Implicit Control Cross-Linguistically
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Abstract: In Landau (2015), it is proposed that the acceptability of control by the implicit external argument of a passivized verb into complement clauses (implicit control) is not only restricted by the Revised Visser's Generalization (van Urk 2013), but also depends on the type of matrix predicate involved. While attitude matrix predicates allow implicit control (*implicit logophoric control*), non-attitude matrix predicates do not. Landau takes this bifurcation to support his Two-Tiered Theory of Control, by assuming that in the case of non-attitude matrix predicates, the control relation is essentially a predication relation, from which implicit arguments are independently excluded. In this paper, we subject these claims to empirical scrutiny, showing that Landau's generalization on implicit control holds only in a subset of languages, while other languages license implicit control with both types of matrix predicates. We investigate and reject the hypothesis that this cross-linguistic split is the consequence of different types of implicit arguments, only some of them being syntactically represented in a way that they can enter a predication relation. Based on an investigation of the acceptability of agent-modifying depictives in passives, we conclude that, in principle, implicit external arguments of passives in all languages under consideration can enter predication. We show, however, that there is a different correlation: languages that allow implicit control with non-attitude verbs (*implicit predicative control*) are exactly those languages that allow impersonal passives of unergative predicates. To account for this correlation, we argue that implicit logophoric control, but not implicit predicative control can be construed as a personal passive.

1. Introduction

The publication of Landau (2010) has led to a renewed interest in questions about the grammatical properties of implicit arguments. In particular the syntactic status of the implicit external argument of verbal passives has been a matter of some dispute, with accounts ranging from syntactically projecting it as a set of phi-features (e.g., Landau 2010, Legate 2012, 2014), or as arbitrary PRO (e.g., Collins 2005), to syntactic non-projection (e.g., Bruening 2012, Reed 2014, Alexiadou et al. 2015); see Williams (2015) for an overview over different broad types of approaches. One reason why it has been so difficult to arrive at a definite answer to this question is the following: Many of the tests that had originally been advanced to support the need to syntactically project the implicit external argument of passives (licensing of a *by*-phrase, agent-oriented modifiers, disjoint reference effects, control into purpose clauses), have in the meantime been shown to be compatible with analyses of passives that do not project the implicit argument syntactically (e.g. Bhatt & Pancheva 2006/to appear). While much of the discussion has revolved around the tests mentioned above, implicit control into complement clauses has at best played a minor role so far. This is somewhat surprising given that one of the most detailed and explicit accounts of this type of control, provided by van Urk (2013), crucially relies on the implicit argument being syntactically projected and capable of entering a syntactic Agree-relation with matrix T (and thereby indirectly, with PRO; see Landau's 2000 et seq. Agree-model of Control). The facts captured by van Urk's analysis relate to the, by now, well-known observation that subject control predicates do not passivize (Visser's Generalization (VG); Visser 1973, Bresnan 1982). van Urk shows that this generalization only holds if passivization results in a personal passive, i.e., if an internal argument agrees with T and thereby becomes the derived subject. If no other DP establishes an Agree-relation with T, as is the case in impersonal passives, implicit control is licit (Revised Visser's Generalization (RVG)). This difference is illustrated

in (1) vs. (2) (IA stands for the implicit external argument of the passivized verb and is inserted for the sake of representation only – no theoretical implications are intended).

(1) a. Peter$_1$ promised Maggie [PRO$_1$ to watch Mad Men].
     b. *Maggie was IA$_1$ promised [PRO$_1$ to watch Mad Men].

(2) a. Peter$_1$ decided [PRO$_1$ to watch Mad Men].
     b. It was IA$_1$ decided [PRO$_1$ to watch Mad Men].

Landau (2015), however, has claimed that there is another empirical generalization involving implicit control, which van Urk's account cannot capture. He argues that the RVG holds true if the control predicate is an attitude predicate (a Partial Control predicate in Landau 2000, 2004, 2008). With subject-control non-attitude matrix predicates (Landau's former class of Exhaustive Control predicates), passivization is always infelicitous, i.e., the original VG holds. This split is illustrated with the Russian data in (3) and their English translations, taken from Landau's work. We will henceforth refer to this split as *Landau's Generalization* (4).

(3) a. **Attitude verbs/Partial Control verbs:**
        Bylo   zaplanirovano/obeščano   obnovit'   zdanie.
        was.SG.NEUT planned$_{\text{SG.NEUT}}$/promised$_{\text{SG.NEUT}}$ to.renovate building
        'It was planned/promised to renovate the building.'
     b. **Non-attitude verbs/Exhaustive Control verbs:**
        *Bylo   načato/prodolženo/zakončeno
        was.SG.NEUT begun$_{\text{SG.NEUT}}$/continued$_{\text{SG.NEUT}}$/finished$_{\text{SG.NEUT}}$
        tratit'   den'gi na bespoleznye lekarstva.
        to.spend money on useless   medicines
        '*It was begun/continued/finished to spend money on useless medicines.'

(Landau 2015: 72, (102))

(4) **Landau's Generalization:**
     Attitude predicates allow implicit control in the context of an impersonal passive.
     Non-attitude predicates never allow implicit control.

If correct, the generalization in (4) has fundamental consequences for the theory of control, as well as the grammatical status of implicit arguments. In this paper, after briefly introducing the main aspects of Landau's Two-Tiered Theory of Control (section 2), we investigate the validity of Landau's Generalization in a larger set of languages. In doing so, we will show in section 3 that while (4) is true in some languages (English, French, Hebrew, Russian), it does not hold in others (Dutch, German, Icelandic, Norwegian). Landau's claim that (4) follows from a general inability of implicit arguments of passives to enter a predication relation must therefore be false. The second part of the paper (section 4) attempts to reconcile this cross-linguistic split in the availability of implicit control with non-attitude matrix predicates (*implicit predicative control)* with Landau's (2015) Two-Tiered Theory of Control. In section 4.1, we first investigate the hypothesis that languages differ with respect to whether the implicit argument of passives is projected as a weak or strong implicit argument in the sense of Landau (2010). Only in languages with strong implicit arguments would predication over the implicit argument, and thus, implicit predicative control with non-attitude verbs, be possible. Based on a discussion of depictive secondary predicates in passives, we conclude that this hypothesis is untenable: the implicit external argument in passives can in principle enter a predication relation in all the languages under consideration. In this connection, we

also provide a new argument against the syntactic projection of implicit arguments of passives, e.g., as PRO, pro or φP (pace e.g. Collins 2005; Landau 2010; cf. also Müller 2016). In section 4.2, we illustrate a striking correlation within our set of languages between the availability of implicit predicative control and the acceptability of plain impersonal passives: if a language lacks the latter, the former is unacceptable. Section 4.3 provides an explanation for this pattern. We argue that only implicit logophoric control but not implicit predicative control can be construed as a personal passive. The subject pronoun checking the EPP in implicit control structures (overt in (2b); covert in (3a, b)) is not an expletive but an argument pronoun, which is merged VP-internally and becomes the derived subject under passivization. Since this pronoun is cataphorically related to the embedded infinitival clause (e.g. Bennis 1986, Vikner 1995, Ruys 2010), it denotes a proposition in the case of implicit logophoric control but a property in the case of implicit predicative control and we argue that elements denoting a property are semantically deviant in Spec,TP. In section 4.4, we return to the RVG, which on first sight appears incompatible with the proposed analysis of implicit logophoric control. Based on novel data, we show that it is not our analysis, but, in fact, the current version of the RVG that is problematic, and propose a reformulation. This independently motivated adjustment will render our analysis of implicit logophoric control in English-type languages fully compatible with the RVG. Section 5 concludes.

2. The Two-Tiered Theory of Control and Landau's Generalization

In this section, we will have a closer look at Landau's (2015) Two-Tiered Theory of Control and at Landau's Generalization, which is taken as supporting evidence for this approach to control. The Two-Tiered Theory of Control was born out of an attempt to overcome a number of issues within the Agree-model (Landau 2000, 2004, 2008), without losing the ability to account for the fundamental difference between obligatory control (OC) (which hosts an anaphor-like null subject called PRO), and no control (NC) (which hosts a lexical DP or a pro subject). In the Agree-model, this distinction was related to a certain feature composition on I/C, which involved [Agr]eement and abstract [T]ense features, the general observation here being that if the two are positively specified, NC obtains, while all other specifications lead to OC. This empirical generalization is captured in the OC-NC generalization in (5).

(5)   **The OC-NC Generalization** (Landau 2015: 7, (6)):
       In a fully specified complement clause (i.e., a clause in which the I head carries slots for both [T] and [Agr]):
       a. If the I head carries both semantic tense and agreement ([+T,+Agr]), NC obtains.
       b. Elsewhere, OC obtains.

Landau (2015: section 2.3) lists a number of problems for his Agree-model. For example, it crucially relies on the notion of abstract Tense, which has been argued to be a problematic concept in the context of infinitives (Wurmbrand 2014, Grano 2015). It also involves an unsatisfactory rule of R-assignment which stipulates that PRO, being [-R(eferential)], appears in the context of (5a), and DP/pro, being [+R(eferential)], appears in the context of (5b). Therefore, Landau (2015) attempts to provide a more fundamental account of the distribution of OC and NC. In doing so, the split between exhaustive and partial control predicates, which in the Agree-model was derived from the (abstract) tense properties of the infinitival complement, finds an explanation driven by the lexical semantics of the control verb: all of

the exhaustive control predicates are non-attitude verbs, whereas control predicates license partial control if they are attitude verbs.

It should be mentioned at this point that although the identification of partial control predicates with attitude verbs is largely correct, there is some disagreement about the proper classification of some predicates. For example, while *try*, which does not license partial control, is treated as a non-attitude predicate in Landau (2015), Pearson (2013, 2016) identifies it as a non-canonical attitude predicate. If one follows Pearson in her classification, it suggests that the acceptability of partial control is dependent on more factors than just the attitude status of the embedding predicate (see also White & Grano 2014 for the same conclusion). In a similar vein, an anonymous reviewer provides us with the following examples, which supposedly show partial control in the context of non-attitude predicates:

(6)   a. If I were department head, I would make sure/wouldn't bother to meet every week.
       b. I'm sorry, but now that I have kids, I'm no longer able to meet/get together every morning at 8 am.
       c. After 30 years of marriage, I don't need to kiss and make up just to get through the day.

While all the examples in (6) are indeed acceptable, we are skeptical as to whether they really show that non-attitude predicates license partial control. The embedded predicates in (6a, b) license comitative PPs, and it has been shown in the work by Sheehan (2012, 2014), Pitteroff et al. (2017) and Pitteroff & Sheehan (2017) that in such cases, a partial control reading can in fact be derived even in the context of a non-attitude matrix predicate (potentially via a covert comitative as in Boeckx, Hornstein & Nunes 2010, or via the inherent symmetry of the embedded predicate; see Authier & Reed 2018). Regarding (6c), although *kiss* for many speakers disallows a comitative PP, it occurs in a (idiomatic) conjunction with a predicate that does license comitatives (*to make up*). Indeed, for all of our informants, deletion of the second conjunct leads to a decrease in acceptability, suggesting that (6c) may not be a case of true partial control. This brief discussion shows that the concrete delimitation of the predicates that do or do not allow partial control, combined with the question of which factors additionally play a role on top of the status of the matrix predicate, is complex and far from resolved. For the sake of concreteness, we thus follow Landau's (2015) classification for the purposes of this paper.

Building on insights from the semantic literature on attitude reports (see Pearson 2013, 2016 and the literature cited there), Landau argues that depending on whether or not the matrix predicate is an attitude predicate, the control relation is established differently.[1] The two types of control, with the corresponding syntactico-semantic relations involved, are represented for subject control in (7) and (8) (irrelevant projections are omitted; we also leave out the semantic derivation and refer the reader to Landau 2015 for the details).

With a non-attitude predicate, the control relation is a predication relation, as has already been suggested to be the case with all instances of OC in Chierchia (1984, 1989, 1990; Williams 1980) (Predicative Control in (7)). By contrast, the complement of attitude predicates contains an additional logophoric layer that hosts information with respect to the context of evaluation (Logophoric Control in (8)). The author/addressee coordinate of the latter is projected as a variable (*pro* in (8)) in the left periphery of the infinitival clause and is bound by the controller in the matrix clause (typically, but not necessarily the attitude holder; cf. Landau 2015: 34).

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[1] This is not strictly speaking a new claim. The two types of control correlate with PRO- and C-control in the Agree-model.

(7)   **Predicative Control (former Exhaustive/PRO-Control):**
       [$_{vP}$ DP [$_{VP}$ V$_{non\text{-}attitude}$ [$_{FinP<e<s,t>>}$ PRO Fin [$_{TP}$ ~~PRO~~ T [$_{vP}$ ….]]]]]

       Control-relation: DP --- predication --- FinP$_{<e<s,t>>}$

(8)   **Logophoric Control (former Partial/C-Control):**[2]
       [$_{vP}$ DP [$_{VP}$ V$_{attitude}$ [$_{CP<s,t>}$ pro C [$_{FinP<e<s,t>>}$ PRO Fin [$_{TP}$ ~~PRO~~ T [$_{vP}$ ….]]]]]]

       Control-relation: DP --- variable binding --- pro
                                    pro --- predication --- FinP$_{<e<s,t>>}$

Two comments are in order before we proceed: First, the property-denoting FinP in (7) and (8) is a predicate derived via movement of PRO. Adopting the treatment of movement as lambda-abstraction (Heim & Kratzer 1998), Landau assumes that PRO, being a minimal pronoun in the sense of Kratzer (2009), cannot saturate the lambda-variable generated by moving PRO into Spec,FinP and is therefore functioning like an operator in deriving an open predicate. Second, Logophoric Control essentially involves two dependencies, one of them (predication) identical to the one involved in Predicative Control. This is where the Two-Tiered Theory of Control gets its name from: Logophoric control is predicative control with a second layer/tier stacked on top involving variable binding. For the discussion in section 4, it will be important to keep in mind that the complement of V$_{non\text{-}attitude}$ in (7) denotes a property (FinP$_{<e<s,t>>}$), while the complement of V$_{attitude}$ in (8) denotes a proposition (CP$_{<s,t>}$).

   Landau shows that many of the properties originally related to PRO- vs. C-Control in the Agree-model now fall out from the type of control relation involved (predication vs. variable binding). For example, the lack of partial control in the context of non-attitude predicates boils down to the fact that a predication relation cannot be established between a collective predicate that requires a (semantically) plural subject and a (semantically) singular DP (but see Pearson 2013, 2016 for a semantic derivation of partial control that relies on a Chierchia-style predication analysis). The same goes for control shift, as well as split control, which are claimed to be excluded by a predication analysis (Landau 2015, section 4.3). Landau also provides an explanation for how the difference between predication and variable binding derives the OC-NC Generalization in (5) (see Landau 2015, section 3.5 and 3.6). The properties of the two control types are summarized in (9).

(9)

		Predicative Control	Logophoric Control
	a. Inflected complement	OC	NC
	b. Control Shift	*	ok
	c. Split Control	*	ok
	d. Partial Control	*	ok
	e. Implicit Control	*	**ok**

Particularly relevant for our purposes is (9e): the proclaimed lack of an implicit control relation in predicative, but not in logophoric control. To account for this split, Landau builds on the assumption that implicit arguments cannot function as the subject of a predication relation. He advances the following data to support this claim.

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[2] The projected coordinate in Spec,CP is, strictly speaking, not a pro, but an element formally identical to PRO. We follow Landau simply in using this notational variant in order not to create the impression of another movement step. Keep in mind, however, that for Landau, both pro and PRO in (8) are minimal pronouns in the sense of Kratzer (2009).

(10) a. John ate *(the meat) raw.
    b. I am now hiring *(people) for John to work.
    c. The room was left (*angry at the guests).   Landau (2015: 69, (91a-c))

(10a, b) show that an object cannot be dropped if it functions as the subject to some type of secondary predicate. (10c) is taken to illustrate the same for the implicit external argument of a verbal passive. Landau's Generalization in (4) (repeated here for the sake of convenience) is thus but one out of a number of empirical phenomena that fall under the more general principle in (11) - and thus follows from his claim that the control relation in instances of obligatory control is established in a non-uniform manner.

(4) **Landau's Generalization:**
    Attitude predicates allow implicit control in the context of an impersonal passive.
    Non-attitude predicates never allow implicit control.

(11) **Condition on Syntactic Predication** (Landau 2015: 69, (90))**:**
    The argument predicated of must be syntactically represented.

In sections 3 and 4, we will investigate the cross-linguistic validity of (4) and (11). Note, for example, that the validity of (11) for implicit arguments of passives has been challenged, as data similar to (10c) are judged acceptable in the literature.[3]

Before we proceed, let us address an important question raised by an anonymous reviewer. So far, we have simply assumed that implicit control into complement clauses is an instance of obligatory control (OC), and that therefore, the control relation must involve one of the two routes outlined in (7) and (8). But is this assumption empirically correct? Although it appears to be the standard one in the literature (see Landau 2000, 2010, van Urk 2013), it has recently been challenged by Reed (2014, 2017), who essentially argues that implicit control into complement clauses involves non-obligatory control (NOC), and thus a more pragmatically mediated control relation. Her position is based on the data in (12a-14a), which are intended to show that implicit control allows (i) arbitrary PRO (12), (ii) long-distance control (13), and (iii) a strict reading under ellipsis (14). All of these properties are hallmarks of NOC, as is indicated by the contrast to the active counterparts in (12b-14b) which involve OC.

(12) **Arbitrary control** (Reed 2017: 5, (20), (21))
    a. (I contacted the selection committee about how to submit my photo. It turns out that) it is preferred (by the committee$_x$) [PRO$_{arb}$ to submit in jpeg].
    b. The committee$_x$ prefers [PRO$_{x/*arb}$ to submit in jpeg].

