Visser's Generalization: The Syntax of Control and the Passive[*]

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This squib presents an argument for an agreement-based model of control (Borer 1989; Landau 2000, 2004, 2006, 2008), drawn from a cross-linguistic generalization about control in passives. Specifically, I show that obligatory control by the thematic subject of a passive is sensitive to a purely syntactic restriction: it is only possible if T does not agree with an overt DP. This restriction follows from the logic of an agreement-based approach, if implicit arguments participate in Agree relations (Landau 2010; Legate 2010). This generalization subsumes and derives an old observation about control, Visser's Generalization (Jenkins 1972; Bresnan 1982).

1 Revising Visser's Generalization

Our point of departure is the observation, coined Visser's Generalization (VG) by Bresnan (1982),[1] that control by an implicit subject is disallowed in the passive of English ditransitive control verbs. Such verbs divide into two classes. Verbs like *promise* and *offer* prefer control by the thematic subject, but allow object control if a modal is present in the infinitival clause (1a-b).

(1)   a.   Calvin promised/offered Hobbes to make him a tuna sandwich.
        b.   His parents promised/offered Calvin to be allowed to stay up late.

Verbs like *ask* and *persuade* show the opposite pattern: they allow control by the thematic subject (2a),[2] but prefer object control (2b).

(2)   a.   Calvin asked/persuaded his parents to be allowed to stay up late.
        b.   Hobbes asked/persuaded Calvin to make him a tuna sandwich.

When passivized, however, neither type of verb allows control by the thematic subject (3a-b), while the availability of control by the thematic object is unaffected (3c-d) (Jenkins 1972; Bresnan 1982; Ladusaw and Dowty 1988).

(3)   a.   *Hobbes was promised/offered (by Calvin$_i$) PRO$_i$ to make him a tuna sandwich.
        b.   *His dad was asked/persuaded (by Calvin$_i$) PRO$_i$ to be allowed to stay up late.
        c.   Calvin$_i$ was promised/offered PRO$_i$ to be allowed to stay up late.
        d.   Calvin$_i$ was asked/persuaded PRO$_i$ to make Hobbes a tuna sandwich.

That the ungrammaticality of (3a-b) is really due to the impossibility of control by the implicit subject is further illustrated by the fact that the counterparts of (3a-b) without control, given in (4a-b), are fully acceptable.

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[1]The control facts appear to have been noted first by Jenkins (1972).

[2]Exactly what licenses these control shifts is not relevant here, as it is dissociable from the facts at hand. See Uegaki 2011 for a possible account.

(4)   a.   Hobbes was promised by Calvin$_i$ that he$_i$ would prepare him a tuna sandwich.
        b.   Calvin was persuaded by Hobbes$_i$ that he$_i$ was a math genius.

This effect seems to hold outside of English also. In Norwegian and Swedish, for instance, subject control is ungrammatical in the passive of ditransitive *love/lova* ('promise') (5a-b), although these verbs otherwise passivize freely.

(5)   a.   *Jeg ble lovet   å gi   meg   gaver.
             I   was promised C give.INF me.ACC gifts
             '(lit.) I was promised to give me gifts.'   (Norwegian)
        b.   *Jag var lovad   att ge   mig   presenter.
             I   was promised C   give.INF me.ACC gifts
             '(lit.) I was promised to give me gifts.'   (Swedish)

This much is covered by the traditional formulation of VG, which dealt with such data by saying that the implicit subjects of passives can never control (Jenkins 1972; Bresnan 1982).[3]

I will show, however, that the VG effect is limited to passives in which agreement obtains between T and an overt DP. In *personal passives*, passives in which a DP is promoted to nominative and comes to agree with T, VG indeed restricts control. But in *impersonal passives*, passives without a nominative DP and with invariant 3rd person singular agreement on the verb, no VG effects are found.[4] In Dutch and German, for example, transitive subject control verbs form impersonal passives, and these permit control by the implicit subject (6a-b).[5]

(6)   a.   Er   werd geprobeerd om   eekhoorns te vangen.
           there was   tried   INF.C squirrels   to catch.INF
           '(lit.) There was tried to catch squirrels.'   (Dutch)
        b.   Es wurde versucht, Eichhörnchen zu fangen.
           it   was   tried   squirrels   to catch.INF
           '(lit.) It was tried to catch squirrels.'   (German)

The same facts obtain in Norwegian, so that (5a) is in fact grammatical when the indirect object is omitted (7).[6]

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[3]An apparent exception to this, and also to the reformulation of Visser's Generalization that will be offered in (12), is control by implicit subjects into rationale clauses, as in (i).

(i)   Hobbes$_i$ was promised a tuna sandwich in order to swear him$_i$ to secrecy.

