

# Parametric Variation in Feature Inheritance and Its Consequences for Clause Structure\*

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## 1. Introduction

It has long been noted in generative grammar that English and Japanese differ in at least three well-known respects: (i) English exhibits subject–verb agreement in T, whereas Japanese does not; (ii) English makes use of expletive subjects, while Japanese lacks them; and (iii) English shows obligatory overt (phonologically visible) *wh*-movement; whereas Japanese does not. This paper argues that these differences, among others, can be reduced to a single underlying source: the presence or absence of the C-to-T feature inheritance in the syntax.

## 2. Subject–verb agreement

As shown in (1), English verbs exhibit morphological agreement with their nominative subjects, whereas Japanese subjects show no such agreement.

### (1) English: Subject–Verb Agreement

- a. I *am* reading this book.
- b. You *are* reading this book.
- c. John *is* reading this book.
- d. I/You *read* this book.
- e. Hanako *reads* this book.

### (2) Japanese: no Subject–Verb Agreement

- a. Watasi-ga kono hon-o *yom-u* (koto)  
1<sup>st</sup>.sgl.-Nom this book-Acc read-Pres.  
'I read this book.'
- b. Anata-ga kono hon-o *yom-u* (koto)  
2<sup>nd</sup>.sgl.-Nom this book-Acc read-Pres.  
'You read this book.'

- c. Hanako-ga kono hon-o **yom-u** (koto)  
 3<sup>rd</sup>.sgl.-Nom this book-Acc read-Pres.  
 ‘Hanako reads this book.’
- d. Watasi-ga kono hon-o **yon-dei-ru** (koto)  
 1<sup>st</sup>.sgl.-Nom this book-Acc read-Prog.-Pres.  
 ‘I am reading this book.’
- e. Anata-ga kono hon-o **yon-dei-ru** (koto)  
 2<sup>nd</sup>.sgl.-Nom this book-Acc read- Prog.-Pres.  
 ‘You are reading this book.’
- f. Taroo-ga kono hon-o **yon-dei-ru** (koto)  
 3<sup>rd</sup>.sgl.-Nom this book-Acc read-Prog.-Pres.  
 ‘Taro is reading this book.’

As shown in (1) and (2), unlike English, Japanese does not exhibit verbal morphology that reflects *person*- and *number*-agreement with the subject DP. The contrast observed in (1) and (2) can be straightforwardly attributed to the presence or absence of C-to-T feature inheritance in the sense of Chomsky (2008). On the basis of Ueda’s (2001, 2002, 2015) investigations, I propose (3) as a parametric variation in unvalued Formal Feature (uFF) inheritance.

(3) The Unvalued Formal Feature (uFF) Inheritance Parameter (henceforth uFFIP)

The uFFIP determines whether T acquires its uFF via inheritance from C;

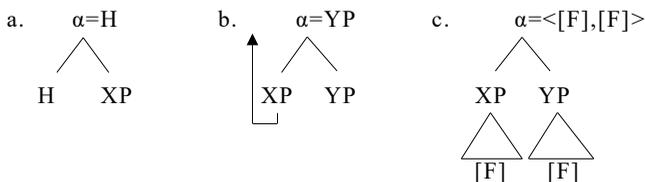
- (i) If  $C_{[+inherit]}$ : C-to-T inheritance of uFFs applies.
- (ii) If  $C_{[-inherit]}$ : C-to-T inheritance of uFFs does not apply.

Unlike English, if Japanese takes the latter value of the parameter in (3) and its lexicon contains only  $C_{[-inherit]}$ , the consequence of which is stated in (4) below, then T in Japanese carries neither  $\phi$ -features nor an EPP-feature. As a result, T cannot enter into an Agree relation with the subject DP in the course of the derivation, which accounts for the absence of subject–verb agreement of this type in Japanese.

(4) Japanese lacks the C-to-T uFF inheritance.

