Abstract

Following the standard LFG assumption that a functional controller – unlike an anaphoric controller – must bear a term GF and must be present at f-structure, one must assume that the German Infinitival Passive Construction (IPC) involves Anaphoric Control, at least for subject equi verbs. However, an Anaphoric Control analysis of the IPC with equi verbs that select a dative object fails to account for the availability of split antecedents since under Anaphoric Control split antecedents should be possible, but they are not. Instead, I pursue a Functional Control analysis of the German IPC – thus accounting for the availability of split antecedents. Equi verbs which do not license the IPC, namely accusative object equi, can be analyzed via Anaphoric Control since they prohibit split antecedents. For subject equi verbs, then, the Functional Control analysis of the IPC will require two modifications to be made to LFG’s standard approach to Functional Control, both of which I will claim are independently motivated. First, one must allow a non-term argument (namely OBL\(\_AGENT\)) to be a functional controller; something LFG has previously rejected. Second, the implicit OBL\(\_AGENT\) argument of passives must be represented at f-structure since this is, I claim, a functional controller. Evidence from binding facts suggests this may be required anyway. Finally, allowing non-term functional controllers actually permits an alternative account of Visser’s Generalization which also captures its (partial) non-application in German.

1. The Infinitival Passive Construction (IPC) – Anaphoric or Functional Control ?

1.1. Distribution of the IPC

German subject equi verbs permit an Infinitival Passive construction (IPC), as in (1b/b’) in which the [-o] (agent) argument of active versuchen ‘try’ is suppressed, as in a regular passive construction.\(^1\) This argument can optionally occur at c-structure as an OBL\(\_AGENT\) (expressed as a von-PP) but, according to informants, this is pragmatically disfavoured for obvious reasons. In embedded clauses, as in (1c), which illustrates the IPC with a range of subject equi verbs, the IPC is available with both (so-called) intra- and extraposed positions of the infinitival complement, viz. (1c) and (1d). In declarative main (i.e. V2) clauses, the infinitival complement may occupy Spec\(\_\)CP (1b), or a placeholder es (cf. Berman 2003:65) may, or alternatively a locative/temporal modifier. In addition to intransitive subject equi verbs (i.e. which select just a subject and a non-finite complement and no matrix object), German also has transitive subject equi verbs which select a dative object in addition to the non-finite complement (cf. Bech 1955: 113-114). These verbs license the IPC, as in (1e):

(1) a. Hans versuchte den Turm zu erreichen
   Hans tried the\(\_\)ACC tower to reach

Hans tried to reach the tower

\(^1\) Suppression of this argument is usually taken to mean it is rendered unavailable for linking (see e.g. Dalrymple 2001:208). In standard LFG treatments of the passive, the suppressed argument maps to neither an f-structure nor a c-structure argument. In this paper I will, however, argue that the suppressed argument in a passive should map to an f-structure argument, and optionally to a c-structure argument.
b. Den Turm zu erreichen wurde versucht  b'. Es wurde versucht den Turm zu erreichen
the acc. tower to reach was tried it was tried the acc. tower to reach
lit.: To reach the tower was tried

c. weil gehofft/geplant/gewagt wurde [ den Turm gegen Abend zu erreichen ]
since hoped/planned/dared was-SG the acc. tower toward evening to reach
d. weil [ den Turm gegen Abend zu erreichen ] gehofft/geplant/gewagt wurde
since the acc. tower toward evening to reach hoped/planned/dared was-SG
e. weil mir von der Firma versprochen wurde [ den Rohrbruch bis zum Nachmittag zu reparieren ]
since me dat. from the firm promised was-SG the burst pipe by the afternoon to repair
intended: since I was promised by the firm to repair the burst pipe by this afternoon

I adopt the term IPC to distinguish this construction descriptively from the Impersonal Passive of finite intransitive verbs as in (2), in which the argument corresponding to the active subject is suppressed and there is no c-structure subject.2

(2) a. Gestern wurde getanzt
   yesterday was danced
   b. weil gestern getanzt wurde
      because yesterday danced was

Berman (2003: ch.4) offers an account of the German Impersonal Passive in (2) (and other impersonal constructions) in which the lexical entry of the 3rd person singular verbal agreement affix can specify an expletive (non-thematic) SUBJ, as in (3) below, thereby satisfying the Subject Condition in the absence of a c-structurally overt subject argument. Normally the AGR information unifies with the features of the overt subject, but if no subject is present, the verbal morphology actually introduces a subject in the f-structure. The verbal morphology does not specify a PRED value, but just AGR information – and hence it is an expletive SUBJ that is projected.

(3) - t V_{inf} \quad (↑ TENSE) = PRESENT
    \begin{align*}
    (↑ SUBJ) &= ↓ \\
    (↓ PERS) &= 3 \\
    (↓ NUM) &= SG
    \end{align*}
    \begin{bmatrix}
    \text{SUBJ} & \text{PERS} & 3 \\
    \text{NUM} & 3 & SG \\
    \text{TENSE} & \text{PRESENT} \\
    \end{bmatrix}

Given that German independently permits impersonal constructions and given Berman’s analysis in (3), there are two possible analyses for the IPC:

Either

(i) the IPC is an impersonal passive construction, lacking a c-structure SUBJ but with an expletive f-structure SUBJ contributed by the 3rd person singular verb form. Under this analysis, the non-finite complement bears the GF COMP (or XCOMP), and is unaffected by passivization (i.e. it does not map to passive SUBJ).

Alternatively,

(ii) the non-finite complement is analyzed as bearing the GF OBJ in the active. This OBJ may map to SUBJ under passivization and functions as the SUBJ of the IPC. The construction thus has an overt c-structural SUBJ. The latter analysis is adopted by Lødrup (2002, 2004) for the Norwegian IPC.3

1 In contrast to some other Germanic languages, German only requires an overt expletive to be inserted if the SpecCP position is not otherwise filled (Berman 2003: 60), cf. also the contrast between (1b) and (1b').

