Passives with and without by-phrases

Florian Schäfer
Humboldt-Universität zu Berlin/Universität Stuttgart

1. Introduction

Many Indo-European languages use **SE-reflexive morphology** to form semantically reflexive verbs (1) (‘SE-reflexives’) and reflexively marked anticausatives (2) (‘SE-anticausatives’):

(1) Jean s’est lavé (French)
John washed

(2) Le verre s’est cassé (French)
‘The glass broke’

Most Romance languages, as well as the Mainland Scandinavian languages and most Slavic languages also form reflexively marked passives (‘SE-passives’; a.k.a. medio-passives):

(3) a. Trois maisons se sont louées (par des touristes) hier (Romance, French)
Three houses SE are rented by some tourists yesterday
‘Three houses were rented (by some tourist) yesterday’

b. Han överfölls (av rånare) (Swedish)
he attacked. SE by robbers
‘He was attacked (by robbers).’

c. Kalitka otkrylas’ (Olegom) (Russian)
gate opened. IMPERF. SE Oleg. INSTR
‘The gate was being opened (by Oleg).’

Finally, all these languages have a canonical, periphrastic passive:

(4) a. Trois maisons ont été louées (par des touristes) hier (Romance, French)
three houses have been rented by some tourists yesterday

b. Han blev överfallen (av rånare) (Swedish)
he was attacked by robbers

c. Kalitka byla otkryta (Olegom) (Russian)
gate was opened Oleg. INSTR

Observations:

i) Short canonical passives and SE-passives express the same meaning (but see section 6); e.g., both license agentive adverbs and the implicit argument can control PRO.

ii) Across these languages, canonical passives license by-phrases.

iii) Romance SE-passives do not license by-phrases.

iv) The Mainland Scandinavian languages and the East Slavic languages, Bulgarian and Sorbian license by-phrases in SE-passives,

v) SE-passives in other Slavic languages don’t, i.e. they behave like Romance.

Plan: Develop a theory of Voice heads and Voice morphology that allows
• subsuming SE-marked medio-passives under the syntax of SE-marked anticausatives;
• deriving the availability of two morpho-syntactically distinct passives;
• explaining why Romance SE-marked passives reject by-phrases;
• explaining why some other languages license by-phrases in their SE-marked passives.
2. SE-reflexives and SE-anticausatives at the Syntax-Semantics interface

• Despite their identity in morphological shape, the two verb classes differ semantically and syntactically; cf. (6) vs. (9):

➤ SE-REFLEXIVES verbs are semantically transitive predicates with an external θ-role and an internal θ-role, which are both assigned to the same entity.

(5) a. Jean s’est lavé
Jean SE is washed

b. $[\text{se laver}] = \lambda x \lambda e \left[\text{wash}(e) \land \text{AGENT}(e, x) \land \text{PATIENT}(e, x)\right]$

➤ SE-REFLEXIVE verbs are syntactically transitive.

• The full DP is the external argument (Agent).

• SE is the internal argument (Patient) (Doron & Rappaport Hovav 2007, Schäfer 2008a, Pitteroff & Schäfer 2014, Sportiche 2014).

• SE-reflexives are NOT unaccusative, even though they select ‘be’ and trigger participle agreement (Reinhart & Siloni 2004, Schäfer 2008; Sportiche 2014).

(6) $[\text{TP } T [\text{VoiceP } \text{DP}_\text{AGENT } \text{Voice } [\text{VP } \text{vSE}_\text{PATIENT } \text{]]}]$ (SE-reflexive)

➤ SE-ANTICAUSATIVES are semantically intransitive predicates with only one, internal θ-role (Schäfer & Vivanco, t.a., ms., AAS (2015), Horvath & Siloni 2011, 2013, pace Chierchia 2004, Koontz-Garboden 2009, Beavers & Koontz-Garboden 2013a, b).

➤ Causatives and anticausatives do NOT differ in event complexity (cf. 7c and 8c).

(7) a. Jean a cassé le verre
John has broken the glass

b. $[[\text{casser}]] = \lambda x \lambda y [(y) \text{CAUSE } [(x) \text{broken}]]$ (e.g. Parsons 1990)

c. $[[\text{casser}]] = \lambda x \lambda y [(y) \text{CAUSE } [(x) \text{broken}]]$ (Kratzer 2005, AAS 2006/2015; cf. Embick 2004b, Pylkkänen 2008)

(8) a. Le verre s’est cassé
the glass SE is broken

b. $[[\text{se casser}]] = \lambda x [(\text{BECOME } [(x) \text{broken}])]$ (e.g. Parsons 1990)

c. $[[\text{se casser}]] = \lambda x [(\text{CAUSE } [(x) \text{broken}])]$ (Kratzer 2005, AAS 2006, 2015; cf. Embick 2004b, Pylkkänen 2008)

➤ SE-ANTICAUSATIVES are syntactically transitive.

• The full DP is the internal argument (Theme).

• SE is syntactically an external argument, but semantically it is expletive (no θ-role) (Schäfer 2008a, Pitteroff & Schäfer 2014, AAS 2015).

(9) $[\text{TP } T [\text{VoiceP } \text{SE}_\text{EXPL. } \text{Voice } [\text{VP } \text{vDP}_\text{THEME } \text{]]}]$ (SE-anticausative)

➤ SE-anticausatives show a mismatch between semantic and syntactic (in-)transitivity; we will derive this in the next section.
Questions: A. How can SE in (9) be in Spec,VoiceP without violating Principle A of the Binding Theory (Chomsky 1981)?
B. How can a variable/SE-reflexive be(come) expletive?
C. What about Case? In SE-reflexives, Spec,VoiceP has NOM and SE has ACC. In SE-anticausatives, the object has NOM and SE in Spec,VoiceP has ACC.

• These questions are discussed and answered in Schäfer (2008a) and Alexiadou et al. (2015); see also the appendix for details.

• The answers are derived in a system where anaphoric binding is grounded in a syntactic AGREE-relation between a DP-antecedent and an anaphoric VARiable/the SE-element:

\[(10) \text{DP} \leftarrow \text{AGREE} \rightarrow \text{VAR/SE}\]

• An anaphoric variable is fully underspecified for φ-features: it is a set of a categorial D-feature and unvalued φ-features \{D, uφ\}. The full DP has valued φ-features \{D, φ\}. 

\[(11) \text{DPφ} \leftarrow \text{AGREE} \rightarrow \text{DPuφ}\]

• If \(\text{DPφ}\) c-commands \(\text{DPuφ}\), the latter is interpreted as a variable that is necessarily bound by the full DP (cf. 6).

\[(12) \begin{align*}
\text{a. } \text{DPφ} & \leftarrow \text{AGREE} \leftarrow \text{DPuφ} \\
\text{b. } [[\text{DPuφ} / \text{SE}_{\text{bound}}]] = \chi & \text{ (bound variable SE)}
\end{align*}\]

• If \(\text{DPuφ}\) c-commands \(\text{DPφ}\), the former is semantically vacuous, i.e. expletive (cf. 9); they denote the identity function, i.e. they pass on the meaning of their complement.