What happens to the sentence derivation in Japanese, which lacks the C-to-T uFF inheritance? Before taking a closer look at sentence derivations in Japanese, we first review the derivation of English declarative sentences under Chomsky's (2013, 2015) Labeling Algorithm, as illustrated in (5).

(5) Labeling Algorithm (Chomsky 2013: 43)



In (5a), that is, a syntactic object  $\{H, XP\}$ , LA unambiguously selects H as the label by Minimal Search. On the other hand, the label of  $\{XP, YP\}$  in (5b) and (5c) is not determined. It is called the XP-YP problem. Chomsky (2013) proposes two solutions to the problem: (i) Dislocate either XP or YP from  $\{XP, YP\}$  as in (5b), where the lower copy XP in this case is invisible to Minimal Search (or labeling), thus the label will be the remaining head YP; (ii) The most prominent feature sharing between XP and YP is selected as the label  $([F], [F])$  as in (5c).

Under the LA given in (5), (6) is a typical example of an English declarative sentence. The shaded portions indicate the Transfer domain at each phase level, which becomes inaccessible to operations in the next higher phase. Furthermore, following Epstein, Kitahara, and Seely (2016) (henceforth EKS), we assume that, whether externally or internally, it is Pair-Merge, not Set-Merge, that creates phase cancelation. In other words, Set-Merge plays no role in phase-cancelation, regardless of whether the uFFs on a phase head are inherited by another head. Just for expository convenience, I use *t* (trace) throughout this paper.

(6) English: John reads this book.

a. vP phase level:

**Transfer 1:**  $\{v^*P (= <R, v^*>) \text{ Subj } \{<R, v^*>, \{\alpha (= \varphi, \varphi) \text{ Obj}, \{R, t_{\text{Obj}}\}\}\}\}$

- (i) Set-Merge externally forms  $\{R, \text{Obj}\}$ .
- (ii) Set-Merge internally merges Obj to Spec-R.
- (iii) Set-Merge externally introduces  $v$  and then Subj into the derivation, yielding the vP phase.
- (iv) R inherits uFF from  $v$ .
- (v) R agrees with Obj, valuing Case.
- (vi)  $\alpha$  is labeled as  $\varphi, \varphi$  under minimal search.
- (vii) Pair-Merge internally forms  $<R, v^*>$  (R with  $v^*$  affixed).
- (viii)  $v^*$  becomes invisible (and thus no longer the phase-head).
- (ix) The phase-head status is activated on the copy of R.
- (x) The complement of R,  $t_{\text{Obj}}$  gets transferred.

b. CP phase level:

**Transfer 2:**  $\{\gamma (= \text{CP}) C, \{\beta (= \varphi, \varphi = \text{TP}) \text{ Subj}, \{T, \{v^*P (= <R, v^*>) t_{\text{Subj}}, \{\alpha (= \varphi, \varphi) \text{ Obj}, \{R, \text{Transfer 1}\}\}\}\}\}\}$

- (i) Set-Merge externally forms  $\{T, v^*P\}$
- (ii) Set-Merge internally merges Subj to Spec-T.
- (iii) Set-Merge externally introduces C, yielding CP phase.
- (iv) T inherits uFF from C.**
- (v) T agrees with Subj, valuing Case.
- (vi)  $\beta$  is labeled as  $\varphi, \varphi (= \text{TP})$  under LA.
- (vii)  $\gamma$  is labeled as CP under LA.
- (viii) The complement of C,  $\beta (= \text{TP})$  gets transferred.

c. Remaining part of the derivation

**Transfer 3:**  $\{\gamma (= \text{CP}) C, \{\text{Transfer 2} \text{ Transfer 1}\}\}$

- (i) The remaining part of the derivation  $\gamma (= \text{CP})$  gets transferred.

