Explicit realization of weak arguments[*]

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1.   Introduction

1.1   Reflexive pronouns as WEA

Landau (2010) proposes an explicit distinction between Strong Implicit Arguments (SIA) and Weak Implicit Arguments (WIA). SIA are covert full DP pronouns with a D feature and ϕ features, [+D,+ϕ], whereas WIA are D-less ϕ-bundles with reduced licensing abilities, e.g., they cannot license secondary predicates. For example, in the English examples in (1), PRO is a SIA but an implicit object is a WIA.

(1)   a.   They expected [PRO to leave the room ✓angry]
       b.   John ate ϕ *raw.

The examples show that PRO licenses the secondary predicate *angry* but an implicit object, e.g., 'the meat', is a ϕ-bundle and does not license a secondary predicate like *raw*.

If full pronouns can be either overt or covert, it is natural to ask whether D-less ϕ-bundles are ever overt. We propose that Weak Explicit Arguments (WEA) do in fact exist and provide evidence for this view from an investigation of the reflexive passive (ReflPass) in Icelandic. An example of this construction is shown below.[1]

(2) Svo var drifið   sig   á ball.   (ReflPass)
     then was hurried.DFLT REFL_{weak} on dance
     'Then there was hurrying off to a dance.'

The reflexive passive has a simplex reflexive pronoun argument *sig* and no overt antecedent. The construction requires an inherently or naturally reflexive verb. The main point of this paper is to argue that the reflexive element *sig* in the Icelandic reflexive passive is an overt counterpart of WIA, a Weak Explicit Argument (WEA).

1.2 Reflexive pronouns in Icelandic

Reflexive verbs are often divided into three classes: inherently reflexive verbs, naturally reflexive verbs and naturally disjoint verbs. The verbs in the reflexive passive are either inherently reflexive or naturally reflexive, but not naturally disjoint verbs. Icelandic has both a simplex (*sig*) and a complex reflexive pronoun (*sjálfan sig*) and it is always the simplex form which used in the reflexive passive.

Simplex *sig* is found with inherently (3) and naturally reflexive verbs (4). Naturally reflexive verbs can take either the simplex reflexive pronoun or a non-reflexive DP; this *sig* is a WEA on our account and it consists of [+REFL,+ϕ]. Simplex *sig* is also found in long-distance binding, fake reflexives and ECM constructions (see Section 2 below) and in such environments we analyze *sig* as [+REFL,+ϕ,+D]. Complex *sjálfan sig* is found with naturally disjoint verbs (verbs which are most naturally used with non-reflexive DP objects), see (5).

(3) Jón montaði sig   / *sjálfan   sig   / *Maríu   af þessu.
     Jón boasted REFL.ACC / *self.ACC REFL.ACC / *María.ACC of this
     'Jón boasted of/about this.'

(4) Jón rakaði sig   / ??sjálfan   sig   / Guðmund.
     Jón shaved REFL.ACC / ??self.M.ACC REFL.ACC / Guðmundur.ACC
     'Jón shaved (Guðmundur).'   (cf. Árnadóttir et al. 2011, 43)

(5) Hún hatar ??sig   / sjálfa   sig   / Pétur.
     she   hates ??REFL.ACC / self.ACC REFL.ACC / Pétur.ACC
     'She hates herself/Pétur.'

1.3 Outline

Below, Section 2 describes the Icelandic reflexive passive and compares and contrasts the use of *sig* in this construction with other syntactic configurations such as the new impersonal passive (NIP), long-distance binding, fake reflexives and ECM constructions. Section 3 presents evidence that *sig* is a weak pronoun which lacks a D feature. Section 4 presents our analysis of binding and case facts in the reflexive passive and Section 5 concludes.

2.   Reflexive passive (ReflPass)

The reflexive passive (ReflPass) is superficially similar to the new impersonal passive (NIP) (Maling & Sigurjónsdóttir 2002, Barðdal & Molnár 2003, Eythórsson 2008, Jónsson 2009, H.Á. Sigurðsson 2011, E.F. Sigurðsson 2012, Schäfer 2012, Ingason et al. 2013, Legate 2014), which is known for its combination of active and passive properties. In both the ReflPass and the NIP examples below, (6a)–(6b), there is no overt agent and the main verb has passive morphology. In (6b) the DP *mig* 'me' is in the object position even though it is definite, unlike definite themes in the canonical passive which must raise to the high subject position. Here, the theme cannot move to subject position and it is assigned accusative case. In the reflexive passive in (6a), the pronoun *sig* is in the object position, it cannot move to subject position and on the surface it looks like it is assigned accusative case.

