Some Concepts and Questions Concerning the I system

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Introduction[*]

This paper explores two simple, related ideas, within the Minimalist Program: that the skeletal Tense system of clauses involves a single T node, whether they are finite or infinitive, of the raising or the control type; and that this system is implicated in the personal system. A rich, complete T node 'assigns' full Case, where a poor, partial T 'assigns' null Case, again whether this manifests itself in control or raising constructions. I think of this Case distribution as 'personal' in that categories with a complete system of features that includes personal ones 'checks' full Case, whereas categories with a partial system, one without personal features, 'checks' only null Case. In other words, there is a correlation between complete Tense in the inflectional skeleton, a complete set of checking features in its dependents, and full Case (correspondingly, partial Tense, a partial set of checking features, and null Case). Although I depart from his particular implementation, this paper owes much to the interesting discussion of Case and person specifications in Ormazabal (1999).

To clarify from the beginning a confusing terminological issue, I distinguish 'features', 'values', and 'dimensions'. I take a feature to be a valued dimension, for instance, '+plural', 'accusative Case' or 'III person'. Corresponding unvalued dimensions would be 'plural', 'Case', and 'person', their values '+', 'accusative', 'III'. I take featural 'checking' to be implicated in the process of valuation of a given dimension, through the relation of Agree in all interesting instances (although a dimension can come out valued from the lexicon). Case valuation goes in the 'opposite direction' as what Chomsky (2001) calls 'Probe valuation'. Typically, a probe X requires a value from a goal Y somewhere in its domain; Case makes goal Y accessible to the system, and its value depends on the configuration involved in X's checking domain, not Y's.

An active feature in a goal can then value a dimension in the probe, which thus becomes inactive. Normally, a feature that has been activated through Case becomes inactive upon checking a dimension for relevant valuation.

The system I discuss here is only a slight departure from familiar versions of the program, in that I simplify the classes and distribution of inflectional items, without serious empirical loss. Indeed, I feel that the simplification I propose has some empirical pay-off, especially in the analysis of the correlations existing between rich personal morphology and different Case specifications. I study the matter with regards to a parameter which presents three different settings, depending on whether the clause-peripheral functional category where it manifests itself, which I call F as in previous work, is or is not syntactically active, and if the former, whether it does or does not have morphological weight. I normally illustrate this with three related Western Romance languages that represent three presently different parametric settings roughly corresponding to diachronical stages: Portuguese, Spanish, and French, the diachronical tendency going from the Portuguese setting to the French one: Portuguese has a full, morphemically represented F, which got weakened in Spanish as a morpheme but still remains as a formative in the syntax, and is entirely eliminated from the overt syntax of French. This category is very pertinent to the contents of this paper because I think it codes point-of-view, thus personal, information, and is then arguably implicated in the Case/person system of the Romance clause.

The article is organized as a single, long argument with different steps along the way. First I suggest there is only one T, and how this can simplify the system. This forces us to go into a discussion of selection assumptions for embedded clauses, which I introduce in relation to the phenomenon of Neg Raising. In the next two sections I present the central *Person Generalization* and the *Minimal Array Condition*, which allows us to implement it in computational terms. The paper ends with a puzzle for the present system.

1. Only one T and the possibilities this creates

Some technical aspects of the Minimalist Program (MP) can be simplified by making the straightforward assumption that there is only one kind of Tense. Presently the system makes use of three: one defective Tense for raising/ECM constructions and two non-defective Tenses for control and regular constructions. The non-defective Tenses are responsible for the assignment of null Case (for PRO) and nominative Case (for regular nominals). Naturally, if I want to propose only one kind of Tense I must still be able to obtain the relevant phenomenology.

Chomsky's defective T does not check null Case, since he wants to use this T exclusively for raising constructions which disallow PRO. He postulates instead a separate instance of 'defective' T, an infinitival one (hence one lacking overt person features) which is responsible for null Case licensing and is selected by C. In contrast, true defective T is selected by V. Thus control structures involve a CP and hence a phase, whereas raising structures involve only an IP, hence no phase.

Suppose non-defective (henceforth 'complete') Tense is a T node endowed with [person] and [number] features (see Ormazabal (1999) for much relevant discussion).

