SURPRISING AGREEMENTS AT T AND C*
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1. Introduction

A linguistic theory should minimally tell us the following:

- How are natural languages the same?
- In what ways can they be different?

GB theory had a straightforward answer to these questions. All languages contain the same set of principles, such as subjacency and ECP; where the languages differ is in the setting of the parameter built into many of the principles, head parameter being one such example. This vision allowed the theory to attain not only descriptive adequacy, but also explanatory adequacy as well — in the ideal, of course — because this framework gave what appeared at the time to be a compelling picture of the initial state of UG. However, as we learned more about the nature of these principles, it became evident that many, if not all, of them are a description of the problem they are supposed to solve. Why, for example, should a movement that crosses two nodes of a particular kind lead to ungrammaticality? Subjacency simply builds this observation into a condition on movement, failing to tell us anything beyond what we already know to be the problem. Chomsky (1986) begins to address this issue, but it is in the minimalist program (MP) that the problem inherent to GB comes to be fully recognized, and effort is made to rid the theory of anything that does not have independent and intuitive motivation. While this is progress, it leaves us without an answer to either of the questions posed above. Without universal principles, it is not obvious how we state the uniform nature of human language, and without principles, there can be no parameters that can be built into them to capture the potential for variation that languages may exhibit. Recognizing the vacuum left by ridding the theory of universal principles, Chomsky suggests the Uniformity Principle in their place.

(1) Uniformity Principle (Chomsky 2001: 2)
     In the absence of compelling evidence to the contrary, assume languages to be
     uniform, with variety restricted to easily detectable properties of utterances.

To understand the UP, we need to have more specificity to both parts of the statement. In assuming languages to be uniform, precisely what are the elements that are shared by all languages? In what ways can the languages vary within this uniform profile? It surely is not the case that the detectable properties of utterances are random in nature, just as the parameters in GB are not random in their formulation. I will attempt to provide a concrete instantiation of both portions of the Uniformity Principle (UP) by extending the proposal

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in Miyagawa (2010), in order to understand both the content of the universal statement and the precise nature of the variation being described in the UP. As we will see, the result is not radically different from the way that principles-and-parameters in GB is conceptualized, and it is also consistent with recent discussion of "micro parameters" by Baker (2008), Kayne (2005), and many others.

2. Strong Uniformity: An instantiation of the Uniformity Principle

In Miyagawa (2010), I focus on elements in linguistic theory that are responsible for triggering the operation of movement. Unlike GB, in which movement is viewed as entirely optional, where Move α moves anything, anywhere, at any time, in MP, virtually every instance of movement is considered as last resort (Chomsky 1995). What triggers it are grammatical features that must somehow be checked off. These grammatical features vary from language to language, the most common of them being ϕ-feature agreement.[1] Given the central role the grammatical features have come to play in linguistic theory, it is only natural to ask which grammatical features are found in which languages, and what accounts for the variation. To answer this question, I proposed the Strong Uniformity.

(3) Strong Uniformity (Miyagawa 2010)
     Every language shares the same set of grammatical features, and every language overtly manifests these features.

What Strong Uniformity states, in the sprit of UP, is that the same stock of grammatical features is found in every language. The idea that these features overtly appear in some fashion provides the basis for delineating the possible variations in how the grammatical features manifest themselves. Right away, a whole host of questions arise. How does one account for the variety of ϕ-feature agreements across languages, from an impoverished set like in English to the rich agreement of Romance? What about languages that do not evidence any agreement, such as Chinese and Japanese?

I abstract away from the variety of ϕ-feature agreements, and simply lump together ϕ-feature agreement as one type of grammatical feature. For the second question, which I address directly, I argue that there are two types of grammatical features, ϕ-feature agreement and what Kiss (1995) calls "discourse configurational" features, which are topic and focus. In some languages, topic/focus plays the same role as agreement in triggering movement to positions such as Spec,TP. By Strong Uniformity, every language has both ϕ-feature agreement and topic/focus, making all languages uniform.

These grammatical features have a similar status as the universal principles in GB: they are shared by all languages. What differentiates the grammatical features from the

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[1]In the literature, there is a debate as to what triggers last-resort movement. For "EPP" type A-movement, which is what I will focus on in this article, some linguis have argued that Case is responsible (Bošković 1997, 2002 and Martin 1999). I will instead assume that movement correlates with agreement (e.g., Chomsky 2000, 2005, 2007, 2008, Kuroda 1988, Miyagawa 2010, Pesetsky and Torrego 2001).

universal principles is that the grammatical features actually occur in the language as detectable entities, and they are closely associated with linguistic operations (Chomsky 2005, 2008), hence they have an independent and intuitive motivation to be included in the theory. What remains is how languages can vary within the framework of Strong Uniformity.

## 2.1. Agreement-based and Discourse Configurational Languages

Using Chomsky (2005, 2008) and Richards (2007) as a starting point, I assume that the ϕ-feature probe begins at C, and for a language such as English, it is inherited by T. The point in Miyagawa (2010) is that both ϕ-feature probe and the discourse feature of topic or focus occur at C, and for an agreement-based language such as English, the ϕ-feature probe is inherited by T. For the discourse feature, depending on the language, only topic may function as a discourse configurational feature, or only focus (Kiss 1995), or, in many languages such as Japanese, either may function as such (Miyagawa 2010).

(4)   Agreement-based languages
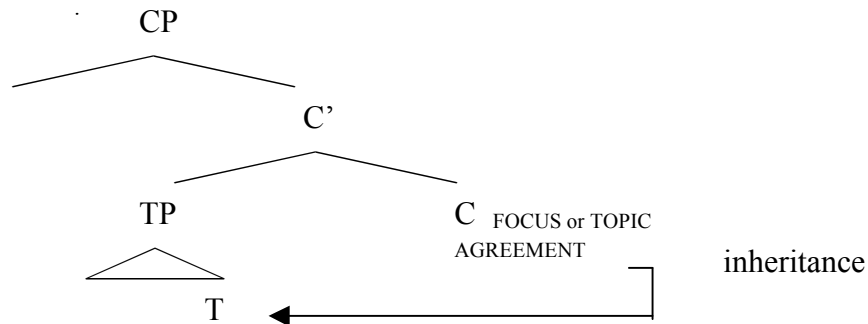
The occurrence of agreement on T triggers movement of the appropriate nominal to Spec,TP. In contrast, for a discourse-configurational language such as Japanese, it is topic/focus that is inherited by T, triggering movement of a topic or focused element to Spec,TP.

(5)   Discourse-configurational languages
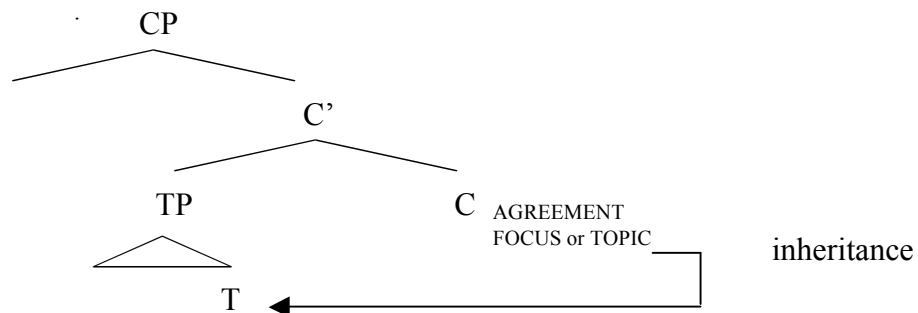
There is logically a third option in which both the ϕ-feature probe and topic/focus are inherited by T. Although this option is not entertained in Miyagawa (2010), Jiménez-Fernández (2010) shows that Spanish is precisely this type of language, where there is ϕ-

feature agreement at T, and it is possible to topicalize a phrase within the TP domain. There remains a logical fourth option, which is that neither feature lowers to T; as far as I know there is no instance of a language that takes this option, a gap that requires an explanation, but it is outside the scope of this paper to attempt it.[2]

One piece of evidence for the discourse-configurational nature of Japanese has to do with acquisition of scrambling. Hayashibe (1975) noted that there appears to be a period, sometime up to 5 years of age, in which children tend to interpret scrambled sentences like (6b) as if they were nonscrambled sentences like (6a) in word order, completely ignoring the case marking on the arguments.

