Types of Crosslinguistic Variation in Case Assignment

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In this work, I do not address directly issues about what range of hypotheses concerning crosslinguistic variation are or aren't Minimalist, or questions about micro- vs. macro-parameters, or clarifying the role of the lexicon versus syntactic principles in crosslinguistic variation, or so on. It is not because I'm above talking about such things or don't have opinions about them. That is simply not what I want to focus on here. Rather I want to offer something more along the lines of addressing what Cedric Boeckx calls Greenburg's problem. I agree with him that Greenburg's problem is quite distinct from Plato's problem, but I think that it's also interesting, and we should be trying to come up with solutions for it—although not perhaps in exactly the way Greenburg might have foreseen.

In particular, I'll focus here on a specific issue in syntactic variation, namely the theory of morphological case, especially overt structural case. I imagine that if there is such a thing as abstract Case (i.e. NP licensing) that that is systematically related, but that topic is not my focus here. In presenting this research, I also want to illustrate a style of relating to the material that I want to recommend, what I've been calling Formal Generative Typology (Baker, 2010). This involves committing to two kinds of ideas which I think are both attractive. The first is the generativist vision of accepting a degree of abstractness in our descriptions of languages, and looking at how insight into empirical details can emerge from proper formalization of the patterns. The second is the idea of Greenbergian typology, that it can be valuable to compare radically different cross-linguistic systems. I'll try to combine these two threads within case theory, to see what kinds of things might be out there, and to pose in a preliminary way the question of what might be the most interesting things to say about the variations that we find. Once that has been done, we can speculate about whether the results are truly Minimalist or not.

This work breaks down into two large parts. In the first (sections 1 and 2), I review two recent studies of mine that have bearing on how you might think about cross-linguistic variation in morphological case. In the second part (sections 3-6), I give some first thoughts about what might emerge of we use those studies as wedges into the more general issue of cross-linguistic variation in this area. The second part will be somewhat preliminary, but hopefully we will feel like we have learned something by approaching the topic in this way by the end.

1. Implications of a typology of agreement for case assignment

The first seed of a new approach to case comes from my formal generative typology of agreement systems in Baker (2008). It emerged as a result of this study that languages differ significantly in the relationship between agreement and case. In Chomsky's (2000, 2001) vision, agreement and case are two sides of the same coin. And indeed, there is a tight relationship between subject agreement and nominative case in Indo-European (IE) languages, where the two track each other quite closely. It is reasonable, then, to

conclude that these are two morphological realizations of a single abstract agreement relationship (Agree). But one result of my study was that this is true for a large class of languages, but it is parameterized in some sense; it is a point of cross-linguistic variation. Indeed, I argued that it was a macroparameter: it is variation in the syntactic operation of Agree, and not in the feature content of individual functional heads involved in agreement.

The kind of data that first led me to think along these lines involved differences between Niger-Congo languages and IE languages. Languages from both families have subject agreement. So, you can say something like "the women chopped wood with an ax" and the finite verb "chop" agrees with the subject "women" in both a Bantu language like Kinande (see (1)) and an IE language like Catalan.[1]

(1) <u>Abakali</u>   mo-b<u>a</u>-seny-ire   olukwi   (lw'-omo-mbasa).
     women.2   AFF-2S/T-chop-EXT wood.11   LK11-LOC.18-axe.9
     'The woman chopped wood (with an axe).'   (Kinande)

However, if you look more closely you find that there are two senses of the term "subject" in play here. In one set of languages, the crucial notion of subject is Spec,TP. That seems to be what the finite verb agrees with in most Bantu languages. In contrast, in IE languages what we call subject agreement is really agreement with the thematic subject, maybe, or (better) the NP that gets the nominative case. One is a case-oriented principle, the other is a position-oriented principle. You can see the difference when you consider inversion constructions, like those in 2 and 3.

(2) <u>Oko-mesa</u>   <u>kw</u>-a-hir-aw-a   ehilanga.   (Locative Inversion)
     LOC.17-table 17S-T-put-PASS-FV peanuts.19   (Kinande)
     'On the table <u>were</u> put <u>peanuts</u>.'

(3) a. <u>Olukwi</u>   si-<u>lu</u>-li-seny-a   bakali   (omo-mbasa). (Kinande)
         wood.11   NEG-11S-PRES-chop-FV women.2 LOC.18-axe.9
         'WOMEN do not chop wood (with an axe).'   (Object fronting)

     b. (I believe that) no good things <u>does</u>/*do he withhold from those who walk…

2 is a locative inversion sentence. Here you didn't put the highest argument, or the thing with nominative case, in the Spec,TP position, so the two senses of subject come apart. In

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English and in most other IE languages, the verb agrees with "peanuts" in the inversion sentence. "Peanuts" is in nominative case, it's arguably the highest argument, and that's what you agree with. In contrast, in the Bantu languages the verb agrees with the fronted element "on the table" (see also Bresnan and Kanerva 1989). You also see something similar in languages which allow you to move the object to Spec,TP position. This is less common in both language families, but it happens in some. In Kinande, you can put the thematic object "wood" in the Spec,TP position to get 3a. Now the finite verb in Kinande agrees with "wood", not with "women". There are arguably some IE languages where a similar kind of object fronting happens, such as Yiddish and Icelandic, as well as negative inversion in English. The exact details of these fronting processes may not be identical in the various languages. But the crucial thing is that in any such inversion structures in IE the verb still agrees with the nominative subject, as in 3b: "No good things" is plural, but "does" is singular, matching the postverbal NP "he" instead. So there's a different agreement pattern in IE as opposed to Bantu. This led me to propose 4 as a statement of the relevant parameter:

(4)   *The Case Dependence of Agreement Parameter (CDAP):* (Baker 2008)
          F agrees with DP/NP only if F values the Case feature of DP/NP (or vice versa).
             (No: most Niger Congo languages; Yes: most IE languages)

Saying that a functional head F agrees with a noun phrase only if F values the case feature of that noun phrase is a statement that comes out of the Chomsky Agree theory. I concur that it's a property of grammar, but it's a parameterized property, not a universal one; it holds of some linguistic systems and not others.

      I went on to claim that the CDAP in 4 is a macroparameter. First of all, it seems to hold of all functional heads in the relevant languages, not just one particular functional head (see Baker 2008:ch. 5).[2] Second, it has other kinds of grammatical consequences that you might not have noticed at first. Another consequence concerns how agreement happens in constructions consisting of a main verb together with one or more auxiliary verbs. Here too there is difference between Niger-Congo languages and IE languages, shown in 5 versus 6.

(5)   a.   Abakali   ***ba***-bya   ***ba***-ka-gul-a   amatunda.   (Kinande)
              women.2   2S-were   2S-PTPL-buy-FV fruits.6
              'The women were buying fruits.'

       b.   ***Tú***-lwé   ***tú***-ká-ly-a.