\[(13) \begin{align*}
\text{a. } \text{DPuφ} & \rightarrow \text{AGREE} \rightarrow \text{DPφ} \\
\text{b. } [[\text{DPuφ} / \text{SE}_{\text{expletive}}]] = \lambda P_{sr}, P & \text{ (expletive SE)}
\end{align*}\]

3. A typology of Voice (Schäfer 2008a, AAS 2015)

Syntactic transitivity: Voice has a D-feature to be checked by a DP in its specifier.
Thematic transitivity: Voice introduces a 0-role.

\[(14) \begin{align*}
\text{a. thematic active Voice:} & \quad \text{b. thematic passive Voice:} \\
\text{VoiceP} & \quad \text{VoiceP} \\
\text{DP} & \quad \text{Voice} \quad \{\text{AGENT}, \emptyset\} \\
\text{Voice'} & \quad \text{...} \\
\text{Voice} \quad \{\text{AGENT, D}\} & \quad \text{...}
\end{align*}\]

\[(14) \begin{align*}
\text{c. non-thematic (expletive) active Voice:} & \quad \text{d. non-thematic (expletive) passive Voice:} \\
\text{VoiceP} & \quad \text{VoiceP} \\
\text{DP}_{\text{EXPL}} & \quad \text{Voice} \quad \emptyset \\
\text{Voice'} & \quad \text{...} \\
\text{Voice} \quad \{\emptyset, D\} & \quad \text{...}
\end{align*}\]
thematic active Voice \{agent, D\}: (14a) is present in all active verbs (unergative, transitive, including SE-reflexive verbs). It comes with different \(\theta\)-roles (agent, causer, holder).

non-thematic (expletive) active Voice \{∅, D\}: (14c) is present in SE-anticausatives. This expletive Voice introduces a D-feature to be checked by a DP in its specifier, but it does not assign a \(\theta\)-role to this DP. **Expletive Voice denotes the identity function** over predicates of events (15) (Wood 2014, 2015):

\[
(15) \mbox{[[Voice\textsubscript{expletive}]]} = \lambda P_{s,t}.P \quad \text{(expletive Voice)}
\]

Since expletive Voice in (14c) has a D-feature, a DP must be merged in its specifier.

But no \(\theta\)-role is provided for this DP.

SE\textsubscript{expletive} can check this D-feature without asking for a \(\theta\)-role; recall that **expletive SE denotes the identity function** (over predicates of events), too:\(^1\)

\[
(16) \mbox{[[SE\textsubscript{expletive}]]} = \lambda P_{s,t}.P \quad \text{(expletive SE)}
\]

(17) a. La porte s’ouvre  
the door SE opens

b. [Voice\textsubscript{P} SE\textsubscript{expletive} [Voice’ SE\textsubscript{expletive} [vP the door open]]]

(18) a. \mbox{[[vP]]} = \lambda e \{open(e) \& theme(e, the door)\}
b. \mbox{[[Voice’]]} = (\lambda P_{s,t}.P) (\lambda e \{open(e) \& theme(e, the door)\}) \quad (15 + 18a)
   = \lambda e \{open(e) \& theme(e, the door)\}
c. \mbox{[[VoiceP]]} = (\lambda P_{s,t}.P) (\lambda e \{open(e) \& theme(e, the door)\}) \quad (16 + 18b)
   = \lambda e \{open(e) \& theme(e, the door)\}

**Note** that SE\textsubscript{expletive} is not allowed to merge in an A-position, if this position provides a \(\theta\)-role. Spec of active Voice or internal argument positions must be filled by DPs with semantic content; otherwise a violation of the \(\theta\)-criterion arises.

**There is ALLOSEMY at CI** just as there is Allomorphy at PF: The meaning of functional material depends on context (Schäfer 2008a, Marantz 2009, Wood 2014, 2015, Myler 2014). ALLOSEMY allows us to make more precise what happens with SE at the CI-interface:

(19) **SE at the CI-interface:** A DP up\(\phi\) is translated into a or b:
   a) a variable if it can saturate an argument slot.
   b) an expletive (the identity function over predicates of the type of its complement) iff there is no argument slot to be saturated (and it lacks a c-commanding valuator).\(^2\)

---

\(^1\) Note that no other DP than SE could check the D-feature on Voice\textsubscript{expletive}. Locative expletives like ‘there’ are not DPs and cannot check the D-feature of Voice. Pronominal expletives like ‘it’ have phi-features and will, therefore, be interpreted as referential in Spec, VoiceP. Merged in the Spec of expletive Voice, they will lead to a violation of the \(\theta\)-criterion because a DP with denotation needs a \(\theta\)-role.

\(^2\) Schäfer (2008a) argues that German ‘unintentional dative causers’ provide a case where a c-commanding DP-antecedent prohibits the translation of SE (located in Spec of expletive Voice) into an expletive. Such cases / constellations need to be investigated in more detail. Schäfer (2012a) provides a construction, where SE saturates a \(\theta\)-role but lacks a c-commanding antecedent and where SE is not translated into an expletive. Such an unbound SE can be interpreted only in very specific contexts (passives of naturally reflexive verbs).
**thematic passive Voice [agent, ∅]**: (14b) was assumed in Schäfer (2008a) to be the general passive Voice head (Kratzer 1996). It introduces an external argument 0-role, but it lacks a D-feature. Thus, the external argument must remain implicit but can be taken up via a by-phrase.

However, AAS (2015) argue that this Voice head derives only so-called medio-passives found in Greek or Hebrew (cf. also Alexiadou & Doron 2012).

(20) O Janis katijori-thike (apo ti Maria) (Greek passive)
the John accused-NACT by the Mary
‘John was accused (by Mary)’

**non-thematic (expletive) passive Voice [∅, ∅]**: (14d) is the Voice head for marked anticausatives in Greek. This Voice head is expletive, as it does not introduce a 0-role. It denotes the identity function in (15) just as active expletive Voice. Different from active expletive Voice, (14d) does not project a specifier (Greek lacks SE).

(21) To pani skis-tike (apo mono tu) (Greek marked anticausatives)
The cloth tore-NACT by alone-sg its
‘The cloth tore (by itself)’

NACT-morphology (in passives and anticausatives) follows from the **PF spell-out rule in (22)**. Voice heads without specifier receive the spell-out NACT in Greek (Embick 2004a):

(22) Voice -> Voice[NonAct]/ ___No DP specifier (Greek)

### 3.1 Why SE-passives do not fit into (14a-d)

- How can we account for SE in SE-passives?
- What can we say about the absence of by-phrases only in SE passives?

(23) a. Trois maisons se sont louées (*par des touristes) hier
three houses SE are rented by some tourists yesterday

b. Trois maisons ont été louées (par des touristes) hier
three houses have been rented by some tourists yesterday

‘Three houses were rented (by some tourists) yesterday’

The typology of Voice in (14a-d) above falls short of Romance passives!

- It cannot explain the morphological difference between (23a) and (23b):
  There is only one passive Voice head available.

- **SE-marked medio-passives actually do not fit into this typology:**
  (14b) provides an implicit agent (as diagnosed by agentive adverbs or control), but no DP-position for SE.

  (14c) provides Spec,VoiceP for SE, but it lacks an implicit agent.
4. An updated typology of Voice

Syntactic transitivity: We maintain that a D-feature can be present or absent.
Semantic transitivity: Voice can introduce a semantic argument either as a variable to be saturated later on, or as an existentially bound variable.