(6) a. SOV: Kamesan-ga   ahirusan-o   osimasita.
            turtle-NOM   duck-ACC   pushed
            'A turtle pushed a duck.'

     b. OSV: Ahirusan-o   kamesan-ga   osimasita.
            duck-ACC   turtle-NOM   pushed

Hayashibe concludes from this that scrambling is acquired late in language development. However, Otsu (1994) shows that children before or around the age of three years of age have no problem with scrambling when they are presented with a discourse context that makes the scrambled sentence sound natural.

     c. Kooen-ni   ahirusan-ga   imasita.
        park-in   duck-NOM   was
        Sono ahirusan-o   kamesan-ga   osimasita.
        the duck-ACC   turtle-NOM   pushed
        'There was a duck in the park. A turtle pushed the duck.'

What Otsu has shown is that scrambling of the object, 'the duck-ACC', is possible if there is prior context that establishes it as the discourse topic. The fact that this type of movement is within TP is well established (Saito 1985, 1992; see also Miyagawa 2001, 2010), hence it is topicalization to the TP domain.[3] As an indication of this, this type of

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[2]A reviewer asks whether in a discourse configurational language such as Japanese, focus/topic occur on every clause. That is not the case. As I demonstrate in Miyagawa (2010), when there is no such discourse configurational feature, the subject stays in situ in *v*P.

[3]A reviewer points out that Murasugi and Kawamura (2004) demonstrated that young Japanese children can correctly comprehend sentences with the OSV word order without a prior context, unlike Otsu's example. I believe that Murasugi and Kawamura's findings are consistent with Otsu's results. While it is true that Murasugi and Kawamura do not provide a prior context, they do begin the experiment by showing the two stuffed animals and asking what they are (cow, duck) (p. 138). By so doing, they establish these entities as definite and referential, which is a prerequisite for being a topic. In fact, Sano (2005) has shown that young children can most easily interpret an OSV sentence if the scrambled object has the definite marker *sono* 'the/that', as in Otsu's example, again,

scrambling has the typical A-movement characteristics of being able to overcome weak crossover violation and also create a new binder (see Saito 1992, Miyagawa 2010, among many others).

So, to reflect on the point made at the outset of this paper, Uniformity Principle states that all languages are uniform, which is instantiated for grammatical features in Strong Uniformity. What we find for variation is a clearly detectable difference: either the φ-feature probe is borne by T, or there is discourse-configurational movement within TP, or both. These differences arise from the minimal variation of T inheriting the φ-feature probe or the discourse configurational feature (or both, in the case of Spanish), and it is perfectly detectable. This provides substance to the linguistic variation portion of the Uniformity Principle: it isn't that any easily detectable difference is allowed, but that the differences are represented solely on the basis of the uniform set of features, and the variation is overtly manifested within the narrow range of possibilities for feature inheritance.

An important point to make about the issue of overt manifestation is that it is not always required if the system is defined sufficiently narrowly that the system itself has the ability to implicate something covert if some overt manifestation has occurred. We will see this in Chinese, in which a clearly overt operation of topicalization to CP implicates φ-feature that is inherited by T; this φ-feature is never pronounced in Chinese. This is possible because the range of variations is defined over the narrowly confined space of C-T, and the set of features limited to φ-feature and discourse features of topic/focus.[4] This ability of the system to predict the location of a covert feature based on the overt manifestation of the other feature is most easily understood in the straightforward case in which there is just one φ-feature and one discourse feature at C; if the discourse feature overtly manifests itself by attracting a topic to CP, then, by implication, the φ-feature must be inherited by T. Complexity is introduced into this system if more than one of the same feature type occur at C. Though not common, we

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showing the importance of definiteness and referentiality for topichood. We also find evidence for this from Turkish, another free word-order language. Özge, Marinis, and Zeyrek (to appear) report that young Turkish children have no trouble comprehending the OSV word order without prior context so long as the scrambled object has the accusative case marker. As is well known, the accusative case marker in Turkish marks the object as definite.

The same reviewer also asks about the data in Miyagawa (1997), in which it is shown that idiom chunks can scramble. This is an interesting point to which I can only respond in a tentative fashion. What is interesting about that data is that only a small handful of idiom chunks can undergo such scrambling, and it is a question as to why more idiom chunks can't scramble. It is possible that those that do allow scrambling allow parts of idioms to have some discourse function, as in *advantage* in *advantage was taken, lots of advantage was taken of the poor*.

[4]It is predicted that we find a similar defined range of variations in the *v*-V space. We find in various languages phenomena of object agreement, sentence medial focus and topic movements, etc., which I are matters to investigate in this regard. However I will stick to the C-T domain in this article since the phenomena I wish to investigate are limited to this domain.

find such double-occurrence in one dialect of Basque, which I will discuss in the next section, and in Germanic. In Germanic, there is the well-known complementizer agreement in West Flemish (Haegeman 1992). Although this phenomenon has been analyzed as an instance of just one φ-feature (see Carstens 2003, Miyagawa 2010 for such approaches), Haegeman and van Koppen (to appear) give arguments that the agreement on C and the agreement on T are distinct, suggesting that they involve two separate φ-features. There is, in principle, nothing to prohibit such double occurrence in our system. One thing that is certain is that, given that this complexity makes it difficult to predict where the two φ-features occur, we predict, on the bases of the Uniformity Principle, that the φ-feature must be "easily detectable properties of utterances," that is, they must be pronounced. The same holds for the other kind of double occurrence of φ-feature in Germanic; in this instance, the two φ-features target different goals, the subject and a discourse participant (speaker, addressee). Haegeman and Hill (2011) study this phenomenon of allocutivity in Romanian and West Flemish and show, for example, that in Romanian, along with subject-verb agreement, there is a sentential particle that inflects for 2nd (addressee) or 1st (speaker) person. We will see a similar phenomenon in Basque. The point is that in such complex situations, the φ-features must somehow overtly signal their location, either by the actual pronunciation of the feature or by the type of goal (speaker/addressee) that it takes. I will show this in detail for Basque and particularly for Japanese.[5]

Note that Strong Uniformity for a discourse configurational language such as Japanese makes a prediction that is not at all obvious: given that the discourse-configurational feature, topic or focus, is inherited by T, we predict that we should find φ-feature agreement at C in Japanese. This would be surprising if it is true since the standard view of Japanese is that it is a language that lacks φ-feature agreement. Contrary to this view, Hasegawa (2009) and Ueda (2006) have argued based on work of traditional grammarians that there are effects of person agreement at C as observed in certain modal constructions (see also Miyagawa 2010). Below, I will give clear evidence for person agreement at C that finds cross-linguistic justification.

Our analysis also leaves the question about Chinese, which is another language typically characterized as discourse configurational. I argued in Miyagawa (2010) that it is more like Romance in being an agreement-based language, although the φ-feature probe is never pronounced. I gave some evidence for this drawn from the literature. In section 4, I will give further evidence based on pro-drop that has cross-linguistic implications.

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[5]Thanks to a reviewer for suggesting the points regarding multiple occurrence of φ-features in some languages. The same reviewer notes that allowing φ-feature to remain at C, as I suggest as well as Haegeman and van Koppen, is not allowed in the system of Richards (2007), who maintain that φ-features must always be inherited by T. At least in the case of allocutive agreement, the φ-feature retains meaning (first/second person for speaker/address), and it is possible that, even under the system Richards suggests, these types of 'meaningful' φ-features may be retained at C and need not undergo inheritance. It is simply a conjecture, and I leave a more careful investigation for future work.

3. Politeness Marking as φ-feature Agreement at C in Japanese

The discourse-configurational nature of a language such as Japanese predicts that we ought to find φ-feature agreement borne by C (see (5) above). I will argue that the politeness marking on the predicate is precisely that. The politeness marking occurs as part of the verbal morphology (or nominal morphology in a different paradigm). The two sentences below both mean 'I ate pizza', but the first example has the politeness marker –*mas*-, so that this sentence would be uttered to an addressee who is socially superior to the speaker (Harada 1976). The second example is in the plain form, and would typically be uttered to a friend or a child.

(7)a. Watasi-wa   piza-o   tabe-**mas**-u.   (FORMAL)
    I-TOP   pizza-ACC eat-MAS-present
    'I will eat pizza.'

   b. Watasi-wa   piza-o   tabe-ru.   (COLLOQUIAL)
    I-TOP   pizza-ACC eat-present
    'I will eat pizza.'