(6)   a.   Svo var drifið   sig   á ball.   (ReflPass)
              then was hurried.DFLT REFL$_{weak}$ on dance
              'Then there was hurrying off to a dance.'
       b.   Það   var skammað   mig.   (NIP)
              EXPL was scolded.DFLT me.ACC
              'I was scolded.'

ReflPass is, however, grammatical for many speakers who find NIP ungrammatical but not vice versa (Sigurðsson 1989, Maling & Sigurjónsdóttir 2002, Árnadóttir et al. 2011). Therefore two different analyses are needed for the two constructions (cf. Schäfer 2012). Icelandic ReflPass speakers only allow ReflPass with inherently and naturally reflexive verbs (Árnadóttir et al. 2011). Passives with naturally disjoint verbs are possible also in Icelandic, but only for NIP speakers. That is, an NIP grammar is needed to generate (7).

(7)   [...] það   er drepið sjálfan   sig.   (NIP)
            EXPL is killed self.ACC REFL.ACC
       'People kill themselves.'   (Árnadóttir et al. 2011, 48)

The complex reflexive *sjálfan sig* is never a WEA on our analysis whereas we have seen simplex reflexive pronouns as WEA above. However, we do not claim that all simplex reflexive pronouns are WEA (cf. Cardinaletti & Starke 1996, who argue that the same form can both be weak and strong in the sense of their system).

Whereas the NIP may have a syntactically projected implicit argument in SpecVoiceP (cf. Maling & Sigurjónsdóttir 2002, H.Á. Sigurðsson 2011, E.F. Sigurðsson 2012, Ingason et al. 2013, Legate 2014), we argue that ReflPass does not have a syntactically projected antecedent (see also Schäfer's (2012) analysis).

Focusing on *sig*, we argue that there are two Icelandic simplex reflexive pronouns:

(8)   a.   [+REFL,+ϕ,+D]   (SEA; e.g., in long-dist. refl.)
       b.   [+REFL,+ϕ]   (WEA; ReflPass)

SEA ([+REFL,+ϕ,+D]) is found in at least long-distance reflexivization (9), logophoric reflexivization (10) (*vanta* 'lack' takes a subject in the accusative case), fake reflexives (11) and ECM constructions (12).

(9)   Jón$_i$ segir að María hafi   rakað sig$_i$/hann$_i$.
        Jón says that María has.SBJV shaved REFL.ACC/him.ACC
        'Jón says that María shaved him.'

(10)   Skoðun Siggu$_i$ er að sig$_i$ vanti   hæfileika.
        opinion Sigga's is that REFL.ACC lacks.SBJV talent
        'Sigga's$_i$ opinion is that she$_i$ lacks talent.'   (Maling 1984, 222)

(11)   Jón öskraði   sig   hásan.
        Jón screamed REFL.ACC hoarse.ACC
        'Jón screamed himself hoarse.'

(12)   María taldi   sig   vera þreytta.
        María believed REFL.ACC be   tired.ACC
        'María believed herself to be tired.'

WEA ([+REFL,+ϕ]), on the other hand, is found only when the antecedent is clause-local to the anaphor (13).

(13)   Jón dreif   sig   á ball.
        Jón hurried REFL.ACC on dance
        'Jón hurried off to a dance.'

If we consider the passivization possibilities of the above, the ReflPass grammar can only generate a passive version of (13), see (14). The NIP grammar is needed to generate a passive with a fake reflexive like (15), an ECM construction like (16), as well as the LDR reading of (17).

(14)   Það   var drifið   sig   á ball.   (ReflPass)
        EXPL was hurried.DFLT REFL$_{weak}$ on dance
        'There was hurrying off to a dance.'

(15)   Það   var öskrað   sig   hásan.   (NIP)
        EXPL was screamed REFL$_{strong}$ hoarse.ACC
        'Somebody screamed himself/herself hoarse.'   (Árnadóttir et al. 2011, 80)

(16)   Það   var talið   sig   vera þreyttan.   (NIP)
        EXPL was belived REFL$_{strong}$ be   tired.ACC
        'Somebody believed himself/herself to be tired.'