This predicts the universal set of six Voice heads in (24):

(24) a. active Voice: \{λxλe[agent(e,x)], D\} (active)
b. medio-passive Voice: \{λe∃x[agent(e,x)], ∅\} (short Greek passive/NACT)
c. active expletive Voice: \{∅, D\} (SE-anticausative)
d. medio-marked expletive Voice: \{∅, ∅\} (Greek anticausative/NACT)
e. transitive medio-passive Voice: \{λe∃x[agent(e,x)], D\} (short SE-passive)
f. “input” Voice: \{λxλe[agent(e,x)], ∅\} (long Greek passive/NACT)

Comment: ‘short passive’ means passive without a by-phrase.

(24a-d) derive without any changes a) active verbs, b) short Greek medio-passives, c) SE-anticausatives, d) NACT-anticausatives.

4.1 Short SE-passives

trans(itive) medio-passive Voice \{λe∃x[agent(e,x)], D\}: (24e) derives short SE-passives. The external argument variable is existentially bound, but the D-feature forces to project a specifier. Only expletive SE can merge there without a violation of the θ-criterion.

(25) a. Trois maisons se sont louées hier (SE-passive/Romance)
three houses SE are rented yesterday
‘Three houses were rented yesterday’
b. [[Voice SE expletive Voice trans-medio-passive \[vP rent three houses\]]

• Since the agent variable of Voice is existentially bound, SE cannot saturate it.
• According to the translation mechanism in (19), SE is translated into an expletive. It combines with [Voice trans-medio-passive] as in (26c).

(26) a. [[vP ]] = λe [rent(e) & theme(e, 3 houses)]
b. [[Voice trans-medio-passive’ ]] = [λe∃x [agent(e,x)] (λe [rent(e) & theme(e, 3 houses)])
   = λe∃x [agent(e,x) & rent(e) & theme(e, 3 houses)]
c. [[VoiceP trans-medio-passive ]] = (λP_e,P)(λe∃x[agent(e,x) & rent(e) & theme(e,3 house)])
   = λe∃x [agent(e,x) & rent(e) & theme(e, 3 houses)]

So while Voice in (24e) is not expletive, the specifier it projects must be expletive as it cannot saturate any argument slot (cf. 19b).3/4

3 Some Romance languages have so-called ‘impersonal SE/SI-constructions’, which involve default (or, more correctly, impersonal) agreement and trigger accusative case on the internal argument DP. These must be
In order to understand why SE-passives in Romance cannot introduce a by-phrase, let us first see how Bruening (2012) treats by-phrases; I discuss this on the basis of Greek passives:

### 4.2 Greek medio-passives

Greek has only one passive, which is characterized as ‘medio-passive’ in the literature (e.g. Kaufmann 2001, Alexiadou & Doron 2012, AAS 2015, Spathas et al. 2015, a.o.):

#### 4.2.1 Short Greek medio-passives

(27) O Janis katijori-thike the John accused-NACT

`John was accused`

**medio-passive Voice** \(\lambda e \exists x[agent(e,x)], \emptyset\) in (24b) derives Greek short medio-passives:

(28) \([_{TP} T [_{VoiceP} Voice_{medio\,passive} [_{VP} \text{accuse the John }]]]\)

(29) a. \([_{VP}]\) = \(\lambda e \text{ [accuse(e) & theme(e, John)]}\)
b. \([_{VoiceP_{medio\,passive}}]\) = \((\lambda e \exists x[agent(e,x)]) [\lambda e \text{ [accuse(e) & theme(e, John)]}]\)

\(\lambda e \exists x[agent(e,x) & \text{accuse(e) & theme(e, John)}]

#### 4.2.2 long Greek medio-passives

(30) O Janis katijori-thike apo ti Maria the John accused-NACT by the Mary

`John was accused by Mary`

Bruening (2012) proposes that **by-phrases** (in canonical passives) are adjuncts that select for an **unsaturated Voice**. They adjoin to a VoiceP where

- i) the thematic role is not existentially bound.
- ii) no DP has saturated the external argument role.
- iii) The DP inside of the PP will then saturate the external argument variable.

---

*It is mentioned in the literature (e.g. D’Alessandro (2007) that the theme in Romance SE-passives must be third person. This restriction does not hold for the theme of Romance SE- anticausatives and SE-marked generic middles or the agent of SE reflexive verbs. I am not sure yet whether this is a strong pragmatic effect or a formal grammatical effect. If the latter holds true, I suggest deriving it along the lines of a proposal in Legate (2014) for passives in Acehnese, where elements adjoined to passive Voice restrict the way the implicit argument can be interpreted. If the theme of a Romance SE-passive is 1st or 2nd person, the SE-reflexive in Spec,VoiceP will be realized as a 1st or 2nd person pronoun because the latter is formally valued by the former. I suggest that such a pronoun in Spec,VoiceP restricts the interpretation of the implicit argument to be 1st or 2nd person. Crucially, this will lead to a Principle B violation along the lines discussed for canonical passives (vs. adjectival passives) in Kratzer (1996).*
“input” Voice \{λxλe[agent(e,x)], \emptyset\} in (24f) derives Greek long medio-passives:

The meaning of \textit{by} in (31) lets the DP inside the PP saturate the open argument slot of (24f).

\[(31) \quad [[\text{by}]] = λxλf_{e,st}.λe.f(e,x) \quad \text{(Bruening 2012)}\]

\[(32=30) \quad [\text{TP} \ T [\text{VoiceP2} \ [\text{PP \ by \ Mary} \ [\text{VoiceP1} \ \text{Voice}“input” \ Voice \ [vP \ \text{accuse the John }]]]]]\]

\[(33=30) \quad a. \quad [[vP]] = λe [\text{accuse(e) & theme(e, John)}] \quad b. \quad [[\text{VoiceP1}]] = (λxλe[\text{agent(e,x)}])[λe [\text{accuse(e) & theme(e, John)}]]
\]
\[c. \quad [[\text{PP}]] = (λxλf_{e,st}.λe.f(e,x)) (\text{the Mary}) = λf_{e,st}.λe.f(e, \text{the Mary})
\]
\[d. \quad [[\text{VoiceP2}]] = (λf_{e,st}.λe.f(e, \text{the Mary})) [λxλe [\text{agent(e,x) & accuse(e) & theme(e, John)}]]
\]

Since VoiceP in both short and long Greek medio-passives lacks a specifier, \textbf{the spell-out rule in (22) applies and triggers NACT-morphology.}

\subsection*{4.3 Romance SE-passives and the absence of \textit{by}-phrases}

Recall the derivation of \textbf{short SE-passives} (26) repeated in (34): Voice\textsubscript{TRANS-MEDIO-PASSIVE} existentially binds the agent role, and it also projects a specifier where expletive SE merges.