What I will argue is that this politeness marking is person agreement at C, particularly, it is a form of 2nd person agreement. To show this, I first turn to a discussion of the allocutive agreement in Basque.

3.1. Allocutive agreement

Souletin, an eastern dialect of Basque, has allocutive agreement along with the familiar subject/object/indirect object agreement. The following, taken from Oyharçabal (1993), all mean 'Peter worked'.

(8) Four ways to say *Peter worked* in Souletin, an eastern dialect of Basque, depending
on **who you're talking to** (Oyharçabal 1993)

<div align="right">allocutive agr.   subj. agr.</div>
<div align="right">↓   ↓</div>

  a. *To a male friend*
Pettek   lan   egin   di**k**.
Peter.Erg work.Abs do.Prf   Aux-3.S.Abs-[2.S.C.Msc.Alloc]-3.S.Erg
'Peter worked.'

  b. *To a female friend*
Pettek   lan   egin   di**n**.
Peter.Erg work.Abs do.Prf   Aux-3.S.Abs-[2.S.C.Fm.Alloc]-3.S.Erg

  c. *To someone higher in status (formal)*
Pettek   lan   egin   di**zü**.
Peter.Erg work.Abs do.Prf   Aux-3.S.Abs-[2.S.F.Alloc]-3.S.Erg

  d. *Plural addressee*
Pettek   lan   egin   du.
Peter.Erg work.Abs do.Prf   Aux-3.S.Abs-3.S.Erg

All four sentences have the same subject-verb agreement, 3P, singular, ergative, as expected. What is unusual is that there is another agreement, the so-called allocutive agreement, that varies from sentence to sentence, and this form of agreement marks levels of politeness, very much like the politeness marker *–mas-* in Japanese.[6] In (a), the allocutive agreement is 2P, singular, colloquial, masculine, and the sentence with this agreement would be uttered to a male friend; in (b) it is 2P, singular, colloquial, feminine, and this sentence would be intended for a female friend; (c) is for someone higher in status than the speaker, and the allocutive agreement indicates this — 2P, singular, formal; (d) shows that there is no plural allocutive agreement. The allocutive agreement clearly agrees with the type of hearer to whom the sentence is uttered — male/female friend, male/female superior.

The allocutive agreement is authentic agreement, as we can see by the fact that it competes with the normal 2nd person agreement morpheme. If the sentence contains a 2nd person subject, object, etc, the allocutive agreement does not arise (Oyharçabal 1993). In Basque there can only be one 2nd person agreement (also only one 1st person agreement). In the following, no allocutive agreement is allowed because there is already a second person agreement that goes with the object or the subject.[7]

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[6]A reviewer notes that in most dialects of Basque that have the allocutive agreement, the agreement is limited to 2nd person singular colloquial masculine and feminite. As the reviewer notes, this is similar to Japanese, where the allocutive (*-des-/-mas-*) is limited to just one register of speech, in Japanese, only the formal. For detail treatment of agreement in Basque, see, for example, Arregi and Nevins 2012 and Laka 1993.
[7]As a reviewer notes, in the appropriate contexts, the allocutive agreement is obligatory, another sign that it is a true form of agreement.

(9)   a. (Nik   **hi**)   ikusi   **h**aut.
        (1.S.Erg **2.S.C.Abs**) see.Prf Aux-**2.S.C.Abs**-1.S.Erg
        'I saw you.'

      b. (**Zuek**   ni)   ikusi   nai**zue**.
        (**2.P.Erg** 1.S.Abs)   see.Prf   Aux-1.S.Abs-**2.P.Erg**
        'You saw me.'

Another property of allocutive agreements, one that links it to the politeness marking in Japanese, is that they are limited to the main clause. In (10b), we can see that placing an allocutive agreement within a RC is ungrammatical, and in (11b), complements do not allow allocutive agreement.

Relative clause
(10)a. [Lo egiten duen]   gizona Manex   dun
        sleeping   AUX.3E.COMP man John   COP.3A.ALLOfem
        'The man [who is sleeping] is John.'

   b. *[Lo egiten dinan]   gizona Manex   dun
        sleeping   AUX.3E.**ALLO**fem.COMP man.the John   3A.COP.ALLOfem

Complementation
(11)a. Ez dinat nahi   [gerta dakion]
       NEG AUX.1E.ALLOfem want   happen 3A.AUX.3D.COMP
       'I don't want it to happen to him.'

   b. *Ez dinat nahi   [gerta diakionan]
        NEG AUX.1E.ALLOfem want happen 3A.AUX.3D**ALLO**fem.COMP

Moreover, the allocutive agreement is not allowed in the main clause if it is a question.

(12) a. Lan egiten   duia   hire lagunak?
        work   AUX.3E.Q your friend.ERG
        'Does your friend work?

   b. *Lan egiten dina   hire lagunak?
       work   AUX.3E.**ALLO**fem.Q your friend.ERG

Oyharçabal (1993) makes two observations based on the distribution of allocutive agreement we just observed. First, the allocutive agreement must be borne by C. In all the environments where the allocutive agreement is not allowed, there is a lexical C, as for example, in questions with a question morpheme. This means that the allocutive agreement is in competition with material at C, which identifies the agreement as being borne by C. It is ultimately pronounced at T, as we can see by the fact that it is pronounced internal to the sequence that also contains the ergative agreement with the

subject. But its effects are clearly exhibited at C, so that the location of pronunciation is something that occurs at PF. I also assume that allocutive agreement, by virtue of agreeing with an entity that, as we will see, is represented in a super-structure above the uttered sentence, is readily interpreted as being at C despite being pronounced at T. Second, Oyharçabal (1993), referring to Miyagawa (1987), remarks that the Souletin allocutive agreement and its property of being borne by C makes it parallel to the politeness marker in Japanese. This correlation gives credence to the idea that the politeness marker in Japanese is 2nd person ϕ-feature agreement borne by C, as predicted by Strong Uniformity. Before giving the evidence that the politeness marker in Japanese is indeed borne by C, I will briefly remark on how the allocutive agreement gets its valuation, given that it is a formal agreement probe that requires a goal for valuation.

　　　In order to receive proper valuation, allocutive agreement requires a second person "goal" in the structure that corresponds to the addressee. This recalls Ross's (1969) performative analysis, and I adopt a modern version of the performative analysis proposed by Speas and Tenney (2003). The core claim of Speas and Tenney is that the performative structure is implemented by a head, which they call "Speech Act" or "sa." I will use a slightly revised version of the Speas and Tenney structure that is proposed by Haegeman and Hill (2011).

(13)
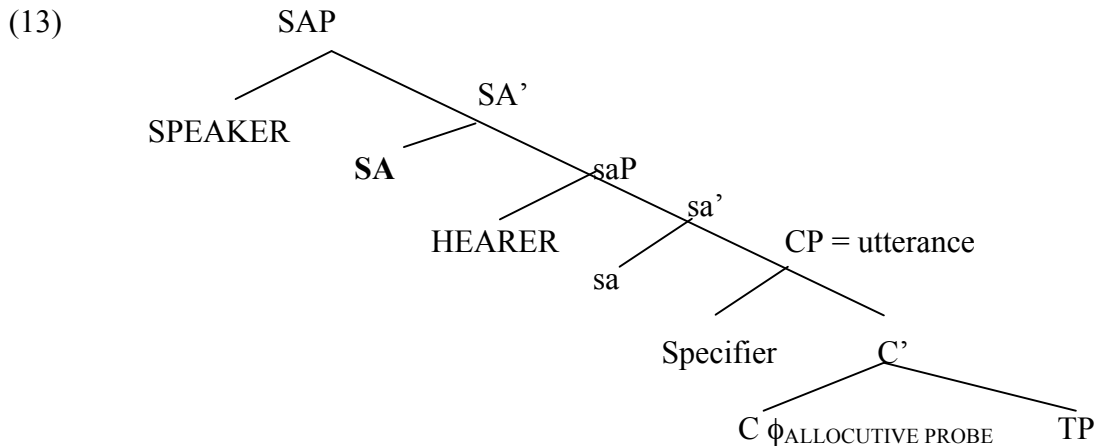
The "sa" head takes the actual utterance, CP, as its complement; this C has the ϕ-feature that will receive valuation. The "sa" head takes the HEARER in its specifier, and after "sa" raises to the "shell" (marked by "SA"), the specifier of this shell contains the speaker.