It is an interesting question why that should be (why T, as opposed to D or some other category is specified for, in particular, person). Person and number features are valued by probing the domain of T in search of a goal specified for (interpretable) person and number, which are made visible to the system by the Agree operation that sanctions them in terms of nominative Case. Subsequently the person/number features in T are specified (as I, II, or III, singular or plural) and thus rendered inactive. I implement the de-activation of the person/number features in T as feature deletion ('Suicidal Greed'), so that T specified as, say, [II person] is identical to T with no person.

In order not to confuse our impoverished T with Chomsky's defective T (exclusive to raising), let us call the sort of T that we find both in raising and control 'partial', a suitable antonym to 'complete' above. Partial T has no person dimension, to start with, although it arguably still has a number dimension. Again, that is also interesting (why partial T has no person, and not the other way around, for instance). Lacking a person dimension, it makes no sense to think of T as a person probing element, since there is no value to set in the relevant dimension; nonetheless, T can probe its domain in search of a number value. As before, the relevant goal is made visible by Agree through a Case sanction, this time null Case. In other words, the only possible goal for partial T is an element like PRO (there could be others), which clearly has no person specifications (as shown in instances of 'arbitrary' PRO: when PRO is not controlled, it surfaces as default III person).

Given phase independence, Chomsky's stipulative distinction between two types of impoverished T's accounts for the separability of control infinitival clauses that Rizzi (1982) discovered, as opposed to the frozen character of raising infinitivals:

(1) a.   [To talk to her] is what he should at least try ___ .
    b. * [To have talked to her] is what he definitely seems ___ .

I want to keep the explanation in (1), thus are prepared to accept a (traditional) difference in structure between control and raising. Nonetheless, I do not believe this forces us to postulate two types of defective, or in our terms partial, T. To see that, consider (2), an example that will be central to our whole discussion:

(2)   * I believe [PRO to be old]
               IP

Why, if partial T licenses null Case, is (2) impossible? The main verb in (1) is transitive, hence involves a 'small' v with Case properties (Burzio's generalization) related to its person/number feature make-up. Let us assume that only DP elements have the capacity to value person/number features, as only they are interpretably specified in those (nominal) terms. (Once more it could be asked why only nominals, and not for instance verbal or prepositional elements, are specified in terms of those features). Then neither IP in (2), nor PRO (which cannot be made visible in terms of accusative Case) nor any other element could check v in order to make its person/number features valued, and the derivation crashes. But then we need to consider why (3) is possible:

(3)   I tried [[PRO to lose some weight]]
            CP IP

Just as *believe* does, and for the same reasons, *try* is associated to v and thus requires a DP element to value its person/number features. Again neither PRO nor IP could be those elements, but how about CP? Suppose we make the assumption that CPs are, in relevant respects, DPs. Then it would follow that CP could value the v features III-sg. There is reason to believe that CPs are DP-like. Observe:

(4) a. [[El que no tenga un Porsche]/[El no   tener un Porsche] no me
         the that not have a Porsche the not to. have a Porsche not me
         sorprende].
         surprises
         '(The fact) that he shouldn't have a Porsche/of not having a Porsche
         doesn't surprise me.'
     b. It doesn't surprise me [that I shouldn't have a Porsche].
     c. [That the earth is flat] was believed by the Romans.
     d. I belive [[you] and [that you're wasting your time]].
     e. [That the earth is flat], John believes (it likely).
     f. * [[El no tenga/tengo   un Porsche] no me sorprende].
           the not have.subj/ind a Porsche not me surprises
     g. * It doesn't surprise me [I shouldn't have a Porsche].
     h. * [the earth is flat] was believed by the Romans.
     i. * I believe [[you] and [him to be a genius]].
        * I believe [[him to be a genius] and [you]].
     j. * [the earth is flat], I believe (that).

In Spanish CP, but not IP, can be introduced by a definite article (4a vs. 4f). CP extraposition exists, relating CP to a pronoun, unlike IP extraposition (4b vs. 4g). CP passivization is possible, unlike IP passivization (4c vs. 4h). CP conjoins with a DP, unlike IP (4d vs. 4i). CP topicalizes and left-dislocates, unlike IP (4e vs. 4j). Furthermore, it is clear from examples like (4c) that CP carries singular agreement. This is confirmed by (5) (see McCloskey 1998 for the source of these and related data):

(5)   [That the earth is round] and [that it moves] were/*was not accepted by
         the Church.
         (Cf. 'It was/*were not accepted by the Church that the earth is round and
         that it moves.')