\[(34) \quad a. \quad \text{Trois maisons se sont louées hier} \quad \text{Three houses \ SE are \ rented yesterday}
\]
\[b. \quad [[\text{VoiceP \ SE expletive} \ \text{Voice}_{\text{trans-medio-passive}} \ [vP \ \text{rent three houses}]]\]

\[(35) \quad a. \quad [[vP]] = λe [\text{rent(e) & theme(e, three houses)}] \quad b. \quad [[\text{Voice}_{\text{trans-medio-passive}}']] = (λe∃x[\text{agent(e,x)}])[λe [\text{rent(e) & theme(e, 3 houses)}]]
\]
\[c. \quad [[\text{VoiceP}_{\text{trans-medio-passive}}]] = (λP_{e,st-P})[λe∃x[\text{agent(e,x) & rent(e) & theme(e, 3h)}]] = λe∃x [\text{agent(e,x) & rent(e) & theme(e, 3 houses)}]
\]

- Why is a \textit{by}-phrase impossible?

\[(36) \quad \text{Trois maisons se sont louées (*par des touristes) hier} \quad \text{Three houses \ SE are \ rented \ by \ some tourists \ yesterday}
\]

\textbf{We would need a Voice head that introduces an agent-role but does not existentially bind it, so that the by-phrase can saturate it.} The typology in (24) provides two such heads:

\[(37 = 24) \quad a. \quad \text{active Voice:} \quad \{λeλx[\text{agent(e,x)}], D\} \quad \text{(active)}
\]
\[f. \quad \text{passive input Voice:} \quad \{λeλx[\text{agent(e,x)}], \emptyset\} \quad \text{“input” Voice}\]

- \textbf{If we use (37/24f), SE cannot merge, as there is no D-feature.}
- \textbf{We would have to derive a Greek-style passive, which Romance does not have. This is arguably so because Romance lacks the Spell-Out rule in (22). So Romance lacks the}
Voice head in (24f). Recall in this connection that Haspelmath (1990) observes that passives must be morphologically marked across languages.

- **If we use (37/24a), a DP must merge in Spec,VoiceP.**
- If we merge a referential DP (John), we derive a transitive, active sentence.
- Assume we merge SE, instead, and afterwards, we adjoin a by-phrase:

\[
\text{TP T} \left[ \text{VoiceP2 \ [PP by the tourists]} \text{ VoiceP1 SE Voice}_{\text{active}} \left[ \text{vP rent three houses } \right] \right] 
\]

- **SE is in the local context of an agent slot.** According to (19a), SE will be translated into a variable and saturates the agent slot introduced by Voice.
- The PP comes too late to saturate the agent role. The DP inside PP lacks a θ-role.
- SE lacks a c-commanding antecedent and remains unbound (if no local antecedent is merged in ECM-style: Il se voit louer trois maisons). The agent role lacks realization.

\[
\begin{align*}
\text{a. [ [ vP ] ]} & = \lambda e \left[ \text{rent}(e) \& \text{theme}(e, \text{three houses}) \right] \\
\text{b. [ [ Voice’ ] ]} & = \left( \lambda x \lambda e \left[ \text{agent}(e, x) \right] \right) \left[ \lambda e \left[ \text{rent}(e) \& \text{theme}(e, \text{three houses}) \right] \right] \\
\text{c. [ [ VoiceP1] ]} & = \left[ \lambda x \lambda e \left[ \text{agent}(e, x) \& \text{rent}(e) \& \text{theme}(e, \text{three houses}) \right] \right] \left( y_{SE} \right) = \lambda e \left[ \text{agent}(e, y_{SE}) \& \text{rent}(e) \& \text{theme}(e, \text{three houses}) \right] \\
\text{d. [ [PP] ]} & = \left[ \lambda x \lambda f_{\text{SE},\lambda e,f(e,x)} \right] \left( \text{the tourists} \right) = \lambda f_{\text{SE},\lambda e,f(e, \text{the tourists})} \\
\text{e. [ [ VoiceP2] ]} & = \left[ \lambda f_{\text{SE},\lambda e,f(e, \text{the tourists})} \right] \left[ \lambda e \left[ \text{agent}(e, y_{SE}) \& \text{rent}(e) \& \ldots \right] \right]
\end{align*}
\]

**Remark:** The DP inside of the by-phrase cannot bind (i.e. agree with) SE in Spec,VoiceP. It is an empirical fact that SE-reflexives cannot be bound out of PPs. Since the DP inside of the by-phrase lacks a θ-role, binding would not even provide a real “address” for the reflexive.

### 5. Canonical Passives and by-phrases

What remains to be explained is why canonical passives differ morphologically and why they always license by-phrases. We can do the exercise with English canonical passives.

\[
\text{Three houses were rented} \quad \text{(short canonical passive)}
\]

- Medio-passives are often semi-productive; especially in Greek many active verb lack a corresponding medio-passive (AAS 2015).
- There is the observation that virtually every active verb has a periphrastic passive counterpart (e.g. Kiparsky 2013).

**Intuition:** Periphrastic (or canonical passives) are **actives plus something else.**

Bruening (2012) (cf. also Embick 2004b) proposes that canonical passives have the structure in (41) with a Passive projection (Pass) on top of VoiceP_{active} in (24a).

\[
\text{TP T} \left[ \text{PassP Pass [VoiceP Voice}_{\text{active}} \left[ \text{vP v DP_{theme} } \right] \right] \right] \quad \text{(canonical passive)}
\]
Syntactically, *Pass* selects for a VoiceP with an unchecked D-feature, thereby checking the D-feature on the selected Voice. So Pass allows Voiceactive to leave out an external argument DP (see Bruening 2012 for the technical details of this checking relation).

Semantically *Pass* in (42) imposes existential quantification over the open argument slot introduced by Voiceactive in (43/24a).

(42) $[[\text{Pass}]] = \lambda f_{e,st}. \lambda e[\exists x.f(x)(e)]$

(43/24) a. active Voice: $\{\lambda x\lambda e[\text{agent}(e,x)], D\}$

(42) applied to (43/24a) derives a standard passive meaning:

(44) a. $[[\text{vP}]] = \lambda e[\text{rent}(e) \& \text{theme}(e, \text{three houses})]$

b. $[[\text{VoiceP}_{\text{passive-input}}]] = (\lambda x\lambda e[\text{agent}(e,x)])[\lambda e[\text{rent}(e) \& \text{theme}(e, \text{three houses})]]$

c. $[[\text{PassP}]] = (\lambda f_{e,st}. \lambda e[\exists x.f(x)(e)])[\lambda x\lambda e[\text{agent}(e,x) \& \text{rent}(e) \& \text{theme}(e, \text{three houses})]]$

Note: The meaning derived in (44a-c) is identical to the one derived in (35a-c). How come? The medio-passive head *bundles together* the functions of the active head (introduce the agent slot) and the *Pass* head (existentially bind the agent slot) (cf. Pylkkänen 2008 for the concept of ‘bundling’ of functional heads).

5.1 Canonical passives and *by*-phrases

(45) Three houses were rented *by the tourists* (long canonical passive)

Recall that Bruening (2012) proposes that *by*-phrases in canonical passives adjoin to the VoiceP projected by (24a) as in (46) (*by*-phrases are adjuncts selecting for unsaturated Voice.)

(46) $[[\text{TP T [PassP Pass [VoiceP2 [PP *by the tourists*] [VoiceP1 Voice [vP rent three houses ]]]]]}]$

The meaning of *by* in (47) lets the DP inside the PP saturate the open argument slot of (24a).

