Complex predicate formation via voice incorporation

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Abstract

This article proposes a new approach to restructuring which unites complex head approaches with a bare VP complementation approach. With the former, I argue that restructuring involves incorporation, however, in contrast to complex head (V—V) approaches, I argue that only the *voice* head of a restructuring complement undergoes incorporation. With the VP complementation approach, I assume that a restructuring complement contains a syntactically and semantically independent VP. In contrast to the bare VP complementation approach, however, I propose that restructuring complements also involve a *voice* head (but no embedded subject). Motivation for a *voice* head in restructuring comes from the subject interpretation of the embedded predicate, German stem allomorphy, and voice marking in several Austronesian languages. This hybrid account has the advantage that argument structure 'sharing' only applies to the subject of a restructuring configuration, whereas the remaining argument and event structure properties of the matrix and embedded VPs remain separate, which is supported by cross-linguistic properties pointing to the morphological, syntactic, and semantic independence of the two VPs. The account proposed achieves a larger empirical coverage than previous accounts and also improves in several respects on the theoretical details of previous analyses.

1. Introduction

This article provides a new approach to complex predicate (restructuring) constructions which allows a unified treatment of a range of restructuring phenomena in a diverse set of languages (German, Japanese, Itelmen, Chamorro, Acehnese, Mayrinax Atayal, and Isbukun Bunun). Among the mono-clausal complex predicate approaches two main approaches can be distinguished: approaches employing a form of complex head (V—V) formation and approaches assuming a truncated clausal structure, such as a bare VP complementation structure (Wurmbrand 2001 et. seq.; for the former, see, among others, Geach 1970, Steedman 1985, Haider 1986 et. seq., Jacobs 1992, Hinrichs and Nakezawa 1994, Butt 1995, Kiss 1995, Bouma and Noord 1997, Saito and Hoshi 1998, Hoshi 1999, Müller 1999 et seq., Meurers 2000, Saito and Hoshi 2000, Sternefeld 2000, Williams 2003). In this article, I show that both approaches have advantages and disadvantages and I provide a new approach to restructuring which combines the insights of a complex head approach with the merits a syntactic VP complementation structure.

A core property of restructuring cross-linguistically is the phenomenon that arguments of the embedded predicate establish an A-dependency (such as Case, agreement, thematic relations) with the matrix predicate. One such dependency is *long passive* which I will show can be found in several languages. Long passive refers to constructions in which the object of the embedded predicate is promoted to the matrix subject in contexts where the matrix predicate is, depending on the type of language, passivized or occurs in the patient voice. Since in long passive constructions, the voice properties of the matrix predicate determine the Case and argument structure properties of the embedded object, long passive is a showcase of complex predicate formation. However, comparing long passive in several languages, it can be observed that both complex head approaches and a VP complementation approach face the challenge that the embedded predicates appear to be larger than just a V or VP. Specifically, I will show that there is evidence that restructuring complements in the languages discussed involve properties of voice, leading to a structure in which embedded restructuring predicates involve a *v* head. Despite the presence of

a *v* head, I will argue that complex head and VP complementation approaches are correct in assuming that restructuring complements are subject-less. To account for these apparent contradictory properties, I propose a general feature system of *v*, which has as a consequence that a restructuring *v* head cannot combine with a subject but nevertheless caries voice properties as diagnosed by various syntactic, semantic, and morphological properties of restructuring cross-linguistically. To derive restructuring, I show that incorporation of the embedded voice head, rather than the embedded verb itself, provides a new unified approach to complex predicate formation which covers a larger empirical domain than previous accounts and overcomes the problems those accounts face. In the next section, I lay out the basic previous analyses and present data that provide challenges for these approaches. In section 3, I present the feature system of *v* I propose. Section 4 provides the new analysis which covers the argument structure properties of restructuring including the interpretation of the embedded subject, agreement properties as found in Chamorro restructuring, voice properties of restructuring in several Austronesian languages, event structure and transitivity properties of restructuring constructions, and finally the anti-reconstruction effect found in restructuring cross-linguistically.

2. Restructuring — achievements and challenges

2.1 Embedded subjects

The complex head approach and VP complementation approaches differ from restructuring approaches involving a bi-clausal structure in two crucial respects: the lack of a functional domain in the embedded clause and the lack of an embedded subject (such as PRO). As shown in (1), although typologically diverse, German, Acehnese and Mayrinax Atayal show the same long passive configuration: the matrix restructuring predicate, but crucially not the embedded predicate, is passivized (German, Acehnese; see Legate 2012 for arguments that (1b) is a passive configuration in which the matrix verb realizes the features of the implicit agent) or occurs in the patient voice [PV] (Mayrinax Atayal); as a result, the embedded object becomes the matrix subject. Evidence for subject promotion is the nominative case on the object (German, Mayrinax Atayal), agreement with the matrix predicate (German), and/or the position of the object (Acehnese). To account for the argument structure dependencies found in long passive, bi-clausal approaches need to resort to the assumption that the embedded functional domain is made inactive (to eliminate embedded accusative) and that PRO is circumvented in some way when the embedded object is promoted to the matrix subject.

(1) a. *dass der Traktor und der Lastwagen zu reparieren versucht wurden*   German
         that [the tractor and the truck].NOM to repair   tried   were.PASS.PL
         'that they tried to repair the tractor and the truck'

     b. *Aneuk agam nyan   geu-ci   (*geu-)peuréksa   lé dokto*   Acehnese
         child male DEM   3.POL-try   (*3.POL-)diagnose by doctor
         Lit. 'The child was tried to be diagnosed by the doctor.'
         'The doctor tried to diagnose the child.'   [Legate 2012: 501]

     c. *naqaru.un   i   t.um.uting   ni   yumin   ku   bawaq*   Mayrinax Atayal
         finish.PV   LNK beat.AV beat GEN   Yumin   NOM pig
         Lit. 'The pigs were finished to be beaten by Yumin.'
         'Yumin finished beating/killing the pigs.'   [Chen 2010: 5]

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Complex head and VP complementation approaches, on the other hand, derive long passive without any further assumptions. In complex head approaches such as (2), the matrix and embedded predicates form a lexical, base-generated or syntactically derived V*-unit, which, for all intents and purposes, behaves like a single verb. The properties of long passive can then be attributed to this merged argument structure. According to the bare VP complementation approach in (3), the embedded restructuring complement (RC) is highly deficient, lacking the projections assigning NOM and ACC Case. The lack of a functional domain in the RC is then responsible for making the embedded object Case-dependent on the functional domain of the matrix predicate.

(2) a. [$_{V*}$ restructuring V1 + embedded V2]   V*: combined argument structure of V1/2
     b. *try* [agent, event (inf)]
     c. *repair* [agent, theme (obj)]
     d. *try-repair* [agent, theme (obj)]

(3)   [$_{vP/TP}$ *v*.ACC/T.NOM [$_{VP1}$ restructuring V1 [$_{VP2\text{-}RC}$ embedded V2]]]

Both approaches entail that the embedded predicate does not project a syntactic subject. Evidence for this claim comes, among others, from binding. As shown in (4a), in non-restructuring contexts (i.e., full-size complements), embedded anaphors such as inherent reflexives are possible, which is as expected if those complements involve an embedded PRO subject. In the long passive configuration such as (4b), on the other hand, anaphors and hence inherent reflexives are impossible. This follows if, as predicted by complex head and the VP complementation approach, a RC does not include a subject which could function as the binder of the reflexive (being passive, the matrix predicate also does not have a subject in an argument position).

(4) a. *Es   wurde versucht* [PRO$_{IMPL}$ *sich*$_{IMPL}$ *den Fisch   mit Streifen   vorzustellen*]
         It   was   tried   [PRO$_{IMPL}$ SELF$_{IMPL}$ the fish.ACC   with stripes   to-imagine]
         'People tried to imagine what the fish would look like with stripes.'

     b. **weil   sich   der Fisch   mit Streifen   vorzustellen versucht wurde*
         since   SELF   the fish.NOM   with stripes   to-imagine   tried   was
         'since somebody tried to recall the image of the fish'

One question arising, however, for the VP complementation approach concerns the interpretation of the embedded subject. In active restructuring contexts, the matrix subject acts as the subject of both matrix and embedded predicates. Similarly, in the long passive cases in (1), the implicit matrix agent must also be understood as the agent of the embedded predicate. For a VP complementation approach (where no argument structure unification takes place) a mechanism is needed that arrives at the correct interpretation. An option that has been proposed (see in particular Chierchia 1984a, b) is to rely on meaning postulates such as the one in (5), which lexically associate the matrix agent with the embedded predicate. Given that meaning postulates are rather ad hoc, the question is whether there is a better way to derive the subject interpretation in restructuring contexts.

(5) a. *try'* (P) (x) $\rightarrow$ $\square_j$ P (x)   Chierchia (1984a: 34)
     b. whenever x tries to bring about P, then in all the contextually relevant situations
         (namely those where what x tries actually succeeds) x does P

2.2 Restructuring involves voice

2.2.1 Stem allomorphy in German (Pitteroff, in prep)

German, like many other languages, has verbs that alternate between an inchoative (*the window broke*) and causative interpretation (*he broke the window*). In certain cases, the inchoative–causative alternation is expressed as stem allomorphy in German, as illustrated in (6a-c). A prominent syntactic approach to this alternation is to associate the two interpretations with different *v*P structures. Alexiadou et al. (2006), for instance, argue that the causative version involves a VoiceP (in addition to a causative *v*P, following Pylkkännen 2002; see also Schäfer 2008, Pitteroff and Alexiadou 2012, Pitteroff in prep). In those works, stem allomorphy is then derived as different spell-outs of the verbal roots depending on the syntactic context. In a distributed morphology approach, this could be expressed via vocabulary insertion rules such as the ones in (6d).