When we conjoin two CPs in subject position, we do not get mere default singular agreement in T; rather, we get plural. At any rate, if we do not happen to like the conclusion that CPs are DPs, we could at least assume that, for whatever reason, they have number specifications, as DPs do in general, in which case they should perhaps serve to check the relevant v features in (3). Then again, to check *all* features in v a CP complement would seem to need both number *and person* features. That the latter is the case in an example like (3) is less obvious, as CP's match only III person specifications, which could be a default setting; unfortunately, it is not clear what it would mean for a CP to be I or II, which thus makes it hard to falsify the putative hypothesis that CP's do have person features, in addition to obvious number ones.

That issue would be just technical if it weren't because of the contrasts in (6):

(6) a.   [I tried [[PRO to lose some weight]]].

   b.   *[I tried [that [I/he lose/lost some weight]]].

   c.   [I believe [that [I've lost some weight]]].

Alongside the perfect (6a) we have the impossible (6b). Its impossibility might relate to *v's* features not being checked by a defective CP which lacks person features. Of course, if that were the case, we'd have to see what makes both (6a) and (6c) grammatical. I return to these matters below, simply noting their relevance now in order to show that the question of CP's person features is far from trivial.

From this perspective then (and putting aside what CP's complete featural make-up turns out to be) we probably need not say that the T associated to a control verb is any different from the T associated to a raising verb; they are identical, except the latter does not check null Case.

Or does it? Consider the issue of embedded Extended Projection:

(7)   [I seem [__ to be missing it]].
         IP

Does the empty subject position in the embedded IP ever need to be visited? This has been the locus of much controversy (see Epstein and Seely (1999) or Castillo, Drury and Grohmann 1999). One piece of data that, so far as I know, has never been discussed in this regard is a contrast of the sort in (8):

(8) a.   Armstrong appeared to be seen to be tired, but he never was seen to appear to be tired.

   b.   *Armstrong pareció ser visto estar cansado, pero nunca fue visto parecer
         Armstrong seemed to-be seen to-be tired   but never was seen to-seem
         estar cansado.
         to-be tired

(8a) is no doubt a complicated sentence of English, much as I try to give it a plausible context (while for world class cyclists like Armstrong it occasionally appears that they are seen to be tired, it is rarely the case that it is actually seen *how* they appear to be tired —hiding one's fatigue being crucial in cycling). Curiously, though, this sort of multiple raising is atrocious in Romance. I think there is a natural way of capturing this difference between the languages without altering the overall elegance of the system.

I have suggested that partial T has number features. If this is the case, they will need to be valued, and hence an element must move through this position (*I* in (7)). Then there must be a Case to sanction the embedded movement, and the hypothetical null case in T would come in handy. Of course, normally we do not take null Case to be morphologically determined in a lexically specified argument, but that will have to be made concrete in the present system, where Case is a mere flag for movement. Suppose that null Case is morphologically viable *only in number features*, the reason why PRO only exhibits number concord. Then the embedded T in (7) can probe a VP internal *I* in terms of null-Case visibility, whereby the number features of the pronoun, and only those features, are identified and value the number features

in the embedded T. The *person* features of the pronoun would still be unused in the derivation, and could be made visible by the system in terms of the nominative Case system associated to matrix, complete T. This still does not predict any difference between English and Romance.

It is immediately obvious that English DPs are not specified for overt number features, as Romance DPs are (*los extraordinarios ciclistas* lit. 'the-AGR extraordinary-AGR cyclists-AGR' vs. *the extraordinary cyclists*). Let's call the English DP system *partial*, to distinguish it from the morphologically *complete* DP system in Romance, whereby number and gender is specified in D, all the adjectival heads, and the head nominal. Suppose, furthermore, that we make the following assumption: a 'bleached' Case specification (such as, arguably, null Case is) on a 'bleached' number feature (such as the number features in the partial DP system of English) does not result in a frozen category upon Case determination. Such frozen categories arise whenever an interpretable feature is rendered visible in terms of a given Case, and it cannot be made visible in terms of others. This rules out (9):

(9)   *[I seem [t am tired]]

Once *I* is made accessible by the nominative Case value in the embedded clause, it is frozen in that position, thus disallowing the movement in (9). The question is whether null Case behaves as regular Cases do in this respect.