(47/31) $[[\text{by }]] = \lambda x\lambda f_{e,st}. \lambda e.f(e,x)$

Afterwards, a semantically empty variant of *Pass* (*Pass* expletive in (48)) merges in order to check the D-feature on active Voice (24a):

(48) $[[\text{Pass}_{\text{expletive}}]] = \lambda P_{e,t,P}$

(49) a. $[[\text{vP}]] = \lambda e[\text{rent}(e) \& \text{theme}(e, \text{three houses})]$

b. $[[\text{VoiceP}_{1-\text{passive-input}}]] = (\lambda x\lambda e[\text{agent}(e,x)])[\lambda e[\text{rent}(e) \& \text{theme}(e, \text{three houses})]]$

c. $[[\text{PP}]] = (\lambda x\lambda f_{e,st}. \lambda e.f(e,x))$ (the tourists) $= \lambda f_{e,st}. \lambda e.f(e, \text{the tourists})$

d. $[[\text{VoiceP}_{2}]] = (\lambda f_{e,st}. \lambda e.f(e, \text{the tourists})[\lambda e\lambda x[\text{agent}(e,x) \& \text{rent}(e) \& \text{theme}(e, 3 \text{ houses})]]$

= $\lambda e[\text{agent}(e, \text{the tourists}) \& \text{rent}(e) \& \text{theme}(e, 3 \text{ houses})]$
6. A semantic argument for two ways to build in the existentially bound agent

**Recall:** SE-passives and Greek-style passives introduce the agent as an existentially bound variable (24b and 24e). Canonical passives introduce the agent as a free variable (24a) that gets existentially bound only later on, when Pass (42) merges on top of active Voice in (24a).

(24) a. active Voice: \{λxλe[agent(e,x)], D\} (active)
    b. medio-passive Voice: \{λe∃x[agent(e,x)], \emptyset\} (short Greek passive/NACT)
    e. transitive medio-passive Voice: \{λe∃x[agent(e,x)], D\} (short SE-passive)

(42) \[[\text{Pass }]=\lambda f_{e,st} \lambda e[∃x.f(x)(e)]\] (canonical passive)

**Observation:** Alexiadou & Müller (2015) observe that the external argument in German passives is subject to *quantificational variability effects* while Greek passives lack this effect:

(50) a. Es wurde größtenteils geschlafen beim Vortrag
    it was for-the-most-part slept at the talk
    ‘Most people slept through the talk.’
    b. Zum Teil wurde der Sprecher ausgebuht
    partly was the speaker booed
    ‘Some people booed the speaker.’

(51) O mimitis giuharistike en meri
    the speaker was-ousted partly
    ‘*Some people ousted the speaker.’

**Explanation:** This difference follows from the way the external argument is introduced in (24a) vs. (24b). Only in canonical passives involving (24a), the quantificational adverb can access the external argument variable. In (24b), the external argument variable enters the derivation existentially bound, and the adverb cannot apply to it.

**Prediction:** The difference between (50a b) vs. (51) should exist WITHIN languages that have both, canonical and SE-passives. This seems to be correct (p.c. Fabienne Martin):

(52) Les propositions ont été majoritairement acceptées
    the proposals have been the-most-part accepted
    i) ‘The majority accepted the proposals.’
    ii) ‘They accepted the majority of proposals.’

---

5 Spanish behaves the same (p.c. Luisa Marti, Mercedes Tubino and Margot Vivanco):
(i) Las propuestas han sido aceptadas mayoritariamente
    The proposals have been accepted majoritarily
    (a) The majority accepted the proposals
    (b) They accepted the majority of proposals
(ii) Las propuestas se han aceptado mayoritariamente
    (a) ??The majority accepted the proposals
    (b) They accepted the majority of proposals
(iii) Los políticos se reunieron a las 5. Aceptaron la propuesta mayoritariamente
    the politicians met at 5. pro-they accepted the proposal majoritarily

6 Further prediction: (51) should be o.k. with an overt *by*-phrase as (24f) would be involved. This is correct (p.c. Artemis Alexiadou, Giorgos Spathas).
Les propositions se sont majoritairement acceptées
the proposals SE were the-most-part accepted
i) ‘The majority accepted the proposals.’
ii) ‘They accepted the majority of proposals.’

Toutes les propositions ont été majoritairement / en majeure partie acceptées
all the proposals have been the-most-part the-most-part accepted
i) ‘The majority accepted all the proposals.’
ii) ‘They accepted the majority of proposals.’

7. SE-passives in Mainland Scandinavian and Slavic languages

• SE-passives in Mainland Scandinavian languages allow by-phrases (e.g. Swedish (55a))
• SE-passives in Russian, Belarusian and Ukrainian allow by-phrases (e.g. Russian (55b))
• SE-passives in Bulgarian (cf. 55c) and Upper Sorbian allow by-phrases.
• SE-passives in all other Slavic languages reject by-phrases (Polish lacks SE-passives).
(cf. Engdahl 1999, 2006; Siewierska 1988, Fehrmann et al. 2010 for all points above)

Han misshandlades (av två män). (Swedish)
he manhandle.PAST.SE by two men
‘He was manhandled (by two men).’

Dom stroitsja (plotnikami). (Russian)
house.nom build.3sg.SE carpenters.instr
‘The house is being built (by carpenters).’

Fabrikata se stroi (ot čuždestranna firma). (Bulgarian)
factory.def SE build.3sg by foreign company
‘The factory is being built (by a foreign company).’

Q: How can this variation be reconciled with the idea developed above that SE in Romance blocks the by-phrase from saturating the agent role provided by Voice?

=> The SE-elements in (55a-c) simply cannot saturate θ-roles.

• They are “lexically born” as argument expletives denoting the identity function, i.e.
  they are not subject to the rule of Allosemy in (19a, b).

• They cannot denote variables because they lack all kind of ϕ-features, i.e. even
  unvalued ϕ-features, which are the syntactic basis for semantic anaphoric binding.7

• They do not intervene between Voice and a by-phrase adjoined to VoiceP for the
  purpose of θ-role saturation, and the by-phrase can saturate the agent role successfully.

---

7 I hereby follow work by Wood (2014, 2015) who shows that the Icelandic reflexive verbal affix -st is “born” as an expletive, in contrast to the Icelandic free SE-reflexive pronoun sig. However, Wood argues that Icelandic -st does not totally lack q-features but has a reduced set of q-features. His argument does not, as far as I know, carry over to Mainland Scandinavian -s and East Slavic -sja discussed in this section. In any case, Wood (2015) also suggests that Icelandic -st cannot act as a semantic argument because of its reduced set of q-features.
7.1 Mainland Scandinavian languages

- These languages use the morpheme -s (“reflexive verbal suffix”) to form SE-passives.
- Tense morphology intervenes between the verbal stem and the -s morpheme, suggesting that -s should not be analyzed as a Voice head but origins in a DP position (i.e. Spec,VoiceP; cf. Wood (2014, 2015) for the same conclusion about Icelandic -st).\(^9\)
- These languages also have a free SE-reflexive pronoun -sig.
- Only sig agrees with the subject, while -s is invariant and does not inflect.