(6) | | | inchoative | causative
| | a. | sink: | *versinken* | *versenken*
| | b. | fall/chop (tree): | *fallen* | *fällen*
| | c. | fall asleep/put to sleep | einschlafen | einschläfern

| | d. | √SINK | ⟹ | *versenken* | /__VoiceP
| | | √SINK | ⟹ | *versinken*

This approach has an important consequence for restructuring. Pitteroff (in prep, p.c.) observes that in restructuring constructions only the causative versions are possible; the inchoative versions are excluded.

(7) a. *Der Frachter* *wurde* *zu versenken* / **versinken* *versucht*
the.NOM freighter was to sink.CAUS / *sink.INCH tried
'People tried to sink the freighter.'

b. *Der Baum* *wurde* *zu fällen* / **fallen* *begonnen*
the.NOM tree was to cut / *cut.down begun
'People began to cut down the tree.'

c. *Der Vulkanier* *wurde* *einzuschläfern* / **einzuschlafen* *versucht*
the.NOM Vulcan was to.put.to.sleep / *fall.sleep tried
'People tried to put to sleep the Vulcan.'

The distribution in (7) poses a serious question for both complex head approaches and the bare VP complementation approach to restructuring (note that all the examples above involve long passive). If the causative versions of the verbs in (6) are dependent on the syntactic presence of a VoiceP, both types of complex predicate approaches are challenged by these examples. Instead what is needed is a more complex structure of RCs—i.e., a structure that involves at least a voice head.

2.2.2 *Voice marking in Austronesian restructuring*

Broadening the empirical domain of restructuring from the well-studied European languages, we find that restructuring and long passive exists in several Austronesian languages. A property relevant for the distribution of restructuring is the rich *voice* marking of these languages. Interestingly, languages fall into two groups when voice marking in restructuring constructions is considered: languages in which the matrix and embedded voice must match, and languages in which the embedded voice is realized as a default voice. Voice matching is illustrated in (8). In Chamorro and Isbukun Bunun, for instance, both predicates are either active/in the active voice [AV] or passive/in the PV. As shown in (9) for Chamorro, active/passive mismatches lead to ungrammaticality (in the account to be presented, (9a,c) will also be excluded due to lack of ACC for the embedded object).

(8) a. *Ma'a'ñao*   *i pätgun*   *ha-taitai*   *esti na lepblu*   Chamorro
   NPL.RL.IN.afraid   the child   3SG.RL.TR-read   this LNK book
   'The child is afraid to read this book.'   [Chung 2004: 203; (5a)]

   b. *Chinägi*   *dinispensa*   *si Carmen*   *gias Maria*   Chamorro
   NPL.R.IN.PASS.try NPL.RL.IN.PASS.forgive   DET Carmen   OBL Maria
   Lit. 'Carmen was tried to be forgiven by Maria.'
   'Maria tried to forgive Carmen.'   [Chung 2004: 219; (31a)]

   c. *Miliskin*   *saikin*   *tu*   *ma-baliv* *bunbun-cia*   Isbukun Bunun
   AV.want   1SG.NOM   TU   AV-buy   banana-that.OBL
   'I want to buy the bananas.'   [Wu 2013: 39; (8)]

   d. *Iliskinun-ku*   *bunbun-a*   *tu*   *baliv-un*   Isbukun Bunun
   want.PV-1SG.ACC   banana-that.NOM   TU   buy-PV
   Lit. 'The bananas are wanted to be bought by me.'
   'I wanted to buy the bananas.'   [Wu 2013: 40; (10b)]

(9) a. **Tinituhun*   *ha-lalatdi*   *si Dolores*   *i famagu'un*
   NPL.RL.IN.PASS.begin 3SG.RL.TR-scold Dolores   the children
   'Dolores began to scold the children'   [Chung 2004: 219; (32a)]

   b. **Tinituhun*   *kumati*   *i pätgun*
   NPL.RL.IN.PASS.begin   NPL.RL.IN.cry   the child
   'The child began to cry.'   [Chung 2004: 219; (32b)]

   c. **Ha-hähassu*   *si Carmen*   *binisita*   *i biha*
   3SG.RL.TR-think.PROG   Carmen   NPL.RL.IN.PASS.visit the old.lady
   'Carmen is thinking of visiting the old lady.'   [Chung 2004: 222; (37a)]

   d. **Kao*   *ha-ayuda*   *man-sinedda'*   *i famagu'un*   *ni chi'lu-hu?*
   Q   3SG.RL.TR-help   PL.RL.IN-PASS.find the children   OBL sibling-1SG
   'Did my brother help find the children?'   [Chung 2004: 222; (37b)]

In contrast, as we have seen in (1), German, Acehnese and Mayrinax Atayal always involve active (voice) in the restructuring complement, which I argue are default voice realizations. Passive constructions in Acehnese are expressed by means of an affix on the verb realizing the features

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of the underlying agent (see Legate 2012). Crucially, in the restructuring case in (1b) (repeated as (10a)), the features of the underlying agent cannot be realized on the embedded verb but only on the matrix verb. Instead, the embedded verb shows up in the bare form. In restructuring constructions in Mayrinax Atayal, the embedded verb must occur in the AV, independently of the voice of the matrix predicate (see (10b,c)), and embedded PV is excluded, even if the PV matches a PV in the matrix predicate (see (10d,e)).

(10) a. *Aneuk agam nyan*   *geu-ci*   (**geu-*)*peuréksa*   *lé dokto*   Acehnese
child male DEM   3.POL-try   (*3.POL-)diagnose   by doctor
Lit. 'The child was tried to be diagnosed by the doctor.'
'The doctor tried to diagnose the child.'   [Legate 2012: 501]

     b. *naqaru.un*   *i*   *t.um.uting*   *ni*   *yumin*   *ku*   *bawaq*   Mayrinax Atayal
finish.PV   LNK   beat.AV.beat   GEN Yumin   NOM pig
Lit. 'The pigs were finished to be beaten by Yumin.'
'Yumin finished beating/killing the pigs.'   [Chen 2010: 5]

     c. *m.naqru*   *i*   *t.um.uting*   *cu*   *bawaq*   *i*   *yumin*
AV.finish   LNK   beat.AV.beat   ACC pig   NOM Yumin
'Yumin is finishing beating/killing pigs.'   [Chen 2010: 7]

     d. **naqaru.un*   *i*   *tuting.un*   *ni*   *yumin*   *ku bawaq*
finish.PV   LNK   beat.PV   GEN Yumin   NOM pig   [Chen 2010: 11]

     e. **m.naqru*   *i*   *tuting.un*   *i*   *yumin*   *cu bawaq*
AV.finish   LNK   beat.PV   NOM Yumin   ACC pig   [Chen 2010: 11]

Mayrinax Atayal also provides interesting evidence for the claim that the embedded AV is a default voice realization and not a true AV. I summarize one argument here; for details and further arguments, the reader is referred to Chen (2010). In Mayrinax Atayal, like in many other Austronesian languages, A'-extraction of the object is only possible when the verb occurs in the PV. The blocking effect of AV is illustrated in (11a) vs. (11b) for extraction in simple clauses, and (11c) for extraction from an embedded (non-restructuring) clause. In restructuring contexts, on the other hand, AV is possible (in fact necessary) in the embedded predicate as shown in (11d). The fact that AV does not block object extraction in restructuring contexts, whereas it does so in simple clauses and non-restructuring contexts, thus provides evidence for AV not being a true voice.

(11) a. *nanuan*   *ku*   *tuting.un*   *ni yumin*   Mayrinax Atayal
what   NOM   beat.PV   GEN Yumin
'What is Yumin beating/killing?'   [Chen 2010: 8]

     b. *nanuan   *ku*   *t.um.uting*   *i yumin*
what   NOM   beat.AV.beat   NOM Yumin

     c. *nanuan   *ku*   *siwal.an*   *ni tali*   *i*   *t.um.uting*   *i yumin*
what   NOM   allow.LV   GEN Tali   COMP   beat.AV.beat   NOM Yumin
'What did Tali allow Yumin to beat/kill?'

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c. *nanuan   ku   naqaru.un   i   t.um.uting   ni yumin*
   what   NOM   finish.PV   LNK   beat.AV beat   GEN Yumin
   'What did Yumin finish beating/killing?'

Although the details and function of Austronesian voice marking are still under debate, a common assumption in many accounts is that voice marking is a reflex of a functional head in the TP/*v*P domain agreeing with a particular argument (see Pearson 2005, Rackowski 2002, Rackowski and Richards 2005, Aldridge's 2004, 2006, 2007 for different instantiations of this assumption). If this is the case, the question that both complex head approaches and the VP complementation approach are faced with is the question of how voice marking is possible on the embedded verb. Voice matching could perhaps be seen as some form of morphological feature spreading which associates both verbs with the same voice element at PF. However, default voice languages then present a puzzle.