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[2] Luigi Rizzi points out that person agreement in Italian is related to (nominative) case assignment, but number-gender agreement on adjectives or participles is not. He suggests then that the CDAP might have different values for different heads in the same language. In Baker 2008, I argued for a different interpretation: I claimed that agreement is always contingent on there being a case relationship in IE languages, but the necessary case relationship can be one of case concord as well as one of case assignment. Indeed, in richly-inflected Icelandic it is clear that adjectives which agree with an NP in case also agree with it in number and gender, whereas adjectives that cannot agree with an NP in case (because that NP has quirky case) do not agree with it in number and gender either. This is my reason for including the phrase "or vice versa" in 4. A fully-developed theory of case concord remain to be worked out, however.

1pS-leave 1pS-PTPL-eat-FV
'We were eating.'

(6) a. *John is comes.   (English)

    b. <u>Nosotros</u> est<u>amos</u> <u>leyendo</u> el libro.   (*leyendemos)   (Spanish)
       we   are(1pP) reading the book   (reading-1pS)

Bantu languages often allow multiple full agreement in these constructions. For example, in 5a you have the same number-gender agreement *ba-* on both "were" and "buy". This extends even to person agreement, as shown in 5b, where the first person plural prefix *tu-* appears on both verbs. You don't find this kind of full multiple agreement in IE, as shown in 6. Typically in IE you have agreement on the auxiliary, but not the main verb. Depending on the language, you might also have a reduced adjectival-like agreement on the main verb under some circumstances, but not full person agreement. I claimed that this was another effect of the CDAP. Suppose that the CDAP is set "yes". Then the fact that you can't have multiple agreement with the same NP follows from the fact that you can't have multiple case marking of that NP. Imagine that the first head agrees with the NP. That presupposes that it assigned case to that NP. An NP can only be case-marked once (I assume). Then if another head tries to agree with the NP, it can't because the NP has already been case-marked. Therefore multiple agreement with the same argument can't arise. However, that follows crucially because we assumed that there's a relationship between case-marking and agreement. If there is no such relationship, as in Bantu languages, then the conclusion doesn't hold and nothing rules out agreeing with the same NP more than once. That's the source of the difference between 5 and 6, I claim.

      Any claims about case in Bantu languages are a bit abstract because case is not morphologically realized in these languages. I assumed above that that the fronted object in 3a is accusative, but that could be debated. Fortunately, you see the same parametric difference in languages that have overt case marking. In this domain too you find two classes of languages: languages where morphological case marking is closely correlated with the agreement and languages where it isn't. Hindi is a language in which there is a close connection, given familiar examples like those in 7 (Mohanan, 1995:83).

(7) a. <u>Anil</u>   kitaabẽ   bece<u>gaa</u>
      Anil.M(NOM)   book-F.PL   sell-FUT.M.SG
      'Anil will sell (the) books.'

    b. Anil-ne   <u>kitaabẽ</u>   bec<u>ĩĩ</u>
      Anil-ERG book-F.PL   sell-PERF-F.PL
      'Anil sold (the) books.'

    c. Anil-ne   kitaabō-ko   becaa
      Anil-ERG book-F.PL-ACC   sell-PERF-M.SG
      'Anil sold the books.'

Hindi is a split ergative language. In 7a the subject is in nominative case, but in 7b, in a different different-aspect, the subject is in ergative case. This difference impacts the agreement. When the subject is in nominative case, as in 7a, the verb agrees with the subject. When the subject is in ergative case in 7b, the verb doesn't agree with it; rather it agrees with a nominative case object. In 7c where neither the subject nor the object is nominative, then the verb has to be a default third person form. Case and agreement are closely interrelated here. But there are also languages like Burushaski, a language spoken in the Himalayas, where you find just the opposite (data from Lormer 1935). Burushaski has case marking similar to Hindi, but the T of the finite verb mindlessly agrees with the subject, regardless of its case. 8a has a nominative case subject, and the verbs agree with it. 8b has an ergative case subject and the verbs still agree with it. There's no relevant morphological difference on the verbs.

(8) a. J̲ɛ̲   u:n̪ɛ   xidmʌt   ɛč-a̲   b-a̲.
         I.NOM   your   service   do-1sS(IMPF) be-1sS
         '(For these many years) I have been at your service.'

     b. J̲a̲   be.ʌdʌpi.ɛn ɛt-a̲   b-a̲.
         I.ERG   discourtesy do-1sS(PERF) be-1sS
         'I have committed a discourtesy.'

Something very similar is true of object agreement as well. According to standard Chomskyan theory, object agreement should be related to accusative case assignment. 9a shows object agreement on the verb with the object "you" in absolute case. 9b shows that you have the same morpheme "gu" agreeing with an object bearing a dative case.

(9) a. (U̲:n̪̲)   g̲u̲-yɛtsʌ-m.
         you.ABS   2sO-see-1sS
         'I saw you.'

     b. U̲:n̪̲-ər   hik   trʌn̪   g̲u̲-čičʌ-m.
         you-DAT   one   half   2sS-give-1sS
         'I shall give a half to you.'

Hindi then is a CDAP=yes language, Burushaski a CDAP=no language. Notice also that the Burushaski examples in 8 have multiple person agreement: the main verb "do" is first person singular, and the auxiliary verb "be" is also first person singular, both agreeing with the subject. In this respect also Burushaski is like Kinande, whereas Hindi is like other IE languages.

When I did this research, I was studying agreement, not case. Nevertheless, we can follow up by asking what this parameterization in the relationship between agreement and case tells us about case. What are the sources of case marking across languages? Having the CDAP set "yes" implies that case is coming from the agreement-bearing functional categories. But about languages like Burushaski or Kinande where case is not related to agreement? Does case come from some different kind of source in such

languages? Does my agreement parameter imply that case theory is also more parameterized than we have realized?

2. Modalities of case assignment in Sakha (Turkic)

With these questions in mind, I next review the highlights of a language-particular study that I did with Nadya Vinokurova on case assignment in Sakha, a Turkic language spoken in Siberia (Baker and Vinokurova, 2010). The hope here is that if you take knowledge about how case assignment works in one language and combine it with a picture of how agreement works across languages, you might be able to project this into some new ideas about how case works across languages. In particular, I'm going to compare nominative case in Sakha to accusative case in the same language. I'll show that nominative case is related to agreement on T in the familiar way. But accusative case is not related to agreement with a functional head. Instead I claim that the rules for accusative case assignment are quite different in nature from the rules of nominative assignment.

Consider first nominative case and its relationship to agreement. I claim that Sakha is a CDAP=yes language, like IE, so this part looks familiar. More specifically, the two heads that agree overtly in Sakha, finite T and possessive D, both respect the CDAP. I only discuss finite T here, in the interest of space. Examples 10 and 11 show that finite verbs in this language cannot agree with an NP that has case other than nominative. 10 is a minimal pair from the passive construction (Vinokurova, 2005:336):

(10) a. Sonun-nar aaq-ylyn-ny-lar.
      new-PL   read-PASS-PAST-3pS
      'The news was read.'

    b. Sonun-nar-y   aaq-ylyn-na.   (*aaq-ylyn-ny-lar)
      new-PL-ACC   read-PASS-PAST.3sS   read-PASS-PAST-3pS
      'The news was read.'