(56) a. Jag/Du/Han tvättade mig/dig/sig. (naturally disjoint verb)
    I/You/He washed me/you/SE
    ‘I/You/He washed myself/yourself/himself.’

(57) a. Three houses SE rented by the tourists (Swedish)
    [TP T [VoiceP2 [PP by the tourists] [VoiceP1 SEexpl Voiceactive [vP rent three houses]]]]

\(^8\) Many thanks to Gunlög Josefsson, Björn Lundquist and Halldór A. Siggurðsson for discussion and examples.

\(^9\) Lundquist (ms.) suggests that -s is a passive Voice-head and that the intervention of Tense morphology is an illusion. While this might be true for Scandinavian languages (their SE-passives would receive an analysis as Greek medio-passives), his ideas cannot be transferred to the East Slavic languages. Therefore, I stay with the more conservative assumption that -s/-sja are not verbal heads but are merged as specifiers.

\(^10\) The very few reflexive interpretations formed with -s must be idiomatic/stored, actually a standard assumption about inherent reflexive verbs (but see Schäfer 2012a).
• In (58b), the meaning of vP and VoiceP combine via event identification.
• In (58c), the argument expletive denoting the identity function over events is added.
• In (58e), finally, the by-phrase saturates the agent role provided by Voice.

\[(58)\]

a. \([vP]\) = \(\lambda e [\text{rent}(e) \& \text{theme}(e, \text{three houses})]\)

b. \([\text{Voice’}]\) = \(\lambda x \lambda e [\text{agent}(e, x) \& \text{rent}(e) \& \text{theme}(e, \text{three houses})]\)

c. \([\text{VoiceP1}]\) = \(\lambda P s,t . P) \[\lambda x \lambda e [\text{agent}(e, x) \& \text{rent}(e) \& \text{theme}(e, \text{three houses})]\]

d. \([\text{PP}]\) = \(\lambda f e,st . \lambda e . f(e,x)) \text{ (the tourists) = } \lambda f e,st . \lambda e . f(e,\text{the tourists})\)

e. \([\text{VoiceP2}]\) = \(\lambda f e,st . \lambda e . f(e, \text{the tourists}) [\lambda x \lambda e [\text{agent}(e, x) \& \text{rent}(e) \& \text{theme}(e, \text{three houses})]]\)

\[= \lambda e [\text{agent}(e, \text{the tourists}) \& \text{paint}(e) \& \text{theme}(e, \text{three houses})]\]

7.2 SE-passives in East Slavic, Bulgarian and Upper Serbian

• Their SE-morpheme must be “born” as expletive, so that the derivation (58a-e) can apply. But the empirical picture in these languages differs partly from Mainland Scandinavian.

• The East Slavic languages form their SE-passive with the “reflexive verbal affix” –sja.

• Tense morphology intervenes between the verbal stem and -sja, suggesting that -sja should not be analyzed as a Voice head but origins in Spec, VoiceP.

• -sja is also morphologically invariant.

• The East Slavic languages also have a free SE-reflexive pronoun siebe (the former historically derived from the latter). A pronominal or clitic version of this free SE-reflexive actually exists in all Slavic languages, and crucially, even this free version is always morphologically invariant and does not inflect for person or number (59b).

\[(59)\]

\[a. \text{Ja/ty/on pomylsja.} \quad \text{b. Ja/ty/on pomyl siebe.}\]

\[\text{I/you/he wash.SE} \quad \text{I/you/he wash} \quad \text{SE}\]

\[\text{‘I/you/he washed.’} \quad \text{‘I/you/he washed.’}\]

• -sja is the default form to derive naturally reflexive verbs (59a).

• Naturally disjoint predicates can only be reflexivized with siebe (e.g. photograph oneself); the use of -sja would only provide a passive interpretation.

• Since siebe behaves like a productive anaphor (roughly subject to Principle A), we want to treat it as a bound variable that is born with unvalued φ-features.

• The lack of overt agreement with its antecedent follows from a specific Slavic spell-out rule for locally valued DPφ, which relates different φ-feature specifications to the same surface form siebe (cf. Rooryck & Vanden Wyngaerd 2011; see also Burzio 1998).

• If -sja is an argument expletive lacking φ-features, we derive that it is morphologically invariant and that by-phrases are possible in East Slavic SE-passives.
An immediate problem: If -sja is born as an expletive, how can -sja derive reflexive interpretations for all naturally reflexive verbs as in (59a)?

Above, I assumed that expletive SE denotes the identity function over predicates of events.

Wood (2014, 2015) proposes that the Icelandic argument expletive -st can alternatively denote the identity function over predicates of individuals as in (60).

\[
[[\text{SE}_{\text{expletive}}]] = \lambda x_{e,st}.x
\]

Proposal: East Slavic -sja denote an identity function which is underspecified for the event/entity opposition: it passes on the meaning of its sister constituent, i.e., either a predicate of events or of individuals.

A sentence with the reflexive verb ‘wash’ in (61a) has the structure in (61b); -sja is merged in the object position, thereby prohibiting that a DP with semantic content is merged.

\[(61)\]
\[
a. \text{Sergei pomyl-sja.} = \text{Sergei wash-SE}
\]
\[
\text{‘Sergei washes.’}
\]

The semantic derivation involves predicate conjunction (Wood 2014, 2015 for Icelandic figure reflexives involving the argument expletive -st):

- In (62b), the verb combines with the identity function over individuals provided by -sja.
- In (62c), Voice combines with the meaning of the vP via predicate conjunction.
- In (62d), finally, the external argument saturates both, the internal argument role provided by the verb and the external argument role provided by active Voice.

\[(62)\]
\[
a [[v]] = \lambda x e (\text{wash} (e) \& \text{theme} (e, x))
\]
\[
b [[vP]] = (\lambda x_{e,st}.x) (\lambda x e (\text{wash} (e) \& \text{theme} (e, x))) \quad ((62a)+(60))
\]
\[
c [[\text{Voice’}]] = (\lambda x e \text{[agent(e,x)]}) (\lambda x e (\text{wash} (e) \& \text{theme} (e, x)) \text{\ via predicate conjunction}
\]
\[
d [[\text{VoiceP}]] = \lambda e \text{[agent(e, Sergei) \& wash (e) \& theme (e, Sergei)]} (\text{Sergei})
\]

- We derive a reflexive interpretation in the absence of a reflexivizer or a bound variable (cf. also Alexiadou et al. (2014) for English zero-reflexives like ‘John washed’).
- We basically implement the concept of “syntactic \(\theta\)-role bundling” (Reinhart & Siloni 2005).
- Such a derivation can happen only very locally involving two adjacent argument slots.
- Our treatment of siebe as an anaphor and of -sja as an expletive fits with the fact that only the former allows long-distance binding while the latter must be locally “bound”.

15
All other Slavic languages besides the three East Slavic languages lack a reflexive verbal affix like -sja but only have the (clitic) counterpart of siebe/se.