My specific proposal is that null Case does behave as other Cases do *if* the number feature that it renders accessible is not *bleached* in the sense just discussed (as it corresponds to a complete DP). Otherwise, as a consequence of the partial DP features, null Case will not freeze the category that checks it in the place of checking. This will result in a rather different behavior for successive cyclic movement in English and Romance infinitivals: whereas for the former language it will be able to proceed in as many steps as necessary for the number features in the various infinitival heads to be valued, in Romance only one such infinitival will be valuable. The complete DP features in Romance not being bleached, the moment they are made accessible in terms of the null Case of an infinitival, they will turn inaccessible to further computation (of course, person features may still be active). Therefore, in Romance the sort of intermediate step we discussed for (7) can be achieved only once: embedded EPP involves the valuation of number features in partial T by way of null Case, whereas matrix EPP involves the valuation of person features in regular T by way of regular Case. In English, in contrast, the bleached features of a partial D system allow for successive cyclic movement without any troubles.

Notice that not having null Case freeze the element that checks it cannot have any bad consequences for overt nominals: a fortiori this will only affect their number features, not their person ones —which will appropriately freeze the arguments when they enter a Case-checking relation. (At least in languages with non-defective person systems; in languages with defective person systems and corresponding defective D systems, hyper-raising should be a general option if the present suggestion is on track). So if the idea poses any problem it would be for PRO, which should all other things being equal be allowed to engage in a derivation analogous to (7):

(10) a. [I expect [PRO to try [t to go home early]]]
    b. [I expect [PRO to try [PRO to go home early]]]

Nothing I have said prevents (10a), but it would be ruled out by the Theta-criterion (PRO gets two different theta-roles: as subject of *go* and as subject of *try*). So it seems that we do not need to rule out (10a) on the basis of a condition on null Case.

2. Selection considerations and their consequences for Neg Raising

A puzzle for my proposal is posed by the fact that a sentence with the PF in (2) is perfect in Romance:

(11)   Yo creo PRO estar viejo.
        I   believe   to.be old

How is this possible, if the reason for ruling out (2) are as deep as I suggested? Consider (12):

(12) a. Eu creo   sermos velhos.   c. ?? Nao o creo   ter   visto.
        I believe to.be.we old.pl   not it believe.I to.have seen
        'I believe us to be old.'   'I don't believe to have seen it.'

    b. Eu ja   creo   ter   falado desto juntos.
        I   already believe to.have talked of-this together
        'I believe us to have talked about this together.'

In the relevant contexts Portuguese licenses inflected infinitivals (12a), the adverb *juntos* 'together' (and note that the subject is singular), and makes clitic climbing unnatural. These are the landmarks of partial control, in the sense of Landau (1999). At first it might seem as if the examples in (12) involve obligatory control, since the subject of each sentence can have the same reference (cf. (11)). But Martin (1996) suggests that this is not obligatory coreference, and actually examples of the sort in (12) involve a looser pragmatic connection between subjects, of the sort expected if the lower one is dependent on the *point-of-view* F position discussed in Uriagereka 1995. If, as this work argues, English does not have a syntactic realization of this category, phenomena along the lines in (12), or (2) more generally with the structure of (11), should be impossible in this language. In other words, (11) and (2) do not have the same selection properties: the former (which is grammatical) involves FP on top of IP, whereas the latter (which is not) involves only IP, no FP. The parameter separating the English (2) from the Spanish (11) is thus F's syntactic realization.

To be general about the topic, we should discuss some of the presuppositions involved in the selection properties of *believe*-type and *try*-type verbs. As I have shown above, *try* selects CP, uncontroversially. Let's assume in turn that *believe* selects IP. The problem is that this verb can obviously also select CP with a tensed IP complement, and then one wonders why it cannot select the sort of CP (with a tenseless IP complement) that would sanction control in the terms above. The relevant selectional differences might have a reflex in the complementizer: in languages such as Greek,

Latin, or Rumanian, overtly different complementizers are involved in each instance, for different kinds of complement clauses (e.g. epistemic vs. volitional), which might correspond to partial (personless) vs. complete T. Significantly, when *try*-type Romance verbs select for a tensed complement, this must come in the subjunctive mood; the same is not generally true about *believe*-type verbs:

(13) a. Yo intentaré que ella hable   con él.
        I   try.will   that she talk.subj with him
        'I'll try that she should talk to him.'

     b. Yo creo   que ella ha   hablado con él.
        I   believe that she has talked   with him
        'I believe that she has talked to him.'