2 Indeed, the ability to function as the subject of a passive, as in analysis (ii) above, is one of the criteria put forward by Dalrymple & Lødrop (2000) for treating a clausal complement as OBJ rather than COMP in their proposal that English, German
Which of these analyses of the IPC one adopts is, however, orthogonal to the issue of which type of control relation (Anaphoric or Functional) one must, or can, assume for the IPC, and I will therefore only comment in passing on the GF of the infinitival complement. Under either (i) the impersonal or (ii) the OBJ analysis of the IPC, it is the case that when we consider the IPC with *subject* equi, the controller is not obligatorily present at c-structure and it bears a non-term GF – namely OBL\_AGENT – and it thus appears that the control relation involved must be Anaphoric Control, cf. Lødrup (2002, 2004) for Norwegian.

I turn now to the IPC with *object* equi verbs. As shown in (4b), dative object equi verbs permit the IPC, but IPC with dative object equi does not involve a structurally absent controller since the dative object (the controller) is unaffected by passivization. Dative object equi verbs are thus in principle compatible with a Functional Control analysis since the controller is both overt and is a term (OBJ\_θ). Accusative object equi verbs, by contrast, do not permit the IPC, hence the ungrammaticality of (5b). Any analysis of the IPC must therefore account for this distinction.

(4) a. **ACTIVE** (dative object equi)
   
   weil Hans denen empfohlen/erlaubt/verboten hat [ den Turm gegen Abend zu erreichen ]
   
   since Hans them\_dat recommended/allowed/forbidden has the\_acc tower toward evening to reach
   
   Hans recommended/allowed/forbad them to reach the tower by evening

   b. **INFINITIVAL PASSIVE CONSTRUCTION** (dative object equi)
   
   weil denen empfohlen/erlaubt/verboten wurde [ den Turm gegen Abend zu erreichen ]
   
   since them\_dat recommended/allowed/forbidden was-SG the\_acc tower toward evening to reach

(5) a. **ACTIVE** (accusative object equi)
   
   weil Hans ihn gezwungen/überredet/ermuntert hat [ den Turm gegen Abend zu erreichen ]
   
   since Hans him\_acc forced/persuaded/encouraged has the\_acc tower toward evening to reach
   
   Hans forced/persuaded/encouraged them to reach the tower by evening

   b. **INFINITIVAL PASSIVE CONSTRUCTION** (accusative object equi)
   
   *weil ihn gezwungen/überredet/ermuntert wurde [ den Turm gegen Abend zu erreichen ]
   
   since him\_acc forced/persuaded/encouraged was-SG the\_acc tower toward evening to reach

The IPC is in complementary distribution with 'regular' personal passive of object equi verbs. By 'regular' personal passive I refer to cases in which the [-r] argument which maps to (nominal) OBJ of the equi verb in the active maps to SUBJ in the passive. I use the term 'regular' since this is neither an impersonal passive construction, nor does it involve a clausal OBJ mapping to SUBJ. 'Regular' personal passive is unavailable for dative object equi verbs, viz. (6a) below, but is available for accusative object equi verbs, viz. (6b). In other words, (6a,b) contrast with (4b) and (5b) above. More generally, dative objects in German are unaffected by regular werden-passivization and never function as passive subject. Thus it is not surprising that transitive subject equi verbs (i.e. with a matrix dative object) such as

---

and Swedish permit both OBJ and COMP clausal complements (cf. though see Alsina et al 1996, 2005, Forst 2006 for discussions of the proposal to eliminate the GF COMP from LFG entirely).

4 It is not appropriate to analyse the dative plural *denen* in (4b) as SUBJ since German, unlike Icelandic, only permits nominative subjects. Note that *denen* does not agree with the finite verb, which is singular.

5 Lødrup (2004: 81) discusses a similar Norwegian example with an object equi verb *anbefale* 'recommend' in which the controller is the object *dem*.

6 The so-called Dative-Passive or kriegen-passive is a different construction altogether and is best not analysed as involving a passive operation. See Cook (2006) for an argument composition analysis.
versprechen ‘promise’ also fail to permit ‘regular’ personal passive, as shown in (6c) although these verbs do permit the IPC as was seen in (1e) above. The distribution of both types of passive construction across the four types of equi verb is summarized in the table in (7).

(6) a. REGULAR PERSONAL PASSIVE (dative object equi)
   *weil er empfohlen/erlaubt/verboten wurde [ den Turm gegen Abend zu erreichen ]
   since he recomended/allowed/forbidden was the tower toward evening to reach

b. REGULAR PERSONAL PASSIVE (accusative object equi)
   weil er gezwungen/überredet/ermuntert wurde [ den Turm gegen Abend zu erreichen ]
   since he forced/persuaded/encouraged was the tower toward evening to reach

b. REGULAR PERSONAL PASSIVE (subject equi with matrix dative)
   *weil er versprochen wurde [ den Turm gegen Abend zu erreichen ]
   since he promised was the tower toward evening to reach

(7) Complementary Distribution of the IPC and ‘regular’ Personal Passive

<table>
<thead>
<tr>
<th></th>
<th>Infinitival Passive Construction</th>
<th>Regular Personal Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject equi (no matrix object)</td>
<td>✓</td>
<td>n.a.7</td>
</tr>
<tr>
<td>Subject equi with matrix dative</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dative Object equi</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Accusative Object equi</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

If this were the complete range of data to be accounted for, there would be no problem with adopting an Anaphoric Control analysis of these verbs, and thus of the IPC, as Lødrup (2002, 2004) did for Norwegian. In the next section, though, data concerning the availability of split antecedents reveal that an Anaphoric Control analysis cannot be upheld for the subject equi verbs with matrix dative and the dative object equi verbs.