- Two of them, Bulgarian and Upper Sorbian, allow by-phrases in their SE-passives.
- I must assume that they have two different SE-morphemes with the same spell-out.
- SE-1 is born with unvalued ϕ-features and it is subject to the rule of Allosemy in (20a, b); it can be interpreted as argument expletive or as bound variable, depending on context.
- SE-2 lacks ϕ-features and is born as an argument expletive; SE-2 makes the derivation of SE-passives with by-phrase possible.
- Claiming that a language has two different elements SE, which have the same spell out, would be a stipulation, if we were just looking at individual languages; but our comparison with other Slavic languages makes this analysis reasonable.

8. Some open questions

A: Further evidence for the structural difference between medio-passives (VoiceP) and canonical passives (Pass +VoiceP)? Canonical passives are fully productive. Every VoiceP combines with Pass. AAS (2015) hypothesize that Greek ‘medio-passives’ are root-sensitive (lexical gaps) because they are derived inside of VoiceP. But SE-passives seem to be productive. Why?

B: We would like to see independent evidence for “born” expletives; For Scandinavian -s, this is reasonable. For Slavic, we would like to see differences between reflexive readings derived via ‘bundling’ (SE-expletive) and via AGREE (SE-anaphor).

- The absence of long-distance binding for East Slavic -sja is only compatible with the idea that -sja triggers syntactic bundling; independent reasons could make long-distance binding of an anaphor -sja impossible (-> negative evidence).
- Marelji & Reuland (2013) suggest that the absence of proxy readings diagnoses ‘bundling’ (63a vs. 63b). But we know that zich-/sja is allowed only with naturally reflexive predicates (e.g. Geurts 2004), and undressing one owns statue is arguably not a naturally (i.e. frequent and therefore expected) reflexive event (-> not convincing).

(63) Upon a visit in a wax museum:
   a. #Plotseling begon Ringo zich te ontkleden
   b. Plotseling begon Ringo zichzelf te ontkleden
      suddenly began Ringo SE(-SELF) to undress
      ‘All of a sudden Ringo started undressing (himself).’

- The absence of ϕ-feature inflection on SE is a necessary condition for being ‘born’ as an expletive, which, in turn, is a necessary condition for bundling. However, it is not a sufficient condition, as East Slavic siebe and clitic SE-reflexives in South Slavic show.

- Scandinavian and East Slavic SE appear in a kind of antipassive construction very similar to object drop in e.g. English. The productivity of the construction seems to vary a lot. Icelandic -st, analyzed as argument expletive in Wood (2015), has similar uses.
The concept of an ‘argument expletive’ makes much sense here; SE merges in the object position without saturating the object variable; the latter is then subject to existential closure (see Alexiadou et al. 2014 for English object drop).

Problem: (64a, b) exist in some South Slavic languages that disallow by-phrases in SE-passives (e.g. Serbian). A way out would be to say that SE-2 (expletive SE) is restricted in its syntactic context. Wood (2015) observes that Icelandic -st cannot enter object positions. Serbian SE could be the mirror image, i.e. it does not merge in specifier positions. This saves the idea, but there is still no independent evidence.

- Focusing the agent vs. theme role (Doron & Rappaport Hovav 2007; Sportiche 2014) is a further test, but again this could be blocked for independent reasons (e.g. in Dutch).

Q: Can we identify (semantic) properties that hold for bundling but not for anaphors?

9. Conclusions

- SE-anaphors start the derivation as \{D, uφ\}. They need to agree.
- If a c-commanding antecedent values them, they are translated into a bound variable.
- If they are indirectly valued by a DP that they c-command, they survive the syntactic derivation, although they cannot be semantically bound. If they cannot, in addition, saturate a 0-role, they are translated into an argument expletive (expletive in A-position) denoting the identity function.
- In short SE-passives, the agent role is existentially bound; SE translates into an expletive.
- SE-passives in Romance lack by-phrases, because SE would saturate the agent role. The by-phrase would remain without 0-role (and SE without a semantic antecedent).
- SE-passives allow by-phrases, if a language develops a SE-element lacking φ-features. Such an element is lexically “born” as an expletive. Therefore, it cannot saturate an argument slot and the by-phrase can apply.
- “Born” expletives can even be used to derive semantically reflexive construals, as discussed in Wood (2014, 2015) for Icelandic -st and applied above to East Slavic -sja.
- Typological predictions: (i) If a SE-element in medio-passives shows overt agreement, by-phrases are not possible (Romance). (ii) If a SE-element in medio-passives does not show overt agreement, by-phrases might, but do not have to be possible. (iii) If they are, there are two items surfacing as SE, one with, the other without φ-features (Bulgarian/Upper Sorbian vs. South Slavic). (iv) If a medio-passive has an affixal, non-agreeing version of SE, by-phrases are possible (Mainland Scandinavian, East Slavic). (v) If a medio-passive is marked with head-morphology, by-phrases are possible (Greek).
10. References


Lundquist, Björn (ms.). The role of tense-copying and syncretism in the licensing of morphological passives in the Nordic languages. University of Tromsoe.


Marantz, Alec (2009). Roots, re-, and affected agents: can roots pull the agent under little v? Talk given at the Roots Workshop at the University of Stuttgart.


Pitteroff, Marcel (to appear). Non-canonical middles: a study of personal let-middles in German. JCGL.


Schäfer, Florian, and Margot Vivanco (ms.). Anticausatives are scalar expressions, not reflexive expressions. ENS, Paris & Universidad Complutense de Madrid.

**Appendix: On the morpho-syntax of SE**

**Questions:** A. How can SE in (9) be in Spec, VoiceP without violating **Principle A** of the Binding Theory (Chomsky 1981)?
   B. How can a variable/SE-reflexive be(come) expletive?
   C. What about Case? In SE-reflexives, **Spec, VoiceP has NOM** and SE has ACC.
   In SE-anticausatives, the object has NOM and SE in **Spec, VoiceP has ACC**.

1. **Anaphoric Binding via AGREE**


   \[ \text{DP} \leftarrow \text{AGREE} \rightarrow \text{VAR} \]

   - **An anaphoric variable is fully underspecified for $\varphi$-features:** it is a set of a categorial D-feature and unvalued $\varphi$-features \{D, u$\varphi$\} (cf. Burzio 1991, 1998, Schäfer 2008a, Kratzer 2009). (Referential pronouns come with valued $\varphi$-features and does not enter AGREE.)

   \[ \text{DP}_{\varphi} \leftarrow \text{AGREE} \rightarrow \text{DP}_{\varphi} \]

   - **DP$\varphi$ is active and probes the tree upwards** for a c-commanding antecedent.
DPφ \( \leftarrow \text{AGREE} \leftarrow \text{DP}_{\phi} \)

- **This AGREE-relation is evaluated at the CI-interface** to compute the *semantic* value of the variable (Reuland 2001, 2011):
  \[ \lambda x \lambda e[\text{agent}(e, x) \ldots \text{patient}(e, x)] \]

- **This AGREE-relation is evaluated at PF** to compute the *morphological* form of \( \text{DP}_{\phi} \) (e.g. Burzio 1998, Schäfer 2008a, Rooryck & Vanden Wyngaerd 2011)
  
  \[
  \begin{aligned}
  &1^{\text{st}} \leftarrow \text{ME}_{\text{VAR}} / 2^{\text{nd}} \leftarrow \text{TE}_{\text{VAR}} / 3^{\text{rd}} \leftarrow \text{SE}_{\text{VAR}} \quad (\text{Romance, Germanic}) \\
  &1^{\text{st}} / 2^{\text{nd}} / 3^{\text{rd}} \leftarrow \text{SE}_{\text{VAR}} \quad (\text{Slavic})
  \end{aligned}
  \]

- **Voice heads** (Kratzer 1996) **come with a set of unvalued \( \phi \)-features** to be valued by the closest DP under m-command.\(^{11}\) The **valuation of Voice drives the computation of dependent case** (Schäfer 2008a, 2012a, b, AAS 2015):

  (1) a. A DP is realized at PF with **dependent case (ACC)** if a different DP has valued the accessible phase head (Voice) via AGREE.

  b. A DP that is not realized with dependent case appears with **default case (NOM)**.