(13) "**Long-distance control**" (Reed 2017: 5/6, (22a), (23))
    a. It was obviously not decided by the colonists$_x$ [PRO$_y$ to tax them$_x$ at such a rate]. It was the Crown.
    b. The colonists$_x$ obviously did not decide [PRO$_x$ to tax *them$_x$/themselves$_x$ at such a rate]. It was the Crown.

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[3] Context potentially increases the acceptability of examples such as (10c) where the depictive predicate comes with an internal argument PP. Roeper (1987: 298) provides the following case in point.

(i) The crowd booed the players when they arrived. The whole game was played angry at the crowd.

Other speakers in turn find (10c) already unacceptable without the depictive (*The room was left*), which would mean that this example does not bear on the issue (Christina Tortora, p.c.).

(14) **Strict reading under ellipsis** (Reed 2017: 6, (24), (25))
     a. It was proposed by Hillary Clinton$_x$ [PRO$_x$ to be the 2016 Democratic candidate] and
       it was by the Democratic National Committee, too.
     b.*Hillary Clinton$_x$ proposed [PRO$_x$ to be the 2016 Democratic candidate] and the
      Democratic National Committee did too.
      Intended reading: the DNC proposes that Hillary Clinton be their candidate.

However, we believe that, on closer inspection, the above arguments cannot refute the general conclusion that implicit control in complement clauses exhibits the characteristics of OC.

One central issue of Reed's argumentation is that the pattern illustrated in (12)-(14) above is not productive – other attitude predicates that allow implicit control disallow, for example, arbitrary control. This is illustrated in (15) for the verbs *decide* and *plan*. The implicit control sentence (15a), which is construed in parallel to (12a), patterns just like the active counterpart in (15b) which involves OC.

(15)   a. (I contacted the selection committee about how to submit my photo. It turns out that)
       *it was decided/planned (already a long time ago) (by the committee$_x$) [to PRO$_{arb}$
       submit in jpeg].
    b. The committee$_x$ decided/planned [to PRO$_{x/*arb}$ submit in jpeg].

Reed in fact does point out that since implicit control involves NOC, pragmatic forces such as, e.g., logophoricity strongly influence the selection of the controller. Therefore, in order to identify the NOC-character of implicit control, certain atypical pragmatic contexts that shift the controller away from the implicit agent (which is the logophoric center) are required. Yet, Reed does not clarify what makes such an atypical context. To us, there is no clear difference in that regard between (12a) and (15a) and we thus find it unlikely that the impossibility of arbitrary PRO in (15a) can be related to any contextual factors. It rather seems to be the case that there is something special about the verb *prefer* (and, in fact, its counterpart in other languages, e.g., German and French) which licenses the arbitrary reading in (12a). Although a deeper investigation of this would go beyond the limits of this paper, one could imagine that it is relevant that the infinitival complement clause of *prefer* bears some covert modality, i.e. conditional semantics (i.e. *The committee prefers it if people submit in jpeg*). *Decide* and *plan* lack such additional modality and disallow arbitrary PRO.

Regarding the data in (13), none of the native speakers we consulted confirmed these judgments. Our English informants required the reflexive pronoun *themselves* in the infinitival complement in (13a) – just as is expected if implicit control involves OC. (Our French informants equally rejected the pronoun and asked for a reflexive in the French version of (13a) provided in Reed 2017: 5, (22a)). Similarly, no one accepted the strict reading in (14a). Even if there might be speaker/dialectal variation, the judgments we collected clearly show that for these speakers, sentences involving implicit control behave like OC configurations.

Finally, consider the data below, taken from van Urk (2013, fn.6).

(16) 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].

(16a) is intended to show that the implicit agent of *decide* must control PRO, which leads to the odd reading where someone decides to get him-/herself kicked out of the club. Note that

the oddness of this reading should in principle create an atypical pragmatic context in Reed's terms, such that, as a consequence, PRO should be construed as disjoint from the implicit argument. The fact that it is not strongly suggests that (16a) is an instance of OC. (16b) illustrates that long-distance control is blocked which is unexpected if implicit control involves NOC.

   Despite the interesting set of data provided by Reed we therefore conclude that there is little evidence in favor of the view that implicit control into complement clauses generally involves NOC. Instead, the speaker judgments we collected, in combination with the data in (16), support the view that control into (uninflected) complement clauses normally involves OC (Landau 2000 et seq.).

3. Landau's Generalization Cross-Linguistically

As mentioned in the preceding section, the generalization in (4) is given cross-linguistic validity in Landau (2015). In this section, we will show that implicit control in English, French, Hebrew and Russian indeed conforms to Landau's Generalization (section 3.1). Dutch, German, Icelandic and Norwegian, however, allow implicit predicative control, contrary to (4) (section 3.2).

3.1   Languages without implicit predicative control

3.1.1 English
We ran a small questionnaire study, asking 8 native speakers to rate the acceptability of our test sentences on a 7-point Likert scale, with 1 corresponding to inacceptable, and 7 to fully acceptable. The results for the test sentences are reported below (we provide the individual judgments, as well as the arithmetic mean).[4]

(17)   **Non-attitude verbs/predicative control: English[5]**
         a. It was tried to understand the analysis.[6]
            1, 1, 1, 1, 1, 1, 5, 1   **(mean: 1.5)**
         b. It was begun to raise the taxes.
            1, 2, 1, 1, 1, 1, 2, 1   **(mean: 1.25)**
         c. It was begun to clean up the living room.
            1, 2, 1, 1, 1, 1, 2, 1   **(mean: 1.25)**
         d. It was managed to find a solution to this problem.
            1, 3, 1, 1, 1, 1, 1, 1   **(mean: 1.25)**
         e. It was dared to question her authority.
            2, 6, 1, 2, 1, 1, 1, 4   **(mean 2.25)**

(18)   **Attitude verbs/logophoric control: English**
         a. It was decided to leave the country immediately.
            4, 7, 6, 5, 6, 5, 7, 6   **(mean: 5.75)**
         b. It was planned to renovate the kitchen next month.

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[4] Note that most verbs in (17) can occur with a DP complement and then they passivize.

[5] One test item (*It was stopped to invest money in stocks*) was removed, since the corresponding active sentence only allows the *to*-infinitive to be interpreted as an adjunct clause. A complement clause to *stop* requires a verbal gerund (*It was stopped investing money in stocks*).

[6] An anonymous reviewer pointed out that *attempt* is better than *try*. Not all of our informants were able to replicate this contrast, and we therefore leave it for future research.

5, 6, 5, 4, 4, 2, 6, 7 **(mean: 4.9)**
c. It was promised to take out the garbage soon.
1, 5, 2, 3, 2, 1, 4, 6 **(mean: 3)**
d. It was regretted to have raised the taxes so much.
3, 4, 4, 2, 4, 2, 3, 4 **(mean: 3.4)**
e. It was agreed to raise the taxes again.
5, 7, 5, 5, 4, 5, 7, 7 **(mean: 5.6)**
f. It was preferred to leave the country as quickly as possible.
2, 6, 5, 5, 4, 3, 5, 4 **(mean: 4.35)**
g. It was refused to resubmit the paper to the same journal.
2, 5, 1, 2, 4, 1, 2, 4 **(mean: 2.6)**
h. It was arranged to welcome the guests in the garden.
6, 7, 7, 4, 6, 5, 7, 7 **(mean: 6.1)**
i. It was offered to do the shopping for the weekend.
2, 3, 1, 2, 1, 1, 2, 4 **(mean: 2)**

A comparison between (17) and (18) clearly shows that implicit logophoric control is rated as much more acceptable than implicit predicative control, in line with Landau's Generalization. The judgments also show that there is some speaker-variation with respect to the acceptability of implicit control in general, and certain cases in particular. For example, by looking at the raw mean ratings of the implicit logophoric control examples in (18), it seems like some matrix predicates (e.g., *decide, agree, arrange*) give rise to better results than others (e.g., *offer, refuse, promise*). First, we would like to point out that the variability we see in our questionnaires does not necessarily prove that individual attitude verbs differ in how well they license implicit control. The variation could find an explanation independent of the control relation, because implicit control structures combine a number of grammatical phenomena within one derivation, such as:

a) the absorption of an external argument (passivization)
b) the fact that internal DP arguments of the control verbs must remain implicit such that the implicit control structures pass the Revised Visser's Generalization (relevant for *offer, promise*).
c) selection (infinitives and/or *ing*-gerunds)
d) the formation of an implicit control relation.

All four aspects could have an influence on how good or bad a particular attitude verb behaves in an implicit control structure. Second, since we did not keep the embedded clauses constant, we cannot make sure that the matrix predicate was the relevant factor triggering the variation. Third, even if the matrix predicate turns out to play a relevant role, this does not per se disprove Landau's Generalization. Instead, it may suggest that the attitude/non-attitude status of the matrix predicate is but one factor influencing the acceptability of implicit control. As mentioned already, something similar has been argued to be the case for partial control (see the experimental investigation by White and Grano 2014). Yet, since our questionnaire was not designed to test for such additional, potentially lexico-semantic factors, we have to leave this issue for future research.

3.1.2 French
The translations of the English sentences in (17) and (18) were evaluated by six French speakers on a scale from 1-7. The results are reported below (some test items, e.g., implicit control with *stop, manage, arrange* had to be excluded for language-specific reasons).

(19)   **Non-attitude verbs/predicative control: French**

a. Il a été essayé de comprendre l'analyse.
it has been tried to comprehend the.analysis
'People/someone tried to understand the analysis.'
1, 7, 3, 1, 3, 2 **(mean: 2.5)**

b. Il a été commencé à augmenter les impôts à nouveau.
it has been begun to raise the taxes at new
'People/someone began to raise the taxes again.'
1, 1, 2, 1, 1, 1 **(mean: 1.15)**

c. Il a été commencé à nettoyer la salle de séjour.
it has been begun to clean.up the room of living
'People/someone began to clean up the living room.'
3, 1, 2, 1, 1, 1 **(mean: 1.5)**

d. Il a été réussi à trouver une solution à ce problème.
it has been managed to find a solution to this problem
'People/someone managed to find a solution to this problem.'
1, 1, 1, 1, 2, 1 **(mean: 1.15)**

(20) **Attitude verbs/logophoric control: French**

a. Il a été décidé de quitter le pays immédiatement.
it has been decided to leave the country immediately
'People/someone decided to leave the country immediately.'
7, 7, 7, 7, 7, 7 **(mean: 7)**

b. Il était prévu de rénover la cuisine le mois prochain.
it was planned to renovate the kitchen the month following
'People/someone planned to renovate the kitchen next month.'
7, 7, 7, 7, 7, 7 **(mean: 7)**

c. Il a été promis de sortir les poubelles très bientôt.
it has been promised to take.out the garbage very soon
'People/someone promised to take out the garbage very soon.'
6, 7, 6, 6, 5, 3 **(mean: 5.5)**

d. Il a été regretté d'avoir augmenté les impôts d'autant.
it has been regretted to.have raised the taxes this.much
'People/someone regretted having raised the taxes so much.'
4, 7, 5, 4, 3, 2 **(mean: 4.15)**

e. Il a été convenu d'augmenter les impôts à nouveau.
it has been agreed to.raise the taxes at new
'People/someone agreed to raise the taxes again.'
7, 7, 6, 7, 7, 7 **(mean: 6.8)**

f. Il a été préféré de quitter le pays aussi rapidement que possible.
it has been preferred to leave the country as quickly as possible
'People/someone preferred to leave the country as quickly as possible.'
7, 6, 4, 7, 5, 2 **(mean: 5.15)**

g. Il a été refusé de soumettre à nouveau le papier à la même revue.
it has been refused to resubmit at again the paper to the same journal
'People/someone refused to resubmit the paper to the same journal.'
2, 7, 5, 4, 6, 6 **(mean: 5)**

h. Il a été proposé de faire les courses pour le week-end.
it has been proposed to do the shopping for the weekend
'People/someone offered to do the shopping for the weekend.'
6, 7, 7, 7, 6, 5 **(mean: 6.3)**

The picture that emerges essentially mirrors the one we found for English: despite speaker-variation, there is a general tendency to accept implicit logophoric control, but reject implicit predicative control. We thus conclude that French conforms to Landau's Generalization.

3.1.3 Hebrew

Landau (2015: 71, (99a, b)) provides the Hebrew data in (21a, b) in support of his generalization:

(21) a. **Non-attitude verbs/predicative control: Hebrew**
          *hufsak/nusa/niskax   le'hitkadem   ba-proyekt.
          was.stopped/was.tried/was.forgotten   to.move.forward in.the-project
          '*It was stopped/tried/forgotten to move forward with the project.'
      b. **Attitude verbs/logophoric control: Hebrew**
          huxlat/tuxnan/huvtax   le'hitkadem   ba-proyekt.
          was.decided/was.planned/was.promised to.move.forward in.the-project
          'It was decided/planned/promised to move forward with the project.'

Where possible, we constructed Hebrew equivalents or near-equivalents of the English test items and had two native speakers judge their acceptability on a binary scale. The result is reported in (22) and (23).

(22)   **Non-attitude verbs/predicative control: Hebrew**
      a. *nusa   lehavin   et   ha-nituax.
          was.tried to.understand ACC the-analysis
          'People/someone tried to understand the analysis.'
      b. *hutxal   lesader   et   ha-xeder.
          was.begun to.arrange ACC   the-room
          'People/someone begun cleaning up the living room.'
      c. *hufsak   liʃtot   alkohol.
          was.stopped to.drink   alcohol
          'People/someone stopped drinking alcohol.'
      d. *hoaz   lefakpek   be-samxut-a.
          was.dared to.doubt   in-authority-hers
          'People/someone dared to challenge her authority.'

(23)   **Attitude verbs/logophoric control: Hebrew**
      a. huvtax   lehorid   et   ha-zevel.
          was.promised to.take.down ACC the-trash
          'People/someone promised to take out the garbage.'
      b. hutsa   laasot   kniot.
          was.offered   to.do   shopping
          'People/someone offered to do the shopping.'
      c. tuxnan   leʃapets   et   ha-mitbax.
          was.planned   to.renovate ACC   the-kitchen
          'People/someone planned to renovate the kitchen.'
      d. huxlat   laazov   et   ha-arets.
          was.decided to.leave   ACC   the-country
          'People/someone decided to leave the country.'

Although not as fine-grained as the ones we collected for English or French, the judgments we gathered for Hebrew again support the generalization advanced by Landau: attitude predicates allow implicit control, whereas non-attitude predicates do not.

3.1.4 Russian

In short, Russian behaves exactly like the languages discussed before. This is illustrated below. (24) repeats the Russian data provided by Landau (2015: 72, (102a, b)). (25) and (26) provide (near-)equivalents to some of the English test sentences. The judgments are from three native speakers, who used a binary acceptability scale.

(24) a. **Non-attitude verbs/predicative control: Russian**
*Bylo   načato/prodolženo/zakončeno
was$_{SG.NEUT}$ begun$_{SG.NEUT}$/continued$_{SG.NEUT}$/finished$_{SG.NEUT}$
tratit'   den'gi na bespoleznye lekarstva.
to.spend money on useless   medicines
'*It was begun/continued/finished to spend money on useless medicines.'

b. **Attitude verbs/logophoric control: Russian**
Bylo   zaplanirovano/obeščano   obnovit' zdanie.
was$_{SG.NEUT}$ planned$_{SG.NEUT}$/promised$_{SG.NEUT}$ to.renovate building
'It was planned/promised to renovate the building.'

(25) **Non-attitude verbs/predicative control: Russian**
a. *Bylo   poprobovano ponjat   analiz.
was$_{NEUT.SG}$ tried$_{NEUT.SG}$ to.understand analysis
'People/someone tried to understand the analysis.'

b. *Bylo   načato   ubirat'   gostinuju.
was$_{NEUT.SG}$ begun$_{NEUT.SG}$ to.clean.up living.room
'People/someone begun cleaning up the living room.

c. *Bylo   zakončeno   pit'   alcogol'.
was$_{NEUT.SG}$ stopped$_{NEUT.SG}$ to.drink alcohol
'People/someone stopped drinking alcohol.'

(26) **Attitude verbs/logophoric control: Russian**
a. Bylo   obeščano   vysnesti   musor.
was$_{NEUT.SG}$ promised$_{NEUT.SG}$ to.take-out garbage
'People/someone promised to take out the garbage'

b. Bylo   predloženo   sxodit' za pokupkami.
was$_{NEUT.SG}$ offered$_{NEUT.SG}$ go   for shopping
'People/someone offered to do the shopping.'

c. Bylo   zaplanirovano   otremontirovat' kuxnju.
was$_{NEUT.SG}$ planned$_{NEUT.SG}$ to.renovate   kitchen
'People/someone planned to renovate the kitchen.'

d. Bylo   rešeno   pokinut' stranu.
was$_{NEUT.SG}$ decided$_{NEUT.SG}$ to.leave country
'People/someone decided to leave the country.'

3.2   Languages with implicit predicative control

3.2.1 German

Landau (2015: 71f., (100a, b)) provides the German examples below to support his claim that non-attitude predicates do not license implicit control (judgments are taken from his work).

(27) a. $^{??}$Es wurde   aufgehört   Zigaretten zu rauchen.
          it   was   stopped   cigarettes to   smoke
          'It was stopped to smoke cigarettes.'
      b. $^{??}$Es wurde   geschafft / gewagt   den Gefangenen   zu helfen.
          it   was   managed / dared   the   prisoners   to help
          'It was managed/dared to help the prisoners.'

While it is true that such examples are often felt to be slightly strange in out-of-the-blue contexts, it can be shown that implicit control with non-attitude verbs is not qualitatively different from implicit control with attitude predicates in German.