　　　The ϕ-feature undergoes raising to the higher SA head, possibly as a result of head raising of C. From this position, the ϕ-feature, a probe, c-commands its goal, HEARER, allowing it to be properly valued (Miyagawa 2012). It also has the entire sentence in its scope and marks it as colloquial/formal.

(14)
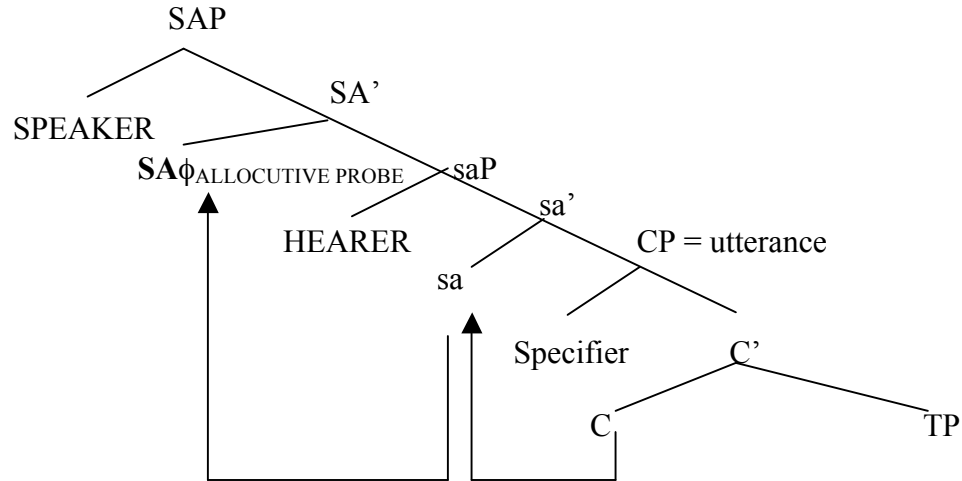
In Souletin, presumably the goal contains information about gender, number, and level of politeness along with it being 2nd person. See Miyagawa (2012) for other arguments that the allocutive agreement occurs at C, and that it requires the kind of "super structure" shown above.

3.2 Politeness marking in Japanese as allocutive agreement

What led Oyharçabal (1993) to observe that the Souletin allocutive agreement correlates with the politeness marking in Japanese is the fact that the politeness marker –*mas*- (and its nominal counterpart –*des*-) is borne by C. This, plus the fact that the allocutive agreement and –*mas*- have the same politeness level function, would naturally identify –*mas*- as an allocutive agreement that bears 2nd person valuation. This, in turn, gives credence to the prediction of Strong Uniformity and feature inheritance. I now turn to the argument that –*mas*- is borne by C.

The core observation in Miyagawa (1987) is that there is a variation in grammaticality for wh-questions with and without the politeness marker.

(15) Dare-ga   ki-*mas*-u   *ka*? (FORMAL)
      who-NOM   come-MAS-PRES   Q
      'Who will come?'

(16) *Dare-ga   kuru   *ka*?   (COLLOQUIAL)
      who-NOM come   Q
      'Who will come?'

In (15), the verb contains the politeness marker –*mas*- and the wh-question with the question particle *ka* is fine, but in (16), the same question without the politeness marker is

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ungrammatical. To ask this question, one must resort to some other form of the question without *ka*, such as rising intonation or the alternative question particle *no*.[8]

What is wrong with (16) is that the question particle *ka* is not selected.

(17) *ka* must be selected by a head.

We can see this in the following contrast between bridge and nonbridge matrix verbs.[9]

Bridge/Non-Bridge verbs

(18) a. Bill-wa   [CP dare-ga   kuru *ka*]   itta.
         Bill-TOP   who-NOM come Q   said
         'Bill said who will come.'

    b. ?*Bill-wa [CP dare-ga   kuru *ka*]   donatta.
         Bill-TOP   John-NOM come Q   shouted
         'Bill shouted who will come.'

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[8]The pattern of grammaticality in (15/16) holds only for wh-questions. For yes-no questions, which may also have the question particle *ka*, the *ka* can appear with or without *–mas-*. The following is noted by a reviewer.

 (i) Kimi-wa asita   soko-ni   iku   ka?
      you-TOP tomorrow   there-to   go   Q
      'Are you going there tomorrow?'

If we turn this into a wh-question, the question without *–mas-* is degraded.

(ii) *Kimi-wa asita   doko-ni iku   ka?
       you-TOP tomorrow   there-to go   Q
      'Where are you going tomorrow?'

[9] For some speakers, the contrast is clearer if the sentences are turned into yes-no questions.

 (i)   Bill-wa   [CP dare-ga   kuru *ka*]   iita   no?
       Bill-TOP   who-NOM come Q   said   Q
       'Did Bill say who will come?'

(ii) ?*Bill-wa [CP dare-ga   kuru *ka*]   donatta no?
        Bill-TOP   John-NOM come Q   shouted Q
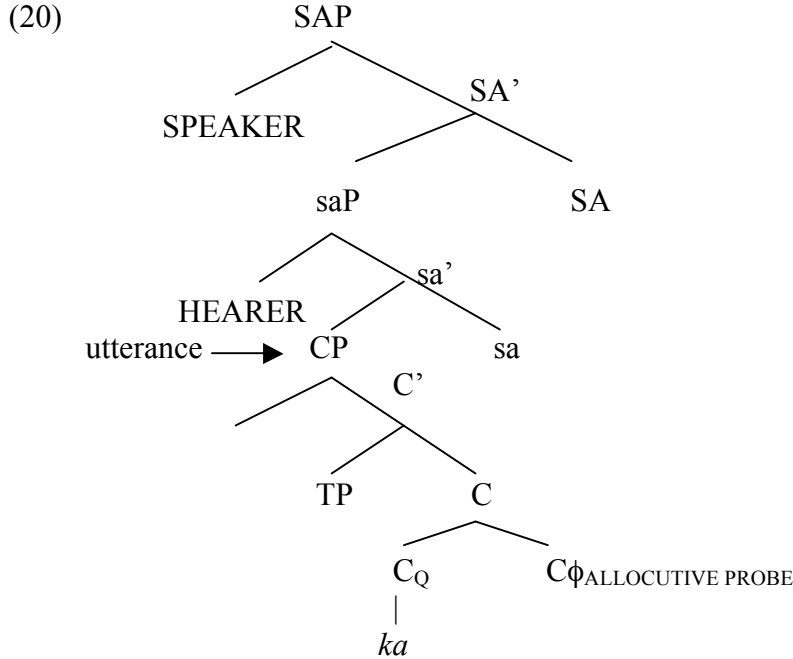   'Did Bill shout who will come?'

As shown, only bridge verbs allow *ka*, which suggests that *ka* must be selected by a head. Returning to the contrast in (15/16), given that *ka* must be selected, and the occurrence of the politeness marker in (15) makes that possible, I argued that this must be due to the fact that the politeness marker excorporates at LF and raises to a position above *ka*.

(19) *-mas-* (Miyagawa 1987)
      The politeness suffix begins in the region of T, and raises to CP. This is a form of
      LF affix raising (cf. Pesetsky 1983, Kitagawa 1986).
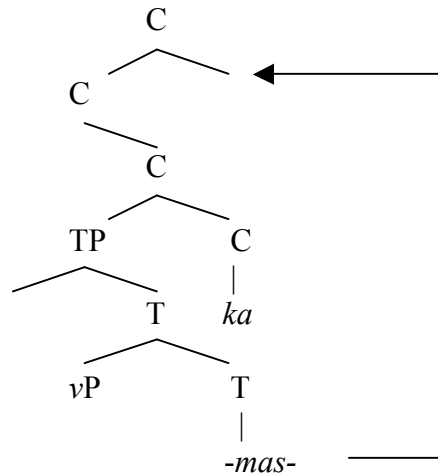
We can map this analysis to the "performative analysis" using Speas and Tenney's structure, revised by Haegeman and Hill, in (13/14) for allocutive agreement. Instead of raising the politeness marker at LF, we can assume that it originates at C as a ϕ-feature probe that raises to the "sa" head, where it is given the valuation of 2nd person formal. I have made the structure head-final to reflect the Japanese word order.