  (2) a. Jean se peint

      John NOM SE ACC paints

        TP

          VoiceP

            DP\{P, N, G\} \rightarrow Voice'

              vP

                  v

                      SE\{uP, uN, uG\}

  b. TP

        VoiceP

          DP\{P, N, G\} \rightarrow Voice'

            vP

                v

                   SE\{uP, uN, uG\}

  c. Jean se voir ouvrir la porte

      John SE sees open the door

      (SE starts in the embedded Spec, VoiceP and probes the matrix subject.)

\(^{11}\) I assume a version of AGREE that subsumes m-command:

(i) **Agree** (Müller 2009): \( \alpha \) agrees with \( \beta \) with respect to a feature bundle \( \Gamma \) iff (a), (b), and (c) hold:
  
  a. \( \alpha \) bears a probe feature \([*F*]\) in \( \Gamma \), \( \beta \) bears a matching goal feature \([F]\) in \( \Gamma \).
  
  b. \( \alpha \) m-commands \( \beta \).
  
  c. There is no \( \delta \) such that (i) and (ii) hold:

  (i) \( \delta \) is closer to \( \alpha \) than \( \beta \).

  (ii) \( \delta \) bears a feature \([F]\) that has not yet participated in Agree.

\( \delta \) is closer to \( \alpha \) than \( \beta \) if the path from \( \delta \) to \( \alpha \) is shorter than the path from \( \beta \) to \( \alpha \). The path from X to Y is the set of categories Z such that (a) and (b) hold: (a) Z is reflexively dominated by the minimal XP that dominates both X and Y. (b) Z dominates X or Y. ... The length of a path is determined by its cardinality. It follows that the specifier and the complement of a head qualify as equally close to the head; and that the specifier of a head is closer to the head than a category that is further embedded in the complement of the head.

21
2. The formal derivation of expletive SE

(3) a. La porte s’ouvre
   the door$_{\text{NOM}}$ SE$_{\text{ACC}}$ opens

   b. TP
       T VoiceP
           SE$_{\{\text{uP, uN, uG}\}}$ Voice'
               vP
                   v
                       DP$_{\{P, N, G\}}$

- **Voice agrees with DP$_{U\varphi}$ but no valuation takes place** since both have unvalued features (AGREE as ‘feature sharing’, Frampton & Gutmann 2000, Pesetsky & Torrego 2007).

- **Voice further probes** its m-command domain until it agrees with the object DP. **This DP values** the $\varphi$-features of **Voice** as well as the $\varphi$-features of **DP$_{U\varphi}$**.

- **At the interfaces:** **DP$_{U\varphi}$ survives the formal derivation** (all features are valued) although it does not have a c-commanding DP-antecedent (a loophole in Principle A).

- **It cannot be translated into a (bound) variable at CI** (due to lack of c-command) but receives a spell-out at PF.

- **It lacks a denotation** and, thus, **cannot realize a $\theta$-role. It remains expletive**.

- **We derive a transitive syntax**, but **only the internal argument has a semantic denotation** while the **external argument is expletive**; exactly how we characterized SE-anticausatives.

**CAUTION:** While we derived that unbound SE can remain without $\theta$-role, we need one further ingredient to **avoid a violation of the $\theta$-criterion on the side of Voice**.

- Consider the following derivation where an agentive verb (those verbs do not form anticausatives) enters the derivation with an expletive SE:

(4) a. Jean se peint
    Jean SE paints
    ‘Jean undergoes painting.’

   b. TP
       T VoiceP
           SE$_{\{\text{uP, uN, uG}\}}$ Voice'
               vP
                   v
                       DP$_{\{P, N, G\}}$
• Syntactically, the derivation is well-formed as all unvalued features are valued.
• But ‘painting’-events are conceptually agentive; they must involve an agent.
• The Voice head must introduce an agent role/variable.
• When SE is merged, it agrees with Voice and, thereby must saturate the agent slot.

\[
\begin{align*}
(5) & \quad \text{a. } [[vP]] = \lambda e [\text{paint}(e) & \text{theme}(e, \text{Jean})] \\
& \quad \text{b. } [[\text{Voice}_{\text{agent}}]] = \lambda x \lambda e [\text{agent}(e, x)] \\
& \quad \text{c. } [[\text{Voice}']] = [x x e [\text{agent}(e, x)] [\lambda e [\text{paint}(e) & \text{theme}(e, \text{Jean})]] \\
& \quad \qquad = \lambda e \lambda x [\text{agent}(e, x) & \text{paint}(e) & \text{theme}(e, \text{Jean})] \\
& \quad \text{d. } [[\text{VoiceP}]] = [\lambda e \lambda x [\text{agent}(e, x) & \text{paint}(e) & \text{theme}(e, \text{Jean})]] (y_{SE}) = \lambda e [\text{agent}(e, y_{SE}) & \text{paint}(e) & \text{theme}(e, \text{Jean})] \\
& \quad \text{e. } [[\text{TP}]] = * (y_{SE} \text{ remains unbound } \Rightarrow \text{agent role is not correctly assigned})
\end{align*}
\]

• Since SE, which saturates the agent slot, lacks a c-commanding antecedent,\(^{12}\) and, therefore, is expletive, we end up with the agent role not being realized by a DP with denotation. (14e) is filtered out at the CI-interface as a violation of the \(\theta\)-criterion.\(^{13}\)

• (Anti-)causative verbs denote events that can be conceptualized with or without an external argument (Haskelmash 1993, Levin & Rappaport Hovav 1995, Reinhart 2000).

• For anticausatives, the expletive SE in Spec,VoiceP is then no harm. But in order to avoid a violation of the \(\theta\)-criterion on Voice, we need a further type of Voice, expletive Voice.

\(^{12}\) Movement of the object DP as in (i) cannot derive an antecedent for the anaphor in Spec,VoiceP. Since VoiceP is a phase, movement out of VoiceP has to lead through the outer specifier of VoiceP. But an outer specifier cannot semantically bind an inner specifier, as this is a case of empirically well-motivated ‘Lethal Ambiguity’ (McGinnis 2004). Note that according to (i) an unaccusative analysis of semantically reflexive verbs is impossible (unless one adds particular stipulation about Romance SE as in McGinnis (2004)).

\(^{13}\) Schäfer (2008a, b) argues that generic middles of agentive verbs (Jean SE paints easily (It is easy to paint Jean)) involve a derivation as in (4b), however with an expletive Voice head (see below).