Fake indexicals: Germanic child care and gendered relatives
Susi Wurmbrand, University of Connecticut

Synopsis This paper shows, based on the distribution of bound indexicals in four Germanic languages, that binding is not sensitive, nor can it be assumed to be driven or mediated by functional heads as postulated in many current Agree approaches to binding (Reuland 2001, 2005, 2011, Heimat 2006, Chomsky 2008, Kratzer 2009). Instead data are provided that argue for a return to the traditional view that binding requires a direct dependency between the antecedent and the variable (Hicks 2006, 2009, Schäfer 2008), and that this dependency is best formalized as Reverse Agree (Wurmbrand 2011, 2012, Zeijlstra 2012) plus the concept of feature sharing proposed in Pesetsky and Torrego (2007).

Fake indexicals Bound variable [bv] interpretations are generally available for 1st/2nd person pronouns in constructions such as Only I did my best (my is not referential but varies with the alternatives of only). Such bound fake indexicals [fis] where 1st person is not interpreted as the speaker are, however, restricted in relative clauses, (1): English and Dutch [E/D] allow them, whereas German and Icelandic [G/I] prohibit them (my can only be referential in (1b,d)). Kratzer (2009) proposes a morpho-syntactic spell-out approach for (1a,b) in which the feature sets of the relative pronoun (WH,F, S.G), where F=3rd person, T, v (1SG), and the POSS(essor) unify, leading to conflicting 1/3 feature specifications on T and POSS, which cannot be realized in G. In E, markedness rules allow ignoring certain features, and the spell-out dilemma of e.g., 1.3.SG can be resolved in favor of person for POSS (1.SG—my) and in favor of gender for verbs (3.SG—takes.3.SG). This account does not address why only some languages have such markedness rules, in particular not why D patterns with E and I with G.

(1) a. I am the only one who takes care of her/my son. ✓ bv
   b. Ich bin der einzige, der seinen bv / meinen bv Sohn versorgt
      I am the.M.SG only one who.M.SG his bv / my bv son take.care.of.3.SG
      ‘I am the only one who takes care of my son.’ [based on Kratzer 2009: 191, (5)]
   c. Ik ben de enige die m’n bv best gedaan heeft ✓ bv
      I am the only one who my best done has.3.SG
      ‘I am the only one who has done my best.’ [Maier and de Schepper 2010: 4, (11)]
   d. Ég er sá eini héra sem getur séð um börnin sin bv / mín bv
      I am DEM only here that can.3.SG see about children self bv / my bv
      ‘I am the only one here who can take care of his/my children.’ [G. Harðarson, p.c.]

Direct licensing by AC Mediated Agree approaches crucially relies on v/C/T licensing pronouns, rather than involving a dependency between the actual antecedent [AC] and the bindee. Alternations with identical inflectional heads but different word orders in G show, however, that the crucial relation is c-command between the AC and the bindee: a bv interpretation is only possible when (2) since the AC c-commands the pronoun.

(2) a. weil {unser bv Sohn} nur unsAC {unser bv Sohn} versorgt
   since {our.NOM son} only us.NOM {unser bv Sohn} take.care.of.3.SG
   ‘since our son is only taking care of us.’
   b. der Tag an dem {unser bv Sohn} nur unsAC {unser bv Sohn} versorgt hat
      the day on which {our.NOM son} only us.NOM {unser bv Sohn} taken.care.of has
      ‘the day on which our son took care of only us/only we were taken care of by our son’

Further evidence for a direct AC–bindee dependency comes from inversion in specifier contexts. In both E/D, FIs are impossible when the relative DP REL precedes the matrix pronoun as in (3b,c). Dutch is particularly important here since the DP REL—pronoun order does not change matrix agreement—the subject remains the 1.SG pronoun which the matrix verb obligatorily agrees with. Yet despite this agreement, a FI is not licensed but vb can only be achieved with a 3rd person pronoun.

(3) a. I am the only one who has done my bv / her bv best.
   b. [The only one who has done *my bv / her bv best] is meAC.
   c. [De enige die *m’n bv / z’n bv / haar bv best gedaan heeft ] ben ik
      [the only one who *my / his / her best done has.3.SG ] am.1.SG I
      ‘The only one who has done her best is me.’ [P. Fenger, p.c.]
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Similar effects arise in G/I, which can only be given as schematic glosses here. The pronoun initial order allows embedded doubled indexical subject pronouns in certain varieties of G, (4a), and embedded covert subject pronouns triggering indexical agreement in I as in (4c). Both of these properties disappear in the inverted orders in (4b,d). The only option is a 3rd person POSS and 3SG agreement, (4e), which, like D, still requires 1.SG matrix agreement.