1.2 Split Antecedents – against an Anaphoric Control analysis of IPC-licensing verbs

LFG recognizes two control relations: Functional Control and Anaphoric Control (see Bresnan 1982, 2001: ch. 13/14). It is an automatic consequence of the theory that Functional Control demands a controller that is represented at f-structure because it involves structure-sharing, i.e. identity of the f-structure of the controller and that of the control target (i.e. the complement’s SUBJ in the data under consideration). This equivalence of f-structures is expressed as an identity equation in the lexical entry of an equi verb as shown in (8a) for subject equi and in (8b) for object equi respectively. This equation states that the f-structure of the SUBJ or, depending on verb type, of the OBJ of the equi verb is the same f-structure as that of the XCOMP’s SUBJ. Informally, structure-sharing is sometimes represented in f-structure via a dotted line linking the f-structures of the controller and control target, as in (19) below. Since Functional Control requires identity of f-structures, the control relation must be exhaustive. This means, for instance, that split antecedents cannot function as the antecedent of the

---

7 I mark this cell n.a. (not applicable) since the availability of this construction for intransitive subject equi verbs is wholly dependent on whether the non-finite complement is assumed to bear the GF OBJ or COMP (or XCOMP), cf. the two possible analyses of the IPC sketched in the main text above. If intransitive subject equi verbs do not select an OBJ, but rather a COMP, then there is no OBJ/[r] argument that could map to SUBJ in the passive and thus there can be no ‘regular’ personal passive, and this cell could also be starred. Under such a COMP analysis, the IPC is a genuinely impersonal construction with an expletive f-structural SUBJ. By contrast, under an OBJ analysis of the non-finite complement, regular personal passivization would in fact yield the IPC.
control target (Bresnan 1982: 346). To clarify, note that Bresnan (1982) defines split antecedents thus: "a pronoun that refers to more than one noun phrase is said to have split antecedents; for example, in Tom told Mary that they should leave, Tom and Mary can be split antecedents of they".8 Thus, following Bresnan, I take split antecedents to refer to antecedents which are overtly expressed in the matrix clause and Functional Control thus strictly prohibits a control equation of the type in (8c), which is starred to indicate that if split antecedents were to function as the antecedent in a Functional Control relation, the f-structures of both antecedents would be merged with the f-structure of the control target, leading to a clash of features and an ill-formed f-structure.9

\[(8)\]
\[
a. (↑SUBJ) = (↑XCOMP SUBJ) \quad b. (↑OBJ) = (↑XCOMP SUBJ) \\
c. *(↑SUBJ) ∧ (↑OBJ) = (↑XCOMP SUBJ)
\]

The ban on non-term functional controllers (Bresnan 1982: 354) is motivated by the fact that Functional Control requires a controller to project its own f-structure in order for its f-structure to be identified with that of the control target. Nevertheless, this ban has a slightly stipulative quality to it. I return to this in section 3.

Anaphoric Control, by contrast, does not involve syntactic identity but, rather, requires the control target (e.g. the COMP’s SUBJ), which is assumed to be a null pronominal, to find an antecedent which can provide its referent; i.e. the two are semantically related by an anaphoric binding relation. When the equi verb does not constrain the co-reference of the control target and its antecedent, one can talk of arbitrary Anaphoric Control, and the verb’s lexical entry will include a control equation like that in (9a) which leaves it open what the antecedent of the control target is. Since in Anaphoric Control the control target finds its referent in a similar way to an ordinary pronoun (see Dalrymple 2001: 330-336), split antecedents are possible. LFG also recognizes obligatory Anaphoric Control in which the control target must co-refer with an argument of the matrix clause. In this case, the equi verb’s lexical entry additionally includes an equation specifying which matrix argument this is, as exemplified in (9b) for an obligatory matrix SUBJ antecedent (Dalrymple 2001: 334).

\[(9)\]
\[
a. (↑COMP SUBJ PRED) = ‘PRO’ \quad b. (↑COMP SUBJ)σ ANTECEDENT ) = (↑SUBJ)
\]

Recall that without considering split antecedents, the German IPC construction at first sight seems to require an Anaphoric Control treatment parallel to Lodrup’s analysis of Norwegian IPC – at least for subject equi – since the controller is not obligatorily overt and is a non-term. However, on the basis of the availability of split antecedents, dative object equi verbs and subject equi with matrix dative verbs present evidence against an Anaphoric Control analysis.

1.2.1 IPC-licensing verbs – no split antecedents

German dative object equi verbs prohibit split antecedents, viz. (10). The same judgements were obtained for *i.a. befehlen ‘order’, untersagen ‘forbid’ and gestatten ‘allow’.10 Similarly,
split antecedents are not possible for subject equi with dative object verbs, viz. (11). Informants also confirm that the use of *gemeinsam* ‘together’ is infelicitous in both (10) and (11). Since its use would favour a split antecedent reading, this fact is not surprising. The ban on split antecedents with both of these verb types would, of course, fall out automatically under a Functional Control analysis. By contrast, if the dative object equi and subject equi with dative object were to require Anaphoric Control, an account would still need to be sought for why split antecedents are ruled out.