In this article, I assume a direct syntax-morphology mapping in the sense that the morphological presence of an inflectional affix entails the presence of a syntactic head corresponding to that affix (but not vice versa). Following Wurmbrand (2013c), I assume that Austronesian voice marking is exactly that: agreement of an argument with *v*. The distribution of voice marking in restructuring contexts in the languages discussed above then leads to the conclusion that RCs involve a voice head. The same conclusion has been reached regarding the German stem allomorphy facts in the previous section. Putting the findings regarding voice together with the claim that RCs do not project an embedded subject, we appear to be in a contradictory situation: a RC complement involves a voice head, however, no embedded subject. In the next section, I present an approach that derives these properties.

3. The features of voice

How can there be an active *v* head but no subject? To answer this question, a short detour of the feature specification of *v* is necessary. Following a valuation based approach to Agree (Pesetsky and Torrego 2007, among others), I assume that unvalued features are not utilizable by the interfaces, and that elements inserted with unvalued features must enter an Agree relation with an element with corresponding valued features, which results in feature valuation/sharing. In contrast to the standard view of Agree (Chomsky 2000, 2001), I assume a feature valuation system in which unvalued features receive a value from a *c-commanding* element with a corresponding valued feature under Reverse Agree (cf. (12) and (13)).

(12) A feature F: __ on α is valued by a feature F: val on β, iff   [Wurmbrand To appear]

    i.   β c-commands α AND
    ii.   α is *accessible* to β. [*accessible*: not spelled-out]
   iii. α does not value {a feature of β}/{a feature F of β}.

(13)
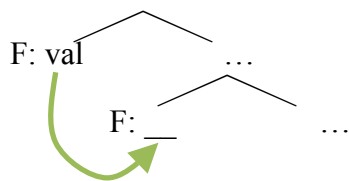
[See also: Neeleman and Koot 2002, Adger 2003, von Stechow 2003, 2004, 2005, 2009, Baker 2008, Hicks 2009, Haegeman and Lohndal 2010, Bjorkman 2011, Grønn and von Stechow 2011, Merchant 2011, Zeijlstra 2012, Wurmbrand 2012a, b, To appear]

As for *v*, I assume that *v* has two types of features, φ-features and a *v*-feature, which both can be specified (valued) or underspecified (unvalued), yielding several different types of *v*.[1] In active contexts, as shown in (14a), *v* is inserted with an AGENT value (or a different flavor of that value), which translates as an argument introducing head such as Kratzer's (1996) Agent* (λxeλes[Agent(x)(e)]). Furthermore, *v*: AGENT has the capacity to accusative Case. The φ-features of *v* are inserted unvalued.[2] For the φ-features to be valued, *v'* must merge with an NP with valued φ-features. Valuation of *v*'s φ-features by an NP merged with *v'* then translates as *argument-of* relation. Specifically, *v*: AGENT (or *v*: PASS; see below) identifies the φ-features as the AGENT argument.

In non-agentive cases, *v* is inserted with an unvalued *v*-feature. Depending on which head values the *v*-feature, different constructions arise. In case of passive, *v*P merges with the passive auxiliary, which values the *v*-feature of *v* as PASSIVE (see (14b). Following Legate (2010, 2012), I further assume that passive *v* is inserted with lexically valued φ-features, which correspond to the features of an (implicit or oblique) agent. As we have seen in (1b)/(10a), these features are overtly realized in Acehnese. A *v* head valued as PASS translates as a head introducing an existentially closed agent argument which identifies the φ-features on *v* as the implicit AGENT of the event. Since only *v*: AGENT assigns accusative Case, the object must move into the Agree domain of T to receive (NOM) Case.

(14) a. Active *v*   b.   Passive
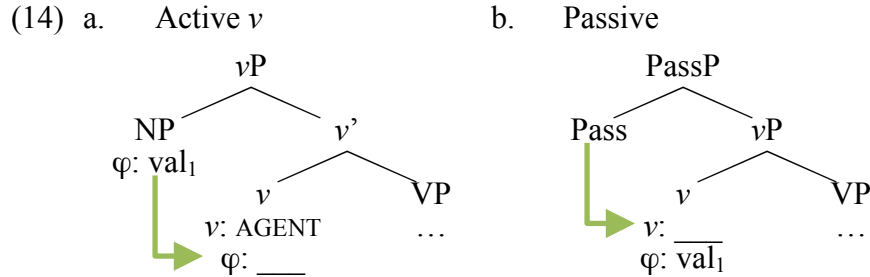
Turning to restructuring, I propose that in restructuring contexts, *v* is inserted with unvalued *v* and unvalued φ-features as in (15). The lack of an AGENT value accounts for the impossibility of merging an embedded subject with a restructuring *v*. Furthermore, restructuring *v* needs to enter a dependency with matrix *v*, which I suggest is established via *v* incorporation. In the next section, I will illustrate the detailed derivations for different restructuring configurations and show how this approach covers the facts discussed so far.
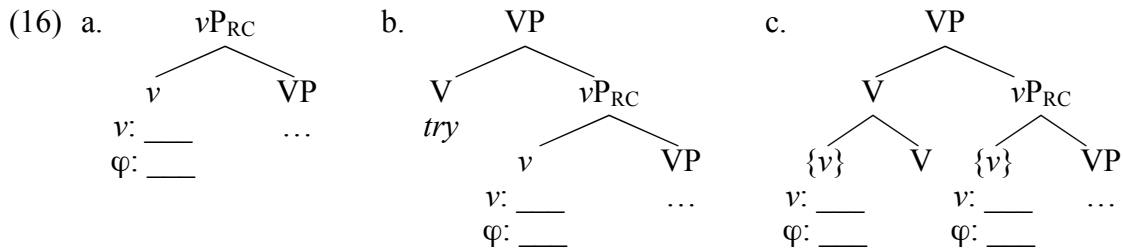
(15)

___
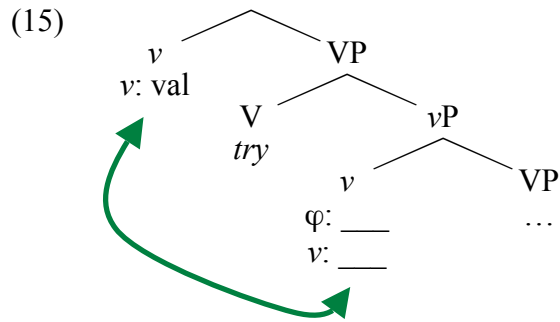
[1] In Wurmbrand (2013d, in prep), I show that there are (at least) six possible combinations which yield the following constructions: active, passive, *pro*, inchoative/anti-causative, restructuring and retroactive constructions. In the current article, I concentrate and the basic active/passive cases and restructuring.
[2] In *pro*-drop languages, the φ-features of *v* are inserted valued (see Alexiadou and Anagnostopoulou 1998).
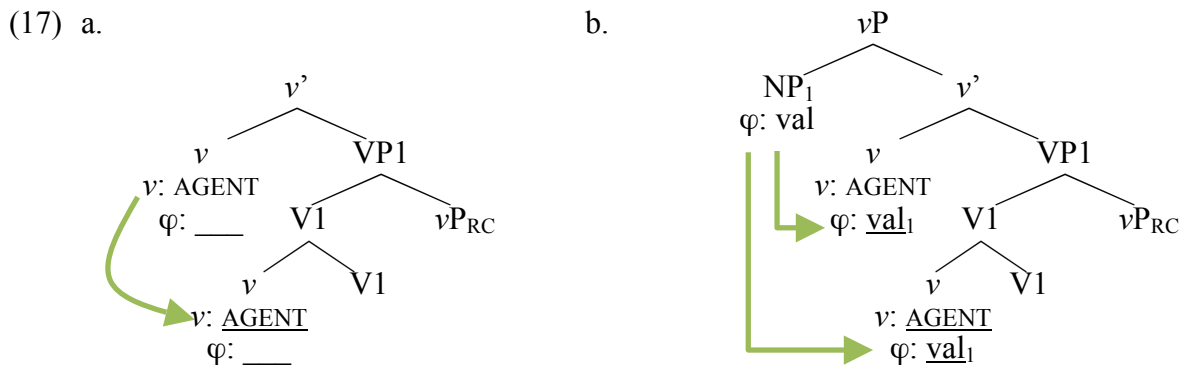
4. Deriving the properties of restructuring

4.1 Subject interpretation and agreement

The basic step-by-step structure of a RC is given in (16.) The embedded VP merges with a re-structuring v, which is underspecified for both v and φ values. Since a subject can only be introduced by a v head with an AGENT feature, no subject can be merged with a restructuring v, which accounts for the binding properties discussed in section 2.1 and the lack of a subject intervention effect in long passive. Instead the RC is merged directly with the matrix restructuring verb (cf. (16b)). At this point, complex predicate formation takes place, which, in the current approach, involves incorporation of the restructuring v into the matrix verb as in (16c) (see section 4.3 for evidence that only v incorporates and not the embedded verb). Further structural consequences of this incorporation operation will be discussed in sections 4.2 and 4.4.

