# 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, Heinat 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 $1^{st}$/$2^{nd}$ 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 $1^{st}$ 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.SG), where F=$3^{rd}$ 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 his/my son.'   [based on Kratzer 2009: 191, (5)]
  c. ***Ik** ben de enige      die    **m'n**  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     hérna  sem getur   séð um börnin      sín$^{✓bv}$ / **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 in (2) when the AC c-commands the pronoun.

(2) a. *weil      {unser$^{*bv}$ Sohn}    nur uns$^{AC}$    {unser$^{✓bv}$ Sohn}     versorgt*
    since    {our.NOM son}    only us.ACC   {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 uns$^{AC}$    {unser$^{✓bv}$ Sohn} versorgt     hat*
    the day on which  {our.NOM son}  only us.ACC   {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 specificational 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 $3^{rd}$ 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 **me**$^{AC}$.*
  c. *[De enige      die    ***m'n**$^{*bv}$ / z'n$^{✓bv}$ / haar$^{✓bv}$ best gedaan heeft     ] <u>ben      ik</u>*
    [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.]

susi@alum.mit.edu

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

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 3$^{rd}$ 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*.1SG *my best.*      Icelandic: ✓bv
    d. \**The only one, that* **pro.1.SG** *did*.1SG *my best am*.1SG *I.*     ∗indexical agreement
    e.  *The only one, who/that did*.3SG *her best* <u>*am*</u>.1.SG ***I.***        ✓vb

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.

| | English | Dutch | German | Icelandic |
|---|---|---|---|---|
| F.SG | *the only one* | *de enige* | *die einzige* | *sú eina* |
| M.SG | *the only one* | *de enige* | *der einzige* | *sá eini* |
| PL | *the only ones* | *de enigen* | *die einzigen* | *þær einu* |

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*
    b.  *i*φ: 1.**F.SG**  φ: __     ♂.#:__       ♂.#:__     φ: __ π.#.♂: ___  �  (3.)**F.SG**           G
       *i*φ: 1.F.**SG**  φ: __     **#**:__          [+HUMAN] φ: __ π.#.♂: ___  �  (3.)F.**SG** or 1.**SG**     E

susi@alum.mit.edu