In the Sakha passive, the theme argument can be nominative, as in 10a. But it can also be accusative, as it is in 10b. (I return to this below.) Note that the agreement on the verb is also different in the two examples: in 10a, it agrees with "news"; in 10b it does not, but has to be a default, third person singular form. Example 11 adds data from a dative subject construction. This shows that you can't have plural agreement with a dative subject—just as you cannot in Icelandic, for example.

(11) Oqo-lor-go   üüt   naada-(*lar).
     child-PL-DAT milk need-(*3pS)
     'The children need milk.'

So we see that in Sakha the finite verb agrees with nominative NPs, but not NPs with any other kind of case, like Hindi but unlike Burushaski. Sakha is a language with case-sensitive agreement.

Example 12 shows another consequence of this parameter setting, involving agreement in auxiliary verb constructions. If we are right to treat Sakha as a CDAP=yes language, then we expect that there should not be multiple agreement with the subject in such constructions. 12 shows that that's correct. More specifically, 12a shows that you can put person agreement on the auxiliary verb. 12b shows that you can put person agreement on the main verb instead—an option that IE doesn't allow. But 12c shows that, unlike Kinande or Burushaski, you can't have agreement on both verbs. So the cluster of properties associated with the "yes" setting of the CDAP is holding together nicely.

(12)   a. En   süüj-büt   e-bik-**kin**
            you win-PTPL   AUX-PTPL-2sS
            '(The result is that) you won.'

        b. En   süüj-bük-**kün**   e-bit
            you win-PTPL-2sS AUX-PTPL

        c. *En süüj-bük-**kün**   e-bik-**kin**
            you win-PTPL-2sS AUX-PTPL-2sS

Based on data like this, Baker and Vinokurova (2010) end up with 14 as the rule of nominative case assignment in Sakha. This is just all the fine print from Chomsky's (2000, 2001) theory of Agree brought together in a single statement.

(13)   If a functional head F ∈ {T, D} has unvalued phi-features and an NP X has an unvalued case feature [and certain locality conditions hold], then agreement happens between F and X, resulting in the phi-features of X being assigned to F and the case associated with F (nominative or genitive) being assigned to X.

But now let's shift attention to accusative case. Where does that come from? The standard Minimalist view has been to generalize the story of where nominative case comes from to accusative. We say that there's another functional head, small *v* or something similar, that agrees with an NP in lower down in the structure, the object. That relationship is spelled out as accusative on the object, and as agreement on the functional head. However, this relationship need not be spelled out; maybe the postsyntactic vocabulary insertion happens not to put in forms for this agreement, even though it happened in the syntax in the normal way. But I claim that that's not the right rule for the assignment of accusative case in Sakha. It's not a coincidence that we do not see object agreement overtly here; that's telling us something grammatically significant in this particular language. I argue instead for the formulation in 14, based on Marantz 1991. Marantz introduced the notion of what's called dependent case assignment. His view was that case doesn't necessarily come from a functional head; rather you look at domains, and if you have two NPs in a particular local domain you assign accusative case to the lower one. What's distinctive about this is it's a relationship between two noun phrases,

without the functional heads coming into it per se (except perhaps to help define the domains). 14 is a concrete version of this leading idea.[3]

(14)   If there are two distinct argumental NPs in the same phase such that NP1 c-commands NP2, then value the case feature of NP2 as accusative unless NP1 has already been marked for case.

In defense of 14, I'll briefly go through three bits of evidence in Sakha, all of which support arguments of approximately the same form: whether you have accusative case depends on whether a subject is around and doesn't depend on the nature of the functional heads that are nearby.

First, 15 shows again that in a Sakha passive the theme argument can be nominative or accusative. What is the grammatical difference between the two? There is no morphological difference on the verb that we can see; both verbs bear the same passive suffix. But there is an interpretative difference, pointed out by Vinokurova (2005). There's a sense in which the agent is syntactically present in 15b that it isn't in 15a. This becomes evident if you include adverbs that presuppose an agent—adverbs like "intentionally", or instrumental expressions like "with a hammer". If such elements are included, then the thematic object "the cup" can only be accusative:

(15)   a. Caakky   (*sorujan)   (*ötüje-nen)   aldjat-ylyn-na.
            cup   intentionally   hammer-INSTR break-PASS-PAST.3sS
            'The cup was broken (intentionally) (with a hammer).'

        b. Caakky-ny   sorujan   ötüje-nen   aldjat-ylyn-na.
            cup-ACC   intentionally hammer-INSTR break-PASS-PAST.3sS
            'The cup was broken intentionally with a hammer.'

I assume this means that 15b has some kind of empty category subject in the syntax, and 15a doesn't, and the empty category is involved in licensing these adverbs in some way. Now if 15b has a null subject in the syntax, then there's a second NP in the local domain that triggers accusative case on the theme by the dependent case rule in 14. In contrast, 15a has no independent evidence for a covert agent NP in the syntactic representation. Therefore, there's nothing to trigger dependent case assignment on the theme argument and that argument shows up as nominative in 15a. So there's no detectable difference in the functional categories associated with the verb in these two sentences. There is a detectable difference in whether an agent is present or not, however. And whether the agent is present or not determines whether accusative is assigned or not. That's a success

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[3] Andrea Moro asks whether 14 would apply to predicate nominal constructions, assigning accusative to the predicate NP. That would be wrong for most languages, including Sakha, where the predicate nominal is nominative/unmarked. In fact, though, 14 does not apply if the predicate nominal does not count as "argumental". I included this qualification to prevent null expletive NPs from triggering accusative in examples like 20, and to prevent bare NP adverbs like 'here' and 'now' from being accusative in Sakha, but it could cover this situation too. We will, however, have to be alert to this issue when it comes to crosslinguistic variation, since how "borderline" NPs count for 14 may be a point of variation. (Expletives may trigger accusative on other nominals in Amharic, for example (Amberber 2005), and NP adverbs are marked accusative in ways that suggest 14 in Quechua (Lefebvre and Muysken 1988).)

for the Marantzian view of dependent case assignment, as contrasted with the conventional view that accusative case comes from a particular functional category.[4]

Another structure where you can see this is agentive nominalizations like 16.

(16)   Terilte-ni   salaj-aaccy   kel-le.
       company-ACC   manage-AGNOML come-PAST.3sS
       'The manager of the company came.'

Here we have a deverbal nominal "manager", and its theme argument "company" has accusative case on it. This is clearly different from languages like English, which do not allow an object in accusative case in comparable structures. The question then is: Where does this accusative case come from? Why is it possible in Sakha, but not in familiar Indo-European languages? My claim is that it's the rule of accusative case assignment that is different, not the structure of the agentive nominalizations. So, in these kinds of nominalizations in Sakha, there is no evidence for any verbal functional heads. You can't have any voice marker on the nominalized verb, you can't have any aspect markers, you can't have any negation, and you can't have any adverbs, just as you can't in English. This is shown in part in 17 (see Baker and Vinokurova 2009 for more data).