At first glance, this example appears to contradict both versions of Visser's Generalization described in this squib. However, control into rationale clauses does not seem to involve obligatory control (Williams 1987, 1992; Lasnik 1988; Landau 2000, to appear). There are a range of environments in which rationale clauses can have extrasentential controllers (e.g. the event/authorial control examples in Williams 1987, 1992, and the examples given by Landau (2010:fn. 13, to appear)). As such, examples like (i) do not bear on VG.

[4]Note that the impersonal passives discussed here (from Dutch, German, Hebrew, and Norwegian) are real passives and not impersonals with a null arbitrary pronoun (i.e. they tolerate *by*-phrases and are ungrammatical with unaccusatives; see Perlmutter 1978, Siewierska 1984, Åfarlí 1992).

[5]The relevance of the facts in (6a-b) for VG was first noted by Koster (1984).

[6]Sentences such as (6-7) are instances of obligatory control, since PRO must be bound by the implicit subject in these passives, the hallmark of OC (for discussion, see Landau 2000, to appear). We can demonstrate this using the limited class of English verbs that passivize in this way (e.g. *decide*, *prefer*, *propose*). Disjoint reference between the implicit subject and PRO is impossible, as the oddness of (ia) shows. Similarly, long-distance control is ungrammatical (ib). As such, these are clearly cases of obligatory control.

(7) Det ble lovet   å gi   meg   gaver.
     there was promised C give.INF me.ACC gifts
     'It was promised to give me gifts.'   (Norwegian)

This pattern is also found with ditransitive control verbs. In Dutch, the indirect object of the ditransitive verbs *beloven* ('promise') and *aanbieden* ('offer') is inherently case-marked and cannot become nominative in passives. As a result, when the direct object is not a DP but a control clause, these verbs form impersonal passives. In these, VG effects are absent (8), just as in the impersonal passives of (6-7).

(8) Er   werd mij   beloofd/aangeboden om   me op de hoogte te houden.
     there was me.DAT promised/offered   INF.C me on the height to keep.INF
     'It was promised/offered to me to keep me informed.'

The same pattern obtains in German (9a), and in Hebrew (9b).

(9) a. Mir   wurde versprochen, mir   noch heute den Link für das Update zu
         me.DAT was   promised   me.DAT yet   today the link for the update to
         schicken.[7]
         send.INF
         'It was promised to me to send me the link for the update today.'   (German)
     b. Huvtax   le-Jon$_i$ lesapek   lo$_i$ zehut   xadaša.
         promised to-Jon provide.INF him identity new
         'It was promised to Jon$_i$ to provide him$_i$ with a new identity.'   (Hebrew)

That the presence of VG effects correlates with changes in case and agreement in this way can be further confirmed by looking at another set of ditransitive control verbs in the same languages. It turns out that, in Dutch and German, a class of ditransitive control verbs, roughly those that generally prefer object control, does form a personal passive. Strikingly, these pattern with English ditransitive control verbs, in that control by an implicit subject is disallowed in the passive (10a-b).

(10) a. *De leraren$_i$ werden overtuigd om   ze$_i$ te mogen   kietelen.
          the teachers were   convinced INF.C them to may.INF tickle.INF
          '(lit.) The teachers$_i$ were convinced to be allowed to tickle them$_i$.'   (Dutch)
      b. *Der Lehrer$_i$ wurde gebeten, ihn$_i$ zu kitzeln   dürfen.
          the teacher.NOM was   begged him to tickle.INF may.INF
          '(lit.) The teacher$_i$ was begged to be allowed to tickle him$_i$.'   (German)

It is not the case then that VG effects are absent from Dutch and German. Rather, VG effects are strictly correlated with the presence of a nominative argument agreeing with T.

So far, all instances of promotion have involved both a change in case and agreement and movement to spec-TP. But it is possible to confirm that it is indeed just the change in case and agreement that matters for VG. In German and Icelandic, nominative DPs can remain vP/VP-internal (Diesing 1992; Jónsson 1996; Wurmbrand 2006). As the examples in (11a-b) show, VG still affects such cases.

(i)   a. #It was decided to be kicked out of the club.
      b. Hobbes$_j$ thought that it had been proposed by Calvin$_i$ PRO$_{i/*j}$ to be kicked out of the club.

[7]Note that the indirect object sits before the V2 position, and not in a subject position.

(11) a. *...weil ja   noch nie   ein Lehrer$_i$ gebeten wurde, ihn$_i$ zu kitzeln   dürfen.[8]
         as   PRTCL yet   never a   teacher.NOM begged was   him to tickle.INF may.INF
         '(lit.) ...as a teacher$_i$ was never begged to be allowed to tickle him$_i$.'   (German)
     b. *Þá   var beðin   einhver dularfull kona$_i$ um að verða leyft   að
         then was asked.NOM.3FS some   or.other woman for C be.INF allowed C
         kitla   hana$_i$.
         tickle.INF her
         '(lit.) Then, some woman$_i$ was asked to be allowed to tickle her$_i$.'   (Icelandic)

To be precise then, VG only obtains if a nominative argument is present that agrees with T. I will refer to this generalization as the Revised Visser's Generalization (RVG) (12).