Assuming the proposed uFFIP, English is a language that takes the value  $C_{[+ \text{inherit}]}$ . As shown in (6b-(iv)), at the CP phase, C-to-T uFF inheritance applies, and its consequently English T receives uFFs, including  $\varphi$ - features. Following Chomsky (2013), although T in English is too weak to function as a label, the syntactic object  $\{\text{DP}, \text{TP}\}$  can ultimately be labeled as  $<\varphi, \varphi$

(=TP)> under Minimal Search once it undergoes an Agree relation with the subject DP. After Transfer 2, the remaining part of the derivation is transferred as Transfer 3.

Let us now return to the derivation of Japanese declaratives. Assuming in this paper that what happens at the derivation of the vP-phase level proceeds in the same as in English, we focus our attention on the derivation after the vP-phase.<sup>1</sup> As proposed above, Japanese takes the value  $C_{[-inherit]}$  under the uFFIP. This means that unvalued Formal Features (uFFs) in Japanese remains on C, a phase-head. (6) presents a partial derivation of a typical Japanese declarative sentence after the vP phase level. The gray-shaded portions represent the Transfer domain at each phase, which becomes invisible to syntactic operations in the next higher phase. Here I adopt Chomsky’s (2013, 2015) Labeling Algorithm as well as Saito’s (2016) anti-labeling hypothesis for particle languages such as Japanese. According to Saito (2016, 2018), DPs in Japanese externally Set-Merge with K, forming a syntactic object  $\{?? DP, K\}$  prior to participating in the main derivation. K represents a Kase for particle languages. He assumes K is weak and especially functions as an anti-labeling head. Therefore, ?? in the syntactic object  $\{?? DP, K\}$  is labeled as DP. When the syntactic object  $\{_{DP} DP, K\}$  externally Set-Merges with T in the course of the main clausal derivation, K prevents the DP from serving as a label. Furthermore, unlike English T, Japanese T is not a weak head.

(7) Hanako-ga kono hon-o *yomu* (koto) (=2d)

Hanako-Nom this book-Acc read

‘Hanako reads this book.’

a. vP phase level:

**Transfer 1:**  $\{_{v^*P} (= <R, v^*>) \text{ Subj } \{ <R, v^*>, \{_{\alpha (= \varphi, \varphi)} \text{ Obj}, \{ R, \text{tObj} \} \} \}$

b. CP phase level

**Transfer 2:**  $\{_{\gamma (=CP)} \text{ Subj } \{ C, \{_{\beta (=TP)} T, \{_{vP} (= <R, v^*>) \text{ tSubj}, \{_{\alpha (= \varphi, \varphi)} \text{ Obj}, \{ R, \text{Transfer 1} \} \} \} \}$

(i) Set-Merge externally forms  $\{T, vP\}$ .

(ii) Set-Merge externally introduces C.

(iii) Set-Merge internally merges Subj to Spec-C, yielding the CP phase.

(iv)  $\beta$  is labeled as TP under LA.

(v)  $\gamma$  is labeled as CP under LA and Saito's Anti-labeling.

(vi) The complement of C,  $\beta$  (= TP) gets transferred.

c. Remaining part of the derivation

Transfer 3:  $\{\gamma_{(-CP)} \text{ Subj } \{ C, \{\text{Transfer 2}, \text{Transfer 1}\} \}\}$

(i) The remaining part of the derivation  $\gamma$  (= CP) gets transferred.

At the CP phase level, no C-to-T uFF inheritance takes place at the point of CP phase completion in (7b-(iii)) in Japanese under the proposed uFFIP in (3). As a result, T carries neither uFF nor an EPP-feature. Following Saito (2016), T in Japanese is not a weak head. Therefore,  $\beta$  is labeled as TP without any further merger. This is a consequent of the absence of C-to-T uFF inheritance under our proposed uFFIP. In Japanese, the head T is invisible in syntactic operations and consequently its Specifier is not projected. The remaining uFFs on C are satisfied either by the subject DP or by other elements of the sentence. The former predicts that Japanese subjects exhibit A'-properties and the prediction has been borne out by a series of studies of Fukui and others (See Fukui 1984, 1986, Fukui and Speas 1986, Ueda 2002, 2003 for detail discussions for subject properties in Japanese). Scrambling corresponds to the latter case.