(17)   a.   (*Ücügejdik)   terilte-ni   (*ücügejdik)   salaj-aaccy   kel-le.
            (*well)   company-ACC   (*well)   manage-NOM come-3sS
            'The one who manages the company well came.'   (no adverb)

       b.   *tal-yll-aaccy   (no voice morphology)
            choose-PASS-AGNOML
            'the one who is chosen, the be-chosen-er'

So there's no sign of any clausal structure in these constructions, except the verb and its complement. That's a real problem if you think accusative case comes by agreement with a clausal functional head; there would be no source for accusative here. That is arguably a good result for English, but a bad one for Sakha. There is however a syntactic expression of the agent in 16, namely the agentive nominalizer itself. So, if you take the dependent case view where it's having two nominal elements in the same domain that's crucial for the assignment of case, then you can generalize that rule to this structure with relatively few difficulties. (The main issue is that one has to define "argumental NP" in 14 in such a way that the nominalizing suffix –*aaccy* counts as one.)

Perhaps the strongest argument for 14 comes from the examples in 18-20. These illustrate an interesting kind of raising to object that you find in Sakha. Like in Turkish (Moore, 1998), but not identical to Turkish, there is a kind of exceptional case marking even with finite clauses in this language. 18a shows a simple embedded clause, and the

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[4] Richard Kayne points out that the difference between 15a and 15b in Sakha might be syntactically analogous to the difference between a true passive and a (reflexive) impersonal construction in Italian, constructions that have distinct morphological marking. If so, the similarity in verbal morphology might be semi-accidental. I accept that this is a possibility, but do not think it would detract much from the point at hand: even if the voice marker is technically different in 15a and 15b, the examples still point toward there being a direct relationship between having a syntactic subject (possibly covert) and having an accusative object.

embedded subject "you" has nominative case, as you would expect. But, if you raise "you" to the edge of this clause, putting it before all the material in the lower clause, then it can be marked accusative, as in 18b.

(18) a. Min   [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. Min [ehigi-ni   [bügün kyaj-yax-xyt   dien]]   ihit-ti-m.
      I   you-ACC today win-FUT-2pS that   hear-PAST-1sS
      'I heard that you will win today.'

This fact by itself doesn't distinguish between the two kinds of case assignment. You can get this result by dependent case assignment, or by case coming from a functional head in the matrix. Indeed, it would be pretty much the same story either way: when you raise the NP up, it comes to be in the domain of the main clause, so it can get accusative case in the matrix clause, either by agreement with the matrix v, or by 14. What's more revealing is the other conditions on this case assignment. Suppose the matrix verb is intransitive rather than transitive, what happens? In 19, the matrix verbs "become sad" and "return" are unaccusative verbs that do not have a transitive *v*. These verbs cannot license accusative case in a simple one-clause sentence. They're the kind of verbs that we would say don't have the functional head that assigns accusative case. But, if you raise the embedded subject from the complement of this sort of verb, it still gets accusative case:

(19) a. Keskil Aisen-y   [*t* kel-be-t   dien] xomoj-do.
      Keskil Aisen-ACC   come-NEG-AOR that   become.sad-PAST.3sS
      Keskil became sad that Aisen is not coming. (p. 366)

     b. Masha   Misha-ny   [*t* yaldj-ya   dien] tönün-ne.
      Masha   Misha-ACC   fall.sick-FUT that   return-PAST.3sS
      'Masha returned (for fear) that Misha would fall sick.'

"Become sad" doesn't have the right kind of functional head to assign accusative, but there is a second NP in the matrix clause domain. When we raise the subject from the embedded clause to the matrix clause, now there are two NPs in the matrix domain. Accusative is assigned to the lower one, according to the rule in 14.

     Further proof comes from comparing an example like 20, where there isn't a second argumental NP in the matrix clause, because the matrix clause contains an impersonal verb "it became certain". 20 shows that if you raise the embedded subject into this kind of matrix clause, it does not get accusative case.

(20) 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.'

The contrast between 19 and 20 shows that whether or not there's a subject in the matrix clause is crucial to accusative case assignment. At the same time, the lack of contrast between 18 and 19 shows that the nature of the matrix verb and the functional categories associated with it is not crucial to whether one gets accusative case in Sakha.

Putting together evidence like this, I conclude that Sakha is a language where accusative case comes from a rule of dependent case assignment, not one where accusative case is a manifestation of an agreement relationship with some dedicated functional category. When you control the structure to eliminate the functional category, accusative case is still there.

This is a very language specific study. But it is typologically significant because it gives us good reason to believe that there's a richer range of different kinds of case assignment available in languages of the world than most of us have thought.

Suppose then that we try to project this forward into a more general theory of how case can vary across languages. Section 1 (from Baker 2008) showed that case comes from functional heads in some languages (CDAP=yes languages) but not others (CDAP=no languages). Section 2 (from Baker and Vinokurova 2010) showed that even in one language (Sakha), there's two kinds of case assignment: case assignment by agreement with a functional head (nominative), and case assignment by dependent case marking—a calculation involving two NPs in the same domain. Maybe then the language-particular study helps us to answer the question of where case comes from in CDAP=no languages like Burushaski, or in languages with little or no sign of agreement on functional heads, like Chinese and Japanese. Maybe it comes from Marantzian dependent case assignment rules. If so, case in agreement-rich languages would come from a partially different source than case in agreement-poor languages. I want to begin considering whether that's true or not.

More specifically, I have begun to do sketches of about twenty five non-IE languages with overt case marking, to see how these matters play out in that sample. I'm going for twenty five languages, not two, in the hope of achieving a fair degree of generality. But I'm going for twenty five languages, not three hundred, so as to be able to apply a touch of generative sophistication in the analysis of each of them. With this sort of methodology in mind, the rest of this work presents some preliminary feasibility studies along these lines.

3. On ergative case marking and its distribution

I start with the observation that's always been a bit tricky to know where ergative case systems fit in with a Chomskian approach to case assignment. So in a morphologically ergative language you have the subject in the SpecTP position (maybe) but that doesn't determine its case. Even if the subject doesn't raise to SpecTP, it is probably the closest NP to T but that doesn't necessarily determine its case either. Thus in Burushaski the subjects is sometimes absolutive (21a,b), sometimes ergative (21c), even though structural tests suggest that it is always in the same position. Sometimes the absolutive NP agrees with T (21a,b), but sometimes it shows object agreement (21c). There's no tight correlation between case and either position or agreement in this language. And

that's a problem for the standard Chomskian approach. There have been plenty of clever suggestions about what to do about this, but some kind of patch seems needed.

(21) a. Acaanák   <u>hilés</u>   i-ír-<u>imi</u>   (Willson, 1996:19)
          suddenly   boy.ABS   3m-die-PAST.MsS
          'Suddenly the boy died.'

      b. <u>Dasín</u>   há-e   le hurúT-<u>umo</u>   (Willson 1996:3)
          girl.ABS   house-OBL   in sit-PAST.FsS
          'The girl sat in the house.'

      c. <u>Hilés-e</u>   *dasin*   *mu*-yeéts-<u>imi</u>.   (Willson 1996:17)
          boy-ERG   girl.ABS   FsO-see-PAST.MsS
          'The boy saw the girl.'

In contrast, it's trivially easy to fit ergative case systems into the dependent case approach. Indeed, part of Marantz's original motivation for this was that you can account for accusative and ergative in the same way. 22a repeats the accusative case rule from 14. Now you get an ergative pattern out of the same rule if you simply say that when you have two NPs in the same phase, you mark the higher one with overt case, rather than the lower one, as in 22b. For Marantz, that's all there is to morphological ergativity.