(16) a.
```
        vP_RC
       /    \
      v      VP
   v: ___    ...
   φ: ___
```
b.
```
        VP
       /  \
      V    vP_RC
     try   /  \
          v    VP
       v: ___  ...
       φ: ___
```
c.
```
           VP
          /  \
         V    vP_RC
       /  \   /  \
    {v}  V  {v}   VP
    v:___  v:___  ...
    φ:___  φ:___
```

Let us start with active matrix restructuring predicates. The further derivation is given in (17). If the matrix predicate is active, v is inserted with an AGENT feature and unvalued φ-features. After v merges with the matrix VP, v values the v-feature of the restructuring v as in (17a). Lastly, the matrix subject merges and values the φ-features of both matrix v and the embedded v. In this derivation, the RC is correctly associated with the matrix subject—due to the two feature valuation relations NP$_1$ establishes in (17b), NP$_1$ is interpreted as the agent of both the matrix and the embedded v. The advantage of this analysis is that the embedded predicate is associated with an agent, however, as desired, there is no separate embedded subject in a RC.

(17) a.
```
              v'
            /    \
           v      VP1
       v: AGENT   /  \
        φ: ___  V1    vP_RC
               /  \
              v    V1
          v: AGENT
           φ: ___
```
b.
```
                 vP
                /   \
             NP_1    v'
            φ: val  /  \
                   v    VP1
               v: AGENT /  \
               φ: val_1 V1   vP_RC
                       /  \
                      v    V1
                  v: AGENT
                  φ: val_1
```

The analysis in (17) also straightforwardly accounts for the agreement properties of restructuring constructions in Chamorro.[3] As noted in Chung (2004), embedded restructuring predicates in

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[3] The basic restructuring analysis proposed here is similar to the proposal in Chung (2004), but agreement is handled differently. Chung suggests that RCs in Chamorro are vPs, however, in contrast to the account in this paper, in active restructuring contexts, the RC also involves a subject and a v head that is capable of assigning ACC Case. For

Chamorro agree with the matrix subject. This is illustrated in (18) (see also (8a)). Agreement in Chamorro is conditioned by transitivity and mood. In (18a), for instance, in intransitive realis contexts, the (3.)PL marker is *man-* whereas the 3.PL marker is *ma-* in transitive realis contexts. Similarly in (18b), 3.SG is realized as *um-* in intransitive realis contexts and as *ha-* in transitive realis contexts. Despite yielding different affixes due to the transitivity difference between the matrix and embedded predicates, agreement on both predicates in (18) clearly reflects the φ-features of the subject (see section 4.3 for an account and consequences of transitivity mis-matches between the two predicates). These agreement facts in Chamorro follow directly from the restructuring configuration in (17), in particular the computation of the φ-values of the matrix and embedded *v*'s: the embedded predicate agrees with the matrix subject exactly because the φ-features of the embedded *v* are valued by the matrix subject. Agreement can thus be seen as a spell-out of those features. On the other hand, in bare VP complementation and complex head approaches, agreement on embedded restructuring predicates is not expected and a direct syntax–morphology mapping could not be achieved.

(18) a. *Man-o'sun   ma-dipendi   siha   i famalao'an   gias Juan*
          PL.RL.IN-bored 3PL.RL.TR-depend themselves the women   LOC Juan
          'The women are tired of depending on Juan.'   [Chung 2004: 205; (8a)]

    b. *Um-o'sun   ha-suguni   yu'   pära i iskuela   i ma'estra*
          NPL.RL.IN-bored 3SG.RL.TR-drive me   to the school   the teacher
          'The teacher became tired of driving me to school.'   [Chung 2004: 203; (5c)]

Turning to passive restructuring configurations, if the matrix precicate is passive, *v* is inserted with valued φ-features (corresponding to the implicit or oblique agent) and an unvalued *v*-feature. As shown in (19a), after *v* merges with the matrix VP, matrix *v* values the φ-features of the restructuring *v*. The matrix *v*P is then merged with the passive head in (19b), which values both the matrix and the embedded *v* heads as passive. Since the two *v* heads share the φ-features, the passive feature correctly associates both predicates with the same (implicit) agent.

(19) a.   b.

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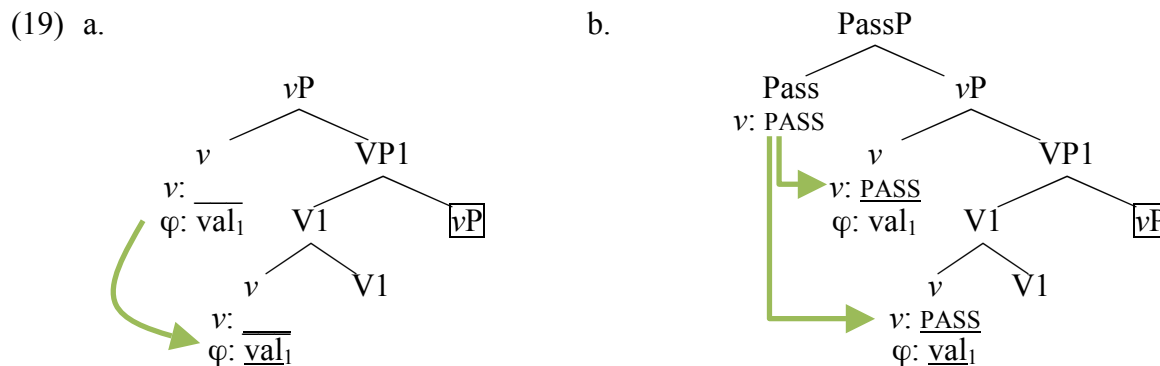
passive restructuring contexts, the accounts are basically the same. To distinguish between these two approaches in active restructuring contexts is difficult. As we will see in section 4.4, the property that favors the view that RCs are subject-less (and hence Case-less) is scope: quantified elements cannot take scope within the embedded predicate but must obligatorily take matrix scope. The analysis I propose is crucially built on the claim that RCs are not pro-positional—i.e., they lack a subject (despite having a *v* head which expresses agentivity). This anti-reconstruction effect is well-motivated for German, Japanese, and Itelmen, but, unfortunately, no scope data are available for Chamorro.

Chamorro again offers interesting support for this account. There are two passive morphemes in Chamorro: the prefix *ma-* and the infix *-in-* (plus some phonologically triggered variants of these morphemes). The choice between these two affixes depends on the features of the (implicit) agent argument, and crucially not the surface subject. The prefix *ma-* is used when the understood agent is plural, whereas the infix *-in-* is used when the agent is singular (see Chung 1998, 2004). This is shown in (20) (see also (8b)): in (20a), the underlying agent is *the men*, hence *ma-* is used; in (20b), the agent is *Joaquin's mother*, hence *-in-* is used; finally in (20c), the agent is the plural argument *the students* (whereas the surface subject is the singular NP *the teacher*), and the passive morpheme must be the affix specified for plural, i.e., for the features of the implicit/oblique agent. The structure in (19) straightforwardly derives the agent conditioned allomorphy of the passive morpheme, since *v* is specified for the features of the agent, which are thus visible when vocabulary insertion takes place.[4]

(20) a. *Pära tafan-ma-chägi   ma-na'fanätuk   ni   lalahi siha*
          FUT 1PL.IR.IN-PASS-try NPL.RL.IN-PASS-hide OBL men PL [Chung 2004: 204; (6a)]
          Lit. 'We will be tried to be hidden by the men.' 'The men will try to hide us.'

      b. *Hagu pära un-tinituhun   in-änña   ni nana-n Joaquin*
          you   FUT 2SG.IR.IN-PASS-begin NPL.RL.IN-PASS-beat   OBL mother-LNK Joaquin
          'Joaquin's mother is going to begin to punish you.'   [Chung 2004: 219 (31b)]
          Lit. 'You will be begun to be punished by Joaquin's mother.'

      c. *Ma-hähassu   ni istudianti   ma-bisita   i ma'estra*
          NPL.RL.IN.PASS-think.PROG   OBL students   NPL.RL.IN.PASS-visit   the teacher
          'The students are thinking of visiting the teacher.'   [Chung 2004: 228; (44a)]
          Lit. 'The teacher is thought to be visited by the students.'

To conclude, the derivations in (17) and (19) derive the thematic properties found in restructuring constructions cross-linguistically: the matrix and embedded predicates are both associated with the same agent, and a RC is hence interpreted agentively (after valuation, the embedded *v*P is agentive, because *v* is either valued *v*: AGENT or *v*: PASS, both of which associate the embedded VP with an (explicit or implicit) agent). Importantly, however, a vP_{RC} does not involve its own subject, but 'shares' the subject with the matrix predicate. The analysis therefore correctly accounts for the apparent paradoxical situation that RCs are agentive but subject-less.

4.2 Phases and the spell-out of *voice*

In this section, I discuss the morphological voice properties in restructuring constructions and show that the current account, bundled with a particular view on phases, also allows us to derive the differnce between voice matching and default voice languages. Before turning to the

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[4] In the examples in (20), we see that passive verbs can also agree with the promoted surface subject. This agreement is missing in the embedded predicates due to various independent restrictions on subject agreement (S. Chung, p.c.; in (20a), the embedded verb involves a causative, which is already specified for agreement; furthermore, in realis forms, singular agreement can be unpronounced yielding (20b,c); see also Chung 1998). If (surface) subject agreement is also possible in passive RCs, this would mean that the transitivity head (see section 4.3) also has φ-features which are valued by the object on its way to the matrix clause where it is assigned NOM Case by T. Movement is necessary since the object must escape spell-out in the RC, which, I will argue, constitutes a spell-out domain.

languages with voice marking, let us look in more detail at the structure of the embedded predicate in restructuring constructions, in particular the phasehood properties of RCs.