Traditionally, subjunctive was taken as the hallmark of 'hypotaxis', or true subordination, whereas indicative was taken as the characteristic function of 'parataxis'. This, however, is misleading if not seriously qualified. Semantically, hypotaxis is the syntactic tool to represent events, whereas parataxis represents more complex entities: propositions about events which are judged true:

(14) a. Yo intento (*posible) [que la vida continue].
        I   try   possible that the life continue.subj
        'I try it (*possible) that life should continue.'

     b. Yo creo   (cierto) [que voy a morir].
        I   believe certain that go.I to die
        'I believe it certain that I'm going to die.'

In (14a) the qualification of the lower clause as possible is ungrammatical, but the same is not true about the qualification of the lower clause as true in (14b). However, this picture gets complicated because, whereas indicative is never the mood of hypotaxis, subjunctive in fact can be the mood of some paratactic contexts:

(15)   Yo creo   falso que la tierra sea   plana.
        I   believe false that the earth be.subj flat
        'I believe it false that the earth is flat.'

When a dependent proposition is explicitly judge false, for instance, subjunctive is the mood of choice, even if the structure here is clearly paratactic, as the contrasts in (16) show:

(16) a. Juan$_{-i}$ intentó [que pro$_{-j/-*i}$ continuase   en carrera]
        Juan tried   that   continue.subj in race
        'Juan tried that he should continue in the race.'

     b. Juan$_{-i}$ cree falso   [que pro$_{-j/-i}$ vaya   a ganar el   Tour de France]
        Juan believes false that   go.subj to win the Tour de France
        'Juan believes it false that he's going to win the Tour de France.'

In pure hypotaxis we have an obviation effect in these contexts: the subject of the embedded clause cannot be coreferential with the subject of the matrix; no such

restriction exists for paratactic environments, even when they involve subjunctive clauses (Picallo 1983). Observe also the paradigm in (17):

(17) a. No creo [que venga Cristo bendito]. (Cf. Creo posible que no venga
not believe.I that come Christ holy   Believe.I possible that not come
Cristo bendito.)
Christ holy
'I don't believe that a soul will come.'   'I believe it possible that not a soul
will come.'

b. ?*No creo posible [que venga   Cristo bendito]. (Only literal reading of
not believe.I possible that come.subj Christ holy
Cristo bendito)
(I don't believe it possible that a soul will come.)

(17a) is a situation of so-called Neg Raising. When the judgement of the embedded proposition as possible is explicit, as in the examples above, Neg Raising becomes ungrammatical. The transformational analysis of this phenomenon, with negation climbing, has been questioned for English. However, this syntactic account —in some guise or another (not necessarily movement)— may be possible in Spanish.

First of all, to the native speaker a sentence like (17a) sounds like an assertion, not a denial of a belief. Furthermore, Spanish allows clitic climbing (whatever that process involves); Neg can act as a clitic in Romance; so it is not immediately obvious why Neg should not be able to climb in (17a). Finally, and most importantly, if all that (17a) were is a mere denial of a belief, whose entailment is the speaker entertaining the opposite belief (I deny the belief that somebody will come, therefore I accept the possibility that nobody will), it is unclear why making explicit the judgement that the contents of the belief in question are indeed not possible should alter the semantic relations, so that (17b) should suddenly become ungrammatical.

That small semantic change has a drastic syntactic correlate, though. Observe (18):

(18) a. Yo creo [eso [posible]]   b. Yo creo [a Juan [un desgraciado]]
I believe that possible   I believe to Juan a poor devil
'I believe Juan a poor devil.'

Believe-type verbs select small clauses as in (18b). When a pronoun like *eso* substitutes for the clausal structure in the examples involving judgements like *posible* or *cierto*, an obvious small clause is implicated. This suggests that the proper analysis of the clausal examples is as in (19), with clausal extraposition in surface syntax, as in (19b) (this process in Romance involves a null pronoun or a neuter clitic, analogous to the typical *it* found in English comparable contexts):

(19) a. Yo creo [[que el universo tenga   fin] posible]
I believe that the universe have.subj.end possible
'I believe that the universe should have an end possible.'

b. Yo creo [pro.i posible] [que el universo tenga   fin].i
I believe   possible that the universe have.subj end
'I believe it possible that the universe have an end.'