(17)   Jón segir að það   hafi verið rakað sig.
       Jón says that EXPL has been shaved REFL$_{strong/weak}$
       'John$_i$ says somebody shaved him$_i$.'   (NIP)
       'John says somebody shaved himself/herself.'   (ReflPass)

The conclusion of this section is that ReflPass is in some ways similar to NIP, but it is also different in crucial respects, and some speakers who accept ReflPass do not accept NIP. We argue that ReflPass does not have a syntactically projected antecedent whereas the NIP may have a syntactically projected implicit argument in SpecVoiceP. Focusing now on the ReflPass, we turn to showing that *sig* really is a WEA in this construction.

3.   Reflexive *sig* as a WEA

This section presents several pieces of evidence that reflexive *sig* is a D-less WEA in the Icelandic reflexive passive.

The first type of evidence involves secondary predication. A secondary predicate, predicated of a pronoun, is never possible for reflexive pronouns of inherently or naturally reflexive verbs as shown for the reflexive passive below.[2]

(18)   Það   var montað sig   (*glaður/*glaðan).
       EXPL was boasted REFL$_{weak}$ (glad.NOM/glad.ACC)
       'Somebody boasted (about something).'

This shows that the WEA does not license the secondary predicate 'glad'. In contrast, the complex reflexive *sjálfan sig*, which is a strong full DP and used with naturally disjoint verbs, is compatible with a secondary predicate. This is shown in (19) with 'glad' predicated of the complex accusative reflexive *sjálfan sig* (a) vs. the nominative subject (b).

(19)   a.   Jón skammaði sjálfan   sig   ?glaðan.
            Jón scolded   self.ACC REFL.ACC glad.ACC
            'Jón scolded himself and he was glad.'
       b.   Jón skammaði sjálfan   sig   glaður.
            Jón scolded   self.ACC REFL.ACC glad.NOM
            'Jón scolded himself and he was glad.'

Our analysis of these facts is that secondary predicates require a D feature but weak *sig* as in (18) lacks such a feature.

The second type of evidence comes from the fact that the weak reflexive *sig* does not allow for conjunction with a full DP.

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[2]For a discussion on different data which show restrictions on predicative agreement in Icelandic with inherently reflexive verbs, see Friðjónsson (1980, 106) and Wood (2015, 69).

(20)   Svo var drifið   sig   (*og Jón)   á ball.   (ReflPass)
        then was hurried.DFLT REFL$_{weak}$ (and John.NOM/ACC) on dance
        'Then there was hurrying off, by oneself and John, to a dance.'

The crucial observation here is that weak *sig* cannot conjoin with a DP. Our analysis is that conjunction applies to constituents of the same size (e.g., Chomsky 1957, 36) and ϕP is smaller than DP.

    The third type of evidence comes from the fact that the pronoun in the reflexive passive is not subject to the definiteness effect (Milsark 1977).

(21)   Það var drifið   sig   á ball.   (ReflPass)
        EXPL was hurried.DFLT REFL$_{weak}$ on dance
        'There was hurrying off to a dance.'

The example shows that the reflexive argument of 'hurry' can stay low even if it is a pronoun. We assume that the definiteness effect applies to elements with a D feature and that such a feature is absent from WEA.

    The fourth type of evidence involves binding. If we consider (21) again, it is evident that *sig* in the reflexive passive does not require a syntactic antecedent and therefore it seems to be exempt from Binding Principle A. We propose that the reason is that reflexive DPs need a syntactic antecedent whereas ϕPs do not. Note that Section 4 discusses how we account for semantic binding in the reflexive passive.

    The fifth and final piece of evidence is based on the fact that ϕ features can be expressed on the WEA reflexive. We can see this by considering (22) which shows the active counterpart of the reflexive passive in which the inherently reflexive verb 'hurry oneself' has the same interpretation.

(22)   Við drifum okkur   á ball.
        we hurried REFL.ACC.1PL on dance
        'We hurried off to a dance.'

The example shows that when an antecedent is present, its ϕ features are expressed overtly on the WEA. We have seen plenty of evidence that weak *sig* lacks something which is present in full pronouns and (22) suggests that the missing element must be something other than ϕ features, namely D.