(20)

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                          SAP
                         /   \
                              SA'
             SPEAKER         /   \
                          saP        SA
                         /   \
                              sa'
            HEARER           /   \
    utterance ──▶  CP              sa
                   C'
                  /   \
                TP        C
                         /   \
                       C_Q      Cφ_ALLOCUTIVE PROBE
                        |
                        ka
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In Japanese, only the formal form, *–mas-*, is associated with the φ-feature probe that forms an allocutive agreement, while in Souletin, both formal and colloquial styles have allocutive agreement.[10,11]

Finally, if *-mas-* is indeed a φ-feature probe like allocutive agreement in Souletin, it requires the "super structure" created by the "sa" head, as shown above. This makes the prediction that *–mas-* cannot occur in embedded contexts where *ka* must be selected by a matrix verb. This prediction is borne out.

(21) *Bill-wa   [_CP dare-ga   ki-*mas*-u   *ka*]   tazuneta.
      Bill-TOP   who-NOM come-MAS-PRES   Q   asked
      'Bill said who will come.'

_____

[10]We saw earlier that in Souletin, the allocutive agreement does not occur in questions, but it clearly does in Japanese. I take difference as arising from the fact that in Japanese, it is possible to have C-recursion but not in Basque, as we can see by the fact that it is possible, for example, to have two C elements co-occurring: *to-ka* 'C-Q'. A reviewer confirms this by noting that a structure corresponding to *to-ka* is simply impossible in Basque (*d-ela-en* 'AUX.3sABS-that-Q'). Also, in Souletin, the allocutive agreement occurs with both colloquial and formal forms, but in Japanese, the allocutive agreement only occurs with the formal (polite) form. I presume that this is simply a difference in the types of agreement, like the variety of φ-feature agreements found across languages.
[11]The "sa" head is analyzed by Speas and Tenney (2003) as equivalent to a predicate head. This, then, parellels the bridge verb construction that takes *ka*. In both cases, a predicate, or a predicate-like head, licenses *ka*. Thanks to a reviewer for raising this issue about the parallel between bridge verbs and *–mas-*.

We see that the indirect-question construction is ungrammatical with –mas-. Why is this? On our analysis, the reason is that, in order to give valuation to the allocutive-agreement -mas-, there must occur a super structure above the CP that contains the speech act head and all the concomitant structure that it creates (see (20)). As a result, in this example, what the matrix verb 'ask' takes is not the interrogative CP with *ka*, but the super structure with saP, inside which the interrogative CP occurs, but that is invisible to the matrix verb because of all the structure created by "sa." As a result, selectional requirement of the matrix verb fails to be met and the sentence is ungrammatical.[12]

To summarize, Strong Uniformity provides the universal statement about grammatical features: the same set of features, ϕ and discourse features, is shared universally and they start out on C. The differences arise from the choice of the feature that is inherited by T. In languages such as English, ϕ is inherited by T, giving rise to an agreement-based language, while the discourse feature is inherited in languages such as Japanese, which characterizes Japanese as a discourse configurational language. Given Strong Uniformity, this characterization of Japanese predicts that we ought to find ϕ-feature agreement at C, an unexpected result if it really does show up. I argued that the politeness marker –des-/-mas- is precisely this ϕ-feature agreement. Unlike a typical ϕ-agreement that forms subject-verb agreement, the ϕ-feature agreement, which I call "allocutive agreement" following a similar agreement in Souletin, agrees with the addressee of the sentence. To facilitate valuation, I argued that we need to postulate a super-structure reminiscent of Ross's Performative Analysis. Finally, as noted earlier, both in Souletin and in Japanese, the allocutive agreement is actually pronounced at T despite the clear evidence that it is borne by C. This is some kind of a PF requirement that such agreement must be pronounced at T, something we see typically of ϕ-feature agreement. However it is implemented, the fact that the politeness marker in Japanese follows this pattern provides further evidence that it is ϕ-feature agreement.

Below, I turn to the question of Chinese and Strong Uniformity.

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[12]A reviewer raises the issue of the relationship between the allocutive agreement and Speech Act Theory. While it is difficult to come up with direct correlations to speech acts, one point worth noting is that, in Souletin, the allocutive agreement is limited to the main clause, but in Japanese, the –des-/-mas- allocutive agreement does occur in some subordinate contexts (Harada 1976). In Miyagawa (2012), I point out that the environments in which the allocutive agreement occurs in Japanese exactly matches the original notion of 'root' in Emonds (1969):

> A root will mean either the highest S in a tree, an S immediately dominated by the highest S or the reported S in direct discourse. (Emonds 1969: 6)

Without going into the details of the analysis in Miyagawa (2012), what this indicates is that the allocutive agreement is a true main clause phenomenon limited to those contexts that can be analyzed as 'root'.

4. Pro-Drop, Agreement, and Strong uniformity

Chinese is another language that does not have agreement, and the standard view is that it is a discourse configurational language given its robust topicalization construction.

(22) <u>Zheben shu</u> Zhangsan   mai-le.
     this-CL   book Zhangsan   buy-ASP
     'This book, Zhangsan bought.'

Based on what we observed about Japanese, if Chinese is a discourse configurational language like Japanese, we ought to be able to detect agreement at C, but I am not aware that any such agreement exists in the language. Also, it is generally believed that the topic in (22) is in a position higher than Spec,TP. From our perspective this means that the topic feature remains at C, in turn, suggesting that only the φ-feature agreement is inherited by T, giving rise to an "agreement" language. I will give evidence for this by looking closely at "pro-drop" across languages. I begin with some general observations about this phenomenon, then turn to Chinese.

     In the GB literature, pro-drop is correlated with rich agreement (Jaeggli 1982, Rizzi 1982). In the Spanish and Italian examples below, the pro-drop in the subject position is licensed by agreement that fully identifies the content of the empty pro.

(23) ___   baila   bien.   (Spanish, Jaeggli 1982)
     dance-3SG   well
     'She dances well.'

(24) ___   verrà.   (Italian, Rizzi 1982)
     comes-3SG-FUT
     'He will come.'

The problem of viewing pro-drop as being licensed by rich agreement is that we also find pro-drop in languages without any apparent agreement such as Chinese (Huang 1984).[13]

(25) Zhangsan   shuo [*e* bu   renshi   Lisi].
     Zhangsan   say   *e* not   know   Lisi
     'Zhangsan said that [he] did not know Lisi.'

(26) Zhangsan   shuo [Lisi   bu   renshi *e*].
     Zhangsan   say   Lisi   not   know *e*
     'Zhangsan said that Lisi did not know [him]'

4.1. Not all "pro" drop are the same

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[13]Jaeggli and Safir (1989, Introduction) suggest that the "pro-drop" Romance languages and Chinese/Japanese have in common what they call "morphological uniformity." See their work for details.

An important discovery made in the early 1990s is that not all pro-drop are the same. In particular, it was shown that in certain environments, the so-called pro-drop has an indefinite interpretation, one entirely inconsistent with a pronominal interpretation (Huang 1991, Otani and Whitman1991). The following, taken from Otani and Whitman for Japanese (I have changed the example slightly), is based on the original insight by Huang about Chinese.

(27)a. Taroo-wa zibun-no   hahaoya-o   aisiteiru.
         Taro-TOP self-GEN   mother-ACC   love
        'lit. Taro loves self's mother.'

   b. Hanako-wa   *e* nikundeiru.
       Hanako-TOP *e* hates
       'lit. Hanako hates *e*.'

The empty element in the object position of (27b) may have the pronominal reading of "her," referring to Taro's mother in the previous sentence. Let us call this strict reading following the tradition now established in the literature. But the empty object element has another interpretation, one that is not pronominal but an indefinite reading that allows it to be interpreted as an NP phrase that refers to the local subject: "Hanako's mother." Let us call this "sloppy" reading, again following the established tradition. Thus, the object empty position has the following two interpretations.

(28) a. Hanako hates his (= Taro's) mother. (strict)
     b. Hanako hates her own mother. (sloppy)

While the strict reading is what we expect if the empty element is "pro," the sloppy reading must be something entirely different. Otani and Whitman (1991), following Huang (1991), argue that this sloppy reading is due to VP ellipsis, which is possible under their analysis due to the verb ("hates") raising to T, leaving the fully-specified object as the sole content in the elided VP.