(10)  Ich empfahl/riet/verbot dem Bürgermeister den Antrag *(gemeinsam)* einzureichen

I recommended/advised/forbad the mayor the bid together to submit

[submitters ≠ i+j  submitters = j 'the mayor' + (possibly) others but, crucially, not i+j]

(11)  Ich drohte/(zu)sicherte/schwörte dem Bürgermeister den Antrag *(gemeinsam)* einzureichen

I threatened/assured/swore the mayor the bid together to submit

[submitters ≠ i+j  submitters = i 'Ich' + (possibly) others but, crucially, not i+j]

(12)  Ich überzeugte/drängte/überredete den Bürgermeister den Antrag *(gemeinsam)* einzureichen

I convinced/urged/persuaded the mayor the bid together to submit

[submitters = i+j]

It is striking that informants report unanimously that split antecedents are possible with accusative object equi verbs, viz. (12) above. The same judgements were obtained for *i.a.* *zwingen* ‘force’, *anflehen* ‘beg’ and *ermuntern* ‘encourage’. This is interesting because a correlation emerges between the ability to license IPC and the impossibility of split antecedents, and vice versa, as summarized in (13)

<table>
<thead>
<tr>
<th></th>
<th>Infinitival Passive Construction</th>
<th>Regular Personal Passive</th>
<th>Split Antecedents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject equi (no matrix object)</td>
<td>√</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Subject equi with matrix dative</td>
<td>√</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Dative Object equi</td>
<td>√</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Accusative Object equi</td>
<td>*</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

A reviewer suggests that an *obligatory* Anaphoric Control analysis could cover these facts and thus obviate the need to modify Functional Control. Under this suggestion, then, although Anaphoric Control in principle permits split antecedents, the ungrammaticality of split antecedents with subject equi with matrix dative, and dative object equi verbs could be made to follow if the *obligatory* Anaphoric Control equation specified that only the matrix SUBJ and only the matrix dative OBJ can be the antecedent of the COMP’s SUBJ, for these two verb types respectively. However, the lexical entry of the passive variant of the subject equi verbs would have to include a control equation in which the matrix OBLAGENT is the controller. To accommodate the lack of split antecedents with subject equi with matrix dative verbs, one would therefore also have to formulate an *obligatory* Anaphoric Control relation but – and

---

11 I leave out discussion of *versprechen* ‘promise’ for the time being since its behaviour is more complex. It appears to ‘switch’ from subject equi to dative object equi when certain types of complement are embedded; namely modal, passive or beneficiary-oriented predicates. Similar facts hold for the passivized verb form of English *promised*, as is well-known (Chomsky 1965:229, Jenkins 1972:200ff, Růžička 1983). I return to the facts very briefly at the end of the paper.
this is the problem – the requirement that the controller be a term also holds for obligatory Anaphoric Control (see Dalrymple 2001: 344). I conclude that this is not a viable alternative.12

To summarize, then, an account is required of why IPC is possible for subject equi, subject equi with matrix dative, and dative object equi verbs but is ruled out for accusative object equi verbs.

I will argue that the accusative equi verbs, in contrast to the other verbs types listed, involve Anaphoric Control, and that the availability of split antecedents in (12) is therefore as expected. In turn, I will argue that the failure of these accusative equi verbs to licence IPC (viz. (5b)) is directly related to the fact that regular personal passive is available. The a-structure contains a [-r] matrix accusative OBJ which is available as a candidate to be mapped to SUBJ when the [-o] (agent) of the active is suppressed under passivization. The availability of an overt c-structure SUBJ precludes the IPC from applying because the IPC is an impersonal construction, having only an f-structure expletive SUBJ (à la Berman 2003). The analysis relies crucially on the fact that Berman’s (2003) expletive f-structure SUBJ can only ever be projected when there is no overt subject available.

By contrast, the IPC will be shown to be available for the other verbs types precisely because such a [-r] argument, i.e. a candidate for promotion to SUBJ under passivization, is lacking. The IPC is grammatical because in the absence of any possible SUBJ-compatible argument, and importantly only in the absence of such an argument, German will project an expletive f-structural SUBJ.

1.3 A brief note on the lexical semantics underlying split antecedents

It has often been pointed out that the availability of split antecedents, i.e. of non-exhaustive control, is surely related to the lexical semantics of the predicates involved (cf. Sag/Pollard 1991, Culicover/Jackendoff 2005). It may thus perhaps appear that the presentation here favours a purely structural, rather than lexically-oriented, account since I am relating the possibility of split antecedents (non-exhaustive control) to case properties; namely accusative object equi. However, it should not be forgotten that the distribution of case in German is not random but has an underlying basis in lexical semantics; although this is not always synchronically transparent. I believe therefore that the distinction between predicates taking dative objects, which tend to be BENEFICIARIES, EXPERIENCERS OR PATIENTS, and those taking accusative objects is underlyingly one of lexical semantics. If this is correct, it appears, then, that the availability of split antecedents in German correlates with the presence of a matrix accusative object, which tend to bear less 'affected' thematic roles than dative objects do. Thus, the distribution of exhaustive control is likely related to differences in argument-structure, i.e. lexical semantics. While a closer examination of the observed tendency towards exhaustive (object) control with more affected (i.e. BENEFICIARY, EXPERIENCER OF PATIENT) objects is beyond the scope of this study, it may also have interesting connections with the availability or not of the IPC in Norwegian. Lødrup (2004) reports that some Norwegian object equi permit the IPC while others do not; a fact that he has no account for. The object equi verbs in Norwegian which do not allow the IPC (see Lødrup 2004: 80, his (124)) are verbs which, I sense, would correspond to accusative object equi in (many cases in) German. It seems likely, then, that an

12 Moreover, the antecedent of a pronoun must introduce a discourse referent but it appears to be the case that the OBLAGENT of a passive only introduces a discourse referent when is overt, and not when it is implicit as the following contrast shows:

i. weil vom Pförtner versucht wurde, das Schloss aufzubrechen. Er hatte Erfolg
   *It was attempted by the porter to break open the lock. He was successful*

ii. weil versucht wurde, das Schloss aufzubrechen. #Er hatte Erfolg
   intended: it was attempted to break open the lock. #He was successful
explanation similar to my account of the absence of IPC with German accusative object verbs, relying on the [-r] status of the object in particular, could perhaps be usefully extended to Norwegian.