With respect to the labeling of  $\gamma$  as CP, in (7b-iii), internal Set-Merge targets Subject  $\{\text{DP DP}, K\}$  and merges it with  $\{\text{CP C}, \text{TP}\}$ , thereby yielding the CP phase, in which K functions as a head for anti-labeling in the sense of Saito (2016, 2018). Under Minimal Search, the head K and the head C compete, but K prevents its DP from becoming the label of  $\{\gamma \{\text{DP DP}, K\}, \text{CP}\}$ . Therefore,  $\gamma$  is labeled as CP.

To sum up, I have proposed the uFFIP in (3), according to which Japanese is a language with the  $C_{[-\text{inherit}]}$ . The uFFIP straightforwardly predicts the absence of subject-verb agreement in Japanese, because T carries no uFF and therefore plays no role in syntactic operations during the derivation. Adopting Saito's (2016, 2018) Kase and anti-labeling analysis, it follows that subject DPs in Japanese may remain either in [Spec, vP] or move to [Spec, CP]. In canonical SOV word order, the subject DP satisfies the uFFs on C, whereas in scrambling constructions, the uFFs on C are

satisfied by a non-subject element, such as the object DP.

### 3. Expletives

The uFFIP in (3), which posits that Japanese lacks C-to-T uFF inheritance, further predicts another difference between English and Japanese, as illustrated in (8) and (9).

(8) English: Expletives in [Spec, TP]

- a. *There* is a man outside
- b. *It* seems that he is willing to help us.

(9) Japanese: no expletive

- a. Soto-ni otoko-ga iru  
outside-in a man be  
'A man is outside.'
- b. Kare-wa yorokonde tasukete-kure sooda.  
he-Top with pleasure help-given seem  
'He seems to be willing to help us.'

It has been widely assumed in generative grammar that English indeed employs expletives in [Spec, TP], as diagnosed by Subject–Auxiliary Inversion (SAI) in interrogative sentences such as those in (10).

(10) a. Is *there* a man outside?

- b. Does *it* seem that he is willing to help us?

If it is correct that the canonical position of English expletives is [Spec, TP], then under the uFFIP, the language takes the former value in (3), namely,  $C_{[+inherit]}$ , whereby C-to-T inheritance of uFFs applies. This option, C-to-T inheritance, has been assumed throughout Chomsky's work since Chomsky (2008). In English, T inherits the uFFs from C, that is, the  $\phi$ -features and the EPP feature ([+D]-feature in the sense of Chomsky (1995)). These inherited features ultimately correlate with the satisfaction of the EPP-feature on T. The EPP-feature on T must be satisfied by either an expletive

or a subject DP; if no suitable element is available, the EPP feature remains unsatisfied, and the derivation fails to converge.

By contrast, as discussed earlier, Japanese lacks the C-to-T uFF inheritance under the uFFIP in (3). As a consequence, T in Japanese can neither enter into Agree nor bear an EPP-feature. Since Japanese T does not receive an EPP-feature, there is no need, and indeed no trigger, for an expletive. This correctly predicts the absence of expletives in [Spec, TP] in Japanese.

To summarize, under the proposed uFFIP, C in Japanese takes the value [-inherit]. As a result, our analysis predicts that Japanese T cannot host any uFFs, including an EPP-feature. Since a T lacking uFFs does not bear any features that would render it a target for Minimal Search, it becomes invisible to syntactic operations. Consequently, no Agree relation between T and other elements can arise.

#### 4. *Wh*-movement

The third difference between English and Japanese concerns overt (visible) *wh*-movement. English *wh*-interrogatives require that at least one *wh*-phrase move to the sentence-initial position, as illustrated in (11), whereas Japanese *wh*-interrogatives do not, as shown in (12).