   Initial support for this view comes from the fact that a simple Google-search turns up hundreds of examples of implicit predicative control. Some of the hits are provided below. In (28)-(30) we list examples of different sub-types of non-attitude verbs (see Landau 2000 for this sub-classification), in order to guarantee a broad empirical coverage:

(28) **German implicatives verbs with implicit control**
      a. Jeder   hat   ihn   geliebt, weil   **vermieden wurde**
         everyone   has   him   loved   because avoided   was
         über seine Vergangenheit zu reden.
         about his   past   to talk
         'Everyone loved him because people avoided talking about his past.'
      b. Am   meisten verstört   hat mich der Fakt, dass   **vermieden wurde,**
         at.the most   disturbed has me   the fact   that   avoided   was
         mit   gefährdeten Kindern direkt   zu sprechen.
         with imperiled   children directly to speak
         'What disturbed me the most was the fact that people avoided talking directly with imperiled children.'
      c. Jessi war geradezu beleidigt, dass **gewagt wurde**
         Jessi was virtually offended   that dared   was
         so etwas   überhaupt zu fragen.
         so something even   to ask
         'Jessi was really offended that people even dared to ask something like this.'
      d. Seltener noch war   zu beobachten, dass **gewagt wurde,** außerhalb
         rarer   still was to observe   that dared   was   outside
         wirtschaftlicher Krisen Einschnitte im   sozialen Netz   vorzunehmen.
         economic   crises   cuts   in.the social   network to.take
         'Even less frequently one was able to observe that outside of economic crises cuts were made in the social network.'
      e. Alle Beteiligten waren erleichtert, dass **es geschafft wurde,**
         all   participants were relieved   that it   managed   was
         die so Unheil   bringende Maschine zu vernichten.
         the so mischief bringing   machine   to destroy
         'All participants were relieved that people managed to destroy the machine that brought that much mischief.'
      f. Wir freuen uns, dass es **geschafft wurde,** in den Sommerferien
         we are.excited that   it   managed was   in the summer-break
         die notwendigen Gleisanlagen auszutauschen.

the necessary   tracks   to.replace
'We are excited that people managed to replace the necessary tracks in the summer holidays.'

(29) **German aspectual verbs with implicit control**
  a. Obgleich   im   postdramatischen Theater niemals gänzlich **aufgehört**
      even.though in.the post-dramatic   theatre never   fully   stopped
      wurde zu erzählen.
      was   to narrate
      'Even though people never fully stopped to narrate in the postdramatic theatre.'
  b. Das Problem besteht darin,   dass **aufgehört wurde,**
      the problem lies   therein that stopped   was
      ein alternatives Projekt für Argentinien zu entwickeln.
      an alternative   project for Argentina   to develop
      'The problem is that people stopped developing an alternative project for Argentina.'
  c. Die Liste wurde öffentlich ausgehängt und es **wurde begonnen**,
      the list   was   openly   posted   and it was   begun
      sie abzuarbeiten.
      her to.work.off
      'The list was posted in public and people began to work it off.'
  d. Ein wichtiger Erfolg   der   Reise ist sicherlich, dass **begonnen wurde,**
      an important success of.the trip is certainly   that begun   was
      ein gemeinsames Netzwerk zu knüpfen.
      a   joint   network   to knot
      'An important success of the trip is certainly that people started building up a joint network.'
  e. Man spürte, dass **angefangen wurde** sich   als Mannschaft und
      one felt   that started   was   REFL as team   and
      nicht nur   als Mitspieler zu verstehen.
      not   only as teammate to understand
      'One felt that they started to see themselves as a team and not only as teammates.'
  f. Nach Aufruf   von Laufwerk c: in der Dos-Box konnte   ich feststellen,
      after requesting of harddrive c: in the Dos-box was.able I   realize
      dass **angefangen wurde,** die Dateien des   Betriebssystems zu kopieren.
      that started   was   the files   of.the operation.system to copy
      'After requesting harddrive c: in the Dos-box, I was able to detect that the someone/something started to copy the system's files.'

(30) **German *versuchen* (try) with implicit control**
  a. Erst am Montag wurde der Polizei gemeldet, dass **versucht   wurde**
      only on Monday was   the police told   that tried   was
      in ein Haus in der Schmitzinger Straße in Waldshut einzubrechen.
      in a   house in the Schmitzinger street in Waldshut to.break.in
      'Not before Monday someone told the police that someone tried to break into a house in the Schmitzinger street in Waldshut.'
  b. Es **wurde versucht**, eine Datei mit   einem falschen Format zu laden.
      it was   tried   a file with a   wrong   format to load
      'Someone/something tried to load a file with the wrong format.'

All of the sentences provided in (28)-(30) sound perfectly natural to us and other native speakers we consulted. In order to substantiate this impression, we conducted a small questionnaire study to elicit the grammaticality status of implicit predicative control sentences. The study, which included various other test items not relevant for the discussion here, contained two implicit control sentences with attitude predicates, and two with non-attitude predicates. In total, the questionnaire contained 68 sentences that were fully randomized. 58 subjects participated in the study and rated the sentences on a 7-point Likert scale (with 1 indicating unacceptability, and 7 full acceptability). The study was carried out online via the platform www.qualtrics.com and distributed amongst first-year students at the University of Stuttgart. The results in form of an arithmetic mean for the relevant test items are provided below.

(31) **non-attitude verbs/predicative control**:
   a. Es   wurde   angefangen,   das   Kinderzimmer aufzuräumen.
      it   was   begun   the   playroom   to.tidy.up
      'People/someone began cleaning up the playroom.'
      (**mean 5.72**, st.dev. 1.74)
   b. Es   wurde   versucht,   das   Land   zu verlassen.
      it   was   tried   the   country to leave
      'People/someone tried to leave the country.'
      (**mean 6.10,** st.dev. 1.32)

(32) **attitude verbs/logophoric control:**
   a. Es   wurde   versprochen,   das   Kinderzimmer aufzuräumen.
      it   was   promised   the   playroom   to.tidy.up
      'People/someone promised to clean up the playroom.'
      (**mean 5.91**, st.dev. 1.72)
   b. Es   wurde   beschlossen,   das   Land   zu verlassen.
      it   was   decided   the   country to leave
      'People/someone decided to leave the country.'
      (**mean 6.38**, st.dev. 1.00)

(31) and (32) show that there is no difference between the acceptability of implicit logophoric and implicit predicative control, and that both types receive high acceptability ratings. We thus conclude that German does not conform to Landau's generalization.

   It should also be noted at this point that the examples of implicit predicative control provided in this section are control configurations and do not involve restructuring. This can best be seen by the fact that structural accusative case is assigned to the internal argument of the infinitival clause, which, following Wurmbrand (2001), is a clear indication of the non-restructuring status of these examples.

3.2.2 Dutch

According to Landau (2015), Dutch patterns with English, Russian and Hebrew in disallowing implicit control if the matrix predicate is a non-attitude verb. He advances the following example as support (Landau 2015: 72, (101)).

(33) **Non-attitude verbs/predicative control: Dutch**
      *Er   werd begonnen (om) sigaretten te roken.
      there was begun   C   cigarettes to smoke

'It was begun to smoke cigarettes.'

The native speakers we consulted indeed rejected this example, but they did so for independent reasons, as all of them wanted to replace the complementizer *om* with the preposition *met* 'with' (*Er werd begonnen met sigaretten te roken.* 'It becomes started with cigarettes to smoke').

In order to clarify the acceptability of implicit predicative control in Dutch, let us first point out that one finds examples in the (linguistic) literature, such as the following one from Bennis & Hoeckstra (1989: 13, (6b)).

(34) Er   wordt geprobeerd (om) de deur open te maken.
     there is   tried   C   the door open to make
     'People/someone tries to open the door.'

Furthermore, we asked four native speakers to rate the Dutch translations of some of the English sentences from section 3.1.1, as well as some example sentences we drew from the internet. The results (with individual judgments, and arithmetic mean) are the following.

(35)   **Non-attitude verbs/predicative control: Dutch**
     a. Er   werd begonnen (om) de woonkamer op te ruimen.
        there was begun   C   the living.room up to clean
        'People/someone begun cleaning the living room.'
        3, 4, 3, 4   **(mean: 3.5)**
     b. Er   werd geprobeerd (om) de analyse te begrijpen.
        there was tried   C   the analysis to understand
        'People/someone tried to understand the analysis.'
        7, 6, 6, 6   **(mean: 6.25)**
     c. Er   werd gewaagd (om) haar autoriteit in twijfel te trekken.
        there was dared   C   her authority in doubt to pull.
        'People/someone dared question her authority.'
        3, 4, 1, 6   **(mean: 3.5)**
     d. Er   werd vergeten/(verzuimd)   (om) als collectief te spelen,
        there was forgotten/missed   C   as collective to play,
        juist wat normaliter de sterke kracht is van het   team.
        just what normally   the strong power   is of   this   team.
        'People forgot/failed to play as a collective, which usually is the strength of this team.'
        4, 7, 3, 7   **(mean: 5.25)**
     e. Er   werd vermeden vragen   te stellen.
        there was avoided   questions   to pose
        'People/someone avoided asking questions.'
        4, 7, 4, 7   **(mean: 5.5)**

(36)   **attitude verbs/logophoric control: Dutch**
     a. Er   werd beloofd   (om) het   afval   op te ruimen.
        there was promised C   the   garbage up to clean
        'People/someone promised to clean up the garbage.'
        6, 7, 6 ,7   **(mean: 6.5)**
     b. Er   werd aangeboden (om) de boodschappen te doen.
        there was offered   C   the groceries   to do
        'People/someone offered to do the grocery shopping.'

7, 5, 7, 6   **(mean: 6.25)**
c. Er   werd gepland (om) de keuken te verbouwen.
   there was   planned C   the kitchen to renovate
   'People/someone planned to renovate the kitchen.'
   3, 7, 4, 5   **(mean: 4.75)**
d. Er   werd besloten (om) het land   te verlaten.
   there was   decided C   the country to leave
   'People/someone decided to leave the country.'
   7, 7, 6, 7   **(mean: 6.75)**

It has to be mentioned that the variation in acceptability was huge, even for a single item, and that it turned out that aspectual predicates in the context of implicit control were indeed less acceptable than other non-attitude verbs (a tendency that appears to hold for German as well).[7] Yet, despite this variation, Dutch cannot be said to lack implicit predicative control: while some predicates are better than others (e.g., *vermeden* 'to avoid' vs. *waagen* 'to dare'), implicit predicative control is in principle acceptable. Dutch, therefore, does not conform to Landau's Generalization.

Again, although there is some overlap between predicates that trigger restructuring and exhaustive control/non-attitude predicates (see, e.g., Grano 2015 for an investigation of this correlation), the relevant cases of implicit predicative control provided in this section cannot be analyzed as involving restructuring. First, Dutch lacks Voice restructuring in the sense of Wurmbrand (2015), i.e., long passives are impossible. Second, the examples above show that the presence of the complementizer *om* does not influence the acceptability of implicit predicative control. The presence of the complementizer, combined with the lack of verb raising (Evers 1975), indicates the presence of a CP-layer, and thus, the lack of restructuring.

3.2.3 Icelandic
Icelandic, too, does not conform to Landau's Generalization, as the following data show.

(37)   **Icelandic non-attitude verbs with implicit control**
    a. Það   er   reynt að dansa   hér.
       it   is   tried to dance   here
       'People try/are trying to dance here.'   (Sigurðsson 2011: 159, (22b))
    b. Það   var   reynt að hæta að reykja.
       it   was   tried to stop to smoke
       'People tried to stop smoking.'   (Gaston Rippinger, p.c.)
    c. Það   var   byrjað að byggja upp sviðið.
       it   was   begun to build   up the.stage
       'People began to assemble the stage.'   (Gaston Rippinger, p.c.)
    d. Það   var   byrjað að moka   snjóinn.
       it   was   begun to shovel snow
       'People began to shovel snow.'   (Sigurðsson 1989: 61, (9a))
    e. Það   var   hætt   að moka snjóinn.
       it   was   stopped to shovel snow
       'People stopped shoveling snow.'   (Sigurðsson 1989: 61, (10a))
    f. Það   var   klárað að moka snjóinn.
       it   was   finished to shovel snow
       'People finished shoveling snow.'   (Sigurðsson 1989: 61, (11a))

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[7] We hypothesize that this might have to do with a strong(er) tendency of these predicates to undergo restructuring, or, alternatively, their additional use as raising predicates.

As with German and Dutch, the data in (37) cannot be analyzed as instances of restructuring, as Icelandic has been argued in the literature to lack (Voice-)restructuring: long passives, for example, are unacceptable (38b).

(38)   **Restructuring diagnostics: long passive**
    a. Der   Schnee wurde versucht wegzuschauffeln.   (German)
         the$_{NOM}$ snow   was   tried   away.to.shovel
    b. *Snjórinn   var reyndur að moka.   (Icelandic)
         the.snow$_{NOM}$ was tried   to shovel
         'People tried to shovel away the snow.'   (Sigurðsson 1989: 60, (7a))

3.2.4 Norwegian

Finally, all four native speakers we consulted accepted the following two examples involving implicit predicative control, suggesting that Norwegian, too, defies Landau's Generalization.

(39)   **Non-attitude verbs/predicative control: Norwegian**
    a. Det ble   forsøkt å åpne vinduet.
        it   was   tried   to open the.window
        'People/someone tried to open the window.'
    b. Først da   ble   det   stoppet å røyke.
        first then was it   stopped to smoke
        'Only then people/someone stopped smoking.'

3.3   Conclusions

Our cross-linguistic survey shows that while implicit predicative control is indeed unacceptable in English, French, Russian, and Hebrew, this type of control relation is rated acceptable in German, Dutch, Icelandic, and Norwegian (see Table 1). We are thus faced with the task of explaining why Landau's Generalization holds in some, but not in all languages. If we stick to the idea advanced in Landau (2015) that control with non-attitude matrix predicates involves a predication relation, one could take the data discussed in this section as evidence that implicit arguments of passives can enter predication in some, but not in all languages. We will now turn to a deeper investigation of potential reasons for the split observed in this section.

	Implicit logophoric control	**Implicit predicative control**
English	✓	✗
French	✓	✗
Hebrew	✓	✗
Russian	✓	✗
Dutch	✓	✓
German	✓	✓
Icelandic	✓	✓
Norwegian	✓	✓

Table 1: *Acceptability of implicit logophoric and implicit predicative control*

4 Two potential ways to account for the split

In this section, we discuss two possibilities of how to account for the observation that implicit predicative control is possible only in some languages. The first possibility exploits the assumption that implicit arguments in passives can enter a predication relation in some languages because they are syntactically projected as a 'strong implicit argument' in the sense of Landau (2010). We refer to this possibility as the *Implicit Argument Variation Hypothesis* and investigate its plausibility in section 4.1. Based on the distribution of agent-modifying secondary predicates in passives, we show that this approach to the split is untenable. The second possibility builds on an independent observation, namely that impersonal passives are acceptable in some, but not all languages, and that there is a correlation between those languages that allow impersonal passives and the ones in which implicit predicative control is acceptable (section 4.2). Based on this parallelism, we develop an analysis of the split in section 4.3, which essentially relies on the claim that implicit logophoric, but not implicit predicative control can be construed as a personal passive.

4.1 Implicit Arguments and Secondary Predication

Chomsky (1986: 120-121) notes that the unrealized subject of a control infinitive (PRO) can function as the subject of a secondary predicate such as *together* or *angry*, whereas this is not possible, he argues, for the understood agent of a passive (40).[8]

(40) a. It is impossible [PRO to visit me together].
       b. It is impossible [for me to be visited (*together)].
       c. They expected [PRO to leave the room angry].
       d. The room was left (*angry).

The conclusion Chomsky drew from this type of data was that the subject of an infinitival clause is syntactically projected, while the understood agent of a passive is not.

Landau (2010) on the other hand develops an argument that implicit arguments must always be syntactically represented. His argument, in short, runs as follows: He first argues that partial control must be derived in the syntax, i.e., it must involve a syntactically represented controller. He then shows that implicit arguments can antecede partial control relations, and concludes from this that, therefore, implicit arguments must be syntactically represented (cf. fn. 19 for some discussion).

In order to derive that implicit arguments can enter syntactically driven partial control, but not syntactically driven secondary predication (while pro/PRO can enter both relations), Landau (2010) postulates two different types of syntactically projected covert arguments, calling them weak and strong implicit arguments (WIA and SIA henceforth). His ontology of implicit arguments is given in (41). Combined with the generalization in (42), he derives the pattern in (40).

(41) a. *Strong implicit argument (SIA)*
           PRO, pro
      b. *Weak implicit argument (WIA)*
           Passive agent, implicit object   (Landau 2010: 359, (4))

(42) An implicit argument must be *strong* to license a secondary predicate.

                                                                             (Landau 2010: 359, (5))

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[8] We use the term 'secondary predicate' to refer to depictives exclusively, being aware that resultatives are typically considered as secondary predicates, too (see, e.g., Schultze-Berndt & Himmelmann 2004 for discussion and a cross-linguistic investigation).