2. The Functional Control Alternative

Given that IPC-licensing verbs permit split antecedents, I will pursue a Functional Control analysis of the IPC. Although the intransitive subject equi verbs offer no evidence with respect to split antecedents, I will advance a uniform analysis of all IPC-licensing verbs. Recall that a Functional Control analysis is not problematic for the dative object equi verbs since the controller is present, and the controller is a term GF, an OBJθ (see Cook 2006 for the motivation for assuming the dative object to bear the GF of secondary object). However, proposing a Functional Control analysis for the subject equi verbs requires one to accept (i) that non-terms can be functional controllers; something that LFG has previously rejected (Bresnan 1982). Moreover, it requires one to accept (ii) that implicit arguments of passives are represented at f-structure. I will first provide some evidence that oblique exhaustive controllers are documented elsewhere before presenting evidence from binding facts which suggest that implicit arguments of passives should indeed be represented at f-structure.

2.1 Some Evidence for oblique exhaustive controllers

LFG’s claim that only term GFs may be functional (Bresnan 1982: 322) and obligatory anaphoric (Dalrymple 2001: 344) controllers, is not shared by other theories (and it is subject to exceptions that require further assumptions to be made, Bresnan 1982: 348). Outside LFG, it is assumed that obliques can obligatorily (or exhaustively) control, and that, for instance, implicit arguments of nouns can too, cf. (14). The examples in (15) due to Culicover/Jackendoff (2005:433) are argued to involve the object of a PP as unique controller:

(14) a. The promise by Sandy to leave the party early caused quite an uproar [Pollard/Sag 1994:289]
b. The promise to Susan by John to take care of himself/*herself [Culicover/Jackendoff 2005:435]

(15) a. John, counted on/relied on/called upon Susan to take care of herself/*himself/*oneself [controller is Susan only]
b. John’s, order/instructions/encouragement/reminder to Susan to take care of herself/*himself/*oneself [controller is Susan only]

Furthermore, there have been claims in the literature that Irish involves raising to oblique (McCloskey 1984) and, since raising necessarily involves a relation of Functional Control, this too looks like potential evidence in favour of permitting non-term functional controllers. Less well-known is the argument put forward by Joseph (1979, 1990) that Modern Greek also involves raising to oblique. Full detailed investigation of these facts is beyond the scope of this paper and their mention is intended just to illustrate that there may indeed be positive evidence that non-term functional (or obligatory anaphoric) controllers are needed.

2.2. Evidence for representing implicit arguments of (German) passives at f-structure

Frey (1993: ch. 9) points out that in early LFG two lexical entries were assumed for a passivized verb: one with the OBLAGENT or by-phrase and one without. In the latter, the suppressed argument was represented by the null symbol, just like a middle variant of a verb, an inchoative, or – for an implicit object – a detransitivized verb. The null symbol represents the suppression
of an argument position in the lexicon and this argument is therefore not accessible for syntactic operations.

(16)a. beaten, V$_{\text{part}}$: (↑PRED) = 'beat <∅, SUBJ>'  
   a'. Fred was beaten  (passive)  
   b. read, V: (↑PRED) = 'read <∅, SUBJ>'  
   b'. Russian novels read easily  (middle)  
   c. break, V: (↑PRED) = 'break <∅, SUBJ>'  
   c'. The vase broke  (inchoative)  
   d. read, V: (↑PRED) = 'read <∅, SUBJ>'  
   d'. Fred reads infrequently  (detransitivization)

Frey, however, questions the accuracy of handling the by-phrase-less passive akin to the other implicit argument forms in (16) since, in contrast to the implicit arguments of types (16b-d), the implicit argument of the passive can (i) be added as an afterthought, (ii) can be a controller of an adjunct, and (iii) can be the antecedent for secondary predication. Furthermore, implicit arguments (i.e. OBL$_{\text{AGENT}}$) of passives, but not of middles, inchoatives and detransitivized verbs, can bind reciprocals in German. Frey (1993:132, 158) gives the following examples of binding of a reciprocal by the implicit argument (OBL$_{\text{AGENT}}$) of a passive in (17a-b). For completeness, I illustrate this with an example from each of the verb classes that permits subject equi in (17c-d).

(17) a. Auf Parteiversammlungen wird nur gegeneinander gekämpft  
   At party gatherings is only against one another fought  
   At party meetings all that happens is fighting against each other  
   b. viele Briefe wurden einander geschrieben  
   many letters were-PL one another written  
   We wrote many letters to each other  
   c. weil auf der Tagung versucht wurde, einander nicht zu kritisieren  
   since at the conference tried was one another not to criticize  
   since one tried not to criticize each another at the conference  
   d. weil ihm versprochen wurde, nicht miteinander zu streiten  
   since him promised was not with one another to argue  
   since one promised him not to fight with one another

Presumably, if the implicit OBL$_{\text{AGENT}}$ can bind a reciprocal, then it has to be represented at f-structure and I thus take these data to suggest that implicit arguments of passives should project their own f-structure, even when they are c-structurally non-overt.

2.3 The representation of the implicit argument of the passive at f-structure

On the basis of the data in (17), I propose that implicit arguments of passives – in contrast to some other types of implicit argument – should be represented at f-structure. Thus, even when there is no overt von-phrase in c-structure, this argument nevertheless projects an f-structure. Evidence for this assumption is the availability of implicit arguments of passives as binders.

The approach I propose is parallel to LFG’s treatment of pro-drop: I assume that a passivized verb always subcategorises for an OBL$_{\text{AGENT}}$ and I propose that the lexical entry of passivized verbs includes an equation which optionally licenses the projection of an f-structure attribute OBL$_{\text{AGENT}}$ with PRED value ‘PRO’. The optional PRED value provides (minimal) semantic content for OBL$_{\text{AGENT}}$ and satisfies Completeness when no overt von-phrase occurs. Sample lexical entries for passivized verbs subject equi verbs (with and without matrix dative) are given in (18a-b). Since the implicit argument will always be present in f-structure under this analysis, the Functional Control equations that I also give in the lexical entries of versucht ‘tried’ and versprochen ‘promised’ in (18a-b) are legitimate.
In (19), I provide the f-structure of an IPC construction, assuming it to be an impersonal construction involving Functional Control (the identity of matrix SUBJ and XCOMP SUBJ is indicated here by the dotted line) in which the f-structure SUBJ is contributed via the verbal morphology (indicated by the bold arrow), following Berman’s (2003) sketched in (3) above. This is in keeping with the fact that the finite verb in IPC is only ever third person singular. I am thus adopting an XCOMP analysis of the GF of the infinitival complement, although an analysis in which the IPC is not an impersonal construction and the infinitival complement maps to passive SUBJ is also compatible with the facts, as I will show below. If there were no overt realization of the OBL, a PRO would be projected in the f-structure from the lexical entry above.

