford (1999: 262) cites Brame (1977), Koster (1978), Anderson (1982) and Maling (1984) for the idea that languages may lack nominative anaphors. But even if correct, this perspective is irrelevant,
because the patterns illustrated in (36b, e) are replicated in non-finite constructions in which subjects are not even *allowed* to be nominative, e.g.:

(i)a. For me/*I to describe Harriet to Arthur would be silly.

b. *For herself to describe Harriet to Arthur would be silly.

c. *For herself to be described by Harriet to Arthur would be silly.

13 For one of the authors, topicalization does indeed behave in the relevant respects in a way parallel to e.g. clefting. For the other, however, topicalization seems to lack the ability to salvage the relevant bad reflexive cases, meaning that the facts in (38) represent the judgments of only one author. We have no account of this crossidiolectal contrast.

14 Complex Shift and Right Node Raising constructions probably have some salvageability features. The former yields patterns like:

(i)a. I believe to have described herself to Arthur in great detail [THAT NURSE].

b. *I believe to have described that nurse to Arthur in great detail HERSELF.

c. I believe that nurse to have described to himself in great detail [the man she loved]

d. %I believe that nurse to have described to [the man she loved] in great detail HIMSELF.

e. %I believe to have been described by that nurse to those very frail patients in great detail HERSELF.

The latter construction determines:

(ii)a. Irving may believe to have described herself to Arthur in great detail and probably does believe to have described herself to Arthur in great detail [THAT NURSE]

b. *Irving may believe to have described that nurse to Arthur in great detail and probably does believe to have described that nurse to Arthur in great detail HERSELF.

c. Irving may believe that nurse to have described to himself and probably does believe that nurse to have described to himself [THAT MAN]

d. %Irving may believe that nurse to have described to [the man she loved] in great detail and probably does believe that nurse to have described to [the man she loved] in great detail HIMSELF.

e. %Irving may believe to have been described by that nurse to Arthur in great detail and his friends probably do believe to have been described by that nurse to them in great detail HERSELF.

While (id, e) and (iid, e) are hardly lovely, we have some sense that whatever is wrong with them is significantly independent of the reflexive linkages. And it appears that both (id, e) and (iid, e) improve when and *Xself* is added to the extracted reflexive. That is, e.g. (iii) is better than (id):

(iii) %I believe that nurse to have described to [the man she loved] in great detail himself and ONLY himself.
Moreover, in support of the salvageability property of Complex Shift, we note that Williams (1994: 188-189) cited (ivb) as perfect, while starring (iva):

(iv)a. *I recommended himself to John.
   b. I recommended to John HIMSELF.

Williams (1994: 189) took such facts to suggest the following reflexive antecedence principles:

(v) “If this is correct, then the distribution of reflexives comes down to two separate factors: the antecedent must c-command the reflexive, and the antecedent must precede the reflexive if the reflexive c-commands it.”

This account is not, of course, consistent with the salvageability facts involving left extractions. For instance, in (37d), even if one grants that the antecedent c-commands the reflexive form, that is, the preextraction position, the former obviously does not precede the latter.

15 Despite the ungrammaticality of (ic), no direct evidence is available that the reflexive violation in (ib) is unsalvageable.

(i)a. The book was assigned Mary by herself.
   b. The book was assigned *herself/them/Jack by Mary.
   c. *It was herself that the book was assigned by Mary.
   d. *It was them/Jack that the book was assigned by Mary.

For while both authors are in the dialect which accepts (ia), the indirect object in this construction is unextractable independently of all considerations of reflexive antecedence.

16 There is a clear contrast between the paradigm in (51) and that in (i):

(i)a. The letters were received from Tom/*HERSELF recently by Sandra.
   b. *It was HERSELF that the letters were received from recently by Sandra.
   c. *The letters were received from herself and ONLY herself recently by Sandra.

While we have no account of the unacceptability of (ib, c), the correlation between the failure of salvageability and the impossibility of the \[A \text{ and ONLY } B\] reflexive supports our view that these are strictly connected.

17 We have so far entirely ignored simple only reflexive phrases. It is natural to ask how these fit into the patterns that have been registered. The answer seems to be that this phrase type behaves more like a simple reflexive than like an \[A \text{ and ONLY } B\] reflexive one, with certain extra restrictions. So we judge:

(i)a. Fred praised only himself.
   b. *Only himself praised Fred.
   c. *The book was sent (to) only (to) herself by Mary.
   d. ?*Francine described only himself to Otto
But such phrases can serve to further illustrate the existence of salvageability, since they participate in the negative fronting extraction:

(ii)a. *Only himself did Mary believe to have praised Fred.
   b. Only himself did Mary believe to have been praised by Fred.
   c. Only himself did Mary believe Francine to have described to Fred

Thus it would appear that here too, salvaging is possible from weak antireflexive contexts.