I propose that voice incorporation has an important structural reflex: following several recent strands of research (Gallego 2005, 2010, Gallego and Uriagereka 2006, den Dikken 2007), I assume that head movement of a phase head extends (or slides up) the phase to the projection of the incorporated (or re-projected) head. Since the restructuring vP closes off the extended projection of the embedded verb (merging the matrix verb starts a new lexical verbal domain), a restructuring vP is a (potential) phase.[5] Incorporation of v into V as in (23), however, extends the phasehood to the matrix VP and makes the restructuring vP a spell-out domain. As a consequence, the embedded object must move to Spec,VP to escape spell-out of the vP$_{RC}$. Recall that only v heads specified with a v: AGENT feature can assign ACC case. Although RCs involve a v head, this head is underspecified at Merge, and still at the stage of the derivation in (21), i.e., when spell-out of the restructuring vP occurs. Since no case is available for the embedded object in situ, movement to the phase edge (Spec,VP) as in (21) must apply for the object to escape spell-out.

(21)

$$\text{VP1}_{\text{Phase}}$$

NP.OBJ   V1'

V1 vP$_{\text{SOD}}$

v V1 v VP2

v: ___ v: ___   V t_{Obj}
φ: ___ φ: ___
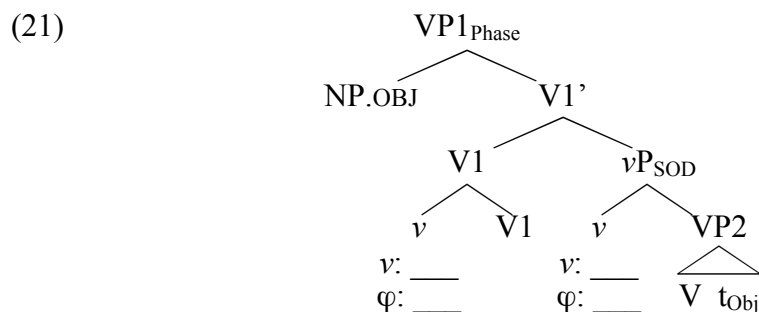
Evidence for this obligatory movement of the object is provided by VP fronting as in (22) (the data are from Bobaljik and Wurmbrand 2005: 823f). If the embedded object remains in the RC as in (22a), its Case cannot be licensed and the derivation fails.[6] On the other hand, movement of a remnant RC as in (22b) is possible since the object occurs in the matrix clause, where it can receive Case from T.

(22) a. *[*Ein blauer Wagen zu reparieren*]$_{RC}$ *wurde erst gestern vergessen.*
      a.NOM blue car   to repair   was   just yesterday   forgotten
      It just happened yesterday that they forgot to repair a blue car.

    b. [*Zu reparieren*]$_{RC}$ *wurde   erst gestern   ein blauer Wagen vergessen.*
      to repair   was   just yesterday   a.NOM blue car   forgotten
      It just happened yesterday that they forgot to repair a blue car.

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[5] It is crucial that restructuring verbs such as *try* are considered as lexical verbs. Extensive motivation for this view comes from systematic differences between functional restructuring (i.e., constructions in which the restructuring verb is part of the clausal spine) and lexical restructuring (see Wurmbrand 2004, Bobaljik and Wurmbrand 2005). Although it is not crucial for this article, I follow a *dynamic phase approach*, according to which the highest projection of a cyclic domain (here the extended domain of V) is a phase (Bobaljik and Wurmbrand 2005, 2013, den Dikken 2007, 2012a, b, Bošković To appear, Wurmbrand 2013a, b).
[6] Movement out of a fronted XP after reconstruction of that XP is excluded due to the freezing effect caused by fronting (see Bobaljik and Wurmbrand 2005 for further details).

Voice incorporation opens a way to derive the difference between voice matching and default voice languages. When a phase is complete, an operation that takes place within the phase and before actual spell-out is copy choice: in chains consisting of more than one copy of a particular syntactic object, one copy of that object is selected for pronunciation/interpretation, and the other copy is typically deleted. Consider now the configuration in (23) in this respect. At the VP1 phase level, a choice has to be made between the higher copy of *v* or the lower copy of *v*. If the higher copy is chosen, the lower copy is deleted and spell-out only affects the embedded VP2. The incorporated *v* is spelled-out when the next phase is completed, and at that point, the incorporated *v* will have been valued with the same value as the matrix *v* (cf. (17) and (19)). Since the two *v* heads have the same features, voice matching is derived. Suppose now that certain languages also have the option of choosing the lower copy of the incorporated *v* before PF spell-out of the restructuring *v*P. At the stage of the derivation when spell-out of vP_{RC} occurs, however, the features of the embedded *v* have not been determined yet. I propose that in such cases, default values are used at PF (but to ensure the correct interpretation, LF must always chose the higher copy of *v*). For the languages under consideration, the default forms are the AV in Mayrinax Atayal, the infinitive in German, and the bare form in Acehnese.[7]

(23)
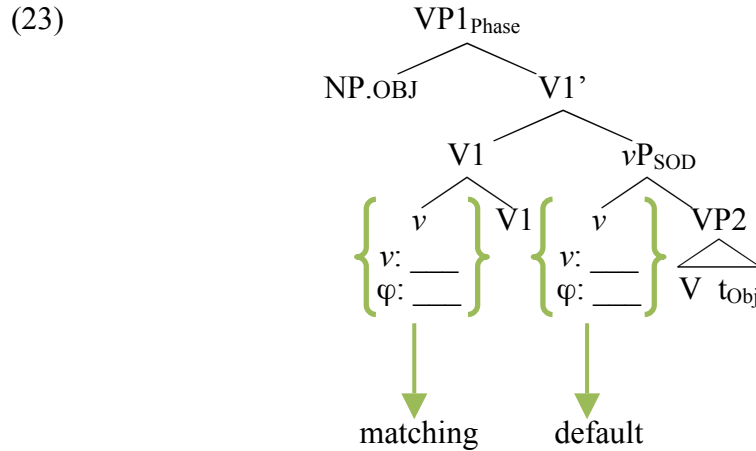
4.3 The independence of restructuring complements

Although the *v* incorporation approach proposed here is similar to the traditional V—V complex head formation approach in that the (implicit or explicit) matrix subject is shared by both predicates, the account is also different in two crucial ways. First, *v* incorporation only affects the interpretation of the subject—the remaining argument structures remain separate. Second, as shown in (23), the embedded VP2 remains an independent VP in syntax as well as an independent semantic event. In what follows I show that the properties of restructuring do indeed favor the *v* incorporation approach over a traditional complex head approach.

As argued in Wurmbrand (2001, 2007) for German and Bobaljik and Wurmbrand (2007) for Japanese, RCs clearly constitute independent events since they can be modified separately and can also involve a telicity specification different from the matrix predicate. German, like

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[7] Currently, I do not have information about whether there are default voice languages which, like Chamorro, also involve overt agreement in the RC. To refine the spell-out account proposed here it would be interesting to see if such languages exist and if so, what agreement forms are used in such cases.

English, has two types of telicity modifiers—*in* adverbials which are only compatible with a telic (bounded) event, and *for* (German *lang*) adverbials which are only compatible with atelic events. As shown in (24a,b) (examples from Wurmbrand 2007: 277, (45)), restructuring configurations can involve both an *in* and a *for* adverbial. The former modifies the embedded event, which thus has to be seen as a telic event, whereas the latter modifies the matrix event, which is atelic. The opposite modification relations are excluded. If, on the other hand, the embedded event is changed to an atelic event, which can be achieved by using a plural object as in (24c), both predicates can be modified by a *for* adverbial.

(24) a. *Sie   haben den Damm   ein Jahr lang   in zwei Monaten bauen   wollen*
          They have   the dam   one year long   in two months   build   want
          'They wanted for a year to build the dam in two months'

     b. **Sie   haben den Damm   in zwei Monaten ein Jahr lang   bauen   wollen*
          They have   the dam   in two months   one year long   build   want
          *'They wanted in two months to build the dam for a year.'

     c. *Sie   haben ein Jahr lang   zwei Monate lang Dämme   bauen wollen*
          They have   one year long   two months long   dams   build want
          'For a year, they wanted to build dams for two months'

In a complex head approach, in particular one where the argument structures are merged into a single event, it would be rather difficult to account for the facts in (24).

A further argument against a complex V—V head comes from the syntactic properties of RCs. As shown in (25), long passive in German is compatible with VP-topicalization. Since the embedded verbs (more concretely the embedded VP) can undergo movement by itself, a complex V—V structure is again problematic. Assuming the structure in (23), on the other hand, straightforwardly derives these facts.