Given that structure, consider again the impossible (17b), now with the detailed bracketing:

(20) a. Yo no creo [pro$_{-i}$ posible] [que venga   Cristo bendito]$_{-i}$
       I not believe   possible that come.subj. Christ holy
       'I don't believe it possible that a soul should come.'

   b. Yo creo [[que no venga Cristo bendito] posible]
      I believe that not come Christ holy   possible
      'I believe that not a soul should come possible.'

A Neg Raising analysis of (20a) should involve a source structure along the lines of (20b), with the negative inside the embedded clause. But raising out of the subject of the small clause (or some similar transformational relation) would induce a violation of Huang's (1982) Condition on Extraction Domains, precisely as it would be movement out of a subject, not a site that tolerates transformations across. This accounts for the ungrammaticality of Neg Raising in these instances.

To round up the analysis, it must be observed that argumental clitic climbing is actually not possible across tensed domains. Consider the paradigm in (21):

(21) a. Yo intento hacerlo.   b. Yo lo intento hacer t.
        I try   to.do-it   I it try   to-do

     c. Yo creo   haberlo hecho.   d. ??Yo lo creo   haber t hecho.
        I believe to.have-it done   I it believe to.have done

     e. Yo intento que lo hagas.   f. *Yo lo intento que t hagas.
        I try   that it do.subj.you   I it try   that do.subj.you

     g. Yo creo   (posible) que no venga nadie.
        I believe possible that not come noone

     h. Yo no creo   que t venga   nadie.
        I not believe that come.subj nobody

(21a/b) is a standard instance of argumental clitic climbing. (21c/d) involves a *believe*-type structure, which as we saw above allows only for a degraded climbing. (21e/f) shows the impossiblity of argumental clitic climbing across a tensed domain. This poses a difficulty for the suggestion that in grammatical instances of Neg Raising (21g/h) the negative element literally climbs across the tensed domain. However, the different behavior may well rely on the difference between argumental clitics, which are generated relatively low in the structure, and negation, which according to some analyses is quite high in Romance, possibly associated to F. Alternatively, the process of Neg Raising involves some looser relation that is possible across tensed domains (see Hornstein and Uriagereka 2001).

Let us now return to the grammatical (17a). By the logic of my proposal, it cannot be the case that the embedded clause involves the sort of small clause discussed for (17b) and similar examples, or else Neg Raising would also be impossible in (17a), contrary to fact. This poses the question of selection once again: what is the *believe*-type verb selecting in (17a)? If different sorts of complementizers exist in the inventory that UG provides, distinguishing a paratactic and a hypotactic dependen-

cy, the selection issue can be resolved by declaring that the relevant complementizer here is paratactic. Of course, this creates a kind of tension: qua Neg Raising, we want to say that a verb selecting a clause in the subjunctive allows a transformational mapping between the matrix and the embedded clause (17a); this implies that the small clause should not be introduced in this instance. But qua binding/construal we want the relevant structure not to invoke a single domain whereby the subjects involved must be obviative (16b); this result would actually be achieved if the small clause were indeed introduced, since that would separate two binding domains.

One possible resolution of this tension is to postulate that whereas in surface syntax the structure involved in (17a) is hypotactic, in covert syntax it becomes paratactic by the addition of a covert judgement predicate:

(22) a. Yo creo [{que} no venga nadie]   OVERT SYNTAX
        HYPO

    b. Yo creo [[{que} no venga nadie] CIERTO]   COVERT SYNTAX
        PARA

The complementizer signaled 'PARA' is taken to be of the right sort (e.g. *quod* in Latin as opposed to *ut*). In (22a), nonetheless, the relevant relation is hypotactic, perhaps because this is one option that Merge offers; this correlates nicely with the fact that the embedded verb is in the subjunctive, a typical mood of embedding. At this stage Neg Raising is perfectly possible. In covert syntax, though, an abstract value CIERTO 'true' is added. Consider this separately.