(4) a. %I am the only one, who I have.1.SG given my best. German: ✓ bv
    b. *The only one who I have.1.SG given my best am. I. *doubled subject indexical
    c. I am the only one, that pro.1.SG did.1.SG my best. Icelandic: ✓ bv
    d. *The only one, that pro.1.SG did.1.SG my best am.1.SG I. *indexical agreement
    e. The only one, who/that did.3SG her best am.1.SG I. ✓ bv

The paradigm in (3)-(4) shows that embedded indexicals (E/D) and additional embedded subject pronouns (G/I) need to be licensed by the matrix subject directly. I propose that this is possible under a Reverse Agree approach (Wurmbrand 2014): A feature F: _ on α is valued by a feature F: val on β, iff β c-commands α. On the other hand, these facts pose a rather serious challenge for mediated Agree approaches to binding. The main problem for Kratzer (2009) is that all binding and agreement is determined in the embedded clause already and that there is no interaction between the matrix indexical subject and the embedded indexical.

Adding an additional dependency (e.g., predication) between the matrix subject and DP_{REL} may be possible, but such a dependency crucially cannot involve feature unification, since matrix and embedded agreement obligatorily differ (I am/*is the only one who is/*am doing my best). Even if agreement could be handled somehow, the main question remaining would be why such an additional dependency licenses FIS only if the subject pronoun c-commands the embedded clause, and not in the inverted orders for which, presumably, the same semantic predication relation holds (as clearly shown by agreement in D, G, and I).

E/D vs. G/I As shown in the table below, the crucial difference between the two language groups lies in the morphological make-up of the head DP of the relative clause (in G also the relative pronoun): DP_{REL} shows gender distinctions in the singular in G/I but not in E/D.

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Dutch</th>
<th>German</th>
<th>Icelandic</th>
</tr>
</thead>
<tbody>
<tr>
<td>F.SG</td>
<td>the only one</td>
<td>de enige</td>
<td>die einzige</td>
<td>sú eina</td>
</tr>
<tr>
<td>M.SG</td>
<td>the only one</td>
<td>de enige</td>
<td>der einzige</td>
<td>sá eini</td>
</tr>
<tr>
<td>PL</td>
<td>the only ones</td>
<td>de enigen</td>
<td>die einzigen</td>
<td>þær eini</td>
</tr>
</tbody>
</table>

I propose Max F-Share—Agree relations affecting morphological features obligatorily share (Pesetsky and Torrego 2007) all features specified on both elements. The first

Agree relation in (5) is Agree (i.e., binding) between POSS and (the one) who, which both start the derivation unvalued (Kratzer 2009). Their features are thus linked but not valued. In G, the features needing a value are gender [♀] and number [#], hence both ♀# are shared, in E only #. These features are eventually valued by the semantic features of the matrix subject I (1.F.SG), and Max F-Share ensures that shared features are not suspended or overwritten by other values. I assume that the matrix subject can enter an additional Agree/binding relation with POSS, valuing the pronoun’s person π-feature (such long-distance binding is possible, in principle, in all languages; cf. Every girl thinks that John said that Leo likes her story). This yields two possible feature outputs in E, (5b): if the matrix subject values ♀, a (3.F.SG output (her) results; if it values π, the 1.SG pronoun my results. In G, on the other hand, Max F-Share prohibits a morphological form that utilizes π but not ♀. The only way the shared ♀# can be realized is by using (3.F.SG ihr ‘her’, which thus ‘wins’ over a FI in G/I. The lack of FIS in (3)-(4) follows since no Agree relation can be established between POSS and the non-c-commanding matrix I. There may still be a semantic predication relation between I and DP_{REL}, however this relation does not include π, and hence π-values cannot trickle down to POSS via feature sharing. Lastly, since there is no gender alternation in the plural in G, this account correctly predicts that plural FIS are possible in G, as shown in Kratzer (2009).

(5) a. I am the only one who gives POSS best