(25)   [*Zu reparieren*]$_{VP}$ *wurden   nur blaue Autos   vergessen*
          [To repair   ]$_{VP}$ were   only blue cars   forgotten
          'They only forgot to repair blue cars.'   [Wurmbrand 2007: 264]

The last argument for the current approach and against a complex head approach is provided by restructuring in Chamorro. As we have seen in section 4.1, Chamorro RCs display subject agreement, which is sensitive to the transitivity of the predicate. Crucially, in restructuring contexts, the matrix and embedded events register transitivity separately. In (26a) (repeated from (8a)), the matrix agreement comes from the intransitive paradigm, whereas the embedded agreement uses the transitive paradigm. The opposite is the case in (26b): the verb *begin* is transitive in Chamorro (S. Chung, p.c.; when *begin* occurs with an eventive NP as in (26c), a reflexive configuration is used), hence matrix agreement chooses the transitive form, whereas the embedded verb is intransitive and agreement is chosen from the intransitive paradigm.

(26) a. *Ma'a'ñao   i pätgun   ha-taitai   esti na lepblu*   Chamorro
          NPL.RL.IN.afraid   the child   3SG.RL.TR-read   this LNK book
          'The child is afraid to read this book.'   [Chung 2004: 203; (5a)]

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 b. *Ma-tutuhun* *man-mahalang* *i famalao'an* *as Dolores*
   3PL.RL.TR-begin PL.RL.IN-lonely the women OBL Dolores
   'The women began to feel lonely for Dolores.'   [Chung 2004: 204; (5d)]

 c. *Ha-tutuhun* *gui'* *i ichan*
   3SG.RL.TR-begin itself the rain
   'The rain began.'   [S. Chung, p.c.]

Under a complex head approach this distribution would be difficult to account for. Furthermore, if restructuring were to involve merged argument structures, it would be mysterious why the two predicates register transitivity differently. In the *v* incorporation approach, on the other hand, argument 'sharing' only applies to the subject of the two predicates. The argument structures of the two predicates are not merged and remain distinct. Thus in (26a), the embedded predicate is transitive since it is associated with two arguments—V (or another head of a decomposed VP) selects an object and the restructuring *v* head associates the VP with an agent argument. The matrix verb, on the other hand, selects only one NP-argument, the subject, and hence the matrix predicate qualifies as intransitive. The opposite situation is the case in (26b).

  If transitivity is encoded syntactically, these facts motivate a split *v*P as, for instance, proposed in Collins (1997, 2005), where transitivity and agentivity are associated with different projections. RCs project their own transitivity phrase (which is specified independently of the matrix predicate), however, the restructuring *v* head associated with the agent interpretation (and ACC Case) is underspecified and only receives its values via the dependency with the matrix *v*.

4.4 Anti-reconstruction

The last restructuring property I discuss in this article is the so-called anti-reconstruction effect found cross-linguistically in restructuring contexts. Bobaljik and Wurmbrand (2005, 2007) show that in German, Japanese, and Itelmen, quantifiers originating in a lexical RC cannot take scope within the RC but must obligatorily take scope over the matrix predicate. Some of the relevant examples from the three languages discussed in Bobaljik and Wurmbrand (2005: 810) are given in (27).
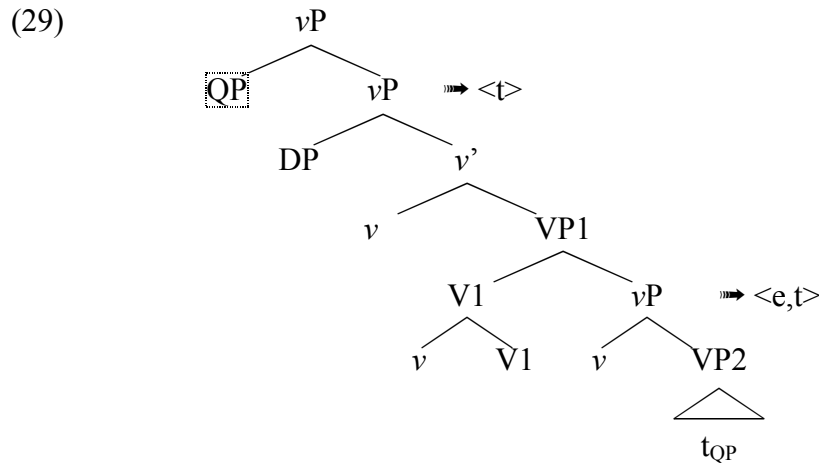
(27) a. *weil* *er* *alle Fenster*   *vergessen* *hat* [t_OBJ *zu schließen*]
    since he all windows (ACC) forgotten has [t_OBJ to close]
    'since he forgot to close all the windows'   ∀ *» forget*; **forget » ∀*

  b. *t'-əntxa-čeʔn*   [*miɬ* *okno-ʔn* *sop-es*]
    1SG-forget-3PL.OBJ [all window-PL close-INF]
    'I forgot to close all the windows.' (S6:6-7) ∀ *» forget*; **forget » ∀*

  c. *John-wa* *subeto-no* *ringo-o* *tabe-wasure-ta*
    John-TOP all-GEN apple-ACC eat-forget-PAST
    'John forgot to eat all the apples.'   ∀ *» forget*; **forget » ∀*

The anti-reconstruction effect is not restricted to objects (which we have seen are in a Case dependency with matrix *v* or T), but has also been argued to exist for embedded modifiers as in

(28) (see Saito 2000, Saito and Hoshi 1998, 2000, Bobaljik and Wurmbrand 2007, Takahashi 2010, 2011).[8]

(28) a.   *Taroo-wa*   *hon-o*   *Mary-dake-kara*   *kari-wasure-ta*
       Taro-TOP   book-ACC   Mary-only-from   borrow-forget-PAST
       'Taro forgot to borrow books only from Mary.'   *only* » forget; **forget* » *only*
                                                             [Takahashi 2011: 245; (56)]

    b.   *Taroo-wa*   *me-ga*   *0.001-byoo-dake*   *ake-rare-ru*
       Taro-TOP   eye-NOM   0.001-second-only   open-can-PRES
       'Taroo can open his eyes only for 0.001 seconds.'   *only* » can; %*can* » only
       only » *can*: He cannot open his eyes for long (e.g., because his eyes are very sensitive to ulatraviolet rays)
       can » *only*: He has a special ability to move his eyelids very quickly

The account proposed in Bobaljik and Wurmbrand (2005) is built on the claim that lexical RCs are *agreement domains*, which, by assumption, can be crossed by movement but not by Agree. Embedded objects thus must move out of a RC to get into the Agree domain of matrix *v* or T. Furthermore, such movement is assumed to not be able to reconstruct since Agree must be visible at LF. The restructuring approach put forward in the current paper allows us to follow a suggestion made in Bobaljik and Wurmbrand (2007) and derive the anti-reconstruction effect without the additional concept of agreement domains and by maintaining the same locality restrictions for Move and Agree. Consider again a basic restructuring configuration in (29) (I ignore intermediate steps of movement required due to the phasehood of VP1).

(29)

A standard view on quantifier scope (Heim and Kratzer 1998) is that quantifiers must combine with a clause-denoting expression (of type <t>). As shown in (29), although a RC is a *v*P (since it involves a *v* head), it is not a propositional expression, since no subject is merged with the embedded *v*'. The first propositional node is the matrix *v*P. The structure in (29) then allows a very simple account of the anti-reconstruction effect: QPs within the RC cannot be interpreted internal to the RC since there is no type <t> projection. Movement to the matrix *v*P is thus required, which necessarily brings the QP outside the scope of the matrix verb.

The current voice incorporation and feature valuation analysis also overcomes a challenge raised in Takahashi (2010, 2011) for the analysis of anti-reconstruction effects presented above. Takahashi provided binding data which can be taken as evidence for the claim that Japanese RCs involve an embedded subject (i.e., the RC would qualify as a propositional expression), yet the same anti-reconstruction effect is found as in (27) and (28). The relevant data are given in (30) (see Takahashi's works for detailed scope descriptions). In these configurations, the matrix restructuring verb combines with a causative verb, which in turn combines with a RC. Furthermore, the RC contains an *only*-phrase as well as a subject-oriented anaphor (*zibun*). Since *zibun* is subject-oriented, Takahashi assumes that direct binding by the causee argument (which is an internal dative argument) is not possible, but there must be a PRO subject in the RC which is controlled by the causee argument and which binds the anaphor in the interpretations where *zibun* refers to the dative argument. Crucially, in the case of lexical restructuring in (30a), an anti-reconstruction effect arises, independently of whether *zibun* is bound by the matrix subject or the causee argument. Thus if *zibun* binding requires a PRO subject, the embedded RC should qualify as a propositional complement, and quantifiers should not be required to move all the way up to the matrix clause. In short, no anti-reconstruction effect would be expected, contrary to fact.

The example in (30b) involves the potential verb which could be a functional head (see fn. 8), and as exected no anti-reconstruction effect arises. This example is still important, however, since it shows again that in a clear case of restructuring (nominative Case on the object is evidence for restructuring), *zibun* can co-refer with the dative causee argument, which again could be taken as evidence for an embedded subject in the RC.