(19)  weil mir von der Firma versprochen wurde, den Rohrbruch bis Mittag zu reparieren
[because me DAT by the firm promised was the burst pipe by afternoon to repair]

In this way, it is possible to assume a Functional Control analysis of the verbs that license the IPC, as the facts concerning split antecedents suggest is correct. In particular, the IPC with subject equi does not force us to adopt an Anaphoric Control analysis, as it would do under LFG’s standard approach to control, since the controller is represented at f-structure even when it is not overt at c-structure. This analysis also obviates the need for two distinct lexical entries (i.e. one with and one without the OBL-AGENT) for every passivized verb form.

2.4 Accounting for the distribution of the IPC and the regular personal passive

Given the two modifications to Functional Control introduced above, there is now no impediment to analysing those verbs forbidding split antecedents as involving Functional Control. The accusative object equi verbs, by contrast, permit split antecedents and can simply be

13 Recall that the issue of the infinitival’s GF is independent of the issue of whether Anaphoric or Functional control is assumed. Note, however, that under the analysis in which the infinitival complement maps to SUBJ, the lexical entries in (18) would not be appropriate. Instead, the a-structure of the passivized verb form would be < OBL-AGENT, OBI0, SUBJ>. 
analysed as involving Anaphoric Control, see (20). On the basis of the shared distribution of the IPC, I extend this analysis to the intransitive subject equi verbs too.

(20) Summary:

<table>
<thead>
<tr>
<th></th>
<th>IPC</th>
<th>Regular Personal Passive</th>
<th>Split Antecedents</th>
<th>Control Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject equi (no matrix object)</td>
<td>✓</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Functional</td>
</tr>
<tr>
<td>Subject equi with matrix dative</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Functional</td>
</tr>
<tr>
<td>Dative Object equi</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Functional</td>
</tr>
<tr>
<td>Accusative Object equi</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
<td>Anaphoric</td>
</tr>
</tbody>
</table>

Recall from section 1 that we need to account for why IPC is possible for subject equi, subject equi with matrix dative, and dative object equi verbs but is ruled out for accusative object equi verbs. I show in 2.4.1 that the ungrammaticality of the IPC with accusative object equi verbs is directly related to the fact that regular personal passive is available. In 2.4.2, by contrast, I will show that the other verb types lack a [-r] matrix argument, and lack regular personal passive, and it is this that licenses the IPC.

2.4.1 The Accusative Object Equi verbs: the [-r] matrix object prohibits the IPC

I propose that there is an argument in the a-structure of these verbs – namely a [-r] argument that maps to the matrix accusative OBJ in the active – which is available as a candidate to be mapped to SUBJ when the [-o] (agent) of the active is suppressed under passivization, viz. (21c). This is what occurs in regular personal passive where well-formedness conditions entail that the [-r] argument maps to SUBJ, thus licensing regular personal passive as in (6b). I am treating the third argument, that maps to the infinitival complement, as a state-of-affairs argument (soa). It is not clear to me that an argument that bears no thematic role should be involved in lexical mapping theory, and I thus leave this argument untreated here. Turning now to the fact that the IPC is ungrammatical with the accusative object equi verbs, as in (5b), I claim that it is the availability of an overt c-structure SUBJ that precludes the IPC from applying. This is because the IPC is an impersonal construction, having only an f-structure expletive SUBJ. Crucially, in Berman’s (2003) analysis of German’s expletive f-structure SUBJ, it can only be projected when there is no subject argument available. Since the [-r] argument is perfectly compatible with SUBJ status, the conditions for the IPC do not arise.

(21) a. überreden  

b. [-o]  [-r]  [soa]  

c. ℝPP → (6b) grammatical because [-r] maps to passive SUBJ  

*IPC → (5b) ungrammatical because [-r] can map to passive SUBJ, thus an impersonal passive (IPC) cannot occur

Under this analysis, the complementary distribution of the two constructions is accounted for. Alternatively, as mentioned above, the IPC could be analysed not as an impersonal construction with an XCOMP infinitival complement, but rather as involving an infinitival complement with the GF OBJ or – not previously mentioned – OBL. For proponents of replacing COMP entirely with GFs also borne by NPs, the GF OBL (rather than OBJ) would be assumed for the
infinitival complement of accusative equi verbs because they alternate with PP (rather than NP) objects and co-occur with oblique correlatives such as *davon ‘there-from’, *darauf ‘there-on’ (see Berman in press and Forst 2006). Under this style of analysis, the complementary distribution of the two passive constructions could be accounted for if the infinitival OBL is unable to map to SUBJ in the passive. If the OBL is assigned [-o] intrinsically (cf. Berman in press), such a mapping would be ruled out in the presence of the higher [-r] argument which can map to SUBJ. Conversely, the presence of this [-r] argument licenses regular personal passive as in (21) above.

2.4.2 The IPC-licensing verbs: the lack of the [-r] argument licenses IPC

By contrast, the IPC is available for all the other verbs types discussed, as summarized in (20). I argue that this is directly related to the fact that regular personal passivization is ungrammatical and, in this vein, I propose that these verbs lack an argument parallel to the [-r] argument of the accusative object equi verbs that could be promoted to SUBJ under passivization. I propose therefore that the dative object of the subject equi verbs with matrix dative, and of the dative object equi verbs is assigned [+o].