(12) **Revised Visser's Generalization:**
       OC by an implicit subject is impossible if an overt DP agrees with T.

    In the next section, I show that this surprising generalization is a natural consequence of the logic of an agreement-based model of control (Borer 1989; Landau 2000 et seq.). If agreement and control are taken to make use of the same mechanisms, the generalization in (12) can be derived from the idea that T needs to be "available" in order for control by an implicit subject to be established. In this way, if implicit subjects are assumed to participate in Agree relations, the RVG falls out from the syntax of control.

2 A Syntactic Account of Visser's Generalization

The idea that agreement and control make use of the same syntactic mechanisms has been developed in recent work by Landau (2000, 2004, 2006, 2008) and goes back to ideas by Borer (1989). In such a framework, it is assumed that the functional head that agrees with the controller also agrees with PRO (or some head linked to PRO) and, in this way, establishes a link between the two arguments. Specifically, these agreement relations cause the φ-features of the controller to be shared with PRO and this yields a control relation. Subject control is then represented as feature-sharing between T, the subject, and PRO, while object control involves feature-sharing between v, an object and PRO. Note that, although feature-sharing of this form provides a natural replacement for the notion of coindexation, since it tracks identity, it requires an interpretive rule that actually converts sharing of φ-features into semantic binding (see also Kratzer 2009, Reuland 2011, and others for such an approach to reflexives).

    The phenomenon of implicit obligatory control is a problem for such approaches to control, however, because, at first glance, there does not appear to be any agreement that references the implicit subject in (13a) or the implicit indirect object in (13b).

(13) a. it was IMP$_i$ decided [PRO$_i$ to leave]
     b. he said IMP$_i$ [PRO$_i$ to leave]

To deal with cases like (13b), Landau (2010) proposes that implicit arguments are bare variables that project φ-features, but lack the requisite nominal structure to enter into case checking (a D-feature in Landau's approach). As such, implicit arguments do not need licensing, but do have φ-features that can be probed by heads like v or Appl to establish control.

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[8]My thanks to an anonymous reviewer for this example. Note that particles like *ja, noch,* and *nie* are usually taken to indicate the vP boundary in German (e.g. Diesing 1992).

This approach cannot be extended to cases like (13a), however, because control by an implicit subject, if indeed parallel to control by overt subjects, should be regulated by T and the agreement on T does not seem to covary with the φ-features of a null pronoun.

Suppose, however, that there is nonetheless agreement between the implicit subject and T in (13a), but that implicit arguments always trigger 3rd person singular agreement, so that agreement in (13a) is in fact governed by the implicit subject. If this is assumed, even control by implicit subjects would make use of the same agreement mechanisms as control with an overt controller.

In addition, such a theory makes a key prediction. Because it implicates agreement on T in control by an implicit subject, this approach predicts that, if T agrees with some other element, implicit subjects should be unable to control. The revised version of Visser's Generalization developed in section 1 constitutes exactly this correlation between agreement and control. If the above theory of implicit subject control were to be adopted, it would then yield a straightforward explanation of this distribution of VG effects.

For this reason, I adopt the idea that there is an agreement relationship between a 3rd person singular implicit subject and T in (13a). This seems to me the most promising way of capturing the correlation between agreement and control that VG embodies. In addition, there is good reason to think that implicit subjects, if syntactically present, should trigger 3rd person singular agreement. Consider the following variant of Landau's (2010) treatment of implicit arguments. Instead of viewing implicit subjects as bare variables, suppose that they are *bare existential quantifiers*. Specifically, an implicit argument would be an intransitive existential D without an NP complement, which effectively existentially closes any argument position it is merged in (see also Legate 2011 for a similar idea).

It is not hard to demonstrate that implicit subjects are indeed existential in nature (see Lasersohn 1997 and Bhatt and Pancheva 2006, for example). Consider the following context. One day, my friend and I buy a carrot cake, but my friend is selfish and eats the entire cake by himself. Later, I find out I have a severe carrot allergy, so that I was lucky not to have eaten any cake. I can now felicitously utter (14a), because the PRO subject can be used deictically to refer only to me. I cannot, however, utter (14b), since the implicit subject of the passive is existential, and, under negation, asserts that there was no one who ate the cake, which is not true. In contrast, (14c), with an overt *by*-phrase, is perfectly felicitous.[9]

(14)   a.   Not eating the cake turns out to have been fortunate.
       b.   That the cake was not eaten turns out to have been fortunate.
       c.   That the cake was not eaten by me turns out to have been fortunate.