(30) a. *Sensei*$_T$-*wa gakusei*$_S$-*ni sono-nyuusu-o zibun*$_{T/S}$-*no zimoto-dake-e*
teacher-TOP student-DAT that-news-ACC SELF-GEN home-only-to

hookoku-sase-wasure-ta
report-cause-forget-PAST   *only* » forget; *forget » *only*
'The teacher$_T$ forgot to make the student$_T$ report the news only to his$_{T/S}$ home.'
[Takahashi 2011: 249; (61)]

   b. *Taro*$_T$-*ga   Hanako*$_H$-*ni zibun*$_{T/H}$-*no migite-dake-ga*
Taro-NOM   Hanako-DAT SELF-GEN   right.hand-only-NOM

age-sase-rare-ta
raise-cause-can-PAST   *only* » *can*; *can* » *only*
'Taro$_T$ could make Hanako$_H$ raise only his$_T$/her$_H$ right hand.'
[Takahashi 2010: 330; (21); Takahashi 2011: 23; (17)]

These facts are very interesting, however, I believe the conclusion that binding can only be achieved by a PRO argument in the embedded RC is not necessary. Let us zoom in on the rele-

vant part of the structure under the account proposed here. As shown in (31), the *v* head of the lowest predicate is underspecified and undergoes incorporation into the higher V—the causative verb. In addition to the RC, the causative verb also combines with an internal argument (the dative causee NP). At this point in the derivation, the causee NP values the φ-features of the incorporated *v* head. This Agree relation has an important consequence: it associates the dative causee with the agent of the embedded predicate (exactly parallel to what has been proposed for matrix subjects in simple restructuring contexts such as (17)). Eventually, the embedded *v* will be valued as *v*: AGENT, yielding the correct interpretation that the dative arguments in (30) are also interpreted as the agents of the deepest embedded predicates.[9]

(31)
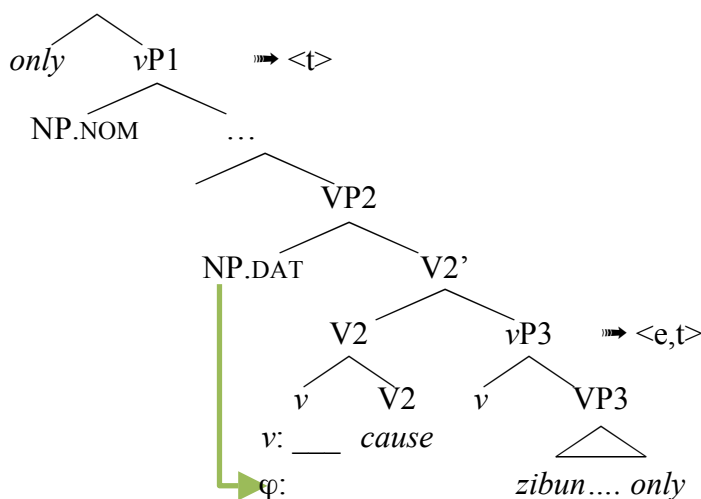
Let us now consider how binding works in (30)/(31). In the current account, it seems that direct binding of *zibun* by the dative NP and subject-orientation of *zibun* are not in conflict in the configuration above. Although the causee NP is not a nominative argument and it is also an internal argument of the causative verb, it does clearly qualify as the subject of the embedded predicate as well since the φ-valuation operation indicated above associates that NP with the agent of the

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[9] A technical question arising for examples such as (30) is how feature valuation is achieved in recursive restructuring configurations. Since the empirical distribution of such configurations is very unclear, I leave a detailed account aside here. I only note that if stacked RCs are possible, presumably some recursive *v* incorporation would need to be assumed. In general, stacked lexical restructuring constructions are not very natural, if possible at all (note that the Japanese examples involve a causative, which could also be treated as a functional head). In German, long passive across two RCs is impossible, even for speakers who have no general problem with long passive. That is, although both *begin* and *try* allow long passive (i.), and the two verbs can (more or less) combine in the non-restructuring variant, (ii.), long passive across both verbs is impossible (iii.).

   i.   *Der Wagen   wurde   zu reparieren   begonnen/versucht*
        The.NOM car   was   to repair   began/tried
        'They tried/began to repair the car'
  ii.   *?Es   wurde   begonnen   zu versuchen   den Wagen   zu reparierent*
        It   was   begun   to try   the.ACC car   to repair
        'They began to try to fix the car.'
 iii.   **Der Wagen   wurde   zu reparieren   zu versuchen   begonnen*
        The.NOM car   was   to repair   to try   began

embedded predicate. Thus, if subject-orientation is a matter of semantics, binding by the dative causee will satisfy the constraint.

Binding can also be straighforwardly derived in the configuration in (31) under recent Agree-based approaches to binding. Reuland (2005, 2011), for instance, argues that binding is not established directly between an antecedent and the anaphor but is intermediated by a functional head, which is in an Agree relation with both, the antecedent and the anaphor. The structure above involves exactly such a configuration: the dative NP Agrees with v and v Agrees with *zibun* (which guarantees subject-orientation). Hence *zibun* is in an indirect dependency with the dative NP, yielding the binding relation. Crucially, under both binding accounts, no embedded PRO subject would be necessary. Thus the claim that RCs are not propositional complements can be maintained even for the challenging cases in (30).

Note finally that this account has no effect on the binding properties of the German examples in (4). In (4b), the embedded v ends up with the φ-features corresponding to the implicit agent of the passive matrix v. However, these features are not sufficient to license an anaphor—implicit passive arguments cannot bind anaphors—thus, a simple Agree relation between v and the anaphor is not sufficint to establish binding. For an anaphor to be licensed it needs to (also) be in a (direct or indirect) relation with an antecedent NP. No such NP is available in long passive constructions as in (4), but in the Japanese causative construction, there is: the dative NP which Agrees with the embedded v.

5. Summary

The following table summarizes the properties found in restructuring constructions cross-linguistically and discussed in this article.

Property	V—V	VP only	*v* incorporation	Explanation
RC involves no (PRO) subject	✓	✓	✓	restructuring v is underspecified; cannot select AGENT
Interpretation of embedded subject	✓	?	✓	matrix & embedded φ-features are co-valued/identical
Subject agreement in RC in Chamorro	?	?	✓	φ-features of embedded v are valued by the matrix subject
RC can involve verbs showing v conditioned stem allomorphy	?	?	✓	v is present in RC
RC involves voice marking in Austronesian languages	?	?	✓	v is present in RC
Voice matching vs. default voice	?	?	✓	RC is spell-out domain; copy choice for incorporated v
RC constitutes separate event	?	✓	✓	argument structures not merged—embedded vP is a separate event
RC shows independent transitivity marking in Chamorro	?	?	✓	matrix and embedded argument structures are separate
Embedded VP is mobile	?	✓	✓	no V-incorporation, only v incorporation
Anti-reconstruction effect	✓	✓/?	✓	embedded vP is non-propositional
Subject-oriented binding in RC	?	?	✓	matrix binder qualifies as embedded subject

The comparison of the three complex predicate approaches considered (complex head, bare VP complementation, *v* incorporation) shows that the approach advocated in this paper covers all the phenomena whereas the previous analyses face several challenges.

6. Conclusion

In this article, I proposed a new approach to restructuring which unites complex head approaches with a bare VP complementation approach. With the former, I argued for an incorporation approach. However, in contrast to other complex head approaches, I proposed that only the *v* head of a restructuring complement undergoes incorporation. With the VP complementation approach, I assumed that a RC contains a syntactically and semantically independent VP. In contrast to the bare VP complementation approach, however, I proposed that restructuring complements also involve a *v* head. This hybrid account has the advantage that it provides argument structure sharing for only the subject of a restructuring configuration (only the *v*P), whereas the remaining argument structure properties (the big VP properties) remain separate. I have shown that this result is empirically correct and supported by several phenomena from a diverse set of languages. The account proposed achieves a larger empirical coverage than previous accounts and improves in several respects on the theoretical details of the analyses.

7. References

Adger, David. 2003. *Core Syntax: A Minimalist Approach*. Oxford, England: Oxford UP.

Alexiadou, Artemis, and Elena Anagnostopoulou. 1998. Parametrizing AGR: Word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory* 16.3:491-539.

Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2006. The properties of anticausatives cross-linguistically. In *Phases of interpretation*, ed. by Mara Frascarelli, 187-211. Berlin, Germany: Mouton de Gruyter.

Baker, Mark. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.

Bjorkman, Bronwyn Alma Moore. 2011. BE-ing Default: The Morphosyntax of Auxiliaries. Doctoral dissertation, MIT, Cambridge, MA.

Bobaljik, Jonathan D., and Susi Wurmbrand. 2005. The domain of agreement. *Natural Language and Linguistic Theory* 23.4:809-865.

Bobaljik, Jonathan D., and Susi Wurmbrand. 2007. Complex predicates, aspect, and anti-reconstruction. *Journal of East Asian Linguistics* 16:27-42.

Bobaljik, Jonathan D., and Susi Wurmbrand. 2013. Suspension across domains. In *Distributed Morphology Today: Morphemes for Morris Halle*, ed. by Ora Matushansky and Alec Marantz, 185-198. Cambridge, MA: MIT Press.

Bošković, Željko. To appear. Now I'm a phase, now I'm not a phase: On the variability of phases with extraction and ellipsis. *Linguistic Inquiry*.

Bouma, Gosse, and Gertjan van Noord. 1997. Dutch verb clustering without verb clusters. In *Specifying syntactic structures*, ed. by Patrick Blackburn and Maarten De Rijke, 213-243. Stanford, Calif: Center Study Language and Information.

Butt, Miriam. 1995. *The Structure of Complex Predicates in Urdu*. Stanford, Calif: CSLI Publications.