According to (42), only SIAs can saturate predicates.[9] If control in the context of non-attitude predicates reduces to a predication relation, one could imagine that in those languages that allow implicit predicative control, the implicit agent of a passive is represented as an SIA, whereas it is a WIA in the languages that disallow implicit predicative control. In other words, the cross-linguistic split in the acceptability of implicit predicative control would reduce to a cross-linguistic difference in the type of implicit argument involved in passives (the *Implicit Argument Variation Hypothesis*). This hypothesis makes a direct empirical prediction: since in languages with implicit predicative control the implicit argument of a passive is a SIA, it should also license secondary predicates such as depictives. In languages without implicit predicative control, in turn, depictives modifying the implicit agent of passives should be infelicitous. (In fact, this prediction is independent from Landau's 2010 ontology of implicit arguments. If control and secondary predication rely on the same mechanism, and the former allows implicit arguments, the latter should, too.) In order to test the plausibility of the Implicit Argument Variation Hypothesis, we therefore investigated whether there is a correlation between languages that (dis-)allow implicit control in the context of non-attitude predicates, and languages that (dis-)allow secondary predication over the understood agent in passives. As we will see, such a correlation does actually not hold true.

4.1.1 German and Dutch
As the following examples show, German also allows secondary predication over the implicit argument of a passive verb.

(43) a. ?Der Patient wurde nackt untersucht.
        the patient was   naked examined
        Intended reading: 'The patient was examined and the examiner was naked.'
      b. Dieser Brief wurde offensichtlich betrunken geschrieben.
        this   letter was   obviously   drunk   written
        'This letter was obviously written drunk.'
      c. Es wurde betrunken/nackt getanzt.
        it was   drunk/naked   danced
        'People/someone danced naked/drunk.'
      d. dass das Buch nackt gelesen wurde.
        that the book naked read   became
        'that the book was read naked.'   (Müller 2008: 257, (3a))

While some speakers reject the agent-modifying reading of the adjectival depictive in (43a), (43b, c) were accepted by all our informants. (43d) is taken from the literature. The reason why some speakers reject the intended reading for (43a) seems to be that they prefer to relate, if possible, a secondary predicate to an overt argument instead of a covert one, in particular if the overt argument satisfies the ontological requirements of the subject of the secondary

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[9] Syntactically, Landau explains this via the assumption that only arguments can be predicated over and weak implicit arguments are not arguments. In particular, he proposes that weak and strong implicit arguments differ in their feature set as shown in (i). Since it is the D-layer that typically is taken to map an NP predicate to an argument denotation (Longobardi 1994), and WIAs lack this layer, it is expected that they cannot enter a predication relation.

(i) a. Strong implicit argument $=_{def}$ [D, φ-set] (= pro)
     b. Weak implicit arguments $=_{def}$ [φ-set]   (Landau 2010: 378, (60))

predicate, i.e., if it is animate/human. Impersonal passives such as (43c), which involve no overt DP at all, are thus expected to provide the best context for agent-modifying depictives.[10] Other factors might also play a role for the question of whether the secondary predicate can modify the implicit agent. For example, since passives foreground the theme argument, an agent modifying element should be such that its contribution is of some relevance to the theme (Jutta Hartmann p.c.). This would also provide a reason as for why (43b) is better than (43a) for some speakers: writing a letter while being drunk has a potential effect on the ultimate form of the letter, whereas it is not clear how being naked should affect the examination of the patient.[11] More research is needed to figure out which factors really play a role (see also fn. 16), but the general acceptability of (43b-d) is enough to show that German allows secondary predication to target the implicit argument of a passive.

Note furthermore, that even though German adjectives are formally indistinguishable from adverbs, we clearly face predicative adjectives in (43) above. Evidence for this comes from a diagnostic developed in Rothstein (2006) who points out that an adverbial use, as it modifies the event, should be compatible with the negation of the adjectival use, i.e., the use that modifies the state the event participant was in during the event. This is illustrated in (44a) for English, where the adverbial and the adjectival form are morphologically different. In (44b), the test is applied to a relevant German example.

(44) a. The car was driven drunkenly, but the driver was not drunk.
      b. Der Brief wurde betrunken geschrieben, #aber der Autor war nicht betrunken.
          the letter was   drunk   written   but the author was not   drunk
          Literal: 'The letter was written drunk, but the author was sober.'

The continuation in (44b) is infelicitous, suggesting that the first use of *betrunken* 'drunk' is denoting the state the author was in while writing the letter - exactly the interpretation one would expect if it was used as an adjectival depictive rather than an adverbial modifier. In fact, all of the modifiers in (43) denote the state the agent was in while carrying out the event, suggesting that we are dealing with adjectival depictives, indeed.
Further support for the claim that implicit argument modifying predicates are adjectival comes from the following example. On top of selecting a complement PP, the predicate used (*wütend* 'angry, mad') should be incompatible with the manner adverb *carefully* if it was used adverbially. This is so because in the adverbial use, it would denote that an action was carried out very emotionally, and aggressively.

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[10] Languages without impersonal passive should thus be considered with caution, if one investigates the question whether the implicit argument of passives can be predicated over. The relevant interpretation could simply be blocked by the presence of the overt internal argument, an effect that seems to vary in strength across speakers as well as across languages. Only if secondary predicates are illicit in impersonal passives can one conclude for sure that something is amiss with the grammatical predication relation, i.e., that the implicit argument cannot function as its subject.

[11] This is reminiscent of a similar effect found with *by*-phrases (and instrumental PPs) in adjectival passives (e.g., Rapp 1996, 1997, see Alexiadou et al. 2014a and references there for further discussion). While *by*-phrases are typically excluded in adjectival passives (cf. (i)), they become acceptable if they are relevant for the characterization of the theme's result state denoted by the adjectival passive as in (ii).

(i) Der Mülleimer ist (*von meiner Nichte) geleert.
     the dustbin   is   by my   niece   emptied
     Intended: 'The dustbin is emptied by my niece.' (Rapp 1996: 246)

(ii) Die Zeichnung ist (von einem Kind) angefertigt.
     the drawing   is   by a   child   produced
     'The drawing is produced by a child.' (Rapp 1997: 192)

(45) Wütend auf die Nachbarn wurden deren Klingeln nachts
    angry   at the neighbors were   their   bells   at.night
    ganz vorsichtig manipuliert.
    fully carefully   manipulated
    'Angry at the neighbors, their bells were carefully manipulated at night.'

Another type of predicate used in (40) to test whether implicit argument of passives may enter predication is *together*. (46a-c) show that German equivalents of *together* are felicitous in the relevant context. (In (46a), we see again that the presence of a human theme DP makes it slightly harder for the depictive to access the implicit agent).

(46) a. ?Der Mann   wurde   zusammen/gemeinsam besucht.
      the   man   was   together   collective   visited
      Literal: 'The man was visited together.'
   b. Das Problem   wurde   zusammen/gemeinsam besprochen.
      the   problem   was   together   collective   discussed
      Literal: 'The problem was discussed together.'
   c. Am   Abend   wurde zusammen/gemeinsam musiziert.
      at.the evening was   together   collective   music.made
      'People made music together in the evening.'

We thus conclude that the implicit external argument of a German passive may function as the subject of a secondary predicate. Based on the Implicit Argument Variation Hypothesis, then, the acceptability of implicit predicative control would be expected: both phenomena involve a predication relation and the implicit agent in a German passive is an SIA that can antecede such a relation.

Turning to Dutch, the data below show that secondary predication over the implicit argument of passives is in principle possible, too. The judgements in (47) and (48) were provided by Marcel den Dikken (p.c.).

(47) a. Er   werde naakt gedanst.
      there was   naked danced
      'People danced naked.'
   b. *De patient werd naakt onderzocht.
       the patient was naked examined
      Intended: 'The patient was examined and the examiner was naked.'
   c. De deur werd naakt geopend.
      the door was naked opened
      Literal: 'The door was opened naked.'
   d. De kamer werd boos / kwaad verlaten.
      the room was angry/ evil   left
      Literal: 'The room was left angry.'

(48) a. ?De man werd gezamenlijk bezocht.
      the man was together   visited
      Literal: 'The man was visited together.'

   b. Het probleem werd gezamenlijk besproken/opgelost.
      the problem was together   discussed/solved

           Literal: 'The problem was discussed/solved together.'
    c. Er   werd gezamenlijk gemusiceerd.
       there was together   music.made
       'People made music together.'

The only clearly rejected example is (47b), which has a human theme DP as subject. In line with our discussion of the German data above, this type of subject seems to be particularly salient and therefore blocks secondary predication over the implicit argument. This example therefore does not invalidate the claim that the implicit agent of Dutch passives can antecede a predication relation. Since Dutch also allows implicit predicative control, this language complies with the Implicit Argument Variation Hypothesis, too.

4.1.2 Norwegian and Icelandic
The same parallelism between implicit predicative control and agent-oriented depictives in passives appears to hold in Norwegian. The data below show that it is possible to predicate depictives over the implicit agent of a Norwegian passive. Again, the predication relation is deviant or harder to get in cases where an overt human theme argument is present (49b), just as we have seen for German and Dutch (data judgments: Terje Lohndal, Inghild Høyem, and Ragnhild Eik, p.c.).

(49) a. Det blir danset naken.
        there is   danced naked
        'People danced naked.'
     b. */??Pasienten ble undersøkt naken.[12]
         the.patient was examined naked
        'Intended: The patient was examined and the examiner was naked.'
     c. Døren   ble åpnet naken.
        the.door was opened naked
        Literal: 'The door was opened naked.'

(50) a. ??Mannen ble besøkt sammen.
         the.man was visited together
        Literal: 'The man was visited together.'
     b. Problemet ble diskutert / løst   sammen.
        the.problem was discussed/ solved together
        'The problem was discussed/solved together.'
     c. Det ble laget musikk/ danset sammen.
        there was made music / danced together
        'People made music/danced together.'

Note furthermore that there is no difference in this regard between the two types of passives in Norwegian. The morphological *s*-passives in (51) allow adjectival depictives just as well as the periphrastic *bli*-passives in (49) do (Ragnhild Eik, p.c.).

(51) a. Det danses   naken.
        there dance$_{PASS}$ naked
        'People danced naked.'
     b. */??Pasienten undersøkes naken.

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[12] Ragnhild Eik (p.c.) finds that predication over the implicit agent is dispreferred, but possible.

patients   examine_PASS naked
'Intended: The patient was examined and the examiner was naked.'
c. Døren   åpnes   naken.
the.door open_PASS naked
'Literal: The door was opened naked.'

Recall from section 3.2.3, that Icelandic allows implicit predicative control. This conflicts with the standard view in the literature, that secondary predication cannot target the implicit agent of passives in Icelandic (e.g., Jónsson 2009; Sigurðsson 2011, a.o.), see (52a-c).

(52) a. Var hún barin (*fullur)?
was she hit   drunk_NOM.M.SG
Intended: 'Was she hit (by someone who was drunk)?' (Sigurðsson 2011: 157, (17a))
b. *Morgunmatur   er alltaf   borðaður nakinn.
breakfast.NOM is always eaten   naked_NOM.M.SG
'Breakfast is always eaten naked.'   (Jónsson 2009: 297 (35a))
c. *Það var alltaf   borðað nakinn.
there is always eaten   naked_NOM.M.SG
'People always eat naked'.   (Jónsson 2009: 297 (35b))

While (52a-c) involving adjectival depictives were also judged unacceptable by our informant, he found the following examples involving prepositional depictive predicates fully acceptable:

(53) a. Lagið var samið   í drykkju.
song was composed in drunkenness
'The song was composed drunk.'
b. Það var dansað í   drykkju.
it   was danced in drunkenness
'People danced drunk.'

If one takes PPs as in (53) not to be real depictive secondary predicates, the data in (52) would suggest that in Icelandic, the implicit agent of a passive cannot function as the subject of a predication relation. The fact that implicit predicative control is licit in Icelandic would then mean that the parallelism predicted by the Implicit Argument Variation Hypothesis does not hold.

However, in our view the PPs in (53) must be analyzed as depictive secondary predicates, as they clearly express a state the agent is in during the event. If the implicit agent in Icelandic passives is accessible to secondary predication, the problem with the adjectival depictives in (52) must find a different explanation. Note that Icelandic adjectival depictives - like all predicative adjectives in Icelandic - must inflect for the φ-features and the morphological case-feature of their subject. PP-predicates as in (53), on the other hand, are uninflected. Assume now that Icelandic adjectives enter the derivation with a set of unvalued φ-features and an unvalued feature for morphological case. If the implicit agent in passives is not syntactically projected (e.g. Bruening 2012, Kiparsky 2013, Alexiadou et al. 2015, Reed 2017), the features on the adjective go unvalued and the derivation crashes.[13] Since no feature valuation is required in the case of depictive PPs, the derivation of examples such as (53) converges. If the implicit agent was syntactically projected as a PRO, pro or a φP (e.g. Collin

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[13] The adjectives in (52) are inflected for nominative, masculine, singular. As Jónsson (2009: 297f.) points out, different feature specifications do not improve such examples.

2005, Landau 2010 (cf. (41a) above), cf. also Müller 2016), it should be able to value the adjectival depictive, and the contrast between (52) and (53) was unexpected. In other words, the difference between AP and PP depictives in Icelandic can be construed as an argument against the syntactic projection of the implicit agent in passives.

As we will see in section 4.1.4, secondary depictives in Russian and Hebrew behave very much as in Icelandic and thus strengthen the plausibility of this argument. However, we must note that it is not the case that all languages with inflected predicative adjectives preclude them from being predicated of the implicit agent of passives. For example, we have seen above in (49) and (51) that adjectival depictives can target the implicit agent of Norwegian passives, but Norwegian adjectives show some inflection for gender (neuter vs. non-neuter) and number. There is evidence, however, that the form of the adjective in (49)/(51) is a default form (non-neuter, singular), suggesting that the φ-features are not valued by the implicit agent. For example, even if the latter is construed (contextually or via a *by*-phrase) as a child (neuter) or as children (plural), the same non-neuter, singular form of the adjective must surface in Norwegian, the agreeing form being infelicitous (54).

(54) Døren   ble lukket naken/   *nakent   / *nakne   (av barnet   /av barn).
     door.the was closed naked.non-n.sg / naked.n.sg / naked.pl by child.the/by children
     'The door was closed (by the child/by children).'

We have to leave it open why some languages such as Norwegian (and French discussed in the section 4.1.3) allow secondary depictive adjectives to appear in a default form while other languages such as Icelandic (as well as Hebrew and Russian discussed in section 4.1.4) do not make available this option. The contrast between Norwegian and Icelandic could be related to the case feature present only on Icelandic adjectives and such an explanation might carry over to Russian. However, Hebrew adjectives only inflect for person and number and not for case and still the language does not make available a default form for their adjectival depictives so that adjectival depictives cannot relate to the implicit agent in passives.

4.1.3 English and French

Recall that English and French disallow implicit predicative control. We had five English native speakers rate the acceptability of sentences involving secondary predicates modifying the implicit argument of passives. In (55) and (56), we provide the results.

(55) a. The patient was examined naked.   (Reading where examiner is naked)[14]
          1, 2, 4, 5, 2   **(mean: 2.8)**
      b. The letter was written drunk.
          4, 4, 6, 7, 7   **(mean: 5.6)**
      c. The door was opened naked
          1, 2, 2, 4, 2   **(mean: 2.2)**
      d. The room was left angry
          1, 1, 1, 4, 1   **(mean: 1.6)**

(56) a. The man was visited together
          1, 1, 2, 2, 1   **(mean: 1.4)**
      b. The problem was discussed/solved together
          5, 7, 5, 6, 6   **(mean: 5.8)**

---

[14] In addition to the five judgements listed below this example, Kyle Johnson, David Embick, and Jim Wood (p.c.) also judged the relevant reading to be in principle available, although the patient-modifying one clearly is more salient for them.

Note first that English does not make available the best test case for predication over the implicit agent, as it lacks impersonal passives (cf. fn. 10). Still, some of the personal passives above received quite good judgments, suggesting that predication over implicit arguments is in principle possible. Furthermore, the contrast between the good and the bad examples seems to be systematic. As we had discussed in section 4.1.1 on German, a human nominative DP seems to attract the depictive; this accounts for the low rate of (55a) under the agent modifying reading and (56a). Furthermore, we discussed that an agent oriented depictive in passives must have some relevance for the theme subject. While being drunk can have some effect on the properties of the theme in (55b), being naked or angry does not have any obvious effect on the theme in (55c) or (55d).

Recall that based on the example (40d/55d), Chomsky (1986: 120-121) and Landau (2010) claim that the implicit agent in passives cannot be accessed by depictive secondary predicates. Yet, many other authors have provided counterexamples to this claim, suggesting that secondary predication over the implicit agent is possible in English (see e.g. Roeper (1987: 297f.); Safir (1987: 589); Baker (1988: 318); Collins (2005: 101f.); Kastner & Zu (2014); see also fn. 3 for a discussion of example (55d)). Further support for this view comes from Müller (2008), who provides among others the following corpus examples:

(57) a. "We would like to eventually run a shuttle between Radford and Blacksburg. Price's Fork, the main route, is an awful road to be driven *drunk* - all are, but especially that one" he says.
 b. Later everyone got very drunk, volleyball was played *naked* in the mud.
 c. The sport of Rugby is almost identical to an ancient Greek ball game, which was played *naked*, for an audience composed entirely of elderly aristocrats.
 d. "Recorded *naked* to be played *naked*."

We conclude that English depictives can, in principle, be predicated over the implicit argument of passives. If, however, this type of predication relation involving implicit arguments is felicitous, the unavailability of implicit predicative control in English is an argument against the Implicit Argument Variation Hypothesis. Furthermore, the mismatch in English suggests that the unacceptability of implicit predicative control should not be analyzed as a failure of establishing the control relation via predication (pace Landau 2015), as such a relation is, in principle, possible.

Turning to French, the results are similar to the ones we found in English. We asked our French informants from section 3.1.2 to rate the acceptability of sentences involving the relevant kind of secondary predication. The results are reported below.

