Structural Case: A Realm of Syntactic Microparameters

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Abstract: This article argues that the rules by which structural case values are assigned to nominal arguments in languages of the world are best thought of as small-scale but crucially syntactic parameters. As such, they count against the Borer-Chomsky Conjecture, according to which all parametric variation can be attributed to variation in the features of individual lexical or functional items. The argument for this is that there is fairly little item-by-item variation in structural case patterns in the first place, and what variation there is is better explained by saying that some verbs project special syntactic structures, and some tense-aspect heads count as extra phase heads. These structures and phase boundaries then affect the structural representations to which general principles of structural case assignment apply. The rules of structural case assignment also count against the Uniformity Hypothesis, according to which all languages have essentially the same syntax, including the same case assignments, and variation is due only to how case features are spelled out by morphology at PF. The argument against the Uniformity Hypothesis is based on the phenomenon of case-sensitive agreement, where a functional head can agree with an NP only if that NP has a specific case value. This type of agreement happens in the syntax, but can is sensitive to overt case distinctions only, not to putatively universal but covert case categories. The best overall view, then, is that languages make different choices about what case assignment rules to apply in the syntax—a less-studied form of syntactic microparameterization.

1. Introduction: parameters and their subtypes

In facing questions about what parameters are, and where they are, it is good to have an idea in mind about what sort of phenomena are worth thinking of as parametric. Not all crosslinguistic variation is worth treating parametrically. For example, Mohawk is different from English in that it uses the word *erhar* to refer to things that English speakers call *dogs*. Although this is a difference, there is no value in calling it a parametric difference. My suggestion is that talk of parameters should be reserved for whatever devices linguists use to account for patterned, systematic crosslinguistic variation—if there is any—as distinct from isolated, sporadic crosslinguistic variation, such as variation in a single lexical item, or in a single narrowly defined grammatical construction. True parametric variation is also different from unpatterned crosslinguistic variation, where languages may vary in many little ways that are independent of each other.

An empirical question, then, is does true parametric variation in this sense even exist? Minimalist views that endorse Chomsky's (2001: 2) Uniformity Principle can be understood as denying that it does, in claiming that in a deep sense all human languages have the same syntax. In contrast, I have argued for some years that true parametric variation does exist: see Baker (1996) (2008a) (2008b), for example. In this paper, I take up what I consider to be another relevant case, where what might plausibly be taken to be mere morphological differences in how case features are spelled out at PF are in fact better taken to be syntactic variation in how case is assigned in the syntax.

General discussions of parameters, such as Kayne (2005) and Baker (2008a), draw distinctions among various kinds of parameters. One distinction involves the "locus of variation" question: should all patterned syntactic variation should be attributed to the features of (functional) items in the lexicon—a view sometimes called the Borer-Chomsky Conjecture (Borer, 1984, Chomsky, 1995)—or should some of it be attributed to syntactic processes themselves? In brief, this is the question of whether there are syntactic parameters or only lexical parameters. A second distinction involves the "extent of variation" question: are there unified parameters that have large scale effects on syntax, thereby defining different language "types", or do all large-looking differences among languages reduce to sets of parameters, each of which by itself has only small scale effects? In brief, this is the question of whether there are macroparameters, or only microparameters. Kayne (2005) emphasizes that these are two logically distinct questions, and the first is more theoretically significant than the second. Baker (2008a) agrees in principle, but adds that the two questions may be confounded in practice, since syntactic parameters have at least the possibility of creating large-scale differences, whereas lexical parameters will at most affect structures in which the lexical item(s) in question appear. In this work, I increase the urgency of these distinctions by claiming that structural case is a domain where we find syntactic microparameters—the least often recognized of the four logical possibilities. This is a potentially important case, since it challenges the sense in the field that smaller-scale crosslinguistic variation can probably always be made consistent with the Borer-Chomsky Conjecture. It thus raises the possibility that we will find more truly syntactic variation when we look more carefully at even microparametric differences.

The focus of this particular contribution is the specific topic of the patterns of morphological case marking that are found in languages of the world. In this, I draw very heavily on my extensive recent work on structural case, reported in Baker (2015) and related publications. The purpose of this paper is to extract the most important discoveries of that work for the general theory of parameters, and to reflect more systematically and explicitly on what they imply for that theory. I hope readers will not be sickened by my frequent citations to this work for more extended argumentation and documentation, but rather that a certain class of readers will appreciate the opportunity to read a medium-sized article rather than a longish book on the topic.

2. Surveying crosslinguistic variation in case

The most famous crosslinguistic variation in overt morphological case marking is the difference between ergative and accusative languages. This has been a salient typological distinction, having gotten much attention since Dixon's early work on the topic (Dixon, 1979, Dixon, 1972) (Comrie, 1978, Dixon, 1994). Cuzco Quechua is a typical accusative language, in which subjects of transitive verbs and intransitive verbs bear the same morphological case marking (nominative), and objects of transitive verbs bear a different case marking (accusative, here –ta):[1]

(1)   a. Kunan p'unchaw Juan qulqi-ta   maska-n.   (Liliana Sanchez, p.c.)
.   today   Juan money-ACC seek-3S
          'Juan is looking for money today.'

      b. Xwan llank'a-n.

Juan   work-3S
'Juan works.'

In contrast, the Shipibo language—also spoken in Peru but genetically unrelated—is a canonical ergative language: the object of the transitive verb has the same case marking as the subject of the intransitive verb (absolutive, here –Ø), and the subject of the transitive verb has a distinct morphological marking (ergative, here –*nin*).

(2)   a.   Maria-nin-ra   ochiti   noko-ke.
              Maria-ERG-PRT   dog   find-PRF
              'Maria found the dog.'

       b.   Maria-ra   ka-ke.
              Maria-PRT   go-PRF
              'Maria went.'

This is a significantly different pattern from (1).

The overall typological picture can be filled out by including two other alignment types: tripartite alignment and neutral alignment.[2] Tripartite alignment is a relatively rare one in which transitive subjects, transitive objects, and intransitive subjects all bear different cases. This can be thought of as the result of a language having both accusative case marking (for transitive objects) and ergative case marking (for transitive subjects). Nez Perce is perhaps the best known language of this type (Deal, 2010, Rude, 1986).

(3)   a.   Hi-páay-na   háama.   (Nez Perce)
              3S-arrive-ASP man
              'The man arrived.'

       b.   Háama-nm   hi-néec-ʼwi-ye   wewúkiye-ne.
              man-ERG   3S-pO-shoot-ASP elk-ACC
              'The man shot the elk(PL).'

Conversely, languages with neutral alignment are languages in which intransitive subjects, transitive subjects and transitive objects are all marked the same, usually with zero marking. These can be thought of as languages that do not have either accusative or ergative case. This is the most common type of all: examples include Chinese, many Niger Congo languages, Iroquoian and Algonquian languages, Mapudungun, Chamorro–and even English and the Romance languages, apart from some residual case marking found on pronouns.

Although these distinctions are the broadest ones in morphological case, there is further variation in case marking that is arguably structural. For example, languages vary significantly in how case is assigned to VP-internal arguments. This can be seen especially in how they treat double object constructions (if any): the higher object, usually the goal, can get a distinctive dative case; or the lower argument, usually the theme, can get oblique case; or both objects can receive the same case, accusative or absolutive depending on the primary alignment of the language. Furthermore, indefinite NPs that stay inside VP can have a distinct case from NPs that move out of VP, as in the Finnish partitive case, or they can bear the same case as the sole NP in

a clause as a whole (nominative or absolutive). Finally, there is crosslinguistic variation in how case marking happens inside DP: for example, the possessor inside a noun phrase can have ergative case, or dative case, or a distinctive genitive case. There are also some languages that allow more than one genitive inside a single DP, whereas others allow only one. These finer-grained variations in structural case patterns play some role in the discussion that follows, especially the issue of case marking in double object constructions.

3. Is it parametric variation?

There is, then, plenty of variation in structural case marking across languages. But now we can ask, is it *parametric* variation, and if so, what kind?

According to my suggested terminology in section 1, the basic question amounts to asking whether the variation in some sense patterned and systematic. It seems that the answer is yes. The difference between (say) ergative and accusative languages is clearly systematic in the sense that a wide range of clauses are case-marked the same way. That holds true regardless of the particular lexical items used in the clause—no matter what the verb is, or what specific nouns count as its arguments, over a very wide range. There seem to be a few exceptions in some languages; I return to some of these in section 4 below. But it is undeniable that a large scale pattern exists in most languages, if not all.

3.1 Parameterizing dependent case rules

What kind of parameters are involved, then? For purposes of this article, let us suppose that at the heart of the system of morphological case marking that defines the difference between an accusative language and an ergative language are case marking rules of the following type:

(4)   a.   If there are two distinct NPs in the same spell out domain such that NP1
             c-commands NP2, then value the case feature of NP2 as accusative.
.
        b.   If there are two distinct NPs in the same spell out domain such that NP1
             c-commands NP2, then value the case feature of NP1 as ergative.
.
These are rules that assign so-called *dependent* case, in that the assignment of case to one NP depends on the presence of a second NP in the same domain. They are then supplemented with a more or less trivial rule that says all other NPs receive unmarked or default case, called nominative in languages with (4a) and absolutive (or nominative) in languages with (4b). This way of looking at (some) structural case was pioneered by Marantz (1991), building on the "Case in Tiers" approach of Yip et al. (Yip et al., 1987) ; see also Comrie (1981), who expresses the same basic idea in more intuitive terms. This idea of structural case has been adopted and developed further in more recent work, including McFaddon (2004), Bobaljik (2008), Baker and Vinokurova (2010), Preminger (2014), Baker (2014), and Baker (2015), among others.