(11) English: overt *wh*-movement: obligatory

- a. *What<sub>i</sub>* did John buy  $t_i$  ?
- b. \*John bought what?

(12) Japanese: overt *wh*-movement: non-obligatory

- Taroo-wa *nani*-o katta no?
- Taro-Top what-Acc bought Q
- ‘What did Taro buy?’

It is well known that Japanese is one of the *wh*-in-situ languages, in contrast to English. Why this difference arises between the two languages has been a central issue in the literature for nearly half a century. Many researchers have assumed that interrogative C in English bears a strong Q-feature,

whereas its counterpart in Japanese is weak. Kayne (1994) proposes that in languages like Japanese, which exhibit agglutinative morphology, IP itself moves to [Spec, CP], yielding SOV word order.<sup>2</sup> As a result, [Spec, CP] is already occupied by the raised IP, leaving no available position in C-projection for a *wh*-phrase to move to.

I argue that the overt-covert contrast in *wh*-movement can be also derived from the proposed uFFIP. In particular, the uFFIP predicts the differences in subject positions between the two languages, as discussed in section 2, and this difference in turn gives rise to the contrast in *wh*-movement.

#### 4.1 Overt *wh*-movement in English

We begin with English *wh*-interrogatives. Illustration (13b) below shows the details of the derivation after Transfer has applied at the *v*P phase. The gray-shaded portions indicate the Transfer domains at each phase level.

(13) What did John buy?

a. *v*P phase level:

**Transfer 1:**  $\{v^*P_{(=<R, v^*>)} whObj, \{Subj_{\{<R, v^*>, \{a(= \varphi, \varphi) t_{whObj}, \{R, t_{whObj}\}}\}}\}$

b. CP phase level

**Transfer 2:**  $\{\gamma(=Q, Q) whObj \{C, \{\beta(= \varphi, \varphi= TP) Subj, \{T, \{vP_{(=<R, v^*>)} t_{whObj}, \{t_{Subj}, \{a(= \varphi, \varphi) t_{whObj}, \{R, \boxed{\text{Transfer 1}}\}}\}}\}\}\}$

- (i) Set-Merge externally forms  $\{T, vP\}$
- (ii) Set-Merge internally merges *Subj* to *Spec-T*.
- (iii) Set-Merge externally introduces *C*.
- (iv) Set-Merge internally merges *whObj* to *Spec-C*, yielding CP-phase.
- (v) T inherits uFF from C.**
- (vi) T agrees with *Subj*, valuing Case.
- (vii)  $\beta$  is labeled as  $\varphi, \varphi (= TP)$  under LA.
- (viii)  $\gamma$  is labeled as  $Q, Q (= CP)$  under LA.
- (ix) The complement of *C*,  $\beta (= TP)$  gets transferred.

c. the remaining part

Transfer 3:  $\{\gamma (= Q, Q=CP) \text{ } whObj \{ C, \{ \boxed{\text{Transfer 2}} \boxed{\text{Transfer 1}} \} \} \}$

(i) The remaining part  $\gamma (= CP)$  gets transferred.

## 4.2 Invisible *wh*-movement in Japanese

We now turn to the derivation of Japanese *wh*-interrogatives.

### 4.2.1 Crucial assumptions

Before turning to the actual derivations, let us first confirm several assumptions which, while not particularly surprising, play crucial roles in the analysis. We adopt that split-*wh* analysis proposed by Chomsky (1964 and 1995), under which *wh*-phrases consist of two parts, namely a *wh*-part and an existential part. What distinguishes English from Japanese is that, in English, these two elements are fused into a single lexical item, whereas in Japanese they are morphologically separable. Consequently, in English, the two components move together as a single *wh*-phrase, while in Japanese they can undergo movement separately.

Following Watanabe (1992), we assume that in Japanese the *wh*-part is phonologically null, whereas the existential part, namely the indeterminate element, is phonologically realized and carries the Case-feature of the *wh*-phrase.