(58) a. Le patient a été examiné nu.
  the patient has been examined naked
  'The patient was examined naked.'
  7, 7, 7, 7, 7, 7 **(mean: 7)**[15]
 b. La lettre a sans doute été écrite saoul.
  the letter has without doubt been written drunk
  'The letter was clearly written drunk.'
  3, 6, 5, 4, 7, 3 **(mean: 4.65)**
 c. La porte a été ouverte nu.

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[15] Due to an imprecision in the test design, the judgments in (58a) refer to the reading where the depictive relates to the overt nominative theme. However, three of our consultants explicitly stated that this sentence is ambiguous, i.e., that the depictive can relate to the implicit agent.

the door has been opened naked
'The door was opened naked.'
3, 2, 4, 4, 2   **(mean: 2.5)**
d. La porte d'entrée ne   doit   jamais être ouverte nu.
the front door   not should always be opened naked
'The front door should never be opened naked.'
5, 2, 3, 6, 6, 2 **(mean: 4)**
e. La chambre a   été   quittée fâché.
the room   has been left   angry
'The room was left angry.'
2, 2, 2, 4, 3, 1 **(mean: 2.3)**

(59) a. Le candidat a   été   examiné   ensemble.
the applicant has been examined together
'The applicant was examined together.'
1, 1, 1, 1, 2, 2 **(mean: 1.3)**
b. Le problème a   été   discuté /résolu ensemble.
the problem   has been discussed/solved together
'The problem was discussed/solved together.'
7, 2, 5, 7, 6, 3 **(mean: 5)**

Again, we see some more and some less acceptable examples, and draw the same conclusions as from the English data: predication over implicit arguments in passives is in principle possible (but can be disfavored by certain factors such as the lack of relevance of the depictive predication to the theme subject or the intervention of a human theme DP).[16] This contrasts with the result from section 3.1.2 that implicit predicative control is impossible in French, constituting an argument against the Implicit Argument Variation Hypothesis.

   Let us add that adjectival depictives in French can target the implicit agent, although French adjectives inflect for φ-features. Yet, as in the case of Norwegian, the adjective surfaces in a default form. While French depictives agree with their overt antecedent (60) in gender and number, the adjective in the corresponding passive is invariably masculine singular, no matter whether the implicit agent is construed as singular or, as in (61), as plural. This latter fact is strengthened by the data in (62), where an overt *by*-phrase is present. Again, the adjectival depictive must occur in the (non-agreeing) masculine singular form.

(60) Il/elle/ils/elles   a/ont   joué   le match nu/nue/nus/nues.
He/she/they$_M$/they$_F$ have$_{SG}$/have$_{PL}$ played the game naked$_{M.SG/F.SG/M.PL/F.PL}$
'He/she/they have played the game naked.'

(61) Le match de foot a   été joué   nu/*nue/*nus/*nues.
the match of foot has been played naked$_{M.SG/*F.SG/*M.PL/*F.PL}$
'The football game was played naked.'

(62) ?Le match de foot a   été joué   nu/*nues   par les filles du   quatrième étage,
the match of foot has été played naked$_{M.SG/*F.PL}$ by the girls of.the fourth   floor
mais pas par les filles du   cinquième.
but not by the girls of.the fifth

---

[16] The contrast between (58c) and (58d) suggests that modality can also increase the acceptability of a reading where the depictive predicates over the implicit agent. See Poole (2015) for a related effect in the domain of implicit control into adjuncts.

'The football game was played naked by the girls from the fourth floor, but not by the girls from the fifth floor.'

That the masculine singular form has, in fact, the status of a default form is further supported by the observation that in substandard French, predicative adjectives do not have to agree with their overt antecedent. If the non-agreeing form is chosen, it has to be the masculine singular form (63).[17]

(63) La fille elle était blonde/?blond.
      the girl she was   blond$_{F.SG}$/blond$_{M.SG}$
      'The girl, she was blond.'

Again, if the implicit agent was projected as a SIA to account for the predication facts in, e.g., (58), (61) or (62), this pronoun should come with valued φ-features that, potentially, track the interpretation of the implicit agent. It is unclear, then, why the adjectival depictive necessarily surfaces in a non-agreeing default form. If, by contrast, the implicit agent is never syntactically projected, the default form of the adjective in the examples above is expected.

4.1.4 Hebrew and Russian

The situation in Hebrew and Russian is very similar to what we have seen in Icelandic: While adjectival depictives cannot relate to the implicit agent, PPs expressing a state of the agent during the event, i.e., PP-depictives, can very well be used. The relevant data are illustrated in (64) for Hebrew (Odelia Ahdout, Itamar Kastner, p.c.) and in (65) for Russian (Masha Polinsky, Olga Borik and Daniil Bondarenko p.c.). Note also the contrast between (64b) and (64c), which shows again, this time for PP-depictives, that pragmatic factors can disfavor predication over the implicit agent: If the passive involves an overt human DP, speakers prefer to relate the depictive to this DP.

(64)   *Hebrew:*
        a. ha-Sir   ha-ze xubar   (be-hai / be-gilufin   /*šiikor   /*sikorim).
           the-song the-this was.composed in-high/ in-intoxication / drunk$_{M.SG}$/ drunk$_{M.PL}$
           'This song was composed high/intoxicated/drunk.'
        b. be-bet   ha-xolim   ha-ze nutxu   xolim   (??be-erom).
           in-house.of the-patients the-this was.operated patients   in-nudity
           Intended: 'Patients in this hospital were operated by nude doctors.'
        c. ha-misxak soxak   (be-erom/ *erom   / *eromim)
           the-game   was.played   in-nudity / nude$_{M.SG}$ / nude$_{M.PL}$
           'The game was played nude.'

(65)   *Russian:*
        a. Pacient   byl osmotren v golom vide /*golym.
           the.patient was examined in naked state / naked$_{M.SG.INS}$
           'The patient was examined naked.' (Agent-modifying reading)
        b. Verojatno, pis'mo   bylo napisano v pjanom vide / *p'janym.
           arguably   the.letter was written   in drunk   state / drunk$_{M.SG.INS}$
           'The letter was written drunk.'
        c. Dver'   byla otkrita   v golom vide/*golym.
           the.door was opened in naked state/ naked$_{M.SG.INS}$

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[17] We thank Fabienne Martin for pointing this out to us (p.c.).

'The door was opened naked.'
d. Komnata byla pokinuta v zlosti.
    the.room was left   in anger
    'The room was left angry.'

In Hebrew and Russian, adjectival depictives must agree in gender and number with their antecedent; furthermore, Russian adjectival depictives either agree with their antecedent in case or they appear with instrumental case (see Geist 2010 for a discussion of potential semantic effects that correlate with the choice of case). The ungrammaticality of adjectival depictives in passives can then be assumed to follow from an agreement failure as we argued already for Icelandic: the implicit argument cannot value the adjective with the relevant features and, therefore, agent-oriented adjectival depictives are ungrammatical in passives. PP-depictives do not face such a morpho-syntactic restriction.

4.1.5 Interim Conclusions

In section 3.3., we concluded that some but not all languages allow implicit predicative control. At the beginning of section 4, we formulated the Implicit Argument Variation Hypothesis, which states that this cross-linguistic split correlates with two syntactically different types of implicit arguments (in the sense of Landau 2010). While passives in languages that allow implicit predicative control would involve a strong implicit argument, passives in languages that do not allow this type of control would involve a weak implicit argument (cf. (41a, b)). A direct prediction of this proposal was that only in the former type of language should secondary predicates such as depictives be able to target the implicit external argument in passives. However, we showed that this prediction is not borne out. All languages investigated allow either AP-depictives or a PP-depictives to target the implicit external argument of passives. Even if the PP-expressions are taken not to constitute proper depictives,[18] no correlation emerges: Some languages lack implicit predicative control and disallow adjectival depictives to target the implicit agent (Russian, Hebrew). Some languages allow both (German, Dutch Norwegian), and, crucially, others allow only one, but not the other: Icelandic allows implicit control, but not agent-oriented adjectival depictives in passives, French and English allow agent-oriented adjectival depictives, but not implicit predicative control. The results are summarized in Table 2.

We therefore reject the Implicit Argument Variation Hypothesis and the claim that implicit predicative control is sometimes unacceptable due to a failed control relation, as implicit external arguments of passives apparently can function as the subject of a predication relation across languages.[19] The split regarding the acceptability of implicit predicative control observed in section 3.3 must therefore find a different explanation.

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[18] Lappin & Shlonsky (1990: fn. 11) claim that English adjectival depictives and PP-depictives have to be kept apart as only the latter are licit in nominalizations. However, Rothstein (2004: 136, (3)) provides the counterexample in (i).

(i) The performance of the national anthem drunk upset everyone tremendously.

[19] At the moment, we do not see any empirical argument that implicit external arguments of passives could not be treated as purely semantic entities. We think that such a treatment does not automatically predict that implicit objects should enter secondary predication (they arguably do not as examples such as (10a, b) seem to be unacceptable across languages). Implicit external arguments and implicit objects could differ with respect to the licensing of secondary depictives even if they are both present only at a semantic level. For example, it might be relevant that the external argument variable is introduced by a functional projection VoiceP (Kratzer 1996) and/or that passives introduce existential quantification of the external argument variable via a functional head PASS that selects an unsaturated VoiceP complement of type <e,t> (Bruening 2012); we assume that predication

	Implicit predicative control	Secondary predicates in passives
English	✗	✓
French	✗	✓
Hebrew	✗	✓ (with non-agreeing PPs)
Russian	✗	✓ (with non-agreeing PPs)
Dutch	✓	✓
German	✓	✓
Icelandic	✓	✓ (with non-agreeing PPs)
Norwegian	✓	✓

Table 2: Acceptability of implicit predicative control and agent-modifying secondary predicates in passives

In the next section, we will show that there is an empirically more adequate generalization that could inform an account of the observed split: the languages that allow implicit predicative control all license impersonal passives, whereas the languages without implicit predicative control do not. Based on this correlation, we will argue that implicit predicative control necessarily involves an impersonal passive, whereas the passive in implicit logophoric control may be personal in virtue of a full-fledged pronoun that is associated semantically with the embedded infinitival clause (section 4.3).

4.2   Impersonal passives of strictly unergative verbs

In this section, we will show that there is a correlation between languages that allow implicit predicative control, and languages that license strict impersonal passives (whereby we mean productive passives of plain unergative predicates that neither select a DP nor a PP complement).

4.2.1 Languages with impersonal passives
As the data below show, the languages that do allow implicit predicative control (the (a)-examples below), i.e., German, Dutch, Icelandic, Norwegian, also allow impersonal passives (the (b)-examples).

(66)   *German:*
    a. Es wurde aufgehört zu rauchen.
       it was stopped to smoke
       'People/someone stopped smoking.'
    b. Die ganze Nacht lang wurde getanzt.
       the whole night long was   danced
       'People/someone danced all night long.'

(67)   *Dutch:*
    a. Er   werd begonnen (om) de woonkamer op te ruimen.

---

can target the variable of implicit agents at this unsaturated VoiceP level. Alexiadou et al. (2014b) argue that both properties do not hold for implicit objects of the type found in examples such as in (10a, b).

Note also that the main argument provided in Landau (2010) to really support the syntactic projection of implicit arguments (compared to leaving them syntactically unrepresented) is based on the observation that implicit arguments can function as the controller in partial control contexts and the assumption that this type of control can only be treated in the syntax. There are two potential confounds: (i) Landau develops his argument on the basis of implicit experiencers of adjectives. However, since, for principled reasons, this argument cannot be applied to implicit agents of passives, it remains open whether implicit agents of passives also license partial control. (ii) Pearson (2013, 2016) has recently shown that a purely semantic analysis of partial control is, in fact, possible.

      there was begun   C   the living.room up to clean
      'People/someone begun cleaning the living room.'
   b.   dat (er)   gedanst wordt.
…   that (there) danced is
      "… that people are dancing."   (Mohr 2005: 120, (21b))

(68)   *Icelandic:*
   a. Það var byrjað að moka snjóinn.
      it   was begun to shovel snow
      'People/someone began to shovel snow.'
   b. Í gær   var dansað.
      yesterday was danced
      'People danced yesterday.'   (Zeanen et al. 1985: 98, (9))

(69)   *Norwegian:*
   a. Først da   ble det stoppet å røyke.
      first then was it   stopped to smoke
      'Only then people/someone stopped smoking.'
   b. I går   ble det danset.
      in yesterday was it danced
   'Yesterday, people danced.'   (Mohr 2005: 35, (22))

4.2.2 Languages without impersonal passives

English lacks implicit predicative control (70a). As is well known, English does not license impersonal passives of unergative verbs (70b).

(70)   *English:*
   a. *It was tried to understand the analysis.
   b. *There/it was danced.

Similarly, in French, which also lacks implicit predicative control (71a), plain unergative predicates such as, e.g., *dance* or *drink* do not allow an impersonal passive (71b).

(71)   *French:*
   a. *Il a été   commencé à augmenter à nouveau les impôts.
      it has been begun   to raise   at again   the taxes
      'People began to raise the taxes again.'
   b. *Il a été bu.   (Dobrovie-Sorin 1994: 143, (31a))
      it has been drunk
      ungrammatical as: 'People drank.'
      grammatical as: 'People drank it, e.g. the wine.'

It has to be mentioned, however, that under certain conditions what looks like subjectless passives do seem to be licensed in French (72) (these and similar examples are discussed in Dobrovie-Sorin 1994; Gaatone 1993, 1994; Hirschbühler & Labelle, ms.).

(72) a. Il a été   vendu beaucoup de voitures japonaises l'an   passé.
      it has been sold   many   of cars   Japanese   the year last
      'Many Japanese cars were sold last year.'
   b. ?Il a   été beaucoup bu   hier   soir.

> it   has   been   a.lot   drunk   yesterday   evening
> 'People drank a lot yesterday evening.'
>
> c. Il sera   répondu   à chaque   lettre.
>   it will.be   answered   at every   letter
>   'Every letter will be answered.'
>
> d. Il a   été   debattu   de la   question.
>   it has been   discussed of   the question
>   'The question was discussed.'

We believe that the data in (72) do not undermine the correlation between implicit predicative control and impersonal passives. The French examples in (72a, b) are not strict impersonal passives as they are actually passives of transitive verbs. In these examples, the internal argument DP remains inside the verbal phrase and the subject (EPP) position is occupied by the pronoun *il* 'he'. If this pronoun does not appear, the internal argument must raise to the subject position as shown in (73a) vs. (73b).

(73)   a. Trois livres ont   été   vendus cet   après-midi.
        three books   have been sold   this   afternoon
      b. Il a   été   vendu trois livres   cet après-midi.
        it has been sold   three   books this   afternoon
        'Three books were sold this afternoon.'

Note that the pronoun and not the VP-internal theme triggers verbal agreement in (73b). The pronoun *il* is thus fully specified for φ-features and checks both the EPP in T and values the φ-features on T. But why then can't the pronoun *il* appear in strict impersonal passives as in (71b)? We can imagine only one reason: *il* is not a true expletive and must always be interpreted in some way. In its canonical use, *il*, as every pronoun, acts as an argument in a theta position and it either refers to an element in the discourse or it is interpreted as a bound variable. In its seemingly expletive use, *il* appears in a non-theta position (Spec,TP) but it is actually not interpretatively exempt. In order to avoid a violation of the theta criterion (as a pronoun/DP lacking a theta-role), *il* needs to associate with another argumental phrase. In (72a-b) and (73b) this associate is an internal argument DP; (72c-d) show that *il* can also be associated with an internal argument PP.[20] We suggest therefore that the full-fledged pronoun *il* is necessarily interpreted as a theta-marked argument or as connected to such an argument. If no such connection can be established, as in (71b) where no associate is present, only the former option is possible and *il* needs a thematic role on its own. In cases where the verb is (optionally) transitive, *il* is then referential and receives the internal theta-role (the second reading of (71b)). With strictly unergative (uses of) verbs, no theta-role can be assigned to *il*, which thereby violates the theta criterion. Leaving out *il* is no option either in these cases, as this will result in an unchecked EPP, as well as unvalued φ-features on T (see the next section for discussion). In sum, strict impersonal passives in French are either ruled out by the theta criterion (if *il* is present), or for EPP reasons (if *il* is absent).

    Similarly, Hebrew disallows implicit predicative control (74a) as well as impersonal passives of plain unergative verbs (74b) (cf. Lappin & Shlonsky 1993). Just as in French, one can find acceptable examples of what look like impersonal passives if an argumental PP

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[20] What is relevant for us at this point of the discussion is that strict impersonal passives are not possible in French with and without *il*. See section 4.3.2 and 4.3.3 for some discussion of how this association between *il* and an argument NP/PP (as well as between *il* and an argument CP) could be formally established. Note also that Dobrovie-Sorin (1994) and Gaatone (1993, 1994) provide some more or less marginal examples where *il* associates with adjunct PPs or even some types of adverbials.

occurs inside the VP (74c, d). We propose that such cases can receive a similar explanation as we have suggested above for French: Spec,TP is occupied by a pronoun comparable to French *il,* which effectively requires identification via an association relation with a theta-marked element (cf. Shlonsky 1990 for an account along these lines for postverbal subjects of unaccusative and passive verbs). Unlike in French, however, this pronoun is covert in Hebrew.[21]

(74)   *Hebrew:*
    a. *nusa   lehavin   et   ha-nituax.
       was.tried to.understand ACC the-analysis
       'People/someone tried to understand the analysis.'
    b. *nirkad   be-beit   ha-sefer kol yom.
       was.danced at-house of-book every day
       'People/someone danced in the school every day.'   (p.c. Itamar Kastner)
    c. Nixtav   ʔal-av   ba-ʔiton.
       was.written about-him in.the-paper
       'It was written about him in the paper.'   (Shlonsky 1990: 273, (21a))
    d. Bekarov yuxlat   ʔal haxzarat ha-staxim   ha-kvusim.
       soon   will.be.decided on return   the-territories the-occupied
       'The return of the occupied territories will soon be decided upon.'
                             (Shlonsky 1990: 273, (21b))

Finally, in Russian only transitive verbs that lexically encode a resultant state are reported to passivize (e.g., Babby 1973, Paslawska & van Stechow 2003, Kiparski 2013, Borik 2013, 2014) and passives of unergative predicates as in (75b) are thus unacceptable. Although this is the received wisdom in the literature, we came across examples such as (75c) in which, again, the acceptability of an impersonal passive depends on the presence of an argumental PP, just as we have seen for French and Hebrew. Again, the explanation for this has to be the presence of a covert pronoun in Spec,TP that is associated with the VP-internal PP-complement. The unacceptability of implicit predicative control is repeated in (75a).