    This section has shown that *sig* in the reflexive passive is not compatible with secondary predicates, cannot be conjoined with a DP, is not subject to the Definiteness Effect, is exempt from syntactic Binding Principle A and does not lack ϕ features. These facts support the view that this element lacks something compared to a full DP pronoun and that the difference involves the absence of a D feature. These findings are explained if *sig* is a WEA, an overt counterpart of Landau's (2010) WIA.

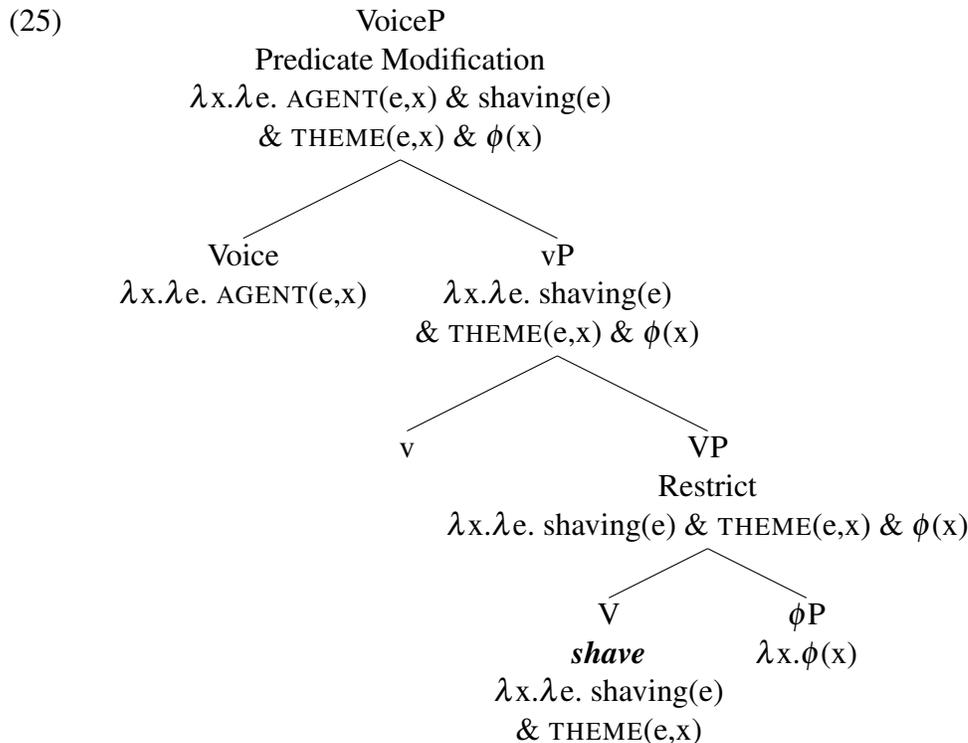## 4. Binding and case in ReflPass

4.1 Semantic binding

As noted above, we assume that syntactic binding theory applies to reflexive DPs, not reflexive ϕPs. We furthermore propose that reflexivity of WEA *sig* only requires semantic binding. We assume that inherently reflexive verbs provide semantic binding as part of their compositional semantics in the context of weak arguments, hence no DP antecedent is required.

We follow Legate (2014), who proposes that WIA (ϕP) of the type $\langle e,t\rangle$ can restrict an argument position but cannot saturate it (cf. Chung & Ladusaw 2004). It combines with a property of type $\langle e,\langle s,t\rangle\rangle$ via the operation Restrict.

(23) **Restrict**
If a is of type $\langle e,\langle s,t\rangle\rangle$ and b is of type $\langle e,t\rangle$,
$[\![a\ b]\!] = \lambda x.\lambda e.[\![a]\!](e,x)\ \&\ [\![b]\!](x)$.   (Legate 2014, 39)

We apply this to WEA *sig*, as in (24); the derivation is shown in (25).

(24)   Það   var   rakað   sig.   (ReflPass)
      EXPL was shaved REFL$_{weak}$

(25)

VoiceP
Predicate Modification
$\lambda x.\lambda e.$ AGENT(e,x) & shaving(e)
& THEME(e,x) & ϕ(x)

Voice
$\lambda x.\lambda e.$ AGENT(e,x)

vP
$\lambda x.\lambda e.$ shaving(e)
& THEME(e,x) & ϕ(x)

v

VP
Restrict
$\lambda x.\lambda e.$ shaving(e) & THEME(e,x) & ϕ(x)

V
shave
$\lambda x.\lambda e.$ shaving(e)
& THEME(e,x)

ϕP
$\lambda x.\phi$(x)

We assume that a ϕP object (of type $\langle e,t \rangle$) of inherently reflexive verbs combines with the verb (of type $\langle e,\langle s,t \rangle \rangle$) via Restrict, resulting in a VP of type $\langle e,\langle s,t \rangle \rangle$. Existential closure at VoiceP, see (26), closes over not only the agent but also the theme variable.