The dative object of most (standard) ditransitives in German bears the thematic role of BENEFICIARY, MALEFICIARY, EXPERIENCER or at least AFFECTED PATIENT and I have argued extensively elsewhere (see Cook 2006) that under LFG’s Lexical Mapping Theory (LMT) the dative object of German ditransitives is intrinsically assigned [+o] in the presence of a [-r] theme argument, and maps to OBJ₀. Although I suggested there that this is the German parameterization of LFG’s Asymmetric Object Constraint, it is possible that such thematic roles (typically BENEFICIARY/PATIENT) should be generally intrinsically assigned [+o], i.e. in non-double object environments. I simply adopt this assumption for now although there is further evidence to support this claim for German, as discussed in Cook (2006). In (22), taking a dative object equi verb for the purposes of illustration, I outline how the [+o] analysis of the BENEFICIARY/EXPERIENCER or PATIENT role accounts for the complementary distribution of the regular personal passive and the IPC respectively.

(22)  
 a. empfehlen  
     agent       ben/exp   soa  
     recommend (Dative Object Equi)   

 b.          [-o]     [+o]    [soa]  
 c. ∅ OBJ/OBJ₀

*RPP → (6a) ungrammatical because there is no [-r] which can map to passive SUBJ
✓ IPC → (4b) grammatical because [-r] can map to passive SUBJ, thus an impersonal passive (IPC) cannot occur

Regular personal passive, then, is simply not grammatical given the absence of any [-r] argument that can map to SUBJ. IPC, by contrast, is grammatical since in the absence of any possible SUBJ-compatible argument, and importantly only in the absence of such an argument, German can project an expletive f-structural SUBJ according to Berman’s (2003) proposal sketched in (3) above, and can thus license an impersonal passive construction. Evidently, this holds also for the intransitive subject equi verbs.

It looks, however, as if an account of these facts is also compatible with an analysis under which the non-finite complement bears the GF OBJ. Under such an analysis, if the infinitival complement bears the GF OBJ, this can map to SUBJ of the passive under the non-impersonal analysis of the IPC (although the burden of explanation rests, in my opinion, on accounting for how the soa-argument is assigned [-r] in the absence of any thematic role; but again, see

---

14 Berman (in press) suggests that clausal complements have the same intrinsic feature assignment as their nominal counterparts, i.e. a clausal OBL would be intrinsically assigned [-o] by analogy to a nominal OBL.
Berman in press). The dative object simply maps to OBJ in the passive. Thus the IPC is licensed (in fact the IPC under this analysis corresponds to regular personal passive).

Summing up, in 2.4. I have argued that the distribution of the IPC and of regular personal passive is a consequence of the a-structure of the various equi verbs; an analysis which immediately accounts for the complementary distribution of the two constructions. In particular, lack of a [-r] (SUBJ-compatible) argument results in the ungrammaticality of regular personal passive in which case, adopting the analysis in (3), IPC is forced under passivization.

3. Visser's Generalization – an alternative analysis

The argument that only term arguments may function as controllers in Functional Control can be found in Bresnan (1982) and concerns what she termed Visser’s Generalization, cf. Visser (1973: III.2: 2218). The reason that Bresnan proposes this restriction is that in English a transitive subject equi verb such as promise does not allow passivization in which the argument that maps to matrix OBJ in the active maps to SUBJ in the passive. Taking the example in (23), one might expect that the matrix OBJ Mary in (23a) could map to SUBJ under passivization, and thus we would expect (23b) to be grammatical, but it is not. Under passivization, the controller (John) bears the GF OBL/AGENT and thus Bresnan (1982) attributes the ungrammaticality of (23b) to the fact that the controller is a non-term and functional control by a non-term is not permitted.

(23) a. John promised Mary to be on time  [Bresnan 1982: 355]
   b. *Mary was promised by John to be on time

The issue that needs to be resolved now is that the modifications to Functional Control proposed above can be said to ‘cost’ us Bresnan’s account of the ungrammaticality of passive in (23b). It is for this reason, that I propose an alternative analysis of the ungrammaticality of passivization of transitive subject equi verbs in English. I believe, however, that this account is perhaps superior since it concomitantly accounts for the non-application of Visser’s Gener-

15 There are, however, further complications that arise in the domain of infinitival complementation that make me hesitant to adopt Forst’s (2006) proposal to replace COMP with OBJ and OBL in German. First, it is unclear that this step constitutes a major grammar writing economy since the lexical entries of verbs selecting infinitival complements require control equations, in contrast to the lexical entries of verbs selecting nominal complements – thus the lexical entries of the two types of verb cannot simply be conflated. Second, all infinitival complements, whether OBJ or OBL, permit topicalization in German, as is well-documented in the literature on coherent infinitives, e.g. Müller (2002:43) and Meurers (2000:22), and this is unexpected in Forst’s (2006) account in which OBL can only topicalize when ‘doubled’ by a correlative. Topicalized infinitival complements of accusative object equi verbs simply do not require such doubling. Since mapping to SUBJ in the passive is inconclusive in German since German allows impersonal constructions, and because these topicalization facts are not as expected under the OBJ/OBL analysis of COMPS, the only remaining evidence for adopting the OBJ/OBL analysis is alternation with NPs vs. PPs, and is thus not very strong. Finally, the constraints on Long Distance Dependencies in German vary considerably for paths through nominal objects and through clausal complements and caution must be taken that this important distinction is not obscured by conflating OBJ and COMP. Given these problems, I prefer to adopt the analysis of the IPC as an impersonal construction, employing an XCOMP analysis, as in (19).