Chomsky (1995: chapter 4) explicitly considers the possibility that lexical insertion could take place in the covert component if a) it involves no phonetic features and b) it is appropriately cyclic. Condition (a) is obviously met for our hypothesized null predicate 'CIERTO', which is akin in relevant respects to the null pro-NP with the meaning of 'one' discussed in Raposo (2000): whereas 'pro/one' stands for an individual in terms of nominal reference, 'pro/TRUE' stands for a truth value in terms of propositional reference. In turn, condition (b) implies merger at the root, which is clearly not met in (22b) in absolute terms. However, if CPs are phases, as suggested above following Chomsky (2001), and merger at the root is relativized to phases, then it is indeed the case that the abstract predicate that concerns us now is appropriately inserted: at the phase edge, thus in cyclic fashion. Importantly, however, this late insertion alters the structure enough not to induce binding effects between the matrix and the lower clause, thus explaining (16b) vis-a-vis (16a), where no abstract predicate is inserted in the covert component.

There should be a different, as it were more genuine, source for parataxis: when the paratactic dependent is never introduced as a subordinate clause, not even in overt syntax. Perhaps in those instances the structure should be analyzed along the lines suggested in Torrego and Uriagereka (1995), based on the classical cataphorical analysis of Davidson. (23a) below involves literally two separate sentences in overt syntax, with a pronoun cataphorically relating to a whole clause introduced by a D-like determiner (significantly, as Davidson observes, complementizers like *that* in English and its Germanic variants, or *quod* in Latin and its Romance variants, have a DP origin):

(23) a. Yo creo [pro_i CIERTO]   [[que]_i la tierra es redonda]   OVERT SYNTAX
         PARA

b. Yo creo {[[que] la tierra es redonda] CIERTO}   COVERT SYNTAX
         PARA

Note that the matrix clause in (23a) has the predicate CIERTO 'true' introduced already in the overt component, which of course is always an option. In covert syntax the cataphoric relation collapses (via the generalized transformation of Substitution) into the single pro position that CIERTO is predicated of, the clause thus becoming a dependent of the main verb. This is necessary in order to allow LF extraction of the sort in (24):

(24)   Quien cree   que ha venido quien
       who   believes that has come who

If the paratactic dependent in (24) were a separate clause at LF it is hard to see how Wh-absorption could proceed.

In sum, *believe*-type verbs in a language like Spanish select a judgement small clause, assuming this kind of selection may be executed in the covert component. In contrast mood specifications have to be executed in the source phrase-marker, or we would never find subjunctive in paratactic dependents. English too should have a system along these lines, although it might be more and also less permissive. More permissive in that English does not code mood distinctions, for instance; but less in that English does not have the clitic climbing system of Romance (hence should arguably disallow Neg Raising proper) or the overt point-of-view category that associates to a high Romance negation, among other things. Nonetheless, we expect this category to appear in the LF of English embedded clauses of the right sort, at the phase periphery, in much the same way as the abstract 'true' predicate appears in (22b). The chart in (25) summarizes our selection options, and the one in (26) the syntactic options:

(25) a. *believe* <__ IP>, <__ SC>   b. *try* <__ CP>

(26) a. Hypotaxis:
                    OVERT: [V [[Comp] [...]]]
                                HYPO
                    COVERT: [see below]

b. Parataxis:
                    OVERT: [V [pro/it-i [TRUE/etc.]]] ... [[Comp]-i [...]]
                                                            PARA
                    COVERT: [V [[Comp [...]] [TRUE/etc/]]]

c. Hybrid parataxis:
                    OVERT: [V [[Comp] [...]]]
                                HYPO
                    COVERT: [V [[Comp [...]] TRUE]]

Structurally, hybrid parataxis is like hypotaxis in overt syntax but like parataxis in covert one. The only important parameter in the syntax is the syntactic realization

of the phase-peripheral F position, which we are assuming to be present in many Romance languages, but not in English. This does not affect IP selection as in (25a), but does affect structures involving CP, allowing for more possibilities in Romance than in English. Among other things, we expect this to affect one important property of the two different types of partial T that we have been considering, which goes back to Stowell (1981): control-T codes time specifications, whereas raising-T does not. I return to this in section 4.

3. The Person Generalization and related notions

It is not obvious at all why the phenomenon of control should involve a null anaphoric element, instead of an overt one, or why it should proceed across tenseless domains. When considering why the examples in (27) are ungrammatical, no clear, non-technical solution comes to mind:

(27) a. *You didn't even try [PRO win/won the race].
　　b. *You didn't even try [yourself to win the race].
　　c. * Tu nem tentaste [PRO/tu (mesmo) ganhares a carreira].