(75)   *Russian:*
    a. *Bylo načińato tratit'   den'gi na bespoleznye lekarstva.
       was begun to.spend money on useless   medicines
       '*It was begun/continued/finished to spend money on useless medicines.'
    b. *Tut bylo natanzovano.   (Irina Krüger, p.c.)
       here was danced
       'Here, people/someone danced.'
    c. Bylo napisano ob   ètom v gazete.
       was written   about this in the.newspaper
       'This was written about in the newspaper.'   (Grewendorf 1990: 310, (30b))

    We conclude that there is in our set of languages a correlation between the acceptability of impersonal passives of strictly unergative verbs and the acceptability of implicit predicative control (see Table 3). It seems, then, that the availability of the former is a necessary

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[21] We see no other way to account for the difference in grammaticality between passives of plain unergative verbs as in (74b) and examples as in (74c, d). The proposed analysis crucially hinges on the presence of an EPP feature on T in Hebrew. Again, in the absence of such a feature, and the consequent absence of an associate pronoun, the facts surrounding impersonal passives cannot be accommodated: Hebrew should pattern like German.

condition for the latter. We now turn to our explanation of why this correlation between implicit predicative control and impersonal passives should hold, and why implicit logophoric control is cross-linguistically not restricted in such a way.

	Implicit predicative control	**(Strict) Impersonal passives**	**Secondary predicates in passives**
English	✗	✗	✓
French	✗	✗	✓
Hebrew	✗	✗	✓ (with non-agreeing PPs)
Russian	✗	✗	✓ (with non-agreeing PPs)
Dutch	✓	✓	✓
German	✓	✓	✓
Icelandic	✓	✓	✓ (with non-agreeing PPs)
Norwegian	✓	✓	✓

Table 3: Acceptability of implicit predicative control, impersonal passives, and agent modifying secondary predicates in passives

4.3 The analysis: (Im-)personal passives and implicit control

We will first concentrate our discussion on the formal factors that make impersonal passives available or unavailable and later submit that what rules out impersonal passives in a language is responsible for the unacceptability of implicit predicative control configurations.

4.3.1 Impersonal passives

In principle, two possible reasons for the lack of impersonal passives come to mind, potentially in combination. First, if the EPP is operative in a language, but the language lacks a suitable TP-expletive, then impersonal passives are ruled out as a violation of the EPP. If, by contrast, an EPP-language makes a suitable TP-expletive available, passives of unergative predicates are predicted to be possible. The latter scenario is instantiated by Norwegian, where an expletive must surface in impersonal passives (76).

(76) I går   ble det danset.
    in yesterday was it   danced
    'Yesterday, people danced.'

A second hindrance to impersonal passives could be seen in the valuation of the φ-features on T. We assume with Holmberg (2002) that in (76), *det* is specified for φ-features and can thus value the features on T. If a language lacks a suitable expletive or if it has one that, unlike Norwegian *det*, lacks inherent φ-feature specification, the question is how the features on T get valued.[22] In Ruys (2010), it is argued that in such languages, the φ-features on T can potentially be valued via a rule of default valuation, given in (77). In languages that lack (77) and a φ-complete expletive, the φ-features on T go unvalued in impersonal passives and the derivation crashes.

(77) **Default phi-valuation** (Ruys 2010: 143, (5))
    Dutch, Danish (, ...) have a rule of default valuation [3,sg] and deletion of φ on T. English does not.

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[22] This is the case, for example, with expletives taken from the locative domain such as Dutch *er* or English *there* (e.g. Richards and Biberauer 2005, Ruys 2010).

In sum, an impersonal passive can fail because either the EPP remains unchecked, or T's φ-features remain unvalued (or both) (English, French, Hebrew, Russian, see the next section for discussion). Languages in which impersonal passives are licit are either EPP-languages that have a suitable expletive with φ-features (Norwegian), or are non-EPP-languages that have the rule in (77) (German, Dutch, Icelandic).[23]

4.3.2 Implicit control: *It* is not an expletive
Turning now to implicit control, the question arises why the passivization of subject control *attitude* predicates (i.e., implicit logophoric control) is licit across all of the languages we investigated, independently of whether the language licenses impersonal passives? On the surface, the English, French, Hebrew and Russian implicit control examples in (78a-d) look like impersonal passives as these verbs seem to lack an internal argument DP that could check the EPP and/or value the φ-features on T. Yet, as we have seen, none of the languages otherwise allows plain impersonal passives.

(78) a. It was decided to leave the country immediately.
      b. Il a   été   décidé de quitter le   pays   immédiatement.
          it has been decided to leave   the country immediately
          'People decided to leave the country immediately.'
      c. huxlat   le'hitkadem   ba-proyekt.
          decided$_{PASS}$ to.move.forward in.the-project
          'It was decided to move forward with the project.'
      d. Bylo zaplanirovano obnovit'   zdanie.
          was planned   to.renovate building
          'It was planned to renovate the building.'

Given our discussion about impersonal passives before, the question of why the examples in (78) are acceptable is related to the status of the subject pronoun (overt in (78a, b), covert by hypothesis in (78c, d)): if it is a true expletive of the Norwegian type, why can this expletive not occur in canonical impersonal passives and render them acceptable?

One potential explanation is provided in Bruening (2011), who argues that English *there* and *it* are so-called *dummies* (i.e., real expletives) which, however, must formally agree with an element bearing a specific categorial feature [F] (notated as [dummy: F]), as illustrated in (79a, b). We added the alleged French expletive in (79c) (recall from section 4.2.2 that seemingly impersonal passives in French are licit if *il* can associate with a VP-internal NP or PP argument; C would be necessary to capture implicit control structures as in (78b)).

(79) a. English *there*
          Has the feature [dummy:N] (requires an Agree relation with an NP)
      b. English *it*
          Has the feature [dummy:C] (requires an Agree relation with a CP)
      c. French *il*
          Has the feature [dummy:N/P/C] (requires an Agree relation with a NP/PP/CP)

---

[23] Note that German and Icelandic impersonal passives do not feature an expletive ((66b), (68b)). In Dutch, the locative expletive *er* (there) is optional (67b) (though see Richards & Biberauer (2005: 142) for an exception). Note that the expletives in the implicit control structures in (66a), (67a) and (68a) are located in Spec,CP in order to guarantee a V2-structure, not to check the EPP on T.

Impersonal passives of the Norwegian type in (76) are then correctly ruled out in English (and the other languages in (78)) based on the fact that the relevant agree-relation cannot be established, as no clausal element is present. In (78a), by contrast, expletive *it* would check the EPP, value [uφ] on T, and agree with the infinitival complement CP.

There are two reasons why we think that this is the wrong analysis for the data in (78): First, the fact that implicit control with non-attitude matrix predicates is blocked in these languages cannot be derived. Second, the subject pronoun in (78) does not behave like an expletive, but it seems to have some semantic content. We will illustrate these points in turn.

Recall from section 2 (cf. the discussion around (7) and (8)) that Landau (2015) proposed that the core difference between predicative and logophoric control is that the infinitival complement denotes a property (type $<e<s,t>>$) in the former case, whereas it denotes a proposition (type $<s,t>$) in the latter case. To capture the difference in passivizability, one could now propose to adjust (79b) to include s-selectional features which allow the expletive to agree with the infinitival complement only in the case of logophoric control (80). Expletive *it* would then be barred from occurring in implicit predicative control, deriving its absence from English.

(80)   English *it*
       Has the feature [dummy:$C_{<s,t>}$]

Yet, a number of non-trivial issues arise: First, why should an expletive s-select? There is no initially plausible reason that derives this property. Second, our generalization that languages without plain impersonal passives render implicit predicative control unacceptable would lack a principled explanation. As there is nothing inherently wrong with the feature [dummy:$C_{<e<s,t>>}$], we would expect that languages exist in which implicit predicative control is fine (i.e. they have the relevant dummy feature on their expletive), but ordinary impersonal passives are not, contrary to the picture that emerged from our language sample. We would also expect to see languages with implicit predicative control but without implicit logophoric control, i.e., exactly the opposite of what we saw in our language sample. Third, the non-finite complements of non-attitude verbs are also unacceptable as subject clauses, in which case no expletive subject occurs that could derive the distinction:[24]

(81)   a. *It has been tried [$_{CP}$ to solve the problem]   (non-attitude verb: $CP_{<e<s,t>>}$)
       b. *[$_{CP}$ To solve the problem] has been tried several times.

(82)   a. It has been promised [$_{CP}$ to solve the problem]   (attitude verb: $CP_{<s,t>}$)
       b. [$_{CP}$ To solve the problem] has been promised several times.

We thus conclude that the contrast between (81a) and (82a) cannot be tied to such selectional properties of a dummy *it*. Therefore, an extension of Bruening's theory to handle the implicit control facts is not feasible. In the next subsection, we show that the subject pronoun in implicit logophoric control has some semantic content and can therefore not be considered an expletive.

4.3.3 *It* as a CP-placeholder

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[24] The structures in (81b) and (82b) are simplified. It has been argued that English subject clauses are satellites attached to the CP and Spec,TP is filled by a covert NP which is semantically associated/co-indexed with the subject clause (Koster 1978, Alrenga 2005, Takahashi 2010, Moulton 2013, Lohndal 2014, Ott 2017). Under this analysis, Spec,TP in (81b) would be filled by a covert NP denoting a property. The same semantic question arises that we will bring up below - whether properties can appear in Spec,TP.

In the following, we will present and motivate our claim that implicit logophoric control in languages without impersonal passives (cf. the examples in (78)) in fact involves personal passives. Their subject pronoun is not an expletive (and thus it cannot be used to form plain impersonal passives), but it is merged as the internal argument of the matrix predicate which is cataphorically related to the infinitival clause.

Such pronouns have been extensively discussed in the context of extraposition (e.g. Bennis 1986, Zaring 1994, Vikner 1995, Müller 1995, Stroik 1996, a.o.), and we will follow Ruys (2010) in referring to them as *CP-placeholders*. In the literature, the formal details of the relation between a CP-placeholder and its associate clause are still far from clear. For the sake of concreteness, we assume that the pro-form is a regular Case- and theta-marked variable operator-bound by its associate CP (Ruys 2010), and represent this binding via superscript indices.[25] (83) exemplifies the use of such a CP-placeholder in an active sentence.

(83) a. I regret $[_{DP+\theta}$ it$]^i$ $[_{CP}$ that we didn't address this issue$]^i$
  b. I count on $[_{DP+\theta}$ it$]^i$ $[_{CP}$ that they will solve the problem$]^i$

In passives, a CP-placeholder may move from its theta-position to Spec,TP, where it checks the EPP. That such a pronoun can, in fact, move to subject position in a passive is suggested by the English pseudo-passive in (84b):

(84) a. They counted $[_{PP}$ on it$^i]$ [that Peter would bring the cake$]^i$.
  b. It^i was counted $[_{PP}$ on ~~it~~$^i]$ [that Peter would bring the cake$]^i$.

CP-placeholder *it* is an ordinary pronoun and thus specified for φ-features ({3rd, sg}) which can value the unvalued person and number features on T. In that regard, then, a CP-placeholder behaves identical to a run-of-the-mill internal argument in a personal passive, such that examples such as (84b), or, more generally, configurations of the type abstractly represented in (85) qualify as personal, rather than impersonal passives. As a consequence, under our structural analysis of implicit logophoric control, exemplified in (86), this type of construction involves a personal passive, and is therefore not at odds with the absence of impersonal passives in English.

(85) $[_{TP}$ It$^i_{\{[3rd, sg]\}}$ T$_{\{[uP],[uN]\}}$ $[_{PassP}$ Pass $[_{VoiceP}$ Voice $[_{vP}$ ... ~~it~~^{i} ...] ... $[_{CP}$ ... $]^i$ ...

(86) It^i was promised ~~it~~^{i} $[_{CP}$ to solve the problem$]^i$

---

[25] We remain agnostic here w.r.t. to any details of the underlying and surface syntactic correlation between the placeholder pro-form and the complement clause. In Rosenbaum (1967), the CP is generated as a modifier of the NP headed by *it* and then extraposed. Bennis (1986) proposes that the CP is generated as an adjunct to the VP binding the pronoun generated in object position.

For Icelandic, it can be shown that the placeholder pronoun and the complement clause form a constituent (Wood 2012 building on Thráinsson 1979). In German, the corresponding data are ungrammatical. Blocking of extraction might suggest that extraposition takes place (e.g. Bennis 1986 for Dutch). However, Wood (2017) shows that the Icelandic placeholder pronoun blocks extraction even in cases where arguably no extraposition of the infinitival complement has taken place and Fischer (2016) shows the same for related German data. The cross-linguistic picture is complicated by French *il* (Zaring 1994) and Danish *det* (Vikner 1995), which do not block extraction.

The same argumentation applies to French, Hebrew and Russian, the only difference being that while the placeholder pro-form is overt in English/French, we must postulate a covert pro-form for Russian and Hebrew to capture the acceptability of cases like (78c, d).[26]

The intended analysis of implicit logophoric control can be illustrated nicely in German. Consider the optional CP-placeholder pronoun *es* (it) in the following active sentence.

(87) Mehrmals   schon hat Peter (es^i) versprochen, [den Roman zu lesen]^i.
     multiple.times already has Peter it   promised   the novel to read
     'Peter has promised to read the novel multiple times already.'

(88) shows that passivization of (87) either leads to a plain impersonal passive (88a), or to a personal passive in which the CP-placeholder *es* (it) is retained (88b).

(88) a. Mehrmals   schon wurde   versprochen, [den Roman zu lesen]^i.
        multiple.times already was   promised   the novel to read
     b. Mehrmals   schon wurde es^i versprochen, [den Roman zu lesen]^i.
        multiple.times already was   promised   the novel to read
        'It has been promised to read the novel multiple times already.'

The claim that (88b) is a personal passive in so far that *es* (it) in this example is an argument rather than an expletive is supported by a contrast to impersonal passives of unergative verbs. As is well known, the occurrence of sentence-internal *es* in German is restricted to non-expletive uses of this pronoun (e.g. weather *it*), as is indicated by the fact that impersonal passives in German disallow sentence internal *es* ((89); e.g. Grewendorf 1989, Fanselow 1991, Haider 1987, 1990). Since *es* occurs sentence-internally in (88b), it must be argumental. If *es* is argumental in (88b), this is a personal passive.

(89) Mehrmals   schon wurde (*es) in der alten Fabrik getanzt und gefeiert.
     multiple.times already was   it in the old factory danced and celebrated
     'Multiple times already there was dancing and celebrating in the old factory.'

Thus, whereas in German, which has impersonal passives, both of the derivations involved in the examples in (88) converge, in languages without impersonal passives, only the one in (88b) leads to a felicitous outcome because the placeholder pro-form must become the derived subject that checks the EPP and values T.

Before we proceed to further evidence for this analysis, let us now address the crucial question of what derives the contrast exemplified for English in (81a) vs. (82a), i.e., why is implicit logophoric control acceptable in languages that lack impersonal passives, but not implicit predicative control. Obviously, for some reason, the latter type of construction may not involve a CP-placeholder, and will therefore obligatorily involve an impersonal passive, which derives the observed correlation between impersonal passives and implicit predicative control. But why should a CP-placeholder be infelicitous in these latter cases? In order to approach this question, recall the difference between (81b) and (82b) repeated in (90a, b).

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[26] At least for Hebrew, such a covert pronoun has been argued to be present also in other cases of sentential complementation, such as the ones in (i) (Shlonsky 1990).

(i) a. Nidme l-i   še-ha-šemeš šokʔat.   b. Barur še-hi   balšanit tova.
        seem   to-me   that-the-sun sinking   clear that-she linguist good
        'It seems to me that the sun is sinking.'   'It is clear that she is a good linguist.'

(90)   a. *[$_{CP}$ To solve the problem] has been tried several times.
   b. [$_{CP}$ To solve the problem] has been promised several times.

The infinitival complement cannot function as a subject clause of a non-attitude predicate (90a), but can do so in the context of an attitude predicate (90b) – and this contrast seems to be systematic.[27] Recall also that we have argued in section 4.2 that the unacceptability of (90a) cannot be reduced to a failed control relation, as the implicit argument can in principle enter a predication relation. It seems, then, that the infinitival complement of non-attitude predicates simply cannot be linked to Spec,TP – neither indirectly through a coindexed CP-placeholder, nor directly via movement to this position (or, alternatively, via a link to a covert nominal in this position, cf. fn. 24). This descriptive generalization can be made sense of if one assumes that the kernel of a proposition is a predication relation (Rothstein 1983, 1995, 2004, Heycock 1994, 2013, Eide & Åfarli 1999, Åfarli 2017, a.o.), and that a sentence potentially involves different layers of predication, mediated via functional heads (v, T, C, etc.; Heycock 1994). Passivization of an attitude predicate, whose infinitival complement denotes a proposition, then leads to a situation in which the subject of the predication relation established by T is propositional. In the case of a non-attitude predicate, by contrast, this subject denotes a property, and we submit that this creates a problem at the syntax-semantics interface. Thereby, we follow Rothstein (2004: 55) who submits that "we expect those categories which are canonical predicates and thus unsaturated, not to be subjects". To put it differently, we propose the generalization in (91):

(91)   Spec,TP may not be occupied by an element of type $<e<s,t>>$.