The assumptions adopted here are summarized in (14).

(14) a. Wh-words consist of two parts: a *wh*-part and an existential part.

(Chomsky 1964)

b. These two components are morphologically separable in Japanese, but not in English.

(Kuroda 1965)

c. In Japanese, the *wh*-part of a *wh*-phrase is phonetically null.

(Watanabe 1992)

d. The existential part (the indeterminate element) is phonologically realized and carries the Case-feature of the *wh*-phrase.

Given the assumptions in (14), we now examine how *wh*-in-situ is derived in

Japanese.

#### 4.2.2 A derivation of *wh*-interrogatives in Japanese

Consider the derivation of Japanese *wh*-interrogatives such as (12), repeated here as (15). The relevant derivational steps are presented in (16). We will focus in particular on the derivation at the CP phase level, as illustrated in (16b).

- (15) Taroo-wa nani-o katta no?  
 Taro-Top what-Acc bought Q  
 ‘What did Taro buy?’

- (16) Taroo-wa nani-o katta no?

a. vP phase level:

**Transfer 1:**  $\{v^*P (= \langle R, v^* \rangle) \text{ } whObj, \{ \text{Subj } \{ \langle R, v^* \rangle, \{ \alpha (= \varphi, \varphi) \text{ } t_{whObj} / \text{NANI}_{indObj}, \{ R, [t_{whObj} / t_{indObj}] \} \} \} \}$

b. CP phase level

**Transfer 2:**  $\{ \gamma (= CP) \text{ } Subj, \{ C, \{ \beta (= TP) \{ T, \{ v^*P (= \langle R, v^* \rangle) \text{ } whObj \{ t_{Subj}, \{ \alpha (= \varphi, \varphi) \text{ } t_{whObj} / \text{NANI}_{indObj}, \{ R, [t_{whObj} / t_{indObj}] \} \} \} \} \} \}$

- (i) Set-Merge externally forms  $\{ T, v^*P \}$
- (ii) Set-Merge externally introduces C.
- (iii) C and *whObj* enter an agree relation under Minimal Search
- (iv) Set-Merge internally merges  $\{ DP \text{ } Subj, K \}$  to Spec-C, yielding CP phase.
- (v)  $\beta$  is labeled as TP under LA.
- (vi)  $\gamma$  is labeled as CP under LA.
- (vii) The complement of C,  $\beta (= TP)$  gets transferred.

c. the remaining part

**Transfer 3:**  $\{ \gamma (= CP) \text{ } Subj \{ C, \{ [Transfer 2] [Transfer 1] \} \} \}$

- (i) The remaining part  $\gamma (= CP)$  gets transferred.

Assuming (14a) in the previous subsection, the *wh*-part and the existential part of *wh*-phrases are morphologically separable in Japanese, and only the *wh*-part undergoes internal Set-Merge to the edge of *vP*, as shown in (16a).

Unlike English, *nani*, which corresponds solely to the existential part of a *wh*-phrase and bears phonological features, may be transferred at the  $\nu$ P-phase level.

Under the uFFIP, the absence of C-to-T uFF inheritance ultimately leads to derivational non-convergence. If the subject DP merges with T, then neither T nor the subject syntactic object  $\{\text{DP DP, K}\}$  can serve as a label. A convergent derivation is obtained when the subject DP  $\{\text{DP DP, K}\}$  internally Set-Merges with C, and C also enters an Agree relation with the *wh*-object in the outer [Spec,  $\nu$ P] without triggering displacement, as illustrated in (16b-iii). As a result, unlike English, in which the topmost label of *wh*-interrogatives is  $\langle \text{Q. Q} \rangle$ , the topmost label of Japanese *wh*-interrogatives is CP.