One typological attraction to rules like those in (4) is the fact that they account for both ergative languages and accusative languages with equal simplicity and with pleasing symmetry—something that Agree-based theories have always struggled to do. The difference between an ergative language and an accusative language is simply the semi-arbitrary one of which of the two NPs in a transitive clause to mark overtly, so as to disambiguate the

grammatical functions in clauses with multiple NPs. Another typological attraction is that this view extends easily to tripartite languages like Nez Perce: those are simply languages in which both rules in (4) apply. (In contrast, the "Case in Tiers" approach does not naturally work for tripartite languages.) Finally, neutral languages like Chinese are languages are simply languages in which neither rule in (4) applies. The idea, then, is that (4) provides a small library of possible case rules from which individual languages can draw as much or as little as they want, and this results in the major typological distinctions in alignment type. (In section 5, I compare this view with an alternative in which the rules in (4) apply in all languages, but there are differences in which cases are spelled out overtly at PF.)

I have also argued in other works that the rules in (4) work better than alternatives (including Agree-based alternatives) when it comes to the details of certain selected languages, including Sakha, Amharic, Shipibo, and Burushaski. I summarize only one argument briefly here, to give the reader a flavor for how these arguments go. For example, consider the following paradigm in Sakha (Baker and Vinokurova, 2010).

(5) a. <u>Min</u> [sarsyn **ehigi-(*ni)** kel-iex-xit dien] ihit-ti-m.
      I.NOM tomorrow you-(*ACC) come-FUT-2pS that hear-PAST-1sS
      'I heard that tomorrow you will come.'

     b. <u>Min</u> [**ehigi-ni** [bügün -- kyaj-yax-xyt dien]] erem-mit-im.
      I you-ACC today win-FUT-2pS that hope-PTPL-1sS
      'I hoped that you would win today.'

     c. <u>Keskil</u> [**Aisen-y** [kel-bet dien]] xomoj-do.
      Keskil Aisen-ACC come-NEG.AOR.3sS that become.sad-PAST.3sS
      'Keskil became sad that Aisen is not coming.'

     d. Bügün munnjax-xa [**Masha-(*ny)** [ehiil Moskva-qa bar-ya
      today meeting-DAT Masha-(*ACC) [next.year Moscow-DAT go-FUT.3sS
      dien]] cuolkajdan-na.
      that] become.certain-PAST.3sS
      'It became clear today at the meeting that Masha will go to Moscow next year.'

(5a) shows that a subject properly contained in an embedded clause cannot get accusative case in Sakha. (5b) shows that if the subject moves to the edge of the embedded clause, then it can get accusative under the influence of the matrix clause. This particular example can be thought of either in terms of dependent case or in terms of Agree-assigned case: after movement, there is no phase boundary between the embedded subject and the matrix clause (dependent case version) or between the accusative assigning v and the embedded subject (Agree version). But (5c) and (5d) distinguish between the two versions. 'Become sad' in (5c) is an unaccusative (detransitivized) verb in Sakha that has no active v to assign accusative; nevertheless, accusative is possible under the influence of 'Keskil', the theme argument of the matrix verb. 'Become certain' in (5d) is also an unaccusative verb, but it is impersonal to boot, taking no argument other than the clausal complement itself. When a NP raises to the edge of this clause, it cannot be accusative, because there is no other NP in the same local domain. The comparison between (5b) and (5c) shows that the type of v is not crucial for whether accusative is assigned in Sakha; the contrast between (5c)

and (5d) shows that whether there is a distinct NP in the domain is crucial. These details are well captured by the dependent case rule in (4a).

I take it for granted in this work, then, that rules like (4) exist, and I go on to consider their implications for a general theory of parameters. Some linguists may be concerned that this assumption biases the inquiry away from the Borer-Chomsky Conjecture that all syntactic variation can be attributed to the features of lexical items from the start. I invite them to consider some of the other references cited for more arguments in favor of (4); I feel it is my duty in this article to go on, in an attempt to make a different point. Note also that I am not necessarily opposed to saying that some cases in some languages are assigned by agreement with a functional head. On the contrary, that has been my view about nominative and genitive case in Sakha (Baker and Vinokurova 2010) and about direct case in Kurmanji (Atlamaz and Baker in preparation). But I background that possibility in this paper because there is little doubt that variation in that kind of case assignment, if it exists, is compatible with the Borer-Chomsky Conjecture, and because most of my fellow believers in dependent case rules think that allowing agreement-assigned case into universal grammar in addition is superfluous and allows too much redundancy and descriptive power in the system. Therefore, I do not discuss that potential aspect of case marking any further here.

3.2 Dependent case rules as microparameters

Tentatively accepting (something like) the rules in (4) as parameters then, it is clear that they are not macroparameters in the sense of Baker (1996). Which of the rules in (4) a given language selects simply does not have wide-ranging effects on the grammar of the language. On the contrary, years of generative research have converged on the fact that ergative languages are strikingly like accusative languages in most respects, including word order, binding, control, quantifier scope, and so on. This point was originally made by Anderson (1976), and the basic observation has been replicated many times since. (Dixon's Dyirbal language is the one possible exception, where even the syntax is ergative, but even this is somewhat controversial.) Apparently, then, few or no syntactic principles happen to refer to the case values of the NPs involved in a given process or construction.

The only clear difference between ergative languages and accusative languages other than the case itself is sometimes in agreement patterns. An agreeing functional lead like T in an accusative language typically agrees with the nominative subject in both transitive clauses and intransitive clauses—apart perhaps from the possibility of NPs with idiosyncratic lexical case marking, as in Icelandic. This is the familiar situation in many European languages, for example. In contrast, T in an ergative language might agree with intransitive subjects but with transitive objects, as in the Ingush data in (6) (Nichols, 2011).[3]

(6) a. *Jett*   aara-*b*-ealar;   *zhwalii* aara-*d*-ealar.   (intransitive clauses)
         cow.B out-B-go.PAST   dog.D   out-D-go.PAST
         'The cow went out.'   'The dog went out.'

     b. aaz *dulx*   *d*-u'; aaz   *wazhazh*   *b*-u'   (transitive clauses)
         I.ERG meat.D D-eat I.ERG apples.B   B-eat
         'I ate meat.'   'I ate apples.'

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The generalization that unites a language like Ingush with the European languages is that T agrees with the highest NP in the clause that is not marked with a dependent case (Bobaljik 2008). Since case can influence how agreement works in this way, it is not without effect on this one other, arguably syntactic phenomenon. However, this hardly qualifies (4) as a macroparameter. Case and agreement are an intertwined subsystem concerned with the signaling of grammatical functions in many views, and the effects of (4) are not felt outside of this relatively well-defined subsystem.

Moreover, differences in case marking style do not necessarily affect how agreement works. Agreement can be sensitive to the results of structural case marking, but it can also not be. For example, Burushaski is an ergative language when it comes to overt case marking on NPs, but what a verb agrees with in Burushaski is the same as what in agrees with in (for example) the accusative language Amharic. T agrees with both ergative and absolutive subjects, and it does not agree with the absolutive object of a transitive sentence, as seen in (7) (Willson, 1996).

(7)   a.   <u>In</u>   gucar-<u>im.</u>
             he.ABS   walk-PAST.3mS
             'He walked.'

       b.   <u>Hilés-e</u>   dasin   mu-yeéts-<u>imi</u>.
             boy-ERG   girl.ABS   3fO-see-PAST.3mS
             'The boy saw the girl.'

Indeed, the Burushaski pattern seems at least as common as the Ingush pattern, in my experience. The fact that agreement may (but need not) be sensitive to the results of case assignment will, however, be useful in section 5, where it will help us to probe into whether case assignment is a morphological parameter or a syntactic parameter.

The other possible area of syntax where the rules in (4) may have repercussions is A-bar extraction: some ergative languages apparently ban the extraction of the ergative subject (e.g. Mayan languages, some Australian languages). This is what Polinsky (To appear), for example, means by a syntactically ergative language. But by no means all ergative languages have this restriction on A-bar movement. Shipibo, for example, does not; (8) shows that relative clauses can have transitive subject gaps just as well as they can have object gaps (or intransitive subject gaps) (Valenzuela, 2003).

(8)   a.   Ja-ská-xon   jis-á-ki   ik-á   iki   yamekan   ewa
             then   see-PTPL-PRT   be-PTPL   AUX   darkness   AUG
             [RelC ____Erg   moa   bari   noka ak-ai].
                                       already   sun.ABS   shade do-IMPF
             'Then they saw the eclipse that shaded the sun already.'

       b.   jono   [RelC papa-n   ____Abs   rete-ibat-a]-ra   moa
             c.peccary   father-ERG   kill-PAST-PTPL.ABS-PRT already
             no-n   keyo-ke.
             1p-ERG   finish-PRF
             'We already finished the collared-peccary father killed yesterday.'

Furthermore, there are well-known restrictions on subject extraction in accusative languages too, for example, complementizer-trace effects. Therefore, I think we (I) do not know what is underneath restrictions on the extraction of transitive subjects in some languages, or how strongly it is associated with ergativity. (See Polinsky (to appear) for one possible view.) Nor am I in position to examine this issue further here.

The conclusion, then, is that structural case assignment is more on the microparametric side of the continuum than on the macroparametric side, despite its salient role in typologizing languages. This fits with the fact that it can vary within a single language family. For example, the Indo-European family has languages that are clearly accusative (Slavic, German, Greek), languages that are essentially neutral except perhaps for pronouns (English, Scandinavian, French, Italian), and languages that are (split) ergative (e.g. Hindi). Indeed, the Iranian branch itself has a stunning variety of alignment type (see below). Similarly, the Australian family has ergative languages, accusative languages, tripartite languages, and neutral languages. Northern and Eastern Ostyak differ in that only the latter is ergative, and these are members of a larger family (Finno-Ugric) which also has nominative accusative languages, like Finnish and Hungarian. And so on. This then is microparametric variation—and if it is also syntactic, then syntactic microparameters exist.

4. Is the parametric variation lexical?

But is this really syntactic parameterization, or is it in some sense lexical, as the Borer-Chomsky Conjecture would have it?

As usual, one needs to clarify the question somewhat before one can answer it. Does one mean that case marking varies with individual lexical items, such that some verbs assign different cases from other verbs, and some Tenses assign different case from other Tenses? Or does one mean that one class of lexical items varies from another class of lexical items, such that all verbs in a language assign one case (accusative) whereas all Tenses assign another case (nominative)? There are probably two distinct versions of the Borer-Chomsky Conjecture that can be distinguished along these lines. The first version arguably fits better with the guiding intuition that learning parametric variation can piggyback on learning the properties of individual lexical items, which we know needs to happen anyway. However, the second version may also be viable if people learn properties of classes of items as well as of individual items, and it arguably matches the granularity of much actual crosslinguistic variation better. For example, a few languages have object-verb order and adposition-object order (e.g., Persian), but we know of no language in which half the verbs govern object-V order and the other half govern V-object order.

4.1 Apparent verb-governed variation in structural case

One can, however, get the impression that case marking does vary even with particular lexical items. There is a descriptive tradition of listing the case frames that go along with individual verbs along with its list of arguments, suggesting that these case frames are not entirely predictable. For so-called lexical cases, this listing may be inescapable; anyway, I do not challenge that tradition here. However, the phenomenon seems to extend even to what one would otherwise want to call structural cases. For example, a few verbs in Shipibo appear in

double absolute clauses, rather than the normal ergative-absolutive clauses (Baker, 2014, Valenzuela, 2003). (9) is an example.

(9)   José-ra   yapa   keen-ai.
       Jose-PRT fish   want-IMPF
       'José wants some fish.'

Burushaski also has a handful of verbs of this type (Willson, 1996):

(10)   Jé   káman   peesá   d-á-can-abaa.
        I.ABS   some   money.ABS   PREV-1sO-need-1sS.PRES
        'I need some money.'

A very few other verbs in Shipibo (but not Burushaski) seem to have a single argument which is ergative rather than absolutive, as in (11).

(11)   José-kan-ra   wina-ke.
        José-ERG-PTL row-PRF
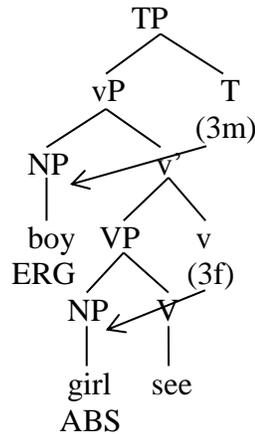   'José rowed.'

Finally, Burushaski (but not Shipibo) has a few verbs with one ergative argument and one absolutive argument, including (12b). This exists alongside the more common and expected absolutive-plus-dative pattern in (12a) (Willson, 1996).

(12)   a.   Zamindáar   [tshíl yál-as-e   gáne] mál-e-r   ni-imi.
              farmer.ABS   water apply-INF-OBL for   field-OBL-DAT go-3mS.PAST
              'The farmer went to the field to water (it).'

        b.   Hilés-e   dasín-mo-r   barén-imi.
              boy-ERG   girl-OBL-DAT   look.at-3mS.PAST
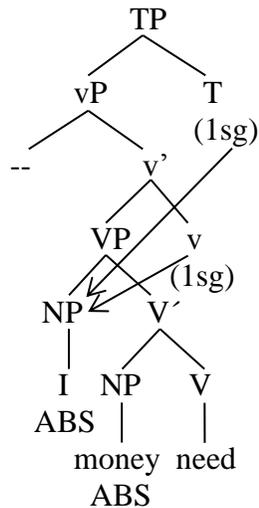   'The boy observed the girl.'

So there does seem to be some verb-by-verb lexical variation in these languages. Facts like this have contributed to the notion that ergative might be an inherent case, rather than a structural case (see Woolford (2006), among many others). Taking this view to the limit, one might see a continuum between say Sakha, which has a very small number of subjects with inherent case (dative), to Icelandic, which has a significant number, to Shipibo and Burushaski, where the majority of transitive subjects have inherent case (called ergative), to Greenlandic where there are no known double absolutive clauses.[4]

But my own work on Shipibo (Baker, 2014)and Burushaski (Baker, in press) in particular implies that this is not the best way to think about this apparent lexical variation. On my view, the sentences shown above are not special because verbs stipulate case assignment patterns in their lexical entries, but because they have a special clause structure. For example, the double absolutive clauses are clauses with two internal arguments but no external argument, as in (13b), contrasted with the normal transitive structure in (13a).

(13)   a. Normal transitive structure

```
                TP
              /    \
           vP        T
          /  \      (3m)
       NP      V'
        |      /  \
      boy    VP    v
      ERG   /  \  (3f)
          NP    V
           |
         girl  see
         ABS
```

b. Double absolutive structure

```
                TP
              /    \
           vP        T
          /  \      (1sg)
        --     v'
              /  \
            VP    v
           /  \  (1sg)
         NP    V'
          |   /  \
          I  NP   V
        ABS  |    |
          money  need
          ABS
```

This structural difference affects case assignment because the two NPs are first spelled out with VP in the (13b) structure, and the ergative rule does not apply at that level (although a structural dative rule might; see below), but only at the spell out of TP. Therefore, both NPs get absolutive case by default.[5]

This structural proposal fits the nonagentive quality that is typical of double-absolutive verbs in both languages: one does not necessarily want or need something on purpose. Therefore these verbs are not associated with the sort of agentive thematic role that needs to be assigned in Spec, vP across languages. There is also supporting syntactic evidence for a structural distinction in these languages. For example, the usual way to answer a yes-no question in Shipibo is with a positive or negative form of a meaningless dummy verb, analogous to *do* in English. However, Shipibo has two dummy verbs that differ in argument structure: *a-ti* goes with normal transitive verbs, whereas *i-ti* goes with verbs that do not have both an external and internal argument (i.e., with unergative verbs and unaccusative verbs).[6] This can be seen in (14).

(14)   a.   Moa-ki   mi-n   atapa-bo pi-m-a?   A-kama.

already-Q you-ERG hen-PL   eat-cause-PTPL do.TR-NEG
'Have you fed the chickens?' 'No.'   (transitive verb: both external and internal)

    b. Moa-ki   mi-a   wini-a?   I-kama.
       already-Q you-ABS cry-PTPL   do.INTR-NEG
       'Have you cried?' 'No.'   (unergative verb: external argument only)

    c. Moa-ki   mi-a   paket-a?   I-kama.
       already-Q you-ABS fall-PTPL   do.INTR-NEG
       'Have you fallen?' 'No.'   (unaccusative verb: internal argument only)

Now double absolute verbs are answered with *i-ti*, not with *a-ti*, showing that their argument structure is different from the argument structures of normal transitive verbs like (14a).

(15)   Mi-a-ki   nato   teoti   keen-ai?   I-kama.
       you-ABS-Q   this   necklace   want-IMPF   do.INTR-NEG
       'Do you like this necklace?' 'No.'

Similarly, agreement on v in Burushaski can be used to see whether an NP originates inside VP or not. Crucially, v in Burushaski agrees not only with the highest internal argument of a transitive verb (see (7b)), but also with the sole argument of an unaccusative verb, as seen in (16b). (16b) contrasts with (7a), repeated as (16b), where there is no object-style agreement with the argument, but only subject-style agreement on T.

(16)   a. <u>In</u>   gucar-<u>imi</u>.   (=(7a))
       he.ABS   walk-PAST.3mS
       'He walked.'

    b. Acaanák   **hilés   i**-ír-**imi.**   (Willson 1996:19)
       suddenly   boy   3mO-die-3mS.PAST
       'Suddenly the boy died.'

v also agrees with the putative subject of a double absolute verb, showing that it (and a fortiori the putative object that is below it) starts out inside its c-command domain, internal to VP. This can be seen in (10), repeated here as (17). (The relevant agreement relations for Burushaski are included on the trees in (13) in parentheses.)

(17)   **Jé**   káman   peesá   d-**á**-can-**abaa**.
       I.ABS   some   money.ABS   PREV-1sO-need-1sS.PRES
       'I need some money.'

    Additional confirmation for this hypothesis in Shipibo comes from an interesting diathesis pattern. Even though fewer than ten basic double absolute verbs known, additional verbs of this type can be derived productively by putting ditransitive constructions in the reciprocal voice. The reciprocal forms of basic ditransitives like 'give' and derived ditransitives

formed by causativization or applicative formation always show a double absolute pattern, as in (18).

(18) Ja-bo-ra   piti   meni-anan-ke.
      they-PL-PRT fish   give-RECIP-PRF
      'They gave fish to each other.' (lit. 'They were reciprocally given fish.')

I assume that reciprocal voice in Shipibo is like passive (roughly) in suppressing the clause's external argument, giving it a special anaphoric interpretation. That results in two internal arguments, as in (13b), neither of which qualifies for ergative case.

      Similar accounts can be given for other apparent anomalies in structural case patterns. The seemingly intransitive verbs with ergative subjects like (11) in Shipibo actually have covert objects, which can occasionally be coaxed into the open. This is confirmed by fact that a yes-no question involving such a verb is answered with the transitive dummy verb *a-ti*. Thus (19) patterns with transitive (14a), not with unergative (14b).

(19) Minki   winaa?   A-kama.   (*I-kama)
      you-ERG-Q   row-PTPL   do.TR-NEG   do.INTR-NEG
      'Did you row?' 'No.'

      Similarly, it can be shown that absolutive-dative patterns in Burushaski arise when the dative expression corresponds to a PP which expressing a true goal, whereas ergative-dative patterns result when the dative is a NP that bears quirky lexical case. That some dative expressions count as NPs and others as PPs is familiar from other languages (e.g. French: Kayne (1975)), and it is confirmed within Burushaski by the fact that v can agree with some dative expressions (the NPs) but not others (the PPs). (20a) and (20b) differ in just this way.

(20) a. Ja-a   in-mo-r   hán tofá-an   mu-ú-abayam.
          I-ERG   her-OBL-DAT one gift-INDEF.ABS   3fO-give-1sS
          'I have given her a gift.'   (Agreement with dative goal NP)

      b. Hilés-e   dasín-mo-r   toofá-muts   píish   o-t-imi.
          boy-ERG   girl-OBL-DAT gift-PL.ABS   present 3pO-do-3mS.PAST
          'The boy presented gifts to the girl.' (Agreement skips dative PP)

      I conclude from this line of research that individual verbs do not have the power to determine structural case directly (although they can determine inherent case). Rather, different verbs appear in different syntactic structures, and syntactic structure determines structural case in systematic ways. A consequence of this is that major differences in case alignment cannot be attributed to verbs. I take this conclusion to apply to both v and V, the two abstract heads that underlie observable lexical verbs in many current generative treatments.

4.2 Apparent T-governed variation in structural case

Next consider canonical functional heads like T and other heads in the tense-aspect-mood complex. Can they influence case on an item-by-item basis, defining major alignment type?

Here what needs to be considered is the phenomenon of tense-aspect-based split ergativity, which is known to occur in quite a few languages of the world.

Particularly interesting instances come from Kurmanji and other Iranian languages. For example, in standard Kurmanji (Thackston, 2006), present tense clauses have unmarked case (called *direct* case) on all subjects and marked (*oblique*) case on the objects of transitive verbs, an accusative pattern.

(21)   a. Ez   dı-rv-ım-e.   (Present tense, intransitive).
           I.DIR IMPF-run.PRES-1.SG-PRES.COP
       ' I am running.'

      b. Ez   te/ Eşxan-**ê**   dı-vun-ım-e.   (Present tense, transitive)
           I.DIR you.OBL/ Eşxan-OBL   IMPF-see.PRES-1.SG-PRES.COP
           'I am seeing you/ Eşxan-OBL.'

In contrast, past tense clauses reverse this: they have marked oblique case on transitive subjects, and unmarked direct case on intransitive subjects and transitive objects, an ergative pattern.

(22)   a. Ez   rıvi-m.   (Past tense, intransitive)
           I.DIR run.PAST-1.SG
           'I ran.'

      b. Mı   tı   di-<u>yi</u>.   Compare: Te/ Eşxan-ê   ez   di-m.
           I.OBL you.DIR see.PAST-2SG   You.OBL/ Eşxan-OBL I.DIR see.PAST-1.SG
           'I saw you.'   'You(sg)/Exsan saw me.'

So structural case does seem to vary with tense-like functional heads in an interesting way in this language.

Some other dialects of Kurmanj, such as the one spoken in Muş, show a different case split (Gündoğdu, 2011). They are like standard Kurmanji in having accusative alignment in present clauses:

(23)   Ez   te   di-bin-im.   (transitive present)
        I.DIR you.SG.OBL   IMPF-see.PRES-1.SG
        'I see you.'

In past clauses, however, these dialects have an extremely unusual alignment, attested perhaps only in Iranian languages (Comrie 1981). Oblique case is used on both the subject and object of transitive clauses, although not on the subject of intransitive clause.

(24)   a. Ez   ket-im.   (intransitive past, Gündoğdu, 2011:77)
           I.DIR fall.PAST-1.SG
           'I fell down.'

      b. Mın   te   dit   (transitive past, Gündoğdu, 2011:81)
           I.OBL you.SG.OBL see.PAST.3.SG

'I saw you.'

An easy, descriptively adequate way to capture these facts is to have dependent case rules that are keyed to the particular Tense of the clause, as follows (this is Gündoğdu's own view, in part).

(25)   Standard Kurmanji:
    a.   For T=past, assign Oblique to the higher of two NPs.
    b.   For T=present, assign Oblique to the lower of two NPs.
    c.   Otherwise assign NP Direct

(26)   Muş Kurmanji:
    a.   For T=past, assign Oblique to the higher of two NPs.
    b.   For T=any, assign Oblique to the lower of two NPs
    c.   Otherwise assign NP Direct.

This then appears to be variation that is attributable to the lexical entries of particular functional heads, albeit in a somewhat indirect way. And if grammatical theory needs to be able to relate case marking to particular functional heads in this way, then one might reason from the exceptional case to the general case. A uniformly ergative language like Shipibo could be the limiting case in which the (25a) rule applies for all tenses and the (25b) rule applies for none. Conversely, a uniformly accusative language like Quechua could be the limiting case in which the (25b) rule applies for all tenses and the (25a) rule applies for none.

This view, although potentially square with the Borer-Chomsky Conjecture, is not explanatorily adequate. It seriously overgenerates, in that it predicts that Iranian languages (for example) could have a wider range of alignment types than they in fact can have. It so happens that the rules in (25) for Standard Kurmanji partition the set of tense-aspect categories in the language: every tense-aspect triggers either the (25a) rule, or the (25b) rule, but not both. The result is only two alignments: ergative or accusative. Muş Kurmanji is different from Standard Kurmanji in past tenses, but it still has exactly two alignments: either accusative or the special double oblique alignment. But if we simply let case assignment vary with functional items, this comes out as an accident. One could perfectly well imagine a situation in which one tense-aspect category triggers the ergative rule, and a different but overlapping tense-aspect category triggers the accusative rule. This would give a system like (27).

(27)   Hypothetical Iranian language:
    a.   For Asp=perfective, assign Oblique to the higher of two NPs.
    b.   For T=nonpast, assign Oblique to the lower of two NPs.
    c.   Otherwise assign NP direct.

This collection of parameter settings looks no more complex than the ones in (25) and (26) in terms of the imagined theory, where case rules are key to specific Tense and Aspect heads. However, it is crucially different in that it generates the four different alignment patterns outlined in (28), not just two.

(28)   a.   John-OBL money found.   Past perfective (ergative)

b. John-OBL   money-OBL will-find   Nonpast perfective (double oblique)
c. John money-OBL is-seeking.   Nonpast imperfective (accusative)
d. John money used-to-seek   Past imperfective (neutral)

But this doesn't happen, not in any dialect of Kurmanji, or in the wider range of Iranian languages. Iranian languages allow a very wide range of alignments, including all of those listed above (and also tripartite combinations, with ergative distinct from accusative). However, no known Iranian language has more than two alignments (Haig, 2008).[7] More specifically, present clauses have simple accusative alignment across the family, whereas past clauses can have any one of a wide range of alignments. Therefore, keying case marking to individual functional heads seriously overgenerates.

A better approach to this kind of variation, I claim, is to say that the case rules do not vary with the functional heads, but certain functional heads can vary as to whether they are phase heads or not. The head that varies in this way is actually v in the version of Atlamaz and Baker (in preparation). We claim that v_{PAST}, an ingredient in past tense stems, is exceptionally not a phase head in Kurmanji and other Iranian languages, whereas v_{PRES}, an ingredient in present tense stems, is a phase head as usual (when it is transitive). The result of this is that the subject and the object do not see each other in present clauses, so ergative case on the subject is never triggered by (4b).[8] However, the subject and object do see each other within the same phasal domain in past clauses; therefore, dependent case rules apply, including (4a) and possibly (4b) as well, depending on the variety. This view allows for crosslinguistic variation, but in a much more constrained way. The only way functional heads can influence case marking is indirectly, by being a phase head or not. This is an intrinsically binary distinction, and the result is that only two alignments are allowed per language. Dependent case rules can vary microparametrically across related languages (but not within a language, on the current hypothesis), so the major variation is found in the clauses without the extra phase boundary, not in the clauses with it—i.e., in past tense clauses in Kurmanji. This proposal also fits well with the passive-like nature of past stems in Iranian, given Chomsky's (2000, 2001) idea that passive v is not a strong phase head; see Atlamaz and Baker (in preparation) and references cited there.[9]

I conclude that item-by-item variation in the properties of lexical items and functional items is not the way to explain the limited variation in structural case patterns that we can observe internal to natural languages.

4.3 Different structural cases in different functionally-defined domains

Larger classes of functional items do play a role in the typology of structural case, however. It turns out that the same c-command relationship can result in different cases being assigned in different domains. One NP c-commanding another NP can result in ergative being assigned to the higher one in clausal domains. But I have argued that if one NP c-commands another in a VP domain rather than a TP domain, it can result in a different case, such as dative in Sakha (Baker and Vinokurova 2010, Baker 2015). This VP-internal dependent case is seen on one of the objects of a ditransitive verbs, but not on the sole object of a monotransitive verb, as seen in (29).[10]

(29)   a. Masha   salamaat-y   sie-te
           Masha   porridge-ACC eat-PAST.3sS

'Masha ate the porridge.'

b. Min [_{VP} Masha-qa   kinige-ni   bier-di-m]   (*with *Masha-ny*)
I   Masha-DAT book-ACC give-PAST-1sS   Masha-ACC
'I gave Masha the book.'

This pattern is systematic in Sakha: the language does not allow a morphologically simple verb to take two accusative NPs. Structural dative case is also found on causees in morphological causative constructions if and only if the base verb is transitive (so there is another NP in the causative VP), and on the subjects of dyadic unaccusative verbs—psych verbs, broadly the same kind that have double absolutive patterns in Shipibo and Burushaski (see the structure in (13b)).

I also extend the dependent case view to certain instances of genitive case in nominals, in particular, when the possessor in Spec PossP c-commands the possessed NP in the complement of Poss position. This configuration leads the possessor to have genitive case in some languages. This DP-internal dependent case may be syncretic with ergative, the high dependent case assigned in clauses; this is famously true in Greenlandic and other Eskimoan languages, for example (it is also true in Shipibo). But the case assigned to possessors in nominals can also be distinct from ergative, as it is in Ingush and in Australian languages like Diyari, among others.

We need to say, then, that different dependent cases can be assigned in different domains, in order to get maximum mileage out of the dependent case idea. How is this encoded in the grammar? The different domains involved are all plausibly Spell Out domains, in the sense of Chomskian phase theory. Therefore, the plausible place to encode these case properties is in the phase head that triggers the spell out of the domain: C, or v, or D. This gives us statements like the following:

(30)   a. If NP1 c-commands NP2 when the complement of T is spelled out, assign NP1 *ergative*.
        b. If NP1 c-commands NP2 when the complement of v is spelled out, assign NP1 *dative*
        c. If NP2 c-commands NP2 when the complement of D is spelled out, assign NP1 *genitive*.

The case distinctions referred to in (30) can also be neutralized in languages of the world: ergative case is the same as dative in Ika and Ubykh; ergative is the same as genitive in Greenlandic and Shipibo; genitive case may be the same as dative in some Australian languages (if dative case is indeed structural in those languages). But these cases are distinct more often than not. And of course some languages might have one or two of these rules, but not all three: Sakha has (30b) but not (30a), for example, and Shipibo has (30a) but not (30b). So these rules are to be attributed in some sense to functional heads.

Similar variation can be seen in the assignment of low dependent case. In Baker (2015: Ch. 4), I show that the low dependent case assigned in VP can be different from the low dependent case in the clause. This is seen most clearly in Chamorro, of the languages I have looked into. Chamorro's so-called oblique case (described in Chung (1998)) is used systematically on the lower of the two objects in a double object construction (the theme argument), but not on the one internal argument of an agentive transitive verb.

(31)   a. Hu na'-poddung i   bola.

       1s   drop   the   ball
       'I dropped the ball.' ('drop' = cause-to-fall)

   b. Ha-na'i si   nana-ña   **ni**   **buteya-n ketchap**.
      3s-give UNM.PN mother-3.POSS OBL bottle-LK soy sauce
      'He gave his mother the bottle of soy sauce.'

This same oblique case is used on the lowest argument of a causative derived from a transitive verb base (but not in one derived from an intransitive base), on the theme argument of an applicative construction, and on the lower theme argument of certain dyadic psych verbs. Like the dative in Sakha, then, it has exactly the distribution we'd expect of a VP-internal dependent case, but it always goes on the lower of two NPs, not on the higher. So we have another family of dependent case rules, as in (32).[11]

(32)   a. If NP1 c-commands NP2 when the complement of T is spelled out, assign NP2
          accusative.
      b. If NP1 c-commands NP2 when the complement of v is spelled out, assign NP2
          oblique (Chamorro type)

      This then is a type of variation in structural case that is related to functional heads in some sense. However it is not exactly the usual sense that the Borer-Chomsky Conjecture has in mind. First, these dependent case rules clearly refer to *classes* of functional heads (T, v, D), not to individual functional heads (past, active, definite). Second, these rules cannot be reduced in any obvious way to the familiar movement-triggering, merge-triggering, or agreement-triggering features of functional items, as in the restrictive proposal for parameters in Rizzi (2014: 22-23), for example. These are a kind of hybrid of syntactic parameters and lexical parameters, then: they are syntactic rules that are keyed to particular classes of lexical items.[12]

5. Syntactic parameters versus morphological variation

Now let us change gears somewhat, to address a related topic. In addition to controversies about whether parameters are syntactic or lexical in nature, there are also controversies about whether parameters are syntactic or morphological in nature. These center around the Uniformity Hypothesis of Chomsky (2001: 2) and others. It is commonly thought, following Vergnaud's famous hypothesis, that case assignment (and also agreement) takes place in the syntax of all languages, even though it only shows up morphologically in some (Vergnaud, 2008). In its strongest/purest form, the uniformity hypothesis might hold that languages all have essentially the same syntax across the board, and all the apparent variation is in the realization of morphology at PF. Let us then consider what can be inferred about the desirability of this hypothesis from what has been learned about structural case, including dependent case. Should we say that case is assigned in the same way in all languages, but different ones are spelled out differently in different languages?

5.1 Fleshing out a view consistent with uniformity

One preliminary comment is that if one wants to go down this road, then one should probably be prepared to go the whole way. It does not seem fair or principled to say that the most familiar case distinctions are universal, present in all languages, but to say that the less familiar but well-attested case distinctions are not. Many adherents of Chomskian case theory have assumed that subjects have nominative case and objects have accusative case in (say) Chinese as well as in Latin, even though this does not show up morphologically. But why not just as well say that transitive subjects in Chinese are ergative, as in Greenlandic? Arguably the most principled view along these lines would be to say that all languages are really tripartite, as Nez Perce is overtly, having ergative transitive subjects, nominative intransitive subjects, and accusative direct objects. That may seem counterintuitive, given that tripartite alignment is by far the rarest type. But it is also the richest type, the one that makes the most distinctions, from which the other systems can be derived by simple neutralizations. Then an ergative language could be seen as a tripartite language in which accusative is not overt, an accusative language could be seen as a tripartite language in which ergative is not overt, and a neutral language is one in which none of the cases are overt. That is maximally uniform.

In fact, this uniform view of simple clauses does not look at all crazy from the point of view of Julie Legate's (2008) analysis of case in various Australian languages that have been described as having person-based split ergativity. For some nominals in (say) Diyari (Austin, 1981), the ergative form is equal to the nominative form, giving a nominative-accusative subparadigm; that is true for first and second person nonsingular pronouns. For other nominals, the accusative form is equal to the nominative form, giving an ergative pattern; that is true for male names and singular third person nouns. Yet another class of nominals might maintain distinct forms for all three cases; in Diyari this class is relatively large, including other pronouns, nonsingular common nouns, and feminine names. Therefore, the syncretisms needed to derive other alignment types from a tripartite source are all attested in Diyari. One can imagine, then, that a language might generalize the type of syncretism found with local pronouns in Diyari to all nominals, resulting in pure accusative alignment. Conversely, one can imagine that a language might generalize the type of syncretism found with singular common nouns in Diyari to all nominals, resulting in pure ergative alignment. Languages that syncretized all three cases would show up as neutral languages, and the few languages that syncretized none of them would show up as tripartite languages. Thus, the morphological tools needed to handle case typology as purely morphological variation at PF in a Distributed Morphology style framework clearly exist. The theoretical question, then, is whether or not it is right to use them in this way.

Following Baker (2015), I propose that we can use the phenomenon of case-sensitive agreement to build an argument that this is *not* the right way to think of the major systematic differences in alignment type, and that the strong Uniformity Hypothesis should be rejected in this domain. So far I have assumed rules of dependent case assignment in (4), repeated as (33a,b), together with the rule of default case assignment made explicit in (33c).

(33)   a. If NP_1 c-commands NP_2 and both are in the same domain, value NP_1's case as ergative.
        b. If NP_1 c-commands NP_2 and both are in the same domain, value NP_2's case as accusative.
        c. If NP has no other case feature, value its case as nominative/absolute.

I take it that (33a) and (33b) are intrinsically syntactic rules, in that they refer to details of syntactic structure: what c-commands what, whether something is in the same domain (syntactic phrase) as something else, and whether something is an NP or some other category. All of these notions belong to the core vocabulary of syntax, not primarily to the vocabulary of PF.[13]

But case clearly has a morphological component to it too, which determines how a particular case feature is realized as phonological material in a particular morphological environment. One effect that the morphological component can have is realizing different case values with the same affix (possibly null), accounting for syncretism. Now we can imagine two logically distinct ways of thinking about systematic variation in the alignment of morphological case. The possibility that I have assumed so far without real argument is that languages are parameterized as to which of the rules in (33) they make use of: a language can choose to apply (33a) only, or (33b) only, or both, or neither. Strictly speaking, that counts as a type of syntactic parameterization, in that the rules that apply in the syntax are different in different languages. This is a small scale syntactic difference, to be sure, but a syntactic difference nonetheless.

The alternative, inspired by Uniformity and some acquaintance with Diyari, would be to say that the rules in (33) are universal, and the observed variation among alignment types comes from different systems of realization rules. This can be made explicit along the lines of (34).

(34) a. Sakha: X [Case: ACC] → X-*(n)I*   (accusative system)
               X → X-Ø   elsewhere
       b. Shipibo: X [Case: ERG] → X-*(ni)n*   (ergative system)
               X → X-Ø   elsewhere
       a. Nez Perce : X [Case: ACC] → X-*ne*   (tripartite system)
               X [Case: ERG] → X-*nm*
               X → X-Ø   elsewhere
       b. Chinese :   X → X-Ø   everywhere   (neutral system)

The theory sketched in (34) is compatible with Chomsky's Uniformity Principle, and in the spirit of Vergnaud's hypothesis regarding the universality of case assignment, a view that has been mainstream in the Chomskian tradition since Chomsky (1981). It is not hard to make these two approaches descriptively identical over the limited range considered so far. Indeed, one might think that it will be hard to choose between them on empirical grounds.

5.2 A resource for testing hypotheses: case-sensitive agreement

Consider, however, in this light the phenomenon of case-sensitive agreement, mentioned briefly above in connection with agreement in Ingush as contrasted with Burushaski. In Baker (2015: chapter 2), I argue that agreement in some languages (but not others) is subject to a family of parameters that can be characterized as follows.

(35) a. F agrees with NP only if NP has ergative case. (Coast Tsimshian, Semelai)
       b. F agrees with NP only if NP has nominative case. (Tamil, Icelandic, etc.)
       c. F agrees with NP only if NP has absolutive case. (Ingush)
       d. F agrees with NP only if NP has accusative case. (Mangarrayi?)

(35b,c) are important scenarios discussed in Bobaljik (2008). (35c) was illustrated for Ingush above in (6). (35b) is familiar from Icelandic, Hindi, and other IE languages. It also holds for the Dravidian language Tamil. In Tamil, the finite verb agrees with a nominative subject, whether it is transitive or intransitive (Baker, 2015, Sarma, 2009):

(36)   a. <u>Naan</u>   anda naaj-e   veru-tt-<u>een</u>.
            I.NOM that   dog-ACC hate-PAST-1sS
            'I hate that dog.'

       b. <u>Naan</u>   va-nd-<u>een</u>
            I.NOM   come-PAST-1sS
            'I came.'

However, the finite verb cannot agree with a dative subject. If the subject is dative, then the verb agrees with a nominative object if there is one ((37b)); otherwise—if the verb takes a dative subject and an accusative object, as some Tamil verbs do—it shows default agreement.

(37)   a. En-ukku   <u>anda ponnu</u>   teve-ppaḍ-r-<u>aa</u>.
            I-DAT   the   girl.NOM need-suffer-PRES-3fS
            'I need the girl.'

       b. Baala-kku   Maala-ve   piri-kk-<u>um</u>.   (*piri-kk-aa)
            Bala.M-DAT Mala.F-ACC like-PRES-3nS   (*like-PRES-3fS)
            'Bala likes Mala.'

(35a,d) are additional parametric possibilities not countenanced by Bobaljik (2008), but identified by Baker (2015). They are the result of weakening Bobaljik's claim that a functional head F can agree with an NP bearing case X only if F can also agree with an NP bearing any case that is less marked than X on a markedness heirarchy, where absolutive case is less marked than ergative case, and nominative case is less marked than accusative. That a functional head like T can agree only with an NP bearing ergative case is especially well attested in Coast Tsimshian: T agrees with the third person subject in (38b) but not in (38a), for example (Dunn, 1995).

(38)   a. Yagwa baa-[a]s   Meli.
            PROG   run-ABS.PN   Mary
            'Mary is running.'

       b. Yagwa-**t**   t'uus-<u>dit</u>   <u>Dzon</u>-**i**t   Meli.
            PROG-3sE   push-ERG.PN John-ACC.PN Mary
            John is pushing Mary.

Indeed, the relationship between case and agreement is very close in Coast Tsimshian. In some tense-aspects the transitive subject is not ergative, because aspect is an extra phase boundary (similar to in Kurmanji, as discussed above). In those tenses, T does not agree with the subject either. But if the direct object in a clause with one of those nonergative tenses is a pronoun, it raises out of the VP as a clitic, and thus enters the domain where the subject is after all. In that

case, the subject is ergative—and T agrees with it. It is hard to deny, then, that something like (35a) holds in Coast Tsimshian. Other examples of agreement only with ergative subjects are found in Semelai (Kruspe, 2004), and in Nias (in realis clauses only).

The (35d) case is most fragilely attested one at this point, but Baker (2015) presents the Australian language Mangarrayi is a likely instance (Merlan, 1982). The language clearly has agreement with the accusative objects of monotransitive clauses, as in (39).

(39)   Ŋawuyan-yiri+wa-ni   jarbiñ-gayanŋan.
       1sS/**3pO**-see-PAST   young.man-ACC.PL
       'I saw the young men.'

This, of course, is not uncommon. More importantly, in double object constructions, v skips over a dative object and in order to agree with the accusative object. Hence, it agrees with the goal of 'show' in (40a) because it is accusative and higher structurally/thematically than the theme, but it agrees with the theme in (40b) because the goal has dative case.

(40)   a.   Buʔ   ñan-wu-na   ñan-bayi   (Ø-ŋani).   (ACC goal).
            show   3sS/**2sO**-AUX-PAST   2s.ACC-FOC   N.ABS-language
            'He showed/taught YOU (language).'

       b.   Wula-niri-j   ŋanju   (Ø-mawuj).   (DAT goal)
            3pS/**3sO**-bring-PAST   me.DAT   N.ABS-vegetable.food
            'They brought me vegetable food.'

Mangarrayi is different from languages like Burushaski and Amharic in this way, where v agrees with a dative object if there is one (although not with dative PPs, in my analysis); compare (20a). So (35d) holds for v in Mangarrayi but not in Amharic. The same case-sensitive property of object agreement can be seen with monotransitive clauses that have dative objects as opposed to accusative objects, as in the minimal pair in (41).

(41)   a.   Ga-ŋawuyan-giŋ+mi.   (ACC complement, here pro-dropped)
            3-1sS/3pO-fear
            'I fear them'

       b.   Ja-Ø-yiyi-ji-n   ŋanya.   (DAT complement)
            3-3sS-be.afraid-MP-PRES   1.PL.DAT
            'He is afraid of us.'

I thus draw the tentative conclusion that (35d) is a possible parameter setting too. Indeed, there is no theoretical reason to doubt that (35d) could exist, in a system of parameters that also allows for (35a) as well as (35b,c). The questions that surround it are probably practical ones: it just happens that languages with overt accusative case and overt object agreement are less common, so there are fewer languages in which the interaction between the two can be studied easily.

In addition to the parameters in (35), let us make the plausible although not uncontroversial assumption that case-sensitive agreement (like case-assigning agreement, if it exists) is essentially syntactic—contrary to Marantz (1991) and Bobaljik (2008). Reasons to

think this include the fact that case-sensitive agreement seems to be sensitive to c-command relationships in (for example) Hindi (Bhatt, 2005), and the fact that it seems to be sensitive to syntactic locality restrictions in (for example) Tsez (similar to Ingush) (Polinsky and Potsdam, 2001). Therefore, agreement like dependent case marking applies either in the syntax, or at an early stage of PF that preserves syntactic information.

Another clear and highly relevant reason to think that case-sensitive agreement is fundamentally syntactic is the fact that agreeing heads seem to be sensitive to the abstract case feature that an NP bears, but not to the specific morpheme that realizes that case feature. This can be seen in languages like Icelandic. Icelandic is a language in which T agrees with NP only if NP is nominative (Schütze (1997: sec. 4.1.1), Bobaljik (2008), among many others). Icelandic also has different declension classes: for example, -*ur* spells out nominative case on strong masculine nouns, -Ø spells out nominative on strong nouns of other genders, and so on. Nevertheless, T agrees equally well with any nominative NP in the right position, regardless of what its declension class might be.

I conclude, then, that case-sensitive agreement is sensitive to syntactic case features, but not to specific morphological exponents. We can therefore use it as a test to see if all languages have the same case features in syntax, despite obvious differences in the realization of those features in morphology, as the uniformity-inspired proposal that the case-assigning rules in (33) are universal would have it.

5.3 Applying the test in clauses: typological evidence against strict uniformity

If we now combine the observation that agreement is sensitive to case features but not to their morphological realization with the strong uniformity hypothesis that all languages have the same case system in the syntax, we derive a strong prediction: the types of case-sensitive agreement that a language can have should be independent of its visible case system. This follows because all languages really have the same case values in the syntax, by hypothesis.

This strong prediction seems to be false. It is a familiar result of typology that there are no languages (that we know of) that have an ergative agreement system but an accusative system of overt case on NPs (Bobaljik, 2008, Comrie, 2005, Dixon, 1994: 95-96, Siewierska, 2005). For example, there is no known language like the hypothetical one in (42), where transitive and intransitive subjects both show up as nominative, transitive objects show up as accusative, and T agrees with the transitive subject only.

(42)   a. Past run   dogs-Ø   (unattested language type).

        b. Agr+Past see dogs-Ø   fox-ACC

But the morphological parametrization view finds nothing wrong with such a language. In the syntax, this language would be exactly like Coast Tsimshian, with the very same case assignment rules and agreement process that we can see overtly in (38). The only difference would be that morphologically the feature [ERG] on the subject is spelled out as –Ø on 'dogs' in (38b), just as [NOM] is in (38a). But T doesn't know how case will be spelled out when it agrees in the syntax; T is only sensitive to the case feature itself, not to what morphological exponent realizes it. It only knows that the subject is [ERG] in (42b), and that is what it is looking for given (35a).

Therefore, the agreement should happen in (42b) but not in (42a). The morphological view thus overgenerates in this respect.

In contrast, the view in which the rule in (33a) that assigns ergative case in syntax is itself parametrized, so that it applies in some languages but not others, can contribute heavily to an explanation of this typological gap. If no sort of nominal in the language shows a special inflection as the subject of a transitive verb, then children learning the language do not activate the ergative rule (33a) in their internalized grammar of the language. Therefore, the subjects in (42a) and (42b) have the same case, unmarked nominative by (33c). Therefore a functional head that agrees with NP in a case-sensitive manner cannot distinguish them: it must agree with both or neither. I conclude that the syntactic parameterization of case assignment is supported by this consideration.

A somewhat different consideration that points to this same conclusion comes from a garden-variety language in which some T-like functional head shows case-sensitive agreement with both transitive and intransitive subjects—a language like Tamil, as shown in (36). It is easy to account for this pattern if (33a) is not present in these languages, as just discussed in connection with (42). But it is not so easy to explain it if the case alignment parameters are purely morphological. Then we need to posit something like (43) for Tamil.

(43)   F agrees with NP only if NP is ERG *or* NOM (but not ACC, DAT, etc.).

But (43) is an intrinsically disjunctive statement, and as such it is theoretically unattractive. It implies that languages can put not only simple case conditions on agreement, but also conditions that are Boolean combinations of simple conditions. This is a large increase in complexity and descriptive power. It is not clear that linguistic theory should allow this, except perhaps as a last resort. At the very least, we might expect languages in which verbs agree with both transitive and intransitive subjects to be rarer than the putatively simpler sorts where verbs agree only with intransitive subjects (underlying nominatives), or only with transitive ones (underlying ergatives). But of course the opposite is true: nothing is more common than ordinary subject agreement, whereas agreement with only transitive subjects is notably rare. Once again, the visible alignment pattern of a language seems to matter for its agreement in a way that mere morphological exponents do not.[14]

The two problems identified so far come together in a rather nasty way for languages in which a functional head F agrees only with absolutive NPs. We have seen that this happens in certain Caucasian langauges like Ingush, among others (see (6)). On the morphological view being contemplated, this requires another disjunctive statement, along the lines of (44). This is a problem in itself, parallel to the conceptual problem with (43).

(44)   F agrees with NP only if NP is ACC *or* NOM (but not ERG, DAT, etc.).

Moreover, if the morphological theory allows (44), then it should allow the same statement for languages that spell out accusative but not ergative as an overt affix on NPs, like Sakha. This would give the visible case and agreement pattern shown in (45).

(45)   a. <u>Agr</u>+Past run   <u>dogs-Ø</u>   (unattested language type).

        b. <u>Agr</u>+Past see dogs-Ø <u>fox-ACC</u>

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Indeed, this should be just as possible as having an absolute pattern of agreement in languages that spell out ergative on NPs but not accusative, like Ingush. But no language like (45) is known. This sort of language would also go against the robust typological generalization that no language has an ergative agreement system but an accusative case system. So the possibility of absolutively-aligned agreement in ergative languages only is doubly problematic for the view that case-alignment variation is purely morphological.

It is worth noting that the opposite kind of mismatch between case alignment and agreement alignment is not as instructive here. This would be a language in which some functional head such as T agrees in nominative-accusative fashion, whereas the case marking on NPs is ergative, with the result that T agrees with both ergative and nominative/absolutive subjects. Unlike the situations in (42) and (45), this mismatch is well-attested: in fact, we have already seen it in Burushaski, in (7) above. It also exists in Kewa, Wardaman, and others. But crucially this mismatch does not show that agreement can be sensitive to a disjunction of case features such as ergative and nominative. Rather, it shows that agreement can be insensitive to case values—that not all agreement is case sensitive in the ways outlined in (35). In a language in which T is not sensitive to case, T simply agrees with the closest NP regardless of its (structural) case. Therefore nominative-accusative agreement patterns are intrinsically less revealing for the issue under study than ergative-absolutive ones are, because the nominative-accusative pattern can arise directly from the syntactic configuration, without regard to case.

5.3 Applying the test in VPs: further evidence against strict case uniformity

This line of argument pursued in the previous subsection can be expanded further if we take into account the special structural cases assigned inside VP in some languages. In section 4.3, I reviewed the idea that some languages have a structural dative case, analyzable as a dependent case assigned to the higher of two NPs in a VP domain. Sakha and Tamil are accusative languages with this sort of dative case; Ingush is a possible ergative language with it.[15] If we are really serious about the Uniformity Hypothesis, then all languages should have this kind of dative too—at least all languages that allow two NPs inside VP, not just NP and PP. (For the possibility that some languages do not allow two NPs inside VP, making dependent case inside VP moot, see Baker (in press).) Similarly, we saw that so-called oblique case in Chamorro is dependent case assigned to the lower of two NPs in a VP domain. Then the ruthless the logic of uniformity might imply that this case too is present in the case system of all languages. In for a penny, in for a pound! It is true that this sort of case is seen overtly in the morphology of very few languages of the world, but children learning a language know nothing about such frequencies; they only know what grammatical tools made available by UG principles, and a low dependent case assigned inside VP is one of those tools.

These additional consequences of the Uniformity Hypothesis for case-marking might or might not strain one's intuitions about whether the hypothesis is conceptually attractive or not, but beyond that, they put further stress on the relationship between case sensitive agreement and case distinctions. To set the stage for this, let us first survey what is known to exist in the domain of functional heads agreeing with internal arguments in double object constructions, as compared to single object constructions.

One well-attested scenario is that the v can agree with the higher dative NP if there is one; otherwise it agrees with the theme. This is found in Burushaski as seen in (20a) and (7b). It

is also found in Amharic and Cuzco Quechua. It seems to be one of the most common types (cf. Dryer 1986: 841-842), and can be analyzed by saying that v agrees with the closest NP regardless of case.

Another attested scenario is v skipping a dative if there is one, in order to always agree with the accusative object. That seems to be what happens in Mangarrayi, as in the examples in (40). This is the result of case-sensitive agreement, with v looking for a target in accusative case, as discussed above.

Yet another attested case-sensitive possibility is T (or other head) skipping both an ergative subject and a dative goal in order to agree with an absolutive object. This happens in Ingush. (6a) already showed the verb agreeing with the intransitive subject, (6b) showed the verb agreeing with the transitive subject, and (46) shows the verb agreeing with the second object (here a nominalized clause) past a goal object in dative (or allative) case (Nichols, 2011: 276).

(46) Cu   hwaai   daaz   fy   d-ea xanna-d d-uuca-d-alara wa   txuona.
      DEM 2s.GEN father.ERG what D.do NARP.D D-tell-D-OPT1 2s.ERG 1p.DAT
      'Why don't you tell us what your father would have done.'

Logically speaking, another possibility is a functional head that agrees only with NPs that have dative case. Not too much is known about this possibility, but agreement with dative arguments in Basque is a potential case.[16] If so, then roughly the space of possibilities we expect are attested, where agreement may (or may not) be sensitive to morphologically overt case values inside the VP.

But on the view that holds to strong syntactic uniformity and purely morphological parameters, other dubious-looking possibilities are opened up. For example, one could imagine a language in which v skips over a goal that is not marked differently from the theme—both are marked accusative in an accusative system or absolutive in an ergative system. These possibilities are sketched in (47) and (48)

(47) a. I-ERG=Ø   (1sS)-AGR-see   children-ACC=X   (Acc language, no distinct Dative)
      b. I-ERG=Ø   (1sS)-AGR-give   children-DAT=X   toy-ACC=X

(48) a. I-ERG=Y   (1sS)-AGR-see   children-ACC= Ø (ERG language, no distinct Dative)
      b. I-ERG=Y   (1sS)-AGR-give   children-DAT=Ø   toy-ACC=Ø

I do not know that either of these patterns ever happens in natural human languages. (The thought that they do not is compatible with Dryer's (1986: 841-842)observation that agreement is more likely to go with "primary objects" than with direct objects—hence not likely to go to the direct object rather than the indirect object unless they are distinguished by overt case.) If not, then the view with purely morphological parameters again overgenerates.

Just as bad, the analysis of relatively normal case-and-agreement systems like Mangarrayi and Ingush becomes more problematic on the syntactically uniform view. If we assume that Chamorro-like oblique case is universal in syntax, one must say that the functional head associated with object agreement in Mangarrayi (tentatively v) is sensitive to a disjunction of cases: it can agree with an NP that is accusative or oblique, but not dative. Similarly, the head that bears number-gender agreement in Ingush (T??) must agree with an NP if it is nominative or accusative or oblique, but not if it is ergative or dative. The fact that the very three cases that

are singled out by the agreement rule in Ingush happen also to be spelled out the same at PF is strictly speaking a coincidence on this view. And that seems to be perversely missing something important.

In addition, we would expect some other patterns to be as common or more common than the ones attested in Mangarrayi and Ingush on the syntactically uniform view. For example, we could expect to see a language in which verbs agree with the single object in monotransitive clauses, but they do not agree with either internal argument in ditransitive clauses. This would be the expected result if a v-like functional head was set to agree with accusative nominals, but not with dative nominals or oblique nominals, given that neither object in a ditransitive is truly accusative in the syntax according to the strictest uniform view. I don't know that this ever happens in languages of the world either.

One last possibility to consider is that a functional head F might agree with NP only if NP bears Chamorro-style oblique case—i.e. it would agree only with the theme object of a ditransitive construction. This is an unlikely looking situation, probably unattested in the languages of the world. Neither the syntactic parameterization view nor the syntactic uniformity/morphological parameterization view has a complete explanation of this gap, if it is one. But the fact that this never happens is arguably more problematic for the morphological view than for the syntactic view. The syntactic parameterization view can say that the dependent case rule that assigns structural oblique case in (32b) is used in very few languages (for whatever reason). Moreover, relatively few languages have functional heads that are keyed to one particular VP-internal case (note that the Basque possibility of agreeing with datives is also not that common). Given this, it would not be too surprising if none of the 7000-odd languages that we know about happen to have this combination of rare features. The situation looks a bit different from the point of view of morphological parameters, because on that view every language assigns structural oblique case in the syntax, even though few have a distinctive affix to realize it. On that view, it is more surprising that none of those languages has agreement that is keyed to that type of case. So syntactic parameterization is in a somewhat more comfortable position than morphological parameterization on this issue as well.

Now looking over all the scenarios entertained in the last too subsections, they all seem to point the same way. In each case, we get a better fit between theoretical expectations and typological patterns if we assume that languages use different case assigning rules in the syntax, and agreement is sensitive to the results of those rules, not to universal but covert case distinctions. I conclude that the phenomenon of case-sensitive agreement shows us that there is a small scale syntactic difference between ergative languages and accusative languages, and between languages that have structural dative case and languages that do not, not just a morphological difference.[17] Languages do in fact vary in what case assignment rules they include, as well as in their case realization rules. Learnability considerations then suggest that children's default assumption is that the case rules in (33) do not exist in their language unless they get direct overt evidence that they do, from the distribution of morphologically marked NPs.[18] Therefore, I assume that this syntactic parameterization is widespread, not just in languages which also have case-sensitive agreement. There are syntactic parameters, as well as morphological and lexical differences.

More precisely, what we have here is an argument that a certain kind of agreement happens after the assignment of case features (which it is sensitive to), and before the selection

of allomorphs that realize those case features (which it is not sensitive to). This ordering is given in (49)

(49)   Case assignment ((33)) – Case-sensitive agreement ((35)) – selection of case allomorphs

Thus, case sensitive agreement shows that case assignment is a distinct process from allomorph selection, and that languages vary in case assignment. It dose not strictly speaking prove that case assignment is syntactic—although that seems like a simple and natural way to understand the distinction. The alternative would be to say that everything that happens in (49) happens at PF, not in the narrow syntax, but PF is highly structured and preserves much syntactic information. This is the view of Marantz (1991) and Bobaljik (2008), for example. One can then stick to the view that all variation in case alignment is at PF, if this is what one means by PF. I would say that this is equivalent to saying that (early) PF is a level of syntactic representation—but then the matter is arguably a terminological one. The most important issue concerning parameters is to understand something about the nature and granularity of patterned crosslinguistic variation, and hopefully we have made progress on that, whatever we choose to call it.

6. General conclusion

My overall conclusion, then, is that languages make use of different versions of the rule schema in (50).

(50)   If X is in c-command relation R to Y in domain Z, then assign case A to X.

This schema admits for some parameterization, in that both the c-command relationship R (c-commands, is c-commanded by) and the domain Z (complement of C, complement of v, complement of D) can vary.[19] This parameterization is best thought of as syntactic, as opposed to lexical or morphological, given the sort of variation that we see and do not see, both within and across languages. However, it is quite small scale variation, both in that different languages from the same dialect group potentially using different parametric values, and in that which version is used has only minor repercussions for other matters of syntax—perhaps only certain kinds of agreement are affected. Therefore, we have a class of syntactic microparameters, a type of parameter not much discussed in the literature to date, which has focused on lexical microparameters and with perhaps a smattering of syntactic macroparameters.

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Notes

[1] Abbreviations used in the glosses include: ABS, absolutive; ACC, accusative; AOR, aorist; ASP, aspect; AUX, auxiliary; COP, copula; DAT, dative; DEM, demonstrative; DIR, direct case; ERG, ergative; F, feminine; FOC, focus; FUT, future; GEN, genitive; IMPF, imperfective; INDEF, indefinite; INF, infinitive; INTR, intransitive; LK, linker; M, masculine; N, neuter; NEG, negative; NOM, nominative; OBL, oblique; OPT, optative; PAST, past; PL, plural; PN, proper noun; POSS, possessive; PRES, present; PREV, preverb; PRF, perfective; PROG, progressive; PRT, participle; PTPL, participle; Q, question particle; RECIP, reciprocal; SG, singular; TR, transitive; UNM, unmarked case. B and D are two noun classes (number-gender combinations) that are relevant for agreement in Ingush. Agreement markers are glosses with (up to) a triple consisting of a number indicating person (1, 2, 3), a lower case letter indicating number (s, p, d) or gender (m, f, n), and an upper case letter indicating the grammatical function of the agreed-with NP (S, O, E(rgative)). Some glosses have been simplified slightly from the original for presentational purposes.

[2] Active alignment is often given as a fifth alignment type, but in fact this alignment is only well-attested in head-marking (agreement) systems, not in dependent marking (case) systems. See Baker and Bobaljik (in preparation) for documentation and discussion of the theoretical implications of this. Other alignment types are the marked marked nominative type (unusual), and perhaps the marked absolutive type (extremely rare), if those are in fact different from normal accusative and ergative types in syntax as well as in morphology, as I argue in Baker (2015: ch. 3). This distinction is controversial, however, so I suppress it here.

[3] It is far from clear that the agreeing head in Ingush is actually T—indeed, it probably is not—but the exact identity of the functional (or lexical) head in question is not particularly important here.

[4] However, I know of no language in which roughly 50% of transitive subjects have ergative (or dative) case and 50% do not. It would seem that this important gap undermines a serious continuity hypothesis.

[5] We also expect to find accusative languages that have structures like (13b), where the accusative case rule in (4a) does not apply, resulting in a double nominative construction. Korean is such a language, according to Baker (2015).

[6] Importantly, it is not true that one uses *a-ti* if and only if the antecedent verb has an ergative subject. That alternative generalization is valid for the data reviewed here, but it fails for applicatives formed from unaccusative verbs in Shipibo. Such verbs have one absolutive argument (the affectee) and one ergative argument (the theme), but the dummy verb used is *i-ti*, not *ati* (see Baker 2014: ex (57) and discussion). That is why this is a test for syntactic/argument structure, independent of surface case marking.

[7] Here I abstract away from differential object marking, as found in some Iranian languages, and the possibility of A-bar movement to the left periphery affecting case marking. These phenomena do create additional case patterns in some Iranian languages, but these facts are independent of tense-aspect and split ergativity.

[8] This explanation raises the question of how ergative case is assigned in uniformly ergative languages like Shipibo, where v is not defective, and object shift of the object out of NP is not required for ergative case to happen. To account for this, Baker (2015) argues that transitive v counts as a "hard-phase" head in some languages and as a "soft phase" head in other languages. This in fact may be the most important parameter revealed by case theory, and it is a somewhat mysterious one. However, it raises no special issues for the Borer-Chomsky Conjecture. See Baker (2015) for discussion.

[9] The case on the object in Kurmanji has a different explanation, according to Atlamaz and Baker (in preparation). For this, we make use of the idea that functional heads can assign case under agreement in

some languages. Standard Kurmanji allows multiple Agree, so T can agree with the object as well as the subject as long as there is no phase boundary—in past clauses, but not in present clauses. When T does agree the object, it assigns it direct case. In contrast, T in Muş Kurmanji can only agree once, so it agrees only with the subject of any clause, regardless of phase boundaries. As a result, the object always gets oblique case by default in Muş Kurmanji. Alternative schemes are probably available, though, for theorists who are determined to avoid and structural case assigned under agreement.

[10] As in IE languages, Sakha has a small number of monotransitive verbs like 'help' that lexically select for a dative complements. These quirky datives can be analyzed as PPs, not NPs with structural dative case, along the same lines as (12a) in Burushaski.

[11] In principle, one could have a similar low dependent case rule that is keyed to D. However, I have argued that DP structures never have a specifier and a complement in the same spell out domain, for reasons related to the fundamental categorical difference between verbs and nouns (see Baker 2003). Therefore, a low dependent case rule would never get a chance to apply in DPs.

[12] For completeness, I mention that even unmarked/default case can vary across functionally defined domains, in my view. For example, the default case in complements of C is nominative/absolutive, but the default case in complements of v is partitive in Finnish, and the default case in complements of D is genitive in Japanese, where more than one genitive phrase is possible in a single nominal (see also Marantz 1991).

[13] In contrast, Marantz (1991) and Bobaljik (2008) say that dependent case assignment happens in PF, but their notion of (the early stages of) PF is clearly "syntactic" in this sense. The question of whether case assignment happens in the syntax or not may thus be partially terminological. There are, however, crucial issues about how case assignment interacts with syntactic movement to consider as well; see Legate (2008), Preminger (2014), and Baker (2015) for discussion.

[14] One conceivable way to fix this theoretical deficiency would be to propose a featural decomposition of the cases, such that ergative and nominative share an important feature in common, which makes them a natural class, distinct from accusative. Then the agreement rule could be sensitive to that subfeature. Whether this would be viable depends of course on the details of the feature system, and what independent theoretical and empirical motivaton there might be for it. Nominative and ergative are not a natural class within the feature system mentioned at certain points in Baker (2015), for example, and nominative and accusative would also have to count as a natural class, for Ingush.

[15] It is, however, not entirely clear whether the structural case inside VPs in Ingush is the one called dative, or the one called allative. Both those cases are found on goals of simple ditransitive verbs, and it is allative case that is used on the causee in a morphological causative based on a transitive verb root (Nichols 2011).

[16] See Preminger (2009) for an argument that so-called dative agreement in Basque is really an instance of clitic doubling. However, dative agreement passes Baker and Kramer's (in progress) test for true agreement, in that it is apparently possible with nonreferential dative arguments. More research on this issue is needed.

[17] Further complications for a strong universalist claim arise if the other forms of nominative case argued for in Baker (2015) are accepted into the theory: marked nominative case, which is assigned to NP if and only if it is not c-commanded by any other NP in clause, and nominative case assigned under agreement with a T-like functional head.

Marked nominative case would have to be analyzed as the same as ordinary nominative case, but with a kind of markedness reversal in the morphology, such that the default case in syntax (nominative) gets the marked vocabulary item at PF. The problems with this are subtle, but there are some, as discussed in Baker (2015: section 3.3). (For example, ordinary nominative case is also used on predicate nominals, but marked nominative is not.)

The strong uniformity view would also probably have to deny the possibility of nominative case being assigned by T in any language (as Bobaljik 2008 and Levin and Preminger 2015 do), since strictly speaking (33) leaves no room for this. My fullest argument to date that nominative case is assigned by

agreement in some languages is from Sakha in Baker and Vinokurova (2010), and reprised in Baker (2015). See Levin and Preminger (2015) for an alternative that avoids this, but makes some other crucial assumptions that I find in no way preferable to my analysis with Vinokurova.

[18] A very interesting issue that arises for this framework, then, is how to explain the existence of languages that have an ergative agreement pattern but no overt case marking on NPs at all. Such languages are not particularly common, but they do exist. *The World Atlas of Language Structures* lists five such languages out of a pool of 190: Abkhaz, Canela-Kraho, Carib, Chamorro, and Jakaltek. Given the line of thought in the text, one cannot explain these languages by saying that functional heads agree with NPs based on a covert distinction between ergative and absolutive case that is not spelled out at PF. So alternatives would have to be found. Having looked into Abkhaz/Abaza some, I think it is likely that what are sometimes taken to be agreement morphemes in those languages are really cliticized pronouns, which have undergone dependent case marking prior to cliticization. However, it is far from clear that this proposal extends to the various Mayan languages. Chung (1998) has studied the Chamorro situation in detail. She shows on the basis of certain restrictions on what subjects and objects can co-occur in finite clauses that verbal agreement in this language targets all subjects and direct objects, even though this agreement is only partially realized morphologically.

[19] In Baker (2015: ch. 5), I also argue that there is some parametric variation in what counts as a case competitor Y in the schema in (50). NPs always count, radically non-nominal categories like VP, AP, PP never do, but there is variation when it comes to oblique NPs, clauses with some nominal features, and empty categories which may lack some nominal features. This variation may not raise any distinctive issues with respect to the theory of parameters, however.