Chen, Tingchun. 2010. Restructuring in Mayrinax Atayal. B. Arts Honours Thesis. Montréal: McGill University.

Chierchia, Gennaro. 1984a. Anaphoric properties of infinitives and gerunds. In *Proceedings of the 3rd West Coast Conference on Formal Linguistics,* ed. by Mark Cobler, Susannah MacKaye and Michael T. Westcoat, 28-39. Stanford, Calif: Stanford Linguistics Association.

Chierchia, Gennaro. 1984b. Topics in the syntax and semantics of infinitives and gerunds. Doctoral dissertation, University of Massachusetts, Amherst.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels and Juan Uriagereka, 89-155. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1-52. Cambridge, MA: MIT Press.

Chung, Sandra. 1998. *The design of agreement: evidence from Chamorro*. Chicago: University of Chicago Press.

Chung, Sandra. 2004. Restructuring and verb-initial order in Chamorro. *Sytnax* 7.3:199-233.

Collins, Chris. 1997. *Local Economy*. Cambridge, MA: MIT Press.

Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax* 8.2:81-120.

Dikken, Marcel den. 2007. Phase Extension: Contours of a Theory of the Role of Head Movement in Phrasal Extraction. *Theoretical Linguistics* 33.1:1-41.

Dikken, Marcel den. 2012a. On feature interpretability and inheritance. Ms., City University. New York.

Dikken, Marcel den. 2012b. The Phase Impenetrability Condition and successive cyclicity: A reconsideration. Ms., City University. New York.

Gallego, Ángel. 2005. Phase sliding. Ms., University of Barcelona. [http://filcat.uab.cat/clt/membres/professors/gallego/pdf/Phase_Sliding.pdf].

Gallego, Ángel. 2010. *Phase theory*. Amsterdam/Philadelphia: John Benjamins.

Gallego, Ángel, and Juan Uriagereka. 2006. Sub-extraction from subjects. Ms., University of Barcelona and University of Maryland.

Geach, Peter Thomas. 1970. A program for syntax. *Synthese* 22:3–17.

Grønn, Atle, and Arnim von Stechow. 2011. The temporal organisation of indicative conditionals. Ms. Tübingen.

Haegeman, Liliane, and Terje Lohndal. 2010. Negative Concord and (Multiple) Agree: A Case Study of West Flemish. *Linguistic Inquiry* 41.2:181-211.

Haider, Hubert. 1986. Deutsche Syntax - generativ. Doctoral dissertation, University of Vienna.

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

Hicks, Glyn. 2009. *The derivation of anaphoric relations*. Amsterdam/Philadelphia: John Benjamins.

Hinrichs, Erhard, and Tsuneko Nakezawa. 1994. Linearizing finite AUX in German verbal complexes. In *German in Head-Driven Phrase Structure Grammar*, ed. by John Nerbonne, Klaus Netter and Carl Pollard, 11-38. Stanford, Calif: CSLI Publications.

Hoshi, Hiroto. 1999. Complex predicate formation in Japanese: A (Non-)configurational theory. In *SOASWorking Papers in Linguistics and Phonetics*, 427-473. London: SOAS.

Jacobs, Joachim. 1992. Bewegung als Valenzvererbung. *Linguistische Berichte* 138:85-122.

Kiss, Tibor. 1995. *Infinite Komplementation: Neue Studien zum deutschen Verbum infinitum*. Tübingen: Max Niemeyer Verlag.

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 Academic Publishers.

Legate, Julie Anne. 2010. The structure of agents in implicit passives. Talk given at the *41st annual meeting of the North East Linguistics Society*, Philadelphia.

Legate, Julie Anne. 2012. Subjects in Acehnese and the nature of the passive. *Language* 88.3:495-525.

Merchant, Jason. 2011. Aleut case matters. In *Pragmatics and Autolexical Grammar: In honor of Jerry Sadock*, ed. by Etsuyo Yuasa Yuasa, Tista Bagchi and Katharine P. Beals, 382-411. Amsterdam: John Benjamins.

Meurers, Walt Detmar. 2000. Lexical generalizations in the syntax of German non-finite constructions. Doctoral dissertation, University of Tübingen.

Müller, Stefan. 1999. *Deutsche Syntax deklarativ: Head-Driven Phrase Structure Grammar für das Deutsche*. Tübingen: Max Niemeyer Verlag.

Neeleman, Ad, and Hans van de Koot. 2002. The configurational matrix. *Linguistic Inquiry* 33.4:529-574.

Nomura, Masashi. 2005. Nominative Case and AGREE(ment). Doctoral dissertation, University of Connecticut, Storrs.

Pearson, Matt. 2005. The Malagasy subject/topic as an A'-element. *Natural Language and Linguistic Theory* 23.2:381-457.

Pesetsky, David, and Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture*, ed. by Simin Karimi, Vida Samiian and Wendy Wilkins, 262-294. Amsterdam: John Benjamins.

Pitteroff, Marcel. in prep. Non-canonical 'sich lassen' middles. Doctoral dissertation, University of Stuttgart.

Pitteroff, Marcel, and Artemis Alexiadou. 2012. On the Properties of German *sich-lassen* Middles. In *Coyote Working Papers: Proceedings of the 29th West Coast Conference on Formal Linguistics (WCCFL 29),* ed. by Jaehoon Choi et al., 214-222. University of Arizona: Tucson. [http://hdl.handle.net/10150/253431].

Pylkkännen, Liina. 2002. Introducing arguments. Doctoral dissertation, MIT, Cambridge, MA.

Rackowski, Andrea. 2002. The structure of Tagalog: Specificity, voice, and the distribution of arguments. Doctoral dissertation, MIT, Cambridge, MA.

Rackowski, Andrea, and Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry* 36.4:565-599.

Reuland, Eric. 2005. Agreeing to Bind. In *Organizing Grammar*, ed. by Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz and Jan Koster, 505-513. Berlin, Germany: Mouton de Gruyter.

Reuland, Eric. 2011. *Anaphora and Language Design*. Cambridge, MA: MIT Press.

Saito, Mamoru. 2000. Predicate raising and theta relations. In *Proceedings of 2000 Seoul International Conference on Language and Computation*, 85-113: The Linguistic Society of Korea.

Saito, Mamoru, and Hiroto Hoshi. 1998. Control in complex predicates. In *Report of the special research project for the typological investigation of languages and cultures of the East and West*, 15-46: University of Tsukuba.

Saito, Mamoru, and Hiroto Hoshi. 2000. The Japanese light verb construction and the Minimalist Program. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels and Juan Uriagereka, 261-295. Cambridge, MA: MIT Press.

Schäfer, Florian. 2008. *The syntax of (anti-)causatives: External arguments in change-of-state contexts*. Amsterdam: John Benjamins.

Steedman, Mark. 1985. Dependency and coördination in the grammar of Dutch and English. *Language* 61.3:523-568.

Sternefeld, Wolfgang. 2000. Syntax. Eine merkmalbasierte generative Analyse des Deutschen. Ms., University of Tübingen. Tübingen.

Takahashi, Masahiko. 2010. Case, phases, and nominative/accusative conversion in Japanese. *Journal of East Asian Linguistics* 19.4:319-155.

Takahashi, Masahiko. 2011. Some theoretical consequences of Case-marking in Japanese. Doctoral dissertation, University of Connecticut, Storrs.

Takano, Yuji. 2003. Nominative objects in Japanese complex predicate constructions: A prolepsis analysis. *Natural Language and Linguistic Theory* 21.4:779-834.

Williams, Edwin. 2003. *Representation theory*. Cambridge, MA: MIT Press.

Wu, Hsiao-hung Iris. 2013. Restructuring and Clause Structure in Isbukun Bunun. *Oceanic Linguistics* 52.1:36-52.

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

Wurmbrand, Susi. 2004. Two types of restructuring-Lexical vs. functional. *Lingua* 114.8:991-1014.

Wurmbrand, Susi. 2007. How complex are complex predicates? *Syntax* 10:243-288.

Wurmbrand, Susi. 2013a. QR and selection: Covert evidence for phasehood. In *Proceedings of the North Eastern Linguistics Society Annual Meeting 42,* ed. by Stefan Keine and Shayne Sloggett, 277-290. Amherst: University of Massachusetts, GLSA. [http://wurmbrand.uconn.edu/Papers/NELS42.pdf].

Wurmbrand, Susi. 2013b. Stripping and topless complements. Ms., University of Connecticut. Storrs.

Wurmbrand, Susi. 2013c. Tagalog infinitives: Consequences for the theory of phases, voice marking and extraction. Ms. Storrs. [http://ling.auf.net/lingbuzz/001898].

Wurmbrand, Susi. 2013d. The features of voice. *Little v workshop*, Leiden, The Netherlands. [http://media.leidenuniv.nl/legacy/wurmbrand-handout.pdf].

Wurmbrand, Susi. To appear. The Merge Condition: A syntactic approach to selection. In *Minimalism and Beyond: Radicalizing the interfaces*, ed. by Peter Kosta, Lilia Schürcks, Steven Franks and Teodora Radev-Bork. Amsterdam: John Benjamins. [http://wurmbrand.uconn.edu/Papers/Quovadis.pdf].

Zeijlstra, Hedde. 2012. There is only one way to Agree. *The Linguistic Review* 29.3:491–539.