(26) $[\![\text{VoiceP}]\!] = \lambda e.\exists x\, [\text{AGENT}(e,x)\ \&\ \text{shaving}(e)\ \&\ \text{THEME}(e,x)\ \&\ \phi(x)]$

This ensures identity of the theme and the agent.

4.2 Case

If *sig* in ReflPass does not have a syntactic antecedent, an obvious question that arises relates to case: How is accusative case assigned to the reflexive pronoun in the absence of a subject that is assigned a theta role (Burzio 1986, 176) or nominative case (e.g., Yip et al. 1987, Marantz 1991, Sigurðsson 2003)?

It is generally assumed that the reflexive pronoun *sig* does not have any nominative form. We propose that the accusative reflexive morphology has been extended to the nominative for Weak Explicit Arguments. Despite appearances, sig_{weak} really is a nominative reflexive. That is, sig_{weak} is extended from ACC to fill NOM gap in the morphology. This is shown in (27).

	REFL$_{\text{weak}}$	REFL$_{\text{strong}}$
NOM	sig ← from ACC	hann ← from [+D] pronoun 'he'
ACC	sig	sig
DAT	sér	sér
GEN	sín	sín

(27)

Note that in the nominative, REFL$_{\text{strong}}$ contrasts with REFL$_{\text{weak}}$, as seen in long-distance binding where the nominative REFL$_{\text{strong}}$ is realized with the form of the pronoun *hann* 'he' in (28a) whereas the accusative REFL$_{\text{strong}}$ is realized as *sig* in (28b) (note that *kitla* 'tickle' takes a subject in the accusative case). As indicated in (27), we assume that the nominative pronoun, which also contains a D feature, has been adopted to fill a gap in the strong reflexive paradigm.

(28) a. Jón$_i$ segir að hann$_i$ fari.
Jón says that he/REFL.NOM$_{\text{strong}}$ leaves
'Jón says that he will leave.'
b. Jón$_i$ segir að sig$_i$ kitli.
Jón says that REFL.ACC$_{\text{strong}}$ tickles
'Jón says that he tickles.'

When *Jón* and *sig* are co-indexed in (29), we have long-distance binding: This is a case of the NIP as only NIP speakers accept this — here *sig* is strong and in the accusative. When *Jón* and *sig* are not co-indexed, we have an example of ReflPass — *sig* is weak (ϕP) and in the nominative.

(29)   Jón$_i$ segir að það   hafi verið rakað **sig**$_i$ / **sig**$_j$.
       Jón says that EXPL has been shaved REFL.ACC$_{strong}$ / REFL.NOM$_{weak}$
       'Jón says that he was shaved (by someone).'

Note that in the NIP reading of (29) (long distance binding), accusative case is licensed on the theme. In analyses like Maling & Sigurjónsdóttir (2002) and subsequent work which we follow (e.g., Legate 2014), it is assumed that a silent pronoun of some kind is present in the subject position in the NIP.

For an alternative account of the binding and case facts in the ReflPass, see Schäfer (2012), which we will not go into here for space reasons.

5.   Conclusion and implications

We have argued for an account of reflexive *sig* in Icelandic as a Weak Explicit Argument, consisting of a ϕP but lacking D. Reflexive passives are only found in a subset of languages that have impersonal passives, in German and Icelandic but not, e.g., Dutch and Norwegian (e.g., Schäfer 2012, Alexiadou et al. 2015). Our account opens up the possibility that the typological difference is explained if reflexive pronouns always have a D-feature in Dutch and Norwegian whereas it predicts that *sich* in German is a WEA. In fact, Cardinaletti & Starke (1996) argue that inherently reflexive *sich* is a weak pronoun (in their terminology).

Future work should look at how our proposal relates to the weak/strong distinction in Cardinaletti and Starke's work and also Déchaine & Wiltschko's (2002) three-way distinction of pronouns into DPs, ϕPs and NPs.

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