(29)   Hanako-wa   [~~vP zibun-no   hahaoya-o   v~~] nikundeiru-T.
        Hanako-TOP   self-GEN mother-ACC   hate

      Oku (1998) accepts Otani and Whitman's observation that sloppy reading is possible with the empty element, thus the empty element on this reading cannot be a pro (see Hoji 1998 also for extensive discussion including criticism of Otani and Whitman). However, he shows clearly that it cannot be VP ellipsis. VP ellipsis allows ellipsis not only of the object, but of other elements in VP as well.

(30) a. Taro washed the car carefully.
     b. Hanako did, too.

In (30b), which is a case of VP ellipsis, the elided portion not only contains the object

"the car," but also the VP adverb "carefully." As Oku notes, this is not the case with the Otani/Whitman-type example.

(31) a. Bill-wa   kuruma-o teineini   aratta.
         Bill-TOP   car-ACC   carefully   washed
         'Bill washed a car carefully.'

     b. John-wa   *e* arawanakatta.
         John-TOP   not.washed
         'lit. John didn't wash *e*.'
           = John did not wash a car.
           ≠ John did not wash a car carefully.

As shown, the empty element in (31b) can only stand for the object "the car," and not also the manner adverb "carefully," showing that this cannot be VP ellipsis.[14] Oku argues that the Otani/Whitman-type example with sloppy reading is an instance of what he calls NP ellipsis, where a fully specified NP is in the structure without being pronounced. This is shown below.

(32) a. Taroo-wa   zibun-no hahaoya-o   aisiteiru
         Taro-NOM   self-GEN mother-ACC   love
         'lit. Taro loves self's mother'

     b. Hanako-wa   ~~zibun-no hahaoya-o~~   nikundeiru.
          Hanako-TOP ~~self-GEN mother-ACC~~   hate
         'lit. Hanako hates ___.'

Oku couches his analysis in the proposal by Bošković and Takahashi (1998) about theta assignment, particularly, that theta roles are features, and they could be strong or weak (see Chomsky 1993 for explanation of strong/weak features). A strong feature must be checked at overt syntax, but a weak feature need not be checked until LF. The idea with NP ellipsis is that the position of the elided NP is completely vacant in overt syntax, because no theta requirement is imposed at that point, and the NP is inserted at LF to be assigned the weak theta role feature, which accounts for the fact that the NP has no PF representation. I will return to this analysis below.[15]

　　　Oku (1998) makes two additional observations that will become directly pertinent to the question of Chinese and Strong Uniformity. So far, we have only seen an object

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[14]While I agree with Oku's judgment of (30b), I have found that speakers in the western region, with possibly Osaka as the center, can actually get the VP-ellipsis interpretation without much problem. It is not clear what this means — whether certain regions allow VP ellipsis, or something entirely different.

[15]Hoji (1998), in criticizing Otani and Whitman (1991), argues that the Japanese *pro* is simply a bare NP, which gives rise to the range of interpretations we have observed (see also Tomioka 2003). Although this view is not inconsistent with our analysis, I will assume that the two types of readings arise from two different types of empty elements. See Saito (2007) for a response to Hoji (1998).

empty element that gives the sloppy reading. Oku notes that sloppy reading is also possible in the subject position in Japanese.

(33) a. Taroo-wa [zibun-no kodomo-ga eigo-o   sitteiru to] itta.
      Taro-TOP self-GEN child-NOM English-ACC know   that said
      'lit. Taro said that self's child knew English.'

    b. Hanako-wa [*e* furansugo-o   sitteiru to] itta.
      Hanako-TOP French-ACC   know   that said
      'lit. Hanako said that *e* knew French.'
      'Hanako said that 's/he' (Taro's child) knew French.' (strict)
      'Hanako said that her own child new French.' (sloppy)

As Oku notes, this strongly argues against the VP-ellipsis analysis. Moreover, while the sloppy interpretation in the subject position is possible, this is not the case with a typical pro-drop language in Romance such as Spanish.

(34) a. María cree   que su   propuesta será   aceptada.
      Maria believes that her   proposal will-be accepted
      'Maria believes that her proposal will be accepted.'

    b. Juan también cree   que *e* será   aceptada.
      Juan also   believes that it will-be accepted
      'Juan also believes that it will be accepted.'
      = Juan believes that Maria's proposal will be accepted.
      ≠ Juan believes that Juan's proposal will be accepted.

The judgment is quite robust: in Japanese both strict and sloppy readings are equally possible for the subject empty element, but only the strict reading is possible in Spanish. I have also confirmed the latter for Italian — only the strict reading is allowed.[16]

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[16]According to Milan Rezac (personal communication), Czech falls together with the Romance languages in only allowing strict reading for the empty subject. A reviewer familiar with Czech notes that while while this is true for singular agreement, the judgment is less secure for plural agreement. The reviewer wondered if there is variation in the Spanish data between singular and plural. I checked the Spanish example in (34) with plural agreement instead, and the judgment is robust: no sloppy interpretation. The plural example is given below.

(i) a. María cree que sus propuestas serán aceptadas.
     Maria believes that their proposals will-be accepted-pl
     'Maria believes that their proposals will be accepted.'

   b. Juan también cree que e serán aceptadas.
     Juan also believes that they will-be accepted
     'Juan also believes that they will be accepted.'

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4.2. Occurrence of agreement blocks NP ellipsis

The brief observation by Oku about the contrast between Japanese and Spanish has led to a series of works by Saito (2007), Şener and Takahashi (2010), Takahashi (2006, 2008a, 2008b), and Tomioka (2003), among many others. The core observation that has come to be accepted thanks to Oku and the many works that followed, is that if an empty element enters into agreement, only strict reading is possible. This is the case for Romance, and it is not the case for Japanese. We can see this clearly in Portuguese, which allows empty elements in subject and object positions, and the language has subject-verb agreement. The following are due to João Costa (personal communication); the second verb in (36) is different from the first in order avoid a VP-ellipsis interpretation.

Subject:
(35) O Pedro disse que a   mãe   é bonita   e   o Paulo disse que ____ é feia.
     The P. said   that the mother is beautiful and the P. said that ___   is ugly
       ✓strict, *sloppy

Object:
(36) O   Pedro adora a mãe,   mas o Paulo odeia ___.
      The Pedro adores the mother, but the P. hates ___
       ✓strict, ✓sloppy

As we can see, the subject empty element, which enters into agreement, only allows the strict reading, while the object empty element, which is not part of any agreement, allows sloppy as well as strict reading.

　　　We now return to Chinese, and the question of the location of ϕ-feature agreement that is predicted to occur by Strong Uniformity. If it is the case that topicalization is to the CP domain, as is typically assumed, then, by the logic of Strong Uniformity and feature inheritance, the ϕ-feature agreement either stays at C or is inherited by T. Given that, when there are grammatical features at C, some feature apparently must be inherited by T, we can speculate that the ϕ-feature in Chinese is inherited by T. The fact that this is so is shown below. First, there is no problem in the empty element in the object position allowing both strict and sloppy reading.

Object:
(37) a. Zhouhong zai yuyanxue ke shang piping le ta ziji de xuesheng .
        Zhouhong in   linguistics class   criticiz-ed self's   student
        'Zhouhong criticized his student in the linguistics class.'

     b. Tiantian zai shuxueke shang piping _____.
        Tiantian but in mathematics class criticiz-ed
        'But Tiantian criticized ___ in mathematics class.'
          ✓strict, ✓sloppy

= Juan believes that Maria's proposals will be accepted.
≠ Juan believes that Juan's proposals will be accepted.

However, in the subject position, the situation is different, with only strict reading being possible (e.g., Takahashi 2008: 415).

Subject:
(38) a. Zhouhong   jide   ta ziji de gou zai   2dian   zuo you   jiao .
          Zhouhong remember self's   dog   2.o'clock   around   bark-ed.
         'Zhouhong thought that self's dog barked around 2 o'clock.

   b. Tiantian ze jide   zai   2 dianban   zuoyou   jiao-kuo .
       Tiantian but remember   2o'clock.half around   bark-ed.
       'But Tiantian thought that___   barked around 2:30.'
       ✓strict, *sloppy

As we can see, the empty element in the subject position in (38b) only allows the strict reading, which parallels what we saw for Romance. This means that in Chinese, the subject empty position is linked to ϕ-feature agreement that occurs on T despite the fact that it is never pronounced, making Chinese similar to the pro-drop languages of Romance as far as agreement is concerned. Although it seems like a radical idea, it is not surprising from the point of view of Strong Uniformity and feature inheritance. Chinese, like all other languages, has ϕ-feature agreement and topic/focus at C to begin with. By the existence of topic movement to C, one can see that the discourse configurational feature stays at C. Given that something must apparently be inherited, ϕ-feature agreement is inherited by T, giving the effect we just saw of blocking sloppy interpretation.[17] This is, in fact, what Huang (1984) observed earlier: the empty element in the subject position in Chinese is a pro, but the empty element in the object position is something different — a variable bound by a topic. See Miyagawa (2010) for other arguments that the agreement resides at T in Chinese. The following is additional evidence to show that the subject empty element in Chinese does not allow the sloppy interpretation; I give a corresponding Japanese sentence for contrast.