18 While it is a complex matter to argue for an inversion analysis of the relevant constructions, two supporting observations deserve mention. First, what such an analysis would take to be a demoted subject is not a possible target for the object raising construction. So in (i), a clear noninversion structure, such targeting is possible. But in plausible inversion cases like (ii) and (iii) it is not:

   (i)a. Maureen spoke to Greg.
      b. Greg was difficult for me to imagine Maureen speaking to.
   (ii)a. Maureen mattered to Greg.
      b. *Greg was difficult for me to imagine Maureen mattering to.
   (iii)a. Maureen was astonishing to Greg.
      b. *Greg was difficult for me to imagine Maureen being astonishing to.

This is possibly due to a generalization barring (inter alia) object raising of an underlying subject, clearly seen in passive cases:

   (iv)a. Maureen has been hired by Laura.
      b. *Laura was difficult/impossible for Maureen to have been hired by.

Second, the object raising contrast between e.g. (ia) and (iia) correlates with a passivization contrast:

   (v)a. Greg was spoken to by Maureen.
      b. *Greg was mattered to by Maureen.

That is, the putative inversion structure manifests a well-known resistance of clauses with ‘derived’ subjects to passivization.

19 We are aware of no Albanian data indicating the interaction of subject raising and subject reflexive antecedence.

20 Given the partial string identity relations which hold between A and B in [A and ONLY B] constructions, some sort of reduplication analysis might be motivated. That would treat (ia) as involving reduplication of the non-only part of (ib):

   (i)a. Janet and only Janet
      b. Only Janet

Such an analysis is additionally attractive as the implication that (ia, b) have the same meaning is plausible. To work out such an approach, presumably cases like (ib) would have to be regarded such that
Janet was a DP and only Janet a distinct one. Further, it would be necessary to have a view of anaphoric relations such that cases (like e.g. (27c) in the text) in which A and B do not fully match but rather B is an anaphoric expression anteceded by A could be taken to operate on more abstract structures in which A = B. Actually constructing an analysis with these properties is thus far from straightforward and it would be hazardous to guess that it is possible.

21 It also follows of course that specifically because of cases like e.g. (47b, c), (48b, c) and (49b, c), Principle C is untenable even for the domain of reflexives, even for English.

22 The facts of English nominal domains may also be problematic to Principle A and its analogs. Consider:

(i)a. Felicia’s continuing criticism of herself
    b. this continuing criticism by Felicia of [herself/HERSELF]
    c. this continuing criticism of herself by Felicia
    d. this continuing criticism of Felicia by [herself/HERSELF]

Case (ia) is the sort which is most clearly in accord with Principle A. Ignore the well-known fact that to render cases like (ib) equally consistent requires the grammar to somehow be indifferent to the fact that the antecedent is embedded in a PP. The key issue is how Principle A can also be consistent with both (ic, d)? This would seemingly require mutual c-command, raising minimally issues of how [criticism of DP] can then be a constituent, how requirements that all branching be binary can be met, etc. To our knowledge, such questions have not been systematically addressed; but see Collins (2005) for relevant remarks.

Williams (1994: 188-189) notes some cases parallel to (ic), judging them only with two question marks. While not basically disagreeing with his judgments, we believe they depend significantly on his choice of examples, rather than on fundamentals of the construction.

23 In the framework of Johnson and Postal (1980), Postal (1989, 1992 1996), ‘derived’ subjects would be those in which the arc defining subject status is a successor, possibly always a local successor.

24 A precise version of such a claim would have to take note of the facts for passives. Clearly, the constraint at issue does not hold for passive agent reflexives, since the status of (ia, b, c) is entirely distinct from that of (ii), in ways which cannot be attributed to the sort of distinct considerations discussed presently in the text.