16 Subject equi promise with an object as in (20a) is apparently marginal for many English speakers, who would prefer to use a finite that-clause instead (cf. Huddleston & Pullum 2002:1230, Courtenay 1998). There is clearly a deal of individual variation surrounding promise: (ii) and (iii) – which Bresnan (1982:355) provides to show that examples like (i) involve Anaphoric Control and are not exceptions to Visser’s Generalization are marginal or even ungrammatical for many speakers:

   i. Mary was never promised to be allowed to leave
   ii. It was never promised to Mary to be allowed to leave
   iii. To be allowed to leave was never promised to Mary

17 I assume Visser’s Generalization was only intended to cover transitive subject equi verbs since Bresnan (1982) only discusses it in relation to such verbs. At the time of Bresnan’s article, the infinitival complement was assumed to have the GF COMP (not OBJ) and so the option of mapping the infinitival complement to passive SUBJ cannot have been entertained, thus the generalization could not have been intended to cover intransitive subject equi verbs. It is only more recently with the proposal that some infinitival COMPS should in fact be analyzed as OBJ that the lack of passivization of (some) intransitive subject equi verbs has become an issue at all. Since some of these verbs do, and others do not, permit passivization in English (cf. Falk 2001, although Huddleston & Pullum 2002 doubt this extraposed passive is a genuine passive construction), there is clearly more to be examined there.
alization in German with transitive subject equi verbs since transitive subject equi verbs do allow a passive construction in German; namely the IPC.

3.1 An alternative account of Visser's Generalization: The [+o] object

Let us assume for now that the object of English transitive subject equi verbs is also intrinsically assigned [+o], parallel to what was assumed for German above, see (24). Under passivization, the highest [-o] role is suppressed, but in contrast to the [-r] argument of the accusative object equi verbs, this [+o] object is not compatible with subject status, as seen above.

(24) a. promise agent beneficiary soa
   b. [-o] [+o] [soa]
   c. ∅ OBJ/OBJ
   → (23b) ungrammatical as no argument compatible with SUBJ

I propose therefore that it is this, rather than a ban on non-term functional controllers, that is the source of the ungrammaticality of (23b), i.e. passivization of transitive subject equi verbs in English is ungrammatical because the type of object involved bears a thematic role intrinsically assigned [+o], which cannot map to SUBJ ([−o/−r]) in the passive. Thus, despite relaxing the ban on non-term functional controllers, an account of Visser’s Generalization in English can still be offered.

Recall that German permits the IPC with transitive subject equi verbs, viz. (25b) but a ‘regular’ personal passive as in (25c), in which the active matrix object mir\textsubscript{DATIVE} maps to SUBJ ich\textsubscript{NOM} is ungrammatical.

(25) a. Die Firma versprach mir [den Rohrbruch bis zum Nachmittag zu reparieren] The firm promised me to repair the burst pipe by this afternoon
   b. weil mir \textbf{von der Firma} versprochen wurde den Rohrbruch bis zum Nachmittag zu reparieren intended: since I was promised by the firm to repair the burst pipe by this afternoon
   c. *weil ich \textbf{von der Firma} versprochen wurde den Rohrbruch bis zum Nachmittag zu reparieren

Assuming the same a-structure for German versprechen ‘promise’, viz. (26), there are again two possible analyses of the grammaticality of (25b). First, it could be argued that such German infinitival complements bear the GF OBJ and the IPC is grammatical because there is an OBJ available in the a-structure which can map to SUBJ in the passive. A parallel construction in English would be ruled out by assuming that the infinitival complement in English must bear the GF XCOMP. Alternatively, one could argue that the IPC is an impersonal construction which lacks a c-structural subject altogether:

---

18 This analysis is supported by further data from Visser (1973) and Bresnan (1982:354) illustrating other verbs predicated of the subject that disallow passive (but which have an object) since in many cases, a BENEFICIARY/EXPERIENCER analysis of the object (underlined) is plausible:
   i. he strikes his friends as pompous/*his friends are struck as pompous (by him),
   ii. Max failed her as a husband/*She was failed (by Max) as a husband,
   iii. the vision struck him as a beautiful revelation/*He was struck (by the vision) as a beautiful revelation

19 Considering the dative objects of transitive subject equi predicates such as versprechen ‘promise’, there is independent evidence that the dative object of versprechen is a BENEFICIARY since this verb occurs as an embedded predicate in the kriegen-passive (e.g. er kriegte eine Stelle versprochen ‘he got promised a job’) and the argument composition analysis in Cook (2006) requires that the embedded predicate have an a-structure < ∅/OBL\_AGENT, beneficiary, theme >.
(26)  a. versprechen  agent  beneficiary  soa
b.  [-o]  [+o]  [soa]
c.  \(\emptyset\)  OBJ

\(\check{\text{IPC}} \rightarrow (25b)\) grammatical either (i) because soa is OBJ, and can map to SUBJ
or (ii) because German allows impersonal passives

*RPP \rightarrow (25c) ungrammatical because there is no [-r] which can map to passive SUBJ

The root of the German-English contrast here, then, is either that German permits impersonal passive unlike English, or that the soa infinitival complement can bear the GF OBJ in German, but not in English.

4. Conclusion

I argued here that LFG's approach to Functional Control should be modified in two ways. First, we should allow non-term Functional Controllers. This step provides not only a satisfactory, and straightforward, account of the distribution of split antecedents of object equi verbs in German but, I believe, it ultimately permits a more satisfactory account of Visser's Generalization as it applies in English and German. This modification also requires that implicit agents of passives project an f-structure, even when they are c-structurally absent. This modification permits a Functional Control analysis of German equi verbs that license the Infinitival Passive, which is in keeping with the split antecedents facts, but also captures the fact that implicit arguments of passives can act as binders. Finally, representing implicit arguments of passives at f-structure appears to resolve the issue of the (c-structural) optionality of the implicit argument in passives rather elegantly and appears to be lexically more economical since only one lexical entry is required for passivized verb forms.

References