Chinese
(39) a. Zhouhong renwei taziji de shu jianghuibei MITchubanshe chuban.
          Zhouhong thought self's   book will (be) MIT Press   published.
         'Zhouhong thinks self's book will be published by MIT Press.'

   b. Tiantian renwei ___ jianghuibei Hafochubanshe chuban.
       Tiantian thought   will (be)   Harvard Press published.
       'Tiantian thinks ___ will be published by Harvard Press.'
       ✓strict, *sloppy

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[17]For ϕ-feature agreement to be inherited by T, obviously there must be a T head. This is not so apparent in Chinese, which does not have any clear representation of tense in the structure. However, Sybesma (2007) and Tang (1998) give arguments that Chinese does have T.

Japanese

(40) a. Taroo-wa zibun-no hon-ga MIT Press-ni syuppans-are-ru to omotteiru.
 Taro-TOP self's book-NOM MIT Press-by publish-PASS-PRES C thinks.
 'Taro thinks his book will be published by MIT Press.

 b. Hanako-wa ___ Harvard Press-ni syuppans-are-ru to omotteiru.
 Hanako-TOP MIT Press-by publish-PASS-PRES C thinks.
 'Hanako thinks ___ will be published by Harvard Press.'
 ✓strict, ✓sloppy

5. Analysis of strict and sloppy readings and one additional type of language

As noted earlier, Oku (1998) argues that NP ellipsis demonstrates the "weak" theta-feature of Japanese (Bošković and Takahashi 1998); the theta requirement only needs to be fulfilled at LF, so that in overt syntax there is no presence whatsoever of the "elided" NP. Takahashi (2008b) and Saito (2007) adopt this analysis. Furthermore, for the question of why agreement blocks this "covert" NP insertion at LF, Saito (2007) provides an interesting explanation that is linked to how agreement is realized. As he notes, agreement in the form of probe-goal requires the goal to have an active feature, typically an unvalued Case. However, Case is deleted by the time the derivation enters LF, so that the NP that is inserted at LF would not be able to trigger a probe-goal relation, making it impossible for agreement to take place. This blocks an NP from being inserted at LF, hence agreement prohibits sloppy reading.

 While the Oku/Saito/Takahashi approach is interesting , there is one problem with their analysis (see footnote 19 for a new way to think of Saito's approach that could overcome the problem noted below). Under their approach, at overt syntax, literally nothing exists in the place of the empty element.[18] However, there is evidence that something must occur there.

(41) a. Taroo-wa zibun-no gakusei-o futa-ri yatotta.
 Taro-TOP self-GEN student-ACC 2-CL hired
 'Taro hired two of his students'

 b. Hanako-wa ___ san-nin yatotta.
 Hanako-TOP 3-CL hired
 'Hanako hired three (of his/her students).'

As shown in (41b), a floated numeral quantifier may occur with an empty element in the object position. This empty element may get the sloppy (as well as strict) reading. Recent theory of FQ suggests that it is introduced by adjunction to NP (Sportiche 1988, Benmamoun 1999) or in the projection of a Number head (e.g., Watanabe 2006). On either approach the NQ requires presence of the NP in overt syntax at the point of

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[18]Li (2007, 2011), in analyzing the Chinese empty categories, argues that there is something in the empty position, although it is virtually devoid of any content.

merging the NQ. See Li (2011) for similar arguments in Chinese for the presence of an empty element in overt syntax.[19]

What, then, is the nature of the empty element when sloppy interpretation is possible? A plausible hypothesis is presented by Tomioka (2003), who argues that the empty "NP" in languages such as Japanese is something that we also see in languages such as English in NP ellipsis (see also Barbosa 2009).

(42) John ate all the apples. Mary ate [$_{DP}$ some [$_{NP}$___]]

In English, the NP that is elided is always accompanied by some DP-level material that must be pronounced. However, in languages such as Japanese, in which a nominal expression such as *ringo* 'apple' may have a multitude of interpretations (singular, plural, definite, indefinite), the nominal expression may appear in syntax as simply an NP without the DP layer (see also Chierchia 1998). This is true of languages that allow the sloppy-type empty category (Chinese, Japanese, Portuguese, Turkish, etc.). It is possible in English NP ellipsis to get the sloppy interpretation as well: *John saw all his photographs, but Henry saw only a few ___*.[20]

5.1. Agreement and sloppy reading

To understand the prohibition against sloppy reading in the presence of agreement, there is another approach that comes from the study of pro-drop. Why does agreement block sloppy reading, as we saw for Romance and Chinese? Let us assume that in these languages, the agreement itself is pronominal in nature, and it functions as the subject argument (Alexiadou and Anagnostopoulou 1998, Barbosa 1995, among many other works). We can see such an example from Greek (Alexiadou and Anagnostopoulou 1998).

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[19]As a reviewer notes, the problem indicated by (41) holds for Oku's work, but it can be overcome in a single-output theory recently proposed by Saito (2012). I believe this is correct, but I will continue to assume a different approach, leaving any comparisons to this important new work for future research. Another reviewer correctly notes that this argument holds whether one adopts the adverb view or stranding of FQ; see Fitzpatrick 2006 for arguments for the adverb view, but with some options that remain for stranding depending on the language. See Rezac (2010) for a summary of the arguments for the two approaches within a theory of agreement.

[20]A reviewer notes that NP-ellipsis in English is not completely free (see, for example, Lobeck1995). The same reviewer notes that what I am calling NP-ellipsis is N'-deletion. For the latter, it appears that NP-ellipsis is not the same as the well-studied N'-deletion (see, for example, the important works of Saito and Murasugi 1990 and Saito, Lin, and Murasugi 2008). It is true that for English, there are conditions imposed which may not match the NP ellipsis part, such as the specifier being filled/agreement. That may simply be difference in the languages, or it may point to a source for NP ellipsis in Japanese that is contrary to what Tomioka argued. The works by Saito, et al argues that the condition in Japanese is essentially the same as in English, which militates against our analysis based on Tomioka. I will keep this issue open.

(43)   Sing.   Pl.

1st P   aga**po**   agap**ame**

2nd P   agap**as**   agap**ate**

3rd P   agap**a**   agap**ane**

The agreement suffixes themselves have pronominal meaning, and, as Barbosa (1995) and Alexiadou and Anagnostopoulou (1998) argue, these agreement suffixes are best viewed as themselves being the subject argument. We therefore would only expect a pronominal reading, which limits the interpretation to strict reading. This is precisely what Huang (1984) pointed out about Chinese: the subject position always gets a pronominal interpretation while the object positions receives a different type of interpretation, what he called a variable binding interpretation.

As the final point, our analysis predicts that if there is 'rich' agreement for both subject and object, sloppy interpretation should be blocked for both positions. This is precisely what we find in Kaqchiquel, a Mayan language spoken in Central America. An ergative language, it has VOS and SVO word orders, and has rich agreement for both the ergative and absolutive arguments (Broadwell 2000). As shown in (44b) below, Kaqchiquel allows "pro-drop" in both subject and object positions.

(44) a. X-e-ru-tïj   nimamixku' a   Xwan, iwir.
        PEFV-3pl.ABS-3sg.ERG-eat apple   CLF Juan   yesterday
        'Juan ate apples yesterday.'

    b. Po ___ man x-Ø-u-tïj   ta ___ wakami.
        but   NEG PEFV-3sg.ABS-3sg.ERG-eat NEG   now
        Lit. 'but ___ didn't eat ___ today.'

The following show that Kaqchiquel allows VOS, VSO, and SVO word orders.