To summarize, a significant advantage of the present analysis is that the typological differences between overt and covert *wh*-movement can be reduced to the proposed uFFIP, namely the presence or absence of feature inheritance, without recourse to feature strength. Moreover, the analysis captures the correlation between the absence of agreement on T and unavailability of *wh*-in-situ.

## 5. Conclusion

In this paper, we have proposed the uFFIP, according to which languages differ with respect to whether C transfers its uninterpretable Formal Features (uFFs) to T. We argued that English takes the value [+inherit], whereas Japanese takes [-inherit]. Under this hypothesis, T in Japanese receives no uFFs from C and is therefore unable to participate in syntactic operations such as Agree and EPP-driven movement. This captures the contrast between syntactic inertness of T in Japanese and the full-activity of T in English. We have shown that three well-known typological differences between English and Japanese, namely (i) the presence versus absence of subject–verb agreement, (ii) the availability of expletives, and (iii) the contrast between overt *wh*-movement in English and *wh*-in-situ in Japanese, follow directly from the proposed uFFIP. Since Japanese T does not inherit uFFs, it cannot host  $\phi$ -features or an EPP-feature; consequently, no Agree relation with the subject DP can be established, no

expletive is merged, and only the *wh*-part of a Japanese *wh*-phrase is extracted to the phase edge, while the existential part remains in situ. Taken together, these properties collectively derive the characteristic behaviors of Japanese and English without recourse to feature strength or ad hoc stipulations.

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Finally, all remaining errors and inadequacies are of course all my own.

## Notes

1. With respect to *v*-to-*V* uFF inheritance at the *vP*-phase level, it remains to be examined whether this process is parameterized across languages. I leave this issue open for future investigation.
2. Since Kayne (1994) employs the term *Inflectional Phrase (IP)*, I retain IP when referring to his discussion. In this present paper, however, I use *TP* instead of *IP*.
3. Ito (2020) discusses a certain type of expletive occurring in [Spec, CP] in German, as exemplified in (i) (Bayer and Suchsland 1998; Mohr 2005). German is a typical V2 language, in which a verb (or auxiliary) surfaces in the second position of the sentence. It is widely assumed

that the raised verb (AUX) occupies the C head. If this assumption is on the right track, then the expletives in (i), which appear to the left of the verbs (AUXs), must be located in [Spec, CP]. These are referred to as CP-expletives.

- (i) a. *Es* haben einige Kinder Spinat gegessen.  
 EXPL have.3<sub>PL</sub> several children spinach eaten  
 ‘Several children have eaten spinach.’
- b. *Es* hat soeben der Kanzler die Bühne betreten.  
 EXPL have.3<sub>SG</sub> just the chancellor the platform entered  
 ‘The chancellor has just mounted the platform.’
- (Ito 2020: 195, cited from Mohr 2005: 140, slightly modified)

There arises a question why expletives of this type do not appear in Japanese, unlike in German. One might argue that if uFFs remain on C in Japanese, expletives of this type should be able to satisfy an EPP-feature on C by occupying [Spec, CP]. However, in German subordinate clauses, V2 effects do not arise because T-to-C head movement is unavailable. As shown in (ii), expletives in [Spec, CP] are therefore not permitted in embedded clauses.

- (ii) ... dass (\*es) getanzt wurd.  
 that EXPL danced AUX.3<sub>SG</sub>  
 ‘... that there was dancing.’
- (Ito 2020: 195, cited from Mohr 2005: 35, slightly modified)

German exhibits rich subject–verb agreement morphology. As discussed in section 2, subject–verb agreement reflects C-to-T uFF inheritance under the present proposal. That is, German instantiates C<sub>[+inherit]</sub>, and the uFFs on C are inherited by T. The facts concerning the CP-expletives in (i) must therefore be tied to T-to-C head-movement, which yields the V2 pattern in German.

At this point, however, the precise interaction between C-to-T uFF inheritance and T-to-C head movement is far from fully understood. A

more comprehensive analysis of how these two mechanisms correlate is required, and I leave this issue open for future research.

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