(27a) is taken to be bad because PRO is incapable of hosting nominative Case, or (in our terms) to check person features in complete T. But why doesn't complete T *not* worry about nominative Case, or why should it be that person, as opposed to merely number features are checked in it? In contrast, (27b) is taken to be bad because of the converse reasons: the overt anaphor is incapable of hosting null Case, thus is not accessible to check the number features of T. But why doesn't partial T allow its associated probe to be visible in terms of nominative Case? No non-circular answer to these questions is known to me; we assume the relevant facts because otherwise we would not be able to describe the observed patterns. This is worrisome in principle and also in fact, if we cast our data net wide enough: in a language like Portuguese we should be able to involve person features in the relevant infinitival, thus either licensing a null (pro) or overt subject in terms of nominative Case which could in principle —if control were a primitive of the theory— be allowed to collapse into the matrix subject, yielding the characteristic coreference of obligatory control. But (27c) is ungrammatical.

Consider again the examples in (6), left as a puzzle above and repeated now as (28):

(28) a. [I tried [[PRO to lose some weight]]
　　b. *[I tried [that [I/he lose/lost some weight]]]
　　c. [I believe [that [I've lost some weight]]]

The matter we left pending is exactly what checks the person and number features of the matrix v. After the paratactic analysis in the previous section, this is not much of an issue for instances of genuine parataxis, as we involve an actual pro-DP (subject of a complement small clause) in these instances, which of course can serve as a direct person/number valuator of the troubling v features, appropriately marked for accusative (as is obviously the case when the relevant element surfaces as *it* or an

accusative neuter clitic). However, hypotaxis, by hypothesis involved in (28b), may arguably pose a problem: in particular the person features of v are left unchecked, even if the interpretable number features of the complement clause would do the valuation job for the number features in v (assuming bare CP, unlike DP, does not check person features). Then again, (28b) is bad in English, which is the good news. The bad news, however, are of two sorts. First, (28a) is of course perfect, which is not obvious if we want to explain the ungrammaticality of (28b) in terms of the unchecked person features of v. Second, a version of (28b) is perfect in Romance if the embedded subject is obviative with regards to the matrix one:

(29)   [Yo intenté [que [él/*yo perdiera algún peso]]]
        I   tried   that he/I lose   some weight
        'I tried that he would lose some weight.'

The latter aside about obviation may well be significant. It is curious to note that, functionally, (29) is the opposite of (28a): in the latter not only is obviation not an issue, but in fact coreference is forced by control. Descriptively: with regards to the matrix subject, a hypotactic dependent forces coreference in its subject if it involves a partial T, and forces disjoint reference instead if it involves a full T. Is this triple correlation among Tense, Case, and referentiality of any significance?

Let us make our assumptions about F being a point-of-view expression a bit more precise. Point-of-view is the basis for the person system in grammar. We are *we* with respect to our point-of-view, as you are *you* in that very same pragmatic axis; similarly for the world out there, which is *it, he, she,* or *they.* If point-of-view changes, for instance in the course of a narrative, so do person specifications. If so, it is natural to treat F, the locus of point-of-view in our proposal, as the bearer of interpretable person features. This may be very important for the licensing of an example like (28b) in Romance, if Romance (unlike English) generally allows for the overt syntactic presence of F, and the CP in (28b) contains an appropriate F head. If the head in question incorporates to the embedded C, and the complex thus formed is allowed to agree with matrix v, it is not clear what prevents that element from checking even its person features: the C-F head is visible via accusative Case from the v probe, C carries number features, and F provides person features; so the derivation should converge. In Romance, that is; in English, missing an overt F entails a crashed derivation, as desired.

Before we proceed any further, we should clarify a point about linguistic variation in terms of a parametric syntax. When I say that English or any other language does not have F I mean this in the overt syntax of the language. Surely if we assume a uniformity condition on syntax, by the interpretive components all languages must be virtually alike, which means we have to postulate covert categories which do not play a role in overt syntax. This sort of parameter is not presently assumed in most works I am familiar with, but it seems necessary for the kind of data we are dealing with, and others that come to mind (e.g. it is not obvious what it means to say that English has mood distinctions or classifiers, to name two instances within the skeleton of the clause and the noun in other languages). The issue is not profoundly different from that arising in phonology between a universal inventory and what actually gets

realized in a given language, although in this instance whether or not an abstract, superficially absent symbol is postulated does not directly follow