(i)a. *Himself/HIMSELF characterized Monroe quite critically.
    b. *I believe himself/HIMSELF to have characterized Monroe quite critically.
    c. *I believe to have characterized Monroe quite critically HIMSELF.
(ii) ?Monroe was characterized quite critically by himself/HIMSELF.
That is, passivization of an impossible reflexive initial subject seems to yield a largely grammatical result. But in relational terms, cases like (ii) are analyzed in such a way that the passive by-phrase DP is a non-derived subject, a view long ago argued for in e.g. Perlmutter (1984); see also Postal (2004: Chapter 8). It would appear then that the proper version of the constraint would have to reference initial subjects which are also superficial subjects.

25 This discussion might raise the question of whether Principle A can be defended against the implications of the English salvaging data by some sort of revision to the effect that an anaphor only needs to be bound by a c-commanding element if it is in an argument position. This might be momentarily attractive, since all of the troublesome salvage cases involve extracted reflexives, hence those not in argument positions. However, such a revision is nonetheless hopeless. For the good cases would thereby be rendered consistent with a revised Principle A only at the price of a failure to block impossible cases like (i):

(i) *It was HIMSELF that I am sure praised Jerome.

Moreover, internal to the now popular view that extractions in general yield traces which are copies of the extracted elements (see e.g. Chomsky, 2003: 306-307; and Postal, 2004: Chapter 7 for critical remarks), the proposal fails even for grammatical cases like (iia), which then have structures like (iib):

(ii)a. %It was HIMSELF that I am sure was praised by Jerome.
b. [It was HIMSELF that I am sure HIMSELF was praised by Jerome].

For in (iib), the highlighted form is an unbound reflexive in an argument position, which would be wrongly barred unconditionally even by the hypothetical revision of Principle A.

26 For basic accounts of arcs, their labels as names of grammatical relations, hierarchies of such, etc., see Johnson and Postal (1980), Postal (1989, 1992, 1996, 2004, in preparation).

27 Very roughly, Central arcs specify the class of nominal grammatical relations defining core clauses. See Johnson and Postal (1980), Postal (in preparation). This class excludes those nominal relations relevant to extractions, that is, those defining topicalization, interrogative extraction, etc. Hence inter alia, definition (62) claims that the latter phenomena are irrelevant to the characterization of the concept inverse reflexive.

28 The view that (63) involves a final 3 and that the reflexive antecedent is not a final 2 (but a final instance of a distinct relation, call it 4, with no traditional name) assumes conclusions of Postal (in press, in preparation). Moreover, that analysis has the proper consequences for (i):

(i) *I offered himself the slave.

Under a traditional view in which the superficial relation of the reflexive object is 3, that of its antecedent 2, the reflexive would not be an inverse reflexive and nothing so far would block the example. But under the analysis of Postal (in press, in preparation), the relations are respectively 3 and 4, characterizing the
reflexive as inverse. Salvaging would then be in principle possible but is in fact not because of the constraint independent of reflexivization issues which does not permits 3s of any sort to be extracted; see note 15:

(ii) *It was Joan that he offered __ the slave.

29 In a framework having argument position as a precisely defined construct, (64) might well be stated along the lines of (i):

(i) An inverse reflexive cannot be in a surface argument position.

An issue then is the grammaticality of cases like (ii):

(ii) HIMSELF was what was shown to Joe on the monitor.

These might be taken to attack not only the idea mentioned earlier that English lacks nominative anaphors but also the generalization putatively stated as in (64) or (i). Our suspicion is that such cases fail to conflict with the principle barring finite clause reflexive surface subjects because HIMSELF in (ii) is not a subject of the main clause but a subpart of a subject whose other parts are invisible. It might be noted that verbal agreement in such cases is not what would be expected of a subject.

(i) THEMSELVES ?was/*were what was shown to those guys on the monitor.

30 One proposed solution to such problems is to claim, as in Hornstein (1995: 26-27), that quantifier expressions are extracted at a level of Logical Form and that the c-command condition holds at that level. So a good case of variable binding like (ia), where surface c-command does not hold properly, is taken to be due to a Logical Form like (ib), in which the quantifier expression does c-command the pronominal form interpreted as a bound variable.

(i)a No gorilla's\textsubscript{1} trainer ever beats it\textsubscript{1}.
   b. No gorilla\textsubscript{1} [1's trainer ever beats it\textsubscript{1}]

This approach then requires that the impossibility of variable binding in (iii) be attributed to a crossover constraint applying to the (result of) movement at Logical Form:

(ii)a *His\textsubscript{1} trainer beat no gorilla\textsubscript{1}.
   b. No gorilla\textsubscript{1} [his\textsubscript{1} trainer beats\textsubscript{1}]

Such claims are undermined if the data to follow in the text are valid.

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