(91) directly accounts for why implicit predicative control is unacceptable in languages without impersonal passives.[28] In languages with impersonal passives, no such issue arises since either Spec,TP is filled by an expletive which is not cataphorically related to the infinitival complement (e.g. Norwegian) or Spec,TP is not projected (e.g., German, Dutch or Icelandic; Haider 1993, 2010; Wurmbrand 2006; cf. also Richards & Biberauer 2005). This situation is summarized abstractly in (92).

(92)   a. *[$_{TP}$ It^i was tried it^i [$_{CP}$ to solve the problem]^i]   (English, French, Hebrew, Russian)
   b. [$_{TP}$ It$_{expl.}$ was tried [$_{CP}$ to solve the problem]]   (Norwegian)
   c. [$_{TP}$ ø was tried [$_{CP}$ to solve the problem]]   (German, Dutch, Icelandic)

Thus, (91) will never be violated in languages that allow impersonal passives, predicting implicit predicative control to be licit in such languages. As an anonymous reviewer points out, non-attitude predicates can be passivized in English when combined with a finite complement clause (93).

(93)   It was forgotten that everything relevant had already been said.

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[27] We thank Gillian Ramchand, who originally pointed this out to us (p.c.).

[28] Specificational copula clauses as in (i) pose a potential counterexample to this generalization. We thank Peter Jenks for pointing this out to us (p.c.).

(i) The culprit is me.

Mikkelsen (2005) argues that in these cases, Spec,TP is occupied by a predicate. Yet, Heycock (2012) has advanced a number of arguments showing that the pre-copula NP does not behave like a predicate, but more like an intensional object in the sense of Romero (2005). If the latter view is correct, the generalization provided in the text can be maintained.

This observation is compatible with our analysis since finite complement clauses denote propositions. Interestingly, many of our consultants also observed the following contrast:

(94) a. *To close the shop at 9 p.m. was forgotten once again by the person in charge.
      b. That the shop will close at 9 p.m. was forgotten once again by many customers.

This difference is again expected under our analysis: the finite complement clause is licit as a subject clause since it is not of type <e<s,t>>, and therefore does not violate (91).

    At the end of this sub-section, we should bring up a non-trivial question that arises for all accounts that analyze the subject pronoun found in passives of verbs selecting a (finite or non-finite) CP-complement as a placeholder for this CP (e.g. Bennis 1986, Vikner 1995, Ruys 2010): Why can the placeholder pro-form occur productively in the subject position of the passive of such verbs in English (as well as in French), but much less productively in the object position of the corresponding active version of such verbs. Although some subject control verbs allow the pronoun in object position in the active (cf. (95a-d), which were judged acceptable by our informants), most subject control verbs do not (cf. (96a-d), where the #-sign is meant to indicate that the pro-form is possible only if the CP is set apart from the main clause by a strong pause, thus indicating an irrelevant right-dislocation structure).

(95) a. Finally I managed (it) [to read the whole book from the beginning to the end].
      b. I regret (it) [to have eaten the pasta].
      c. I promised (it) to her [to bring down the trash but I couldn't].
      d. Everyone would prefer (it) [to come early]. (Rosenbaum 1967)

(96) a. The criminals decided (#it) [to leave the country immediately].
      b. I tried (#it) several times [to read the book from the beginning to the end].
      c.   I forgot (#it) [to bring down the trash].
      d. We hoped (#it) [to solve the problem].

Two possible explanations come to mind and both carry a last-resort flavor, much like what is known from the discussion of dummy expletives. Yet, since we have argued above (and will further substantiate in the next section) that the subject pronoun in English (or French) implicit control structures is a placeholder pro-form with semantic content, we propose that the distribution of such placeholder pro-forms can be subject to some kind of last-resort consideration, too.

    In the literature on placeholder pro-forms (e.g. Bennis 1986: 103, Vikner 1995: 244, Ruys 2010: fn. 24), it has been mentioned that the availability of these pronouns in object position is restricted by a number of factors, such as the choice of the particular matrix verb or the factivity/veridicality of the complement proposition. While the exact conditions at play are, to our knowledge, not fully investigated yet, some level of idiosyncrasy seems to be involved as languages and even speakers can differ in whether they allow such pronouns with individual verbs and in individual contexts. Be this as it may, in order to tackle the question above, one could assume that the syntax in principle can build both structures of an active sentence (i.e. with and without a pro-form in object position), but additional constraints related to factors of the type just mentioned may filter out the variant with the pro-form. In the corresponding passive, by contrast, the variant without the pro-form will lead to ungrammaticality in English and French due to the general impossibility of impersonal passives. Therefore, the structure including the pro-form is the only possible one, and is therefore not filtered out.

An alternative explanation would give up the idea that all placeholder pro-forms are necessarily base-generated in a theta position (but see the next section for an argument that at least some must origin in a theta position as they carry inherent case). So far, we adopted the position from the literature cited above that the pro-form receives the verb's internal theta-role and the CP is not theta-marked but only semantically associated with the pro-form. Yet, assume that the relation is exactly the opposite, i.e., the CP is merged as the internal argument, and the placeholder pro-form is merged in a non-theta position if it is needed for syntactic convergence, i.e. to check the EPP in passives. For dummy expletives, it has been proposed that such a non-theta position is the outer Spec,vP (Richards and Biberauer 2005, Richards 2007, Deal 2009, Alexiadou and Schäfer 2011) from where the expletive raises to Spec,TP. To combine this base-position of the placeholder pro-form with our main claim that the placeholder denotes the property or proposition expressed by the complement CP, one could enrich Bruening's (2011) proposal discussed in section 4.3.2 (cf. (79b)) with a (semantic) mechanism which ensures that the formal agree relation between English *it* (or French *il*) and the complement CP necessarily leads to semantic association/coindexation. Under this proposal, placeholder pro-forms in object position of an active control configuration would then be restricted by the factors mentioned at the beginning of this section, whereas their productivity in the corresponding passive follows from the need to check the EPP. (Recall that the unavailability of this rescue mechanism in plain impersonal passives is due to the absence of an associate CP.)

We must leave it for future research to decide between these two possibilities and to work out their details.

4.3.4 Further evidence for *it* being theta-marked

Our analysis of implicit logophoric control developed in the preceding section crucially involved the assumption that the subject pronoun found in this construction is not an expletive. It rather starts out in an argument position, and is therefore theta-marked. In this section, we provide further evidence for this claim.

First, consider the following Icelandic facts, discussed in Thráinsson (1979) and Wood (2012, 2017):

(97) a. Böðullinn   frestaði   aftökunni.
      the.executioner$_{NOM}$ postponed the.execution$_{DAT}$
      'The executioner postponed the execution.'
   b. Þeir   frestuðu   (Því)   [að hálshöggva fangana].
      they$_{NOM}$ postponed (it$_{DAT}$) to execute   the.prisoners$_{ACC}$
      'They postponed executing the prisoners.
   c. Í gær   var (því) frestað   [að hálshöggva fangana].
      yesterday was it$_{DAT}$ postponed to execute   the.prisoners$_{ACC}$
      'Yesterday, executing the prisoners was postponed.'

(97a) shows that the Icelandic verb *fresta* (to postpone) assigns lexical dative case to its object. (97b) shows that in the case of an object clause the optional placeholder pro-form bears the same lexical case. Since lexical case is associated with thematic relations (Chomsky 1986; Woolford 2006), this supports the claim that the placeholder pro-form is assigned a theta-role. (97c), then, illustrates that the dative pro-form can be retained under passivization, pointing to the argumental status of the subject pronoun (cf. the Icelandic plain impersonal passive in (68b), which disallows any expletive).

Second, it is well-known that PRO must bear a theta-role, even if only a quasi-argumental one, as in (98) ((98) was provided by an anonymous reviewer; cf. Chomsky 1981: 324).

(98) It_i snows in Scotland [PRO_i before snowing in England].

The Dutch data in (99) from Bennis (1986) suggest that CP-placeholder *it* can be controlled, indicating that it indeed bears a theta-role.[29]

(99) Het_i is [na   PRO_i tien keer   uitgelegd te zijn]
    it   is after   ten times explained to be
    eindelijk duidelijk geworden [dat de aarde rond is]_i.
    at last   clear   become   that the earth round is
    'After it had been explained ten times it became finally clear that the earth is round.'

Our analysis of implicit logophoric control structures in languages without impersonal passives, in which the subject pronoun is a CP-placeholder pro-form, therefore predicts that this pro-form should be able to be controlled. This prediction is borne out in the following English example:[30]

(100) It_i was decided [without PRO_i being announced] [to raise the taxes next year]_i

The same can be illustrated for German (for Danish, see Vikner 1995: 228f.). Recall that, due to absence of the EPP-property in German, a CP-placeholder pronoun is optional in the context of implicit control structures (which already suggests that this pronoun is not just a formal expletive):

(101)   weil (es) beschlossen wurde,   die Steuern zu erhöhen.
        as   it decided   became the taxes   to raise
        'It was decided to raise the taxes.'

In the examples in (102a, b) involving control into an adjunct clause, the version with the CP-placeholder pronoun is strongly preferred. This indicates that the extraposed infinitive CP cannot itself control PRO and that *'es'* stands semantically for the embedded CP-proposition:

(102) a. ??weil   beschlossen wurde   [ohne   PRO_i bekannt gemacht zu werden],
        as   decided   became without   known made   to become
      [die Steuern zu erhöhen]_i
       the taxes   to raise
    b. weil es_i beschlossen wurde   [ohne   PRO_i bekannt gemacht zu werden],
       as   it decided   became without   known made   to become
      [die Steuern zu erhöhen]_i
       the taxes to raise
      'It was decided without being made public to raise the taxes.'

In sum, there are several arguments supporting our claim that the pronominal element in examples as in (82a) is not a true expletive, but a CP-placeholder that is base-generated in the

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[29] As further evidence that Dutch *het* (it) is a placeholder pro-form with semantic content, Bennis (1986) argues that it can bind a reflexive pronoun and licenses parasitic gaps. Ruys (2010) concludes from the behavior of English *it* and Dutch *het* in pseudo-clefts that they are placeholder pro-forms with thematic content. For reasons of space we only refer to these works.

[30] Control into adjunct clauses can, in principle, be OC or NOC (Landau 2013, 2017). Landau (2017) argues that control in adjunct clauses can only be OC if the adjunct clause is passivized as in (98). Note further that since PRO in NOC must be [+human] (e.g. Landau 2013), the adjunct clauses in these examples must involve OC.

internal argument position. In languages without impersonal passives, this CP-placeholder is obligatorily moved to the structural subject position Spec,TP under passivization.

4.4 Implicit (logophoric) control and the RVG

One might have noticed that the analysis developed above is incompatible with the Revised Visser's Generalization (RVG) in (103).

(103) **Revised Visser's Generalization** (RVG; van Urk 2013: 172, (12))
      Obligatory control by an implicit subject is impossible iff an overt DP agrees with T.

Recall from the introduction that (103) was intended to capture the following contrast (where IA stands for the implicit external argument of the passivized matrix verb):

(104) a. *Bill was IA$_i$ promised [PRO$_i$ to attend the workshop].
      b. It was IA$_i$ decided [PRO$_i$ to attend the workshop].

Adopting Landau's (2000 et seq.) Agree model, Van Urk argues that in (104a), the nominative DP *Bill* agrees with T and therefore blocks an Agree relation between T and the syntactically represented implicit argument IA. This Agree relation between an argument and a functional matrix head, however, is what mediates the control relation, correctly predicting implicit control in (104a) to be unavailable. In (104b), by contrast, van Urk assumes that the implicit argument can agree with T – and thereby function as controller – because *it* is a pure expletive which even lacks φ-features and, thus, does not enter an Agree-relation with T. Since under our analysis of (104b) *it* is a cataphoric pronoun fully specified for φ-features, it should agree with T just as *Bill* does in (104a), and thus, given (103), block implicit control – contrary to fact.
     However, we believe that there are a number of reasons to reconsider van Urk's explanation of the contrast between (104a) and (104b). First, on a purely theory-internal level, (103) relies on the Agree-model of control, which, as discussed in Landau (2015) has a number of independent problems and should be rejected. Outside of this model, however, (103) loses much of its appeal and explanatory force. Second, the existence of a φ-defective *it*-type expletive in English needs some motivation, given that most investigations of the expletive system in English assume that pronominal *it*-type expletives are fully specified for φ-features (e.g. Richards and Biberauer 2005, Ruys 2010). If the alleged expletive is not φ-defective, however, (103) rules out implicit control in (104a) and (104b) alike. Third, there exist potential counterexamples to the RVG such as the German passive example in (105b) and its English translation:

(105) a. Hans$_i$ verwendete viel   Zeit/Energie darauf [PRO$_i$ das Problem zu lösen].
          John spent   much time/energy it.on   the problem to solve
          'John spent much time/energy on solving the problem.'
      b. Viel Zeit/Energie wurde (von Hans$_i$) darauf verwandt [PRO$_i$ das Problem zu lösen].
          much time/energy was   by John   it.on   spent   he problem to solve
          'Much time/energy was spent on solving the problem.'

(105b) and its English translation involve implicit control in the context of a nominative subject DP agreeing with T, and constitute an RVG-violation, if they can be shown to involve complement control, not adjunct control. Note in this connection that the German infinitival clauses in (105a, b) can be replaced by finite clauses headed by the complementizer *dass*

(that), which is generally used to introduce argument CPs. Furthermore, (105a, b) involve OC, rather than NOC, according to the tests discussed in section 2 (ex. (12)-(14)); an arbitrary interpretation of PRO is impossible, no long-distance control across the overt or implicit agent is possible when (105a, b) are embedded in a further matrix clause, and PRO only allows a sloppy interpretation under ellipsis. We thus believe it is necessary to reconsider the mechanisms behind the RVG. While we cannot propose an alternative technical solution here, one obvious difference between the ungrammatical (104a) and the grammatical (104b)/(105b) lies in the (in-)animacy of the subject DP. We thus hypothesize that implicit control is not blocked by an overt subject DP per se, but only by those subjects whose ontological properties would fulfill the selectional restrictions imposed by the embedded verb on the argument position of PRO. According to this idea, *Bill* in (104a) could be licitly construed as the agent of *attend*, and therefore block control by the implicit argument (and, as far as we know, derived subjects in examples attributed to VG are always human). In (105b), by contrast, the non-human subject DP cannot be construed as the agent of the embedded problem-solving event and therefore, does not count as a competing controller that potentially blocks implicit control. An account of the RVG that builds on this difference would then be compatible with our analysis of implicit predicative control structures as in (105b), where the pro-form is cataphorically related to the propositional CP. As a proposition cannot be construed as the agent of *attend the workshop*, it does not block control by the implicit agent, despite the fact that it values the φ-features on T.[31]

5 Conclusions

In this paper, we have shown that implicit logophoric control, where the passivized verb is an attitude predicate, is possible across an array of eight languages. By contrast, implicit predicative control, where the passivized verb is non-attitudinal, is possible in some of these languages (German, Dutch, Norwegian, Icelandic), and impossible in others (English, Russian, Hebrew, French). This cross-linguistic split is a problem for the generalization proposed in Landau (2015) according to which implicit predicative control should always be unacceptable because implicit arguments cannot be predicated over for principled reasons.

We argued that this empirical split couldn't be derived from different properties of the implicit agent of passives in the two sets of languages. In particular, we showed that it does not correlate with a language's ability to predicate over the implicit external arguments of passives. Against some earlier claims in the literature, we provided evidence that implicit agents of passive sentences license secondary predication across languages (although we pointed out some restrictions that are, so far, not fully understood). We concluded based on this observation that implicit arguments of passives can, in principle, be the subject of predication and, thus, the ungrammaticality of implicit predicative control in some languages is not due to a failed control relation (pace Landau 2015).

While the acceptability of implicit predicative control did not correlate with the possibility of predicating over implicit arguments, we showed there to be a correlation with the availability of strict impersonal passives: only those languages in our language set that have impersonal passives of plain unergative verbs allow implicit predicative control. In order to capture this correlation, we proposed that the passive of a non-attitude subject control predicate fails at the formal syntactic level for the same reason as ordinary impersonal passives, either because T's φ-features remain unvalued or the EPP is unchecked (or both). Passives of attitude subject-control predicates, on the other hand, are available even in languages that lack impersonal passives because they can formally be construed as a type of

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[31] Furthermore, if the cataphoric pro-form in (104b) was construed as the controller of PRO, this would lead to an i-within-i violation as the infinitival CP and its PRO-subject would carry the same semantic index.

personal passive. A fully-fledged CP-placeholder pronoun semantically identified with the (potentially extraposed) infinitival clause denoting a proposition raises from object to subject position where it satisfies the EPP and values the φ-features on T. We argued that this strategy to avoid an impersonal passive syntax via a CP-placeholder pronoun is impossible in structures involving implicit predicative control. In the latter context, the CP-placeholder pronoun is semantically identified with an infinitival clause denoting a property and, thus, denotes a property itself. Following Rothstein (2004) who generally argues that unsaturated predicates cannot be subjects we proposed that Spec,TP may not be occupied by an element of type <e<s,t>>, i.e., the CP-placeholder pronoun in predicative control structures cannot be used to derive a personal passive in an EPP-language. This explanation was confirmed by the observation that the infinitival complement clause of predicative control structures also makes no good subject clause in English.