Suppose then that implicit subjects really are intransitive existential Ds, without an NP complement. This accounts for the existential semantics described above, but it also goes a long way towards accounting for their agreement, if it is assumed that number and gender originate on nouns and end up on D heads only by means of agreement.[10]

The derivation of an example like (13a), *It was decided to leave*, is then as follows. The implicit subject is merged in spec-vP and existentially closes the external argument position. T is merged

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[9]Note that the theory of implicit arguments developed by Landau (2010) is not incompatible with the idea that some of them have existential force, as long as some mechanism ensures that implicit subjects always undergo existential closure.

[10]I assume that *by*-phrases are adjuncts to v that double the implicit subject when present, so that these do not affect the syntax of control.

and enters into an Agree relation with both the implicit subject and PRO, establishing control. The expletive *it* is merged in spec-TP to satisfy the EPP.[11]

We are now in a position to consider examples like **Hobbes was promised to make him a tuna sandwich* (3a), in which VG obtains. Under the approach outlined above, the ungrammaticality of control by the thematic subject in this example is not surprising. Because the indirect object agrees with T, T cannot mediate control between the implicit subject and PRO.[12] But we may wonder about how this works technically, because we might expect the implicit subject to intervene in the Agree relation between T and the indirect object. I wish to propose the following answer. Suppose that passive v, like transitive v, is a phase head, following Legate (2003). An object that agrees with T then has to undergo successive-cyclic A-movement to the edge of the vP phase. In a passive, this movement step makes the implicit subject and the moved object equidistant from T.[13] However, because the object needs case licensing from T, only those derivations in which T agrees with the object will not crash.[14] As such, the promotion of an object to nominative prevents T from being in an Agree relation with an implicit subject. By extension, implicit subject control is also blocked in these cases, since it requires this Agree relation. The result of this is that the only possible controller in such passives is the thematic object, as in *Calvin was promised to be allowed to stay up late* (3c), because the thematic object is the only DP in a feature-sharing relationship with an agreement probe. This is the VG effect.[15]

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[11]I assume that *it* is not in an Agree relationship with T. The same has to be said for the Dutch expletive *er* and German *es* when they have clausal associates.

[12]It is important to note that the ungrammaticality of object control in this example is due to the fact that are additional pragmatic conditions on object control with *promise* (see footnote 2), and not due to any syntactic restriction.

[13]In this theory, movement to spec-vP has to be assumed also for the German and Icelandic indefinite nominative objects in (11a-b).

[14]To account for the fact that implicit arguments do not check case, I propose that it is actually the NP that contributes the case feature, contrary to Landau (2010). See Boivin 2005 and Takahashi and Hulsey 2009 for independent uses of this idea.

[15]Another account that treats VG as intervention is developed by Hornstein and Polinsky (2010) just on the basis of the English facts. In their model, implicit subject control involves movement of a *pro* from the infinitival subject position to spec-vP. The difference between the active and passive of *promise* is that the indirect object in the passive, because it is not yet case-marked at the time of this movement step, acts as an intervener. In the active, the indirect object is assigned case before movement to spec-vP and therefore is not an intervener. In principle, this account could be extended to many of the facts noted here.

However, even setting aside the issue of whether a movement theory of control is right (see Landau, to appear for discussion), this proposal is problematic for a number of reasons. First of all, there are many differences between implicit subjects and *pro* (implicit subjects are necessarily existential (e.g. 14a-c), alternate with *by*-phrases, cannot be bound, fail to license some secondary predicates and reflexives, etc., Rizzi 1986; Safir 1987; Bhatt and Pancheva 2006; Landau 2010). In addition, there is good evidence that case-marked arguments *do* act as interveners for A-movement (e.g. Anagnostopoulou 2003; Hartman, to appear), and that control and A-movement diverge in this regard. In French, for example, raising across a dative is ungrammatical, but control is fine (ia-b).

(i)   a.   *Paul semble à Sam couper des   pommes de terre.
              Paul seems   to Sam cut.INF INDEF.PL potatoes
              'Paul seems to Sam to be cutting potatoes.'
       b.   Paul a   promis   à Sam de   couper des   pommes de terre.
              Paul has promised to Sam with cut.INF INDEF.PL potatoes
              'Paul promised Sam to cut potatoes.'

Similar facts obtain in Icelandic. As such, treating VG as intervention in A-movement is not desirable. The current account, however, construes VG as intervention from the perspective of the φ-probe on T and, as a result, does not run into these issues.

To sum up, I have shown that Visser's Generalization is really about a syntactic restriction on control by implicit subjects. I have argued that, if it is assumed that implicit arguments are syntactically projected and visible for Agree (Landau 2010; Legate 2010), VG effects fall out from the logic of an agreement-based approach to control (Borer 1989; Landau 2000 et seq.).

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