(45) a. X-Ø-u-b'a   ri tz'i' ri me's.
        PEFV-3sg.ABS-3sg.ERG-bite the dog the cat
        'The cat bit the dog.'   VOS
        'The dog bit the cat.'   VSO

    b. Ri tz'i' x-Ø-u-b'a   ri me's.
       the dog PEFV-3sg.ABS-3sg.ERG-bite the cat
       'The dog bit the cat.'   SVO   (cf. Broadwell 2000)

Returning to the prediction we make about agreement and strict/sloppy reading, Otaki, Sugisaki, Yusa, and Koizumi (2011) and Imanishi (2012) independently report that the consultants only allowed strict interpretation for both the subject and the object positions. The following is from Otaki, Sugisaki, Yusa, and Koizumi (2011). The first

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example sets up the key example in (b). The example in (c) shows that if there is no ellipsis, strict and sloppy interpretations are possible, which shows that the lack of sloppy reading in (b) is not due to some issue with the meaning of the sentence.

(46) Object ellipsis

    a. A   Xwan n-Ø-u-na'oj-ij
       CLF Juan   IMPF-3sg.ABS-3sg.ERG-know-ACT
      [chi   xta Mari'y tikir-el n-Ø-u-chäp   ri ru-syan]
       COMP CLF Maria   can   IMPF-3sg.ABS-3sg.ERG-catch the 3sg.ERG-cat
      'Juan thinks that Maria can catch his cat.'

    b. Chuqa' a   Kalux n-Ø-u-na'oj-ij
       also   CLF Carlos IMPF-3sg.ABS-3sg.ERG-know-ACT
      [chi   ri xta   Mari'y tikir-el n-Ø-u-chäp ___]
       COMP the CLF Maria can   IMPF-3sg.ABS-3sg.ERG-catch
      Lit. 'Carlos also thinks that Maria can catch ___.'
      ✓strict, *sloppy

    c. Chuqa' a   Kalux n-Ø-u-na'oj-ij
       also   CLF Carlos IMPF-3sg.ABS-3sg.ERG-know-ACT
      [chi   ri   xta Mari'y tikir-el n-Ø-u-chäp   ri ru-syan]
       COMP the CLF Maria can   IMPF-3sg.ABS-3sg.ERG-catch the 3sg.ERG-cat
      Lit. 'Carlos also thinks that Maria can catch his/her cat.'
      ✓strict, ✓sloppy

(47) Subject ellipsis

    a. A   Xwan n-Ø-u-na'oj-ij
       CLF   Juan   IMPF-3sg.ABS-3sg.ERG-know-ACT
      [chi   ri   ru-syan   tikir-el y-e-ru-chäp   taq ch'oy]
       COMP the 3sg.ERG-cat can   IMPF-3pl.ABS-3sg.ERG-catch PL mouse
      'Juan thinks that his cat can catch mice.'

    b. Chuqa' ri a   Kalux n-Ø-u-na'oj-ij
       also   the CLF Carlos IMPF-3sg.ABS-3sg.ERG-know-ACT
      [chi   _____ tikir-el y-e-ru-chäp   taq ch'oy]
       COMP   can   IMPF-3pl.ABS-3sg.ERG-catch PL mouse
      Lit. 'Carlos also thinks that ___ can catch mice.'
      ✓strict, *sloppy

    c. Chuqa' ri a   Kalux n-Ø-u-na'oj-ij
       also   the CLF Carlos IMPF-3sg.ABS-3sg.ERG-know-ACT
      [chi   ri   ru-syan   tikir-el y-e-ru-chäp   taq ch'oy]
       COMP the 3sg.ERG-cat can   IMPF-3pl.ABS-3sg.ERG-catch PL mouse
      'Carlos also thinks that his cat can catch mice.'
      ✓strict, ✓sloppy

The (b) sentences in (46) and (47) bear out our prediction that Kaqchiquel should not allow sloppy interpretation in either the subject or the object position. This, in turn, strengthens the argument that in Chinese, the lack of sloppy reading in the subject position points to φ-feature agreement at T. This is predicted by Strong Uniformity because in Chinese, the discourse feature of topic stays at C.[21,22]

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[21]As noted by a reviewer, it is necessary to contrast empty pro with overt pronouns, as we see in (47/48 b/c). Whil an empty pro does not allow a sloppy interpretation ((b) examples above), overt pronoun/anaphor does ((c examples)). The fact that an overt pronoun allows sloppy interpretation even in languages such as English is shown in paycheck/neontological pronouns (see, for example, Elbourne 2005). The reviewer notes the following: *John claims his paycheck goes to his wife, while everybody else admits it goes to his mistress*. This is parallel to, and contrasts with, the Spanish example earlier with empty pro that does not admit a sloppy interpretation. It is a mystery as to why empty pronouns, but not overt ones, exhibit the lack of sloppy interpretation under agreement. One possibility noted by the reviewer is that the underlying pro-drop is structurally poorer (see Cardinaletti and Starke 1999) and missing what it takes to accommodate contextual meaning for the paycheck type examples. A point that is possibly relevant here is that at least in some pro-drop languages, it has been shown that variable interpretation is possible only with the empty pro, not with overt pronoun (Montalbetti 1984). Overt pronouns are possibly always referential in these languages. From this perspective, it appears that in a non-pro-drop language such as English, the pronoun has a double life as both an underspecified item, like the empty pro, which allows the variable interpretation, while the referential function comes from the pronoun with the typical function of referentiality, a point made by Montalbetti (1984). I will not attempt to pursue this issue further, except to note that, as the reviewer points out, some of the uncertainty in the data for sloppy interpretation (see the next footnote) may arise from the fact that in some languages or dialects or idiolects, the empty pro may have a richer structure reflecting the overt pronoun in English.

[22]Basque is another language in which a prediction similar to Kaqchiquel would hold because both the ergative and absolutive arguments are targets of agreement. However, while the speaker I consulted reported no sloppy interpretation in either position, Duguine (2008) reports that she gets the sloppy (and strict) interpretation in both positions. For Turkish, which has subject-verb agreement only, Şener and Takahashi (2010) report that while sloppy is possible in the object position, it is not possible in the subject position. While some speakers agreed with this judgment, some I consulted were able to get the sloppy interpetation even for the subject position. Even for Chinese, there were some disagreements with whether the subject position allows sloppy reading based on the kind of sentence that Takahashi (2008) presented. The examples I give above were constructed with the help of a number of linguists; crucially, it uses the anaphor *ta ziji* 'self' as opposed to just *ziji*; *ta ziji* apparently gives a stronger anaphoric interpretation, while *ziji* contains other meanings such as logophoricity that may introduce complications into the interpretation. To ensure reliability, I asked a large number of native speakers from both the mainland and Taiwan, and got 100% agreement on the object (sloppy possible) and the subject (sloppy impossible or extremely difficult) empty elements.

To summarize, in languages that allow "pro-drop," it is possible to test for the nature of the "pro" as either a pronominal or NP ellipsis by checking to see whether sloppy interpretation is possible. If it is, NP ellipsis, which elides a fully-specified NP, is possible. In turn, we saw that NP ellipsis is blocked if it is the target of agreement. This gave us a chance to test Chinese, which allows "pro-drop" in both the subject and the object positions. The object position allows sloppy reading as expected, but the subject position doesn't, which implicates φ-feature agreement at T even though it is never pronounced. The occurrence of φ-feature agreement at T is predicted by Strong Uniformity because in Chinese, the topic feature remains at C. In Japanese, on the other hand, the φ-feature agreement is at C, not T, as we saw earlier, so the subject position in Japanese can undergo NP ellipsis and allow sloppy interpretation as we saw.

6. Conclusion

Chomsky suggested the Uniformity Principle in place of the GB-style principles-and-parameters approach. In this article I gave substance to the UP by arguing that all languages are uniform in sharing the same set of grammatical features. Where they can vary is in the position where a particular feature ends up, which is by and large easily detectable. I pursued a point that at first blush appears to be patently false, that there is φ-feature agreement in Chinese and Japanese. For Japanese, Strong Uniformity predicts that the φ-feature agreement, if it indeed occurs, should appear on C because the discourse feature in Japanese is inherited by T. I argued, based on the allocutive agreement in Basque, that the politeness marker *–des-/-mas-* in Japanese is precisely this φ-feature agreement at C. For Chinese, I used the NP ellipsis/sloppy interpretation test to identify φ-feature agreement at T, again something predicted by Strong Uniformity.

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