References

Åfarli, Tor A. 2017. Predication in Syntax: Toward a Semantic Explanation of the Subject Requirement. In *Understanding Predication*, ed. by Piotr Stalmaszczyk, 73–97. Frankfurt: Peter Lang.

Alexiadou, Artemis and Florian Schäfer. 2011. An unaccusativity diagnostic at the Syntax-Semantics interface: there-insertion, indefinites and restitutive again. In *Proceedings of Sinn & Bedeutung 15*, ed. by Ingo Reich, Eva Horch, and Dennis Pauly, 101–115. Universaar – Saarland University Press: Saarbrücken.

Alexiadou, Artemis, Berit Gehrke and Florian Schäfer. 2014a. The argument structure of adjectival participles revisited. *Lingua* 149:118-138.

Alexiadou, Artemis, Florian Schäfer & Giorgos Spathas. 2014b. Delimiting Voice in Germanic: on object drop and naturally reflexive verbs. In *Proceedings of NELS 44,* ed. by Jyoti Iyer and Leland Kusmer, 1-14. Amherst, MA: GLSA.

Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2015. *External Arguments in Transitivity Alternations: a Layering Approach*. Oxford: Oxford University Press.

Alrenga, Peter. 2005. A sentential subject asymmetry in English and its implications for complement selection. *Syntax* 8: 175–207.

Authier, J.-Marc and Lisa Reed. 2018. Symmetric reciprocal semantics as a predictor of partial control. To appear in *Linguistic Inquiry* 49.2.

Babby, Leonard. 1973. The Deep Structure of Adjectives and Participles in Russian. *Language* 49: 349–360.

Baker, Mark. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.

Bennis, Hans. 1986. *Gaps and Dummies*. Dordrecht: Foris Publications.

Bennis, Hans, and Teun Hoeckstra. 1989. *PRO* and the Binding Theory. In *Linguistics in the Netherlands 1989*, ed. by Hans Bennis, and Ans van Kemenade, 11–20. Dordrecht: Foris Publications.

Bhatt, Rajesh, and Roumyana Pancheva. 2006. Implicit arguments. In *The Blackwell Companion to Syntax*, ed. by Martin Everaert, and Henk van Riemsdijk, 554–584. Oxford: Blackwell.

Bhatt, Rajesh, and Roumyana Pancheva. to appear. Implicit arguments. In *The Blackwell Companion to Syntax*, second edition, ed. by Martin Everaert, and Henk van Riemsdijk. Oxford: Blackwell.

Boeckx, Cedric, Norbert Hornstein, and Jairo Nunes. 2010. *Control as Movement*. Cambridge: Cambridge University Press.

Borik, Olga. 2013. Past Participle Formation and the Eventive/Adjectival Passive in Russian. In *Proceedings of Sinn und Bedeutung* 17, ed. by Emanuel Chemla, Vincent Homer, and Georg Winterstein, 115–132. Semantics Archive.

Borik, Olga. 2014. The argument structure of long and short form adjectives and participles in Russian. *Lingua* 149: 139–165

Bresnan, Joan. 1982. Control and complementation. *Linguistic Inquiry* 13: 343–43.

Bruening, Benjamin. 2011. *Pseudopassives, Expletive Passives, and Locative Inversion*. Ms., University of Delaware.

Bruening, Benjamin. 2012. By-phrases in passives and nominals, *Syntax* 16: 1–41.

Chierchia, Gennaro. 1984. *Topics in the Syntax and Semantics of Infinitives and Gerunds*. Ph.D. dissertation, UMASS, Amherst.

Chierchia, Gennaro. 1989. Structured Meanings, Thematic Roles and Control. In *Properties, Types and Meanings II*, ed by Gennaro Chierchia, Barbara Partee, and Raymond Turner, 131–166. Dordrecht: Kluwer Academic Publishers.

Chierchia, Gennaro. 1990. Anaphora and Attitudes De Se. In *Semantics and Contextual Expression*, ed. by Renate Bartsch, Johan van Benthem, and Peter van Emde Boas, 1–32. Dordrecht: Foris Publications.

Chomsky, Noam. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.

Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.

Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax*, 8: 81–120.

Deal, Amy Rose. 2009. The origin and content of expletives: evidence from "selection". *Syntax* 12.4: 285–323.

Dobrovie-Sorin, Carmen. 1994. *The Syntax of Romanian: Comparative Studies in Romance*. Berlin: Mouton de Gruyter.

Eide, Kristin M., and Tor A. Åfarli. 1999. The syntactic disguises of the predication operator. *Studia Linguistica* 53.2: 155–181.

Evers, Arnold. 1975. *The transformational cycle of Dutch and German*. Doctoral Dissertation, University of Utrecht.

Fanselow, Gisbert. 1991. *Minimale Syntax*. Groninger Arbeiten zur germanistischen Linguistik 32. Groningen: Rijksuniversiteit.

Fischer, Silke. 2016. *On the Locality of Control and Islands in German: Exploring a Hybrid Theory of Control*. Ms., University of Stuttgart.

Gaatone, David. 1993. Les locutions verbales et les deux passifs du français. *Langages* 109: 37–52.

Gaatone, David. 1994. Le passif, l'impersonnel et le passif impersonnel. *L'Information Grammaticale* 62: 42–44.

Geist, Ljudmila. 2010. The argument structure of predicate adjectives in Russian. *Russian Linguistics* 34: 239–260.

Grano, Thomas. 2015. *Control and Restructuring*. Oxford: Oxford University Press.

Grewendorf, Günther. 1989. *Ergativity in German*. Dordrecht: Foris Publications.

Grewendorf, Günther. 1990. Small pro in German. In *Scrambling and barriers*, ed. by Günther Grewendorf and Wolfgang Sternefeld, 295–315. Amsterdam: Benjamins.

Haider, Hubert. 1987. Expletives pro - eine Phantomkategorie. In *Parallela III*, ed. by Wolfgang Dressler, Corrado Grassi, Rosita Rindler-Schjerve, Martin Stegu, 237–247. Tübingen: Narr.

Haider, Hubert. 1990. Null Subjects and Expletives in Romance and Germanic languages. In *Issues in Germanic Syntax*, ed. by Werner Abraham, Wim Kosmeijer, and Eric Reuland, 49–66. Berlin: Mouton de Gruyter.

Haider, Hubert. 1993. *Deutsche Syntax - Generativ*. Tübingen: Gunter Narr Verlag.

Haider, Hubert. 2010. *The syntax of German*. Cambridge: Cambridge University Press.

Heim, Irene, and Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Oxford: Blackwell.

Heycock, Caroline. 1994. *Layers of Predication: The non-lexical syntax of clauses.* New York: Garland.

Heycock, Caroline. 2012. Specification, equation, and agreement in copular sentences *Canadian Journal of Linguistics/Revue canadienne de linguistique* 57(2): 209–240.

Heycock, Caroline. 2013. The syntax of predication. In *The Cambridge Handbook of Generative Syntax*, ed. by M. den Dikken, 322-352. Cambridge: Cambridge University Press.

Hirschbühler, Paul, and Marie Labelle. ms. *Syntaxe du Français. Universel et le particulier dans la langue.* University of Ottawa.

Holmberg, Anders. 2002. Expletives and Agreement in Scandinavian Passives. *Journal of Comparative Germanic Linguistics* 4: 85–128.

Jónsson, Jóhannes G. 2009. The new impersonal as a true passive. In *Advances in comparative Germanic syntax,* ed. by Artemis Alexiadou, Jorge Hankamer, Thomas McFadden, Justin Nuger, and Florian Schäfer, 281–306. Amsterdam: John Benjamins.

Kastner, Itamar, and Vera Zu. 2014. *The Syntax of Implicit Arguments*. Ms., NYU.

Kiparsky, Paul. 2013. Towards a null theory of the passive. *Lingua* 125: 7–33.

Koster, Jan 1978. Why subject sentences don't exist. In *Recent transformational studies in European languages*, ed. by Samuel J. Keyser, 53–64. Cambridge: MIT Press.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase Structure and the Lexicon*, ed. by Johan Rooryck and Laurie Zaring, 109–137. Dordrecht: Kluwer.

Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40: 187–237.

Landau, Idan. 2000. *Elements of control: Structure and meaning in infinitival constructions*. Dordrecht: Kluwer.

Landau, Idan. 2004. The scale of finiteness and the calculus of control. *Natural Language and Linguistic Theory* 22: 811–877.

Landau, Idan. 2008. Two routes of control: Evidence from Case transmission in Russian. *Natural Language and Linguistic Theory* 26: 877–924.

Landau, Idan. 2010. The explicit syntax of implicit arguments. *Linguistic Inquiry* 41: 357–388.

Landau, Idan. 2013. Control in Generative Grammar: A Research Companion. Cambridge, UK: Cambridge University Press.

Landau, Idan. 2015. *A Two-Tiered Theory of Control*. Cambridge, Mass.: MIT Press.

Landau, Idan. 2017. Adjunct Control Depends on Voice. In *A Pesky Set: Papers for David Pesetsky*, ed. by C. Halpert et al., 93-102. MITWPL.

Lappin, Shalom, and Ur Shlonsky. 1993. Impersonal Passives. *Linguistics* 31: 5-24.

Legate, Julie A. 2012. Subjects in Acehnese and the Nature of the Passive. *Language* 88: 495–525.

Legate, Julie A. 2014. *Voice and v: Lessons from Acehnese*. Cambridge, MA: MIT Press.

Lohndal, Terje. 2014. Sentential Subjects in English and Norwegian. *Syntax & Sémantique 15*: 81–113.

Longobardi, Giuseppe. 1994. Reference and proper names: A theory of N-movement in syntax and Logical Form. *Linguistic Inquiry* 25: 609–666.

Mikkelsen, Line 2005. *Copular Clauses. Specification, Predication and Equation*. Amsterdam: Benjamins.

Mohr, Sabine. 2005. *Clausal Architecture and Subject Positions: Impersonal constructions in the Germanic languages*. Amsterdam: John Benjamins.

Moulton, Keir. 2013. Not moving clauses: Connectivity in clausal arguments. *Syntax* 16: 250–291

Müller, Gereon. 1995. On extraposition and successive cyclicity. In *On extraction and extraposition in German*, ed. by Uli Lutz, and Jürgen Pafel, 213–243. Amsterdam: Benjamins.

Müller, Gereon. 2016. The Short Life Cycle of External Arguments in German Passive Derivations. (Ms., Universität Leipzig).

Müller, Stefan. 2008. Depictive Secondary Predicates in German and English. In *Secondary Predicates in Eastern European Languages and Beyond*, ed. by Christoph Schroeder, Gerd Hentschel, und Winfried Boeder, 255–273. Oldenburg: BIS-Verlag.

Ott, D. 2017. Clausal arguments as syntactic satellites: A reappraisal. In *Labels and roots*, ed. by A. Blümel and Leah S. Bauke, 127-160. Berlin/New York: de Gruyter.

Paslawska, Alla, and Arnim v. Stechow. 2003. Perfect Readings in Russian. In *Perfect Explorations*, ed. by Artemis Alexiadou, Monika Rathert, and Arnim v. Stechow, 307–362. Berlin: Mouton de Gruyter.

Pearson, Hazel. 2013. *The Sense of Self: Topics in the Semantics of De Se Expressions*. PhD dissertation, Harvard University.

Pearson, Hazel. 2016. The semantics of partial control. *Natural Language and Linguistic Theory* 34: 691–738.

Petter, Marga. 1998. *Getting PRO Under Control*. LOT International Series, Vol. 8. The Hague: HIL, Holland Academic Graphics.

Pitteroff, Marcel, Artemis Alexiadou, Jeannique Darby & Silke Fischer. 2017. On Partial Control in German. *Journal of Comparative Germanic Linguistics* 20:2, 139–185.

Pitteroff, Marcel, and Michelle Sheehan. 2017. The case for fake partial control in French and German. Talk given at NELS 48, University of Iceland.

Poole, Ethan. 2015. *An argument for implicit arguments*. Ms., University of Massachusetts Amherst.

Rapp, Irene 1996. Zustand? Passiv? Überlegungen zum sogenannten "Zustandspassiv". Zeitschrift für Sprachwissenschaft 15.2:231-265.

Rapp, Irene (1997). Partizipien und semantische Struktur: Zu passivischen Konstruktionen mit dem 3. Status. Tübingen: Stauffenburg.

Reed, Lisa. 2014. *Strengthening the PRO Hypothesis*. Berlin: Mouton de Gruyter.

Reed, Lisa. 2017. On Visser's Effects, Control, and Weak Implicit Agents. To appear in the *Proceedings of the Forty-First Annual Penn Linguistics Conference* 24.1, University of Pennsylvania, Philadelphia.

Richards, Marc, and Theresa Biberauer. 2005. Explaining Expl. In *The function of function words and functional categories*, ed. by Marcel den Dikken, and Christina Tortora, 115-154. Amsterdam: John Benjamins.

Richards, Marc. 2007. On object shift, phases, and transitive expletive constructions in Germanic. In *Linguistic Variation Yearbook 6*, ed. by Pierre Pica, Jeroen van Craenenbroeck, and Johan Rooryck, 139–159. Amsterdam, John Benjamins.

Roeper, Thomas. 1987. Implicit arguments and the head-complement relation. *Linguistic Inquiry* 18: 267–310.

Romero, Maribel. 2005. Concealed questions and specificational subjects. *Linguistics and Philosophy* 28:687–737.

Rosenbaum, Peter. 1967. *The grammar of English predicate complement constructions.* Cambridge, Mass.: MIT Press.

Rothstein, Susan. 1983. *The Syntactic Form of Predication.* Ph.D.thesis, MIT.

Rothstein, Susan. 1995. Pleonastics and the Interpretation of Pronouns. *Linguistic Inquiry* 17: 501–557.

Rothstein, Susan. 2004. *Predicates and their Subjects.* Dordrecht: Kluwer.

Rothstein, Susan. 2006. Secondary predication. In *The Blackwell Companion to Syntax*, ed. by Martin Everaert, and Henk van Riemsdijk, 209–233. Blackwell: Oxford.

Ruys, Eddy. 2010. Expletive selection and CP arguments in Dutch. *Journal of Comparative Germanic Linguistics* 13: 141–178.

Safir, Ken. 1987. The syntactic projection of lexical thematic structure. *Natural Language and Linguistic Theory* 5: 561–601.

Schäfer, Florian. Ms. *Revisiting Visser's Generalization.* Universität Stuttgart & Humboldt-Universität zu Berlin.

Sheehan, Michelle. 2012. A New Take on Partial Control: Defective Thematic Intervention. *Cambridge Occasional Papers in Linguistics* 6: 1–47.

Sheehan, Michelle. 2014. Partial Control in Romance Languages: the Covert Comitative Analysis. In *Romance Languages and Linguistic Theory 2012: Selected papers from 'Going Romance' Leuven 2012,* ed. by Karen Lahousse and Stefania Marzo, 181-198.

Schultze-Berndt, Eva, and Nikolaus Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8: 59–131.

Shlonsky, Ur. 1990. PRO in Hebrew subject inversion. *Linguistic Inquiry* 21: 263–275.

Sigurðsson, Halldor Armann. 1989. *Verbal syntax and Case in Icelandic.* Ph.D. thesis, University of Lund.

Sigurðsson, Halldór Armann. 2011. On the new passive. *Syntax* 14: 148–178.

Stroik, Thomas. 1996. Extraposition and expletive-movement: A minimalist account. *Lingua* 99: 237–251.

Takahashi, Shoichi. 2010. The hidden side of clausal complements. *Natural Language and Linguistic Theory* 28: 343–380.

Thráinsson, Hoskuldur. 1979. On Complementation in Icelandic. Ph.D. thesis, Harvard University.

Urk, Coppe van. 2013. Visser's generalization: The syntax of control and the passive. *Linguistic Inquiry* 44: 168–178.

Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages.* Oxford: Oxford University Press.

Visser, Fredericus T. 1973. *A historical syntax of the English language.* Vol. III.2. Leiden: Brill.

White, Aaron Steven & Thomas Grano. 2014. An Experimental Investigation of Partial Control. In *Proceedings of Sinn und Bedeutung* 18, ed. by U. Etxeberria et al., 469-486.

Williams, Alexander. 2015. *Arguments in Syntax and Semantics.* Cambridge: Cambridge University Press.

Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11: 203-238.

Wood, Jim. 2012. Against the Movement Theory of Control: Another argument from Icelandic. *Linguistic Inquiry* 43 (2), 322–330.

Wood, Jim. 2017. Icelandic Object Extraposition is still a problem for the MTC: A Reply to Drummond and Hornstein. *Linguistic Inquiry* 48.3: 513–527.

Woolford, Ellen. 2006. Lexical case, inherent case, and argument structure. *Linguistic Inquiry* 37.1:111-130.

Wurmbrand, Susi. 2001. *Infinitives: Restructuring and clause structure.* Berlin: Mouton de Gruyter.

Wurmbrand, Susi. 2006. Licensing Case. *Journal of Germanic Linguistics* 18: 175–236.

Wurmbrand, Susi. 2014. Tense and aspect in English infinitives. *Linguistic Inquiry* 45: 403–447.

Wurmbrand, Susi. 2015. Restructuring cross-linguistically. In *Proceedings of NELS* 45, ed. by Thuy Bui, and Deniz Özyıldız, 227-240. Amherst: University of Massachusetts, GLSA.

Zaenen, Annie, Joan Maling, and Höskuldur Thráinsson. 1985. Case and Grammatical Functions: The Icelandic Passive. *Natural Language and Linguistic Theory* 3: 441–483.

Zaring, Laurie. 1994. On the relationship between subject pronouns and clausal arguments. *Natural Language and Linguistic Theory* 12: 515–569.