(22) a. If there are two distinct argumental NPs in the same phase such that NP1 c-commands NP2, then value the case feature of *NP2* as *accusative*.

      b. If there are two distinct argumental NPs in the same phase such that NP1 c-commands NP2, then value the case feature of *NP1* as *ergative*.

Another virtue of the Marantzian approach (not mentioned by Marantz himself) is that it generalizes easily to so-called tripartite systems like Nez Perce, illustrated in 23. 23a has an intransitive verb, and "man" has no explicit case marking. 23b is a transitive, and the subject has ergative case *and* the object has accusative case. So in this language you have a three-way contrast: an NP can be plain (nominative/absolutive) or ergative or accusative.

(23) a. Hi-páay-na   háama.   (Rude, 1986:126)
          3S-arrive-ASP man
          'The man arrived.'

      b. <u>Háama-nm</u>   hi-néec-'wi-ye   wewúkiye-ne.   (Rude 1986:127)
          man-ERG   3S-pO-shoot-ASP   elk-ACC
          'The man shot the elk(pl).'

So we get a simple sort of typology from the Marantz picture, in which you either mark the higher of two NPs in the same domain ergative (Burushaski), or you mark the lower one accusative (Sakha), or you mark both (Nez Perce), or you mark neither (Mohawk,

Swahili, etc.). One might say, then, that languages are parameterized to make use of 22a, or 22b, or both, or neither.

Now, what might this imply if we say that some languages do case assignment by the Chomskian way, and others do it by the Marantzian way? What would that suggest about the distribution of ergativity? We know that ergativity is not evenly distributed across the languages of the world: for example, ergativity is rare in Europe (apart from Basque) but common in New Guinea and Australia. So this suggests the following conjecture: In CDAP=yes languages like most of IE, case is related to agreement. But you can't get ergative patterns out of normal theories of agreement. Therefore, you should not have ergative case marking in languages with that kind of system. In contrast, in languages where you either have no agreement or where agreement is independent of case marking, like Burushaski, then case does not come from agreement. Instead, it comes from Marantzian dependent case rules. And in those kinds of languages you can have ergative and accusative equally well. So the conjecture would be that CDAP=yes languages will always be nominative-accusative (if they have overt case marking at all), whereas CDAP=no languages and languages in which agreement is not active in the syntax will be nominative-accusative half the time and ergative-absolutive half the time.

The table in 24 is my first attempt to test this conjecture. Here I cross my CDAP, taken from Baker 2008, with a simple typology of whether the language is ergative, or accusative or has no case marking at all, taken directly from *The World Atlas of Language Structures* (Comrie 2005) (counting tripartite languages as ergative).

(24)   : (n=102)

	Agreement is Case-Sensitive (CDAP=yes) (41)	Agreement is not Case-sensitive (CDAP=no) (32)	Languages with no Agreement (29)
Ergative-Absolutive (18)	**2? (expected: 7.4) (Hindi, Greenlandics)**	**12 (expected: 5.8)** Georgian, Warlpiri, Basque, Burushaki…	4 (expected 5.2) Lezgian, Ngiyambaa
Nominative-Accusative (29)	12 (expected: 11.9) Hebrew, Greek, Sakha, Kannada…	7 (expected: 9.3) Persian, Guarani, I. Quechua, Maricopa,	10 (expected 8.4) Malagasy, Japanese, Marthathunira, Hiaki
No case marking (55)	26 (expected: 22.6) English, Mapudungun, Yimas, Hausa…	14 (expected: 17.6) Kinande, Slave, Arapesh, Ojibwa…	15 (expected 16) Yoruba, Mandarin, Mixtec, …

There are two suggestive features of this table to point out. The first is that you have very few ergative-absolutive languages with case sensitive agreement in the top left corner: only Hindi and Greenlandic. It seems to be true, then, that languages where case is sensitive to agreement are almost all nominative-accusative, a 6:1 ratio, as predicted. In contrast, in the other two columns, you have quite a few ergative-absolutive languages. Indeed, if you sum up the other two columns, you have sixteen ergative-absolutive languages and 17 nominative-accusative languages—a 50-50 split, as predicted. This roughly supports my conjecture. It is admittedly quite crude so far. One would like to dive into all of these languages with more care, and especially the potentially anomalous

languages Hindi and Greenlandic (both of which have nontrivial generative literatures that would be significant).[5] But even these very preliminary results look quite promising.

4. Specificity of the object and dependent case marking

This proposal about ergativity makes a novel typological prediction—one that at first glance seems troubling, but that turns out to be true. The characteristic feature of dependent case assignment is that it assigns accusative or ergative case if and only if there are two NPs *in the same local domain*. It does not apply if, for example, you have one noun phrase way up in the matrix clause, and a second one far below it, in a triply embedded clause. In the current theoretical climate, it makes sense to say that that the crucial local environment is the *phase* in something like Chomsky's sense. So we expect the rule of dependent case assignment to be something of the form "If there are two noun phrases in the same *phase*, then mark one of them accusative or ergative."

   For nominative-accusative languages, this looks like it has straightforwardly positive results, accounting for a particular kind of "differential object marking" (DOM). Indeed, Sakha itself is a DOM language: it's a language in which the object may or may not be accusative, depending on its position and its specificity. Thus, the direct object "book" in 25 is marked accusative only if it is specific or definite.

(25)   a.   Erel   kinige-ni   atyylas-ta.
            Erel   book-ACC   buy-PAST.3sS
            'Erel bought the/a certain book.'

       b.   Erel   kinige   atyylas-ta.
            Erel   book-Ø   buy-PAST.3sS
   'Erel bought a book/books.'

There's also an interaction between case and word order in Sakha, as shown in 26. The accusative object most naturally appears in front of adverbs and other VP-internal elements, as in 26a, whereas the bare object has to be after adverbs and other VP-internal elements, as in 26b.

(26)   a.   Masha salamaat-*(y) türgennik sie-te.
            Masha porridge-ACC quickly   eat-PAST.3sS
            'Masha ate the porridge quickly.' (ACC is required)

       b.   Masha   türgennik salamaat-(#y) sie-te.
            Masha   quickly   porridge-ACC eat-PAST.3sS
   'Masha ate porridge quickly.' (ACC is marked, only with focus on 'porridge')

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[5] For example, Hindi is known to have inherent/quirky ergative case (present on subjects of some monadic verbs and missing on subjects of some dyadic verbs, based on lexical factors cf. Woolford 2006). Greenlandic is tricky because both subject and object agree with a single head, T (after Bok-Bennema 1991).

What we seem to have here is a classic case of object-shift. The object is first generated inside VP. It can, however, move out of VP. This affects its word order with respect to adverbs, naturally. It also affects its interpretation, assuming that Diesing's (1992) Mapping Hypothesis, or something like it, is correct in saying that the scope of a certain type of interpretation is the VP. Now within the dependent case theory, it makes sense that object shift will affect the case marking of the object as well. The VP is a distinct phase from the clause as a whole.[6] When the object NP moves out of the VP, it will be in the same phase as the subject and therefore is marked accusative. When the object stays in VP, it gets a different kind of interpretation and it is not in the same domain as the subject. Then 22a does not apply, and the NP remains unmarked for case, showing up in bare-nominative form. This is diagramed in 27.
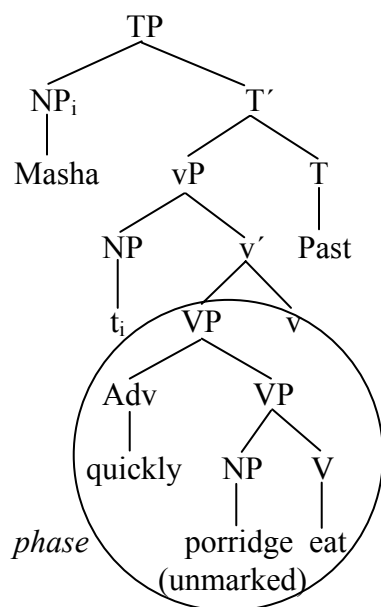
(27)   a.   b.
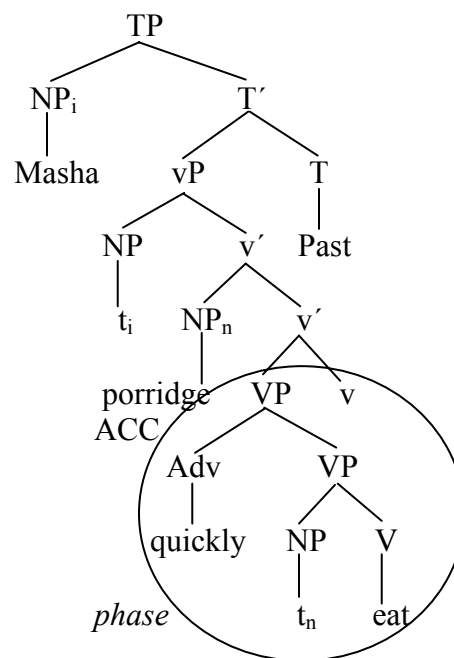
Now this leads to an unfamiliar prediction. If the Marantzian rules of dependent case assignment hold in languages in which the CDAP is not set "yes", and if those rules can be sensitive to phase boundaries, then it follows that ergative case marking on the subject should also depend on object shift in some languages. At the empirical level, whether the subject is marked ergative or not should be related to where the object is in the word order of the clause, and whether it is interpreted as specific or not. And that is a somewhat surprising prediction. It is perhaps not surprising that features of the object, such as whether it's specific or not, would influence the case marking of the object itself; that's a very local sort of effect. But if what is really at work is object shift plus dependent case marking, then whether the object shifts or not should also influence whether the subject is ergative or not—a nonlocal, intrinsically relational effect. This seems a bit counterintuitive and is not known from influential typological descriptions of case systems (e.g. Dixon 1994, Blake 1994, Hopper and Thompson 1980).

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[6] See Baker and Vinokurova 2010 for discussion of vP versus VP as the smaller phase in Sakha.

But in fact it turns out not to be so hard to find languages with the predicted properties. One is Ika, a Chibcan language of Columbia. Ika is an SOV language. In 28a, the direct object "jaguar" is indefinite and inside VP, adjacent to the verb. In this example, there's no ergative case marking on the subject. But in 28b the object is "his pig", a definite object, and now the subject is marked ergative. The interpretation of the object determines the marking of the subject, as predicted. 28c shows an object "puma" that's explicitly moved out of the verb phrase into the higher domain, to give OSV word order; here too the subject is marked ergative. So, the case marking of the subject depends on the position and interpretation of the object in Ika, exactly as predicted.

(28)   a.   Gsʌriwieri･tigri   aʔwasa-na.   (Frank, 1990:115)
            Gabriel   jaguar chase-DIST
            'Gabriel went after a jaguar.'

        b.   Tigri-seʔ   tšinu   k -ga-na.   (Frank 1990:9)
            Jaguar-ERG pig   PERI-eat-DIST
            'A jaguar ate his pig.'

        c.   Guiadžina zʌ-gʌmmɨ   perɨ-seʔ   an-aʔkuss-i   guak-akí nuʔ-na
            puma   GEN-child   dog-ERG REF-bite-while kill-PRF AUX-DIST
            The dog had killed the puma's cub, biting it. (Frank 1990:116)

29 shows a similar paradigm from Eastern Ostyak, a Finno-Ugric language spoken in Siberia. 29a has an indefinite object next to the verb, and the subject is not marked ergative; 29b has a definite object shifted over a PP, and the subject is marked ergative (Gulya, 1966).

(29)   a.   Mä   t'əkäjəɣlämnä   ula   mənɣäləm.
            We.dual(nom) younger.sister-COM   berry pick-PAST-1pS
            'I went to pick berries with my younger sister.'

        b.   Mə-ŋən ləɣə   əllə   juɣ kanŋa aməɣaloɣ.
            We-ERGthem   large   tree beside put-PAST-3pO/1pS
            'We put them (pots of berries) beside a big tree.'

Kanuri (Nilo-Saharan, spoken in Africa) is a third language that meets this description, with ergative suffix –*ye* appearing on the subject only in OSV order, or sometimes if the object is definite (Hutchison, 1981).

        Nez Perce, the language with a tripartite case system, is also relevant to this prediction. In this language, the case of *both* the subject and the object depend on the definiteness of the object, because both 22a and 22b are in force. In 30a, the object is indefinite, and neither the subject nor the object is marked for case. In 30b, the object is definite, and both are marked for case: the subject ergative and the object accusative. One finds either both ergative and accusative in a Nez Perce sentence, or one finds neither;

the two are conditioned by the same factor—the position/interpretation of the object—just as this system expects.

(30) a. <u>Háama</u>   hi-'wí-ye   wewúkiye.   (Rude, 1988:552)
         man.NOM   3S-shoot-ASP elk.NOM
         'The man shot an elk.'

      b. <u>Háama-nm</u> hi-néec-'wi-ye   wewúkiye-ne.   (Rude 1986:127)
         man-ERG   3S-pO-shoot-ASP   elk-ACC
         'The man shot the elk(pl).'

  Moralizing on this just briefly, I think it is an instructive example of the weakness of a purely bottom-up, data-driven methodology, such as characterizes most functionalist-typological research on topics like this. That research has discovered the dependence of object marking on object interpretation, because that is a relatively direct, obvious dependence. But it has not discovered the dependence of subject marking on object interpretation, even though it is out there, because that is a less obvious dependency. People apparently did not think to look for it—and to a significant degree you only find what you know to look for. That is why it is important to also function in a top-down, deductive manner: theoretical reflection can give you valuable new ideas of what we should be looking for.[7]

5. Tense-Aspect splits and dependent case marking

This approach also makes a converse prediction, which I'll discuss in a brief and tentative manner. We know from the typological literature that some of the so-called ergative languages are really split ergative languages: whether the subject is marked ergative or not depends on the tense-aspect of the clause. Hindi is a familiar example of this (see 7); it is also true in Burushaski (see 8, also Willson 1996:17): the subject of a past/perfective sentence is marked ergative, but the subject of a future/imperfective sentence is not. Within a theory of ergative case marking built around 22b, it is tempting to analyze this phenomenon also in terms of phase boundaries. We might say that the future tense morpheme in Burushaski marks its complement (vP?) as being an extra phase boundary, in addition to the normal phases CP and VP. As a result, the subject in SpecTP is in a different phase from the object, even if the object shifts out of VP and into vP to get a

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[7] It is intriguing to wonder if there might be an even deeper relationship between object shift and ergative case marking. Richard Kayne points out that people have observed that there are no strictly SVO languages with ergative case marking (e.g. Bittner and Hale 1996)—an observation supported by the *World Atlas of Language Structures,* which lists 17 ergative languages with SOV order but 0 with SVO order (Dryer 2005 plus Comrie 2005). It is tempting to incorporate this by combining my ideas about case assignment with Kayne's 1994 claim, rooted in antisymmetry, that SOV is always a derived order, created by leftward movement of the object or something that contains it. So unlike SVO languages, SOV languages always have a kind of object shift, which could feed ergative case marking. But there are issues to face along this line too. First, one would have to distinguish two kinds of object movement, one that feeds ergative marking and one that does not, to account for the languages mentioned in this section. More seriously, one would also expect overt accusative case only in SOV languages given the symmetry built into 22. It is true that overt accusative is more common in SOV languages than in SVO languages (28 languages versus 9), but there clearly are SVO languages with overt accusative. This is an interesting area for further research.

definite interpretation. Given this, 22b would not apply. In contrast, the complement of past T/perfective aspect is not a phase, so ergative case assignment would apply more widely in this tense.

Whatever the exact details might be, if it is right to account for tense-aspect conditioned split ergativity in something like these terms, then I predict that accusative case marking should also be sensitive to the tense-aspect of the clause in some languages. Again, this follows directly from the symmetry of the rules for ergative case marking and accusative case marking. If that conception is right, then what one is sensitive to, the other should also be sensitive to. But again, the sensitivity of accusative case assignment to tense-aspect is not familiar from typological research.

In fact, my sample of 25 languages does not contain many examples of even ergative case marking being conditioned by tense-aspect. I begin to wonder if this kind of split ergativity is really an areal phenomenon, characteristic only of languages in South and Southwestern Asia. Other than Burushaski, the one language in my sample with split ergativity is Coast Tsimshian, an Amerindian language of British Columbia. The case system of this language is summarized in 31. Note that the case markers associated with common nouns show an ergative-absolutive pattern, with the special marker *da* used for transitive subjects, whereas those associated with proper nouns display a tripartite system, with distinct markers for intransitive subject, transitive subject, and object, similar to Nez Perce.

(31)   Coast Tsimshian Case: absolutive   ergative   accusative
            Common: (a)   da   (a)
            Proper: (a)s   dit   (a)t

32 gives sentences with common nouns, ergative case appearing on the subject of the transitive verb in 32b. (Note that the case particle associated with the following NP actually encliticizes to the preceding word at PF; compare Anderson 2005 on Kwakwala.)

(32)   a. Yagwa   baa-[*a*]   wan.   (Dunn 1995:60)
            PRES   run-ABS   deer
            'The deer is running.'

        b. Yagwa-t   niis-*da*   ts'uu'ts-*a*   laalt
            PRES-3sE see-ERG bird-ACC   worm
   'The bird sees the worm.'

33 is an example with a different tense, past instead of present, and in 33b the subject is not marked as ergative, but rather absolutive, just like the object.

(33)   a. Nah   siipg-*a*   hana'a   (Dunn 1995:60)
            PAST   be.sick-ABS   woman
            'The woman was sick.'

        b. Nah   t'uus-*a*   'yuuta   hana'<u>k</u>
            PAST push-ABS   man-(ABS)   woman

18

'The man pushed the woman.'

So this qualifies as an instance of tense-aspect based split ergativity. We might then say that the complement of *nah* (but not *yagwa*) is an extra phase, as diagrammed in 34. (Alternatively, we might say that vP is a phase in both tenses, but *nah* has an EPP feature that causes the subject to move out of the vP phase prior to case assignment, whereas *yagwa* does not.)

(34)
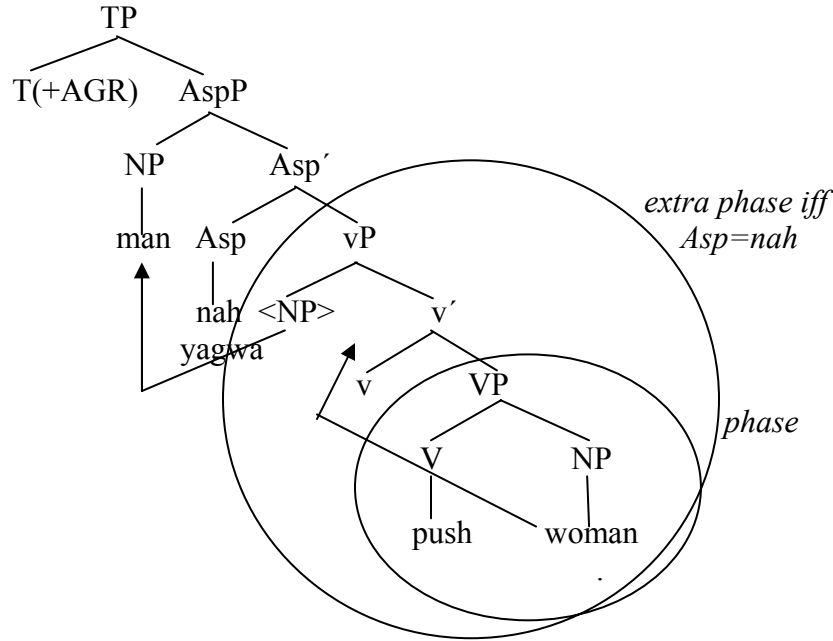
If the object is indefinite, it doesn't undergo object shift out of VP, but "incorporates" into the verb. Then the subject is not marked ergative even with present tense *yagwa*:

(35) a. Yagwa łee-m-l<u>a</u>k-***s***   nagwaat.
          PRES   haul-CN-firewood-ABS.PN his.father
          'His father is hauling firewood.'   (Dunn 1995:61)

      b. Yagwa sa-a'asg-***as***   noo-yu.
          PRES make-seaweed-ABS.PN   mother.my
          'My mother is picking seaweed.'   (Mulder, 1994)

On the other hand, if the object is a pronoun, then it raises all the way out of vP as well as VP to cliticize to (the verb in) T. Then the subject is marked ergative even with past tense *nah*:

(36) a. Na-t   'niidz-n-***t***   Dzon.
          Past-3sE   see-2Obj-ERG.PN   John

19

'John saw you.'   (Dunn 1995:63)

   b. Na-t   lu'niis-d-***it***   nagwaadu.
       Past-3sE stare.at-3Obj-ERG.PN my.father
       'My father was staring at them.' (Mulder, 1994:87)

These examples confirm that it is inadequate to simply say that *yagwa* assigns ergative case to the subject, but *nah* assigns absolutive across the board. In both tenses, the transitive subject can be ergative or absolutive, depending on exactly where the object is. There is a difference between the two tenses when it comes to case marking, but where the NPs are in the structure of the clause is an equally important factor, as expected in the dependent case theory.

      The question now is whether accusative case assignment is ever sensitive to tense-aspect in the same way that ergative assignment is. We can answer this within Coast Tsimshian by considering the proper nouns, where there is an accusative case distinct from absolutive. And the answer turns out to be yes, as shown in 37. 37a is a present tense sentence, with ergative marking for the subject and accusative marking for the object. 37b is a corresponding past tense sentence. It has absolutive marking on the subject, as expected. But it also has absolutive marking, not accusative marking, on the object:

(37)   a. Yagwa-t   t'uus-***dit***   Dzon-***it***   Meli.   (Dunn 1995:67)
         Pres-3sE   push-ERG.PN   John-ACC.PN Mary.
         'John is pushing Mary.'

       b. Nah t'uus-***as***   Dzon-***s***   Meli.
         past push-ABS.PN John-ABS.PN Mary
         'John pushed Mary.'

So the tense-aspect split in Coast Tsimshian affects ergative case marking and accusative case marking equally, just as the definiteness of the object affects ergative and accusative equally in Nez Perce. This supports the logic of rules like 22. I don't yet know of a language that is purely nominative-accusative in which accusative case varies with tense-aspect in this way. But that might just be an accidental gap, since tense-aspect conditioning doesn't seem to be all that widespread anyway.

6. Variable case-marking languages versus consistent case marking languages

While the symmetries presented in the last two sections support my neo-Marantzian approach to morphological case in languages where the CDAP is not set "yes", they also raise one additional question about crosslinguistic variation in case assignment. Some languages are DOM languages, in which object shift affects the case marking of the subject and/or the object. But other languages are not: they have uniform case marking regardless of properties of the object. What kind of cross-linguistic variation could this be?

Perhaps the most obvious thing to say would be that in some languages object shift is only triggered by definiteness, whereas in others all objects undergo object shift. This would be a plausible sort of minimalist analysis, in that you can build it into the features of the *v* node in a familiar way. In some languages, v has an unspecified EPP feature that can attract any kind of DP. In other languages v bears a specific feature that only attracts +definite phrases. That would be a fairly straightforward sort of theory.

The problem is that word order doesn't seem to bear it out. If this approach were correct, one might expect Subject-Object-PP/Adverb-Verb order to be normal in languages with consistent case marking. The object being regularly separated from the verb would be evidence that objects of all sorts shift out of VP. In contrast, Subject-Adverb/PP-Object-Verb order would be normal for indefinite objects in DOM languages, because the indefinite object does not shift out of VP in this kind of language. But this seems to be false. Burushaski and Lezgian are languages that always have ergative case on the transitive subject, regardless of the definiteness of the object, but still S-X-O-V order is perfectly possible, perhaps even preferred in these languages (38a,b). Imbabura Quechua is a language in which objects in matrix clauses are always marked accusative, but it too favors S-X-O-V order when the object is indefinite, just as Sakha does.

(38) a. Hilés-e   dasín-mo-r   toofá-muts   píish   o-t-imi.
          Boy-ERG girl-OBL.F-to gift-PL   present 3pO-do-PAST.3sS
          'The boy presented gifts to the girl.'   (Burushaski, Willson 1996)

      b. Gada.di   wiči-n   žibin.da-j   c'akul   aqud-na.
          Boy.ERG self-GEN pocket-INEL feather   take.out-AOR
          'The boy took a feather out of his pocket.'   (Lezgian, Haspelmath 1993)

      c. Juzi Marya-man muti-ta   kara-rka.
          José María-to   mote-ACC   give-PAST.3sS
          'José gave/served mote María.'   (Quechua, Cole 1985:70-71)

It is conceivable that a more careful study of word order, which controlled closely for discourse functions and information status, might reveal some sort of difference between languages with DOM and languages without. But it does not seem likely, given the data at hand.[8]

The most promising proposal from an empirical viewpoint that I am aware of sounds distinctly unminimalist. It would be to say that in some languages, you calculate case for the VP, you throw the VP material away, and then you calculate the case for the rest of the clause. That is the standard view of how phases work, and it gives you a DOM language. To get a language without DOM, you calculate case on the VP domain

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[8] Another alternative might be to parameterize whether VP counts as a phase or not. In a DOM language like Sakha, VP would count as a phase, as above, but in a non-DOM language like Quechua, VP would not count as a phase, so the subject and object would always automatically be in the same domain for 22. This might work for some languages (like Amharic; Baker 2010), but not in general. Baker and Vinokurova 2010 claim that in some languages dative case is also a dependent case, assigned to the higher of two DPs in a VP-phase. The proposal under consideration would then predict that no language could have dative as a dependent case without also differential object marking. That seems seems unlikely, since Burushaski, Lezgian, and Quechua all have rather normal dative cases (although I don't know their properties for sure).

(perhaps assigning dative; see note 8), then you extend to the larger domain, *but you don't throw the VP-internal material away*. You keep that material, and it is included in the calculation of how to assign case on the CP phase. Then when the subject comes into view, you always have the object as well, regardless of where it is. As a result, in this sort of language you will get ergative or accusative case marking across the board, not depending on object shift or definiteness. Now this would admittedly be a surprising kind of parameter. Some have been so rash as to say that what counts as a phase might vary across languages (e.g. Fox and Pesetsky 2004), but no one has said that how phases function in the derivation can vary across languages. But I for one do not think that we should rule out such possiblities a priori, as being fundamentally not minimalist, given whatever notion of minimalism we have at the time. If such radical-sounding kinds of parameterization give us the best and most principled overall explanation of the facts, then we should not be afraid to do it … at least until a better proposal comes to light.

7. Conclusions

I have argued that there are (at least) two ways of assigning morphological case in natural languages: case can be assigned by a functional head to a nearby NP under agreement (Chomskian case assignment), and case can be assigned to one NP if there is another NP in the same local domain (Marantzian case assignment). Languages in which the Case Dependence of Agreement Parameter of Baker 2008 is set "yes" have (at least some) Chomskian case assignment; in contrast, languages in which the CDAP is set "no" may have only Marantzian case assignment. Languages can also have a mixture of the two modes of case assignment, the Sakha language being a case in point. I then went on to conjecture that structural ergative case is always a Marantzian dependent case, hence it is only found in CDAP=no languages or languages without agreement, and I presented preliminary typological evidence that this might be true. This approach makes the seemingly radical prediction that, since ergative case and accusative case are sensitive to the same local domains (phases), the definiteness/position of the object can affect both, and the tense-aspect of the clause can affect both. However, there is supporting evidence for this within my initial set of case studies. Finally, and perhaps most radically, I suggested that languages differ as to whether NPs in the lower case domain (VP) are automatically included in the higher case domain (CP) or not. The latter sort of language will be prone to differential object marking and split ergativity; the former will have uniform case assignment across virtually all clause types. This then is a survey of some types of variation and parameterization that we seem to find in systems of morphological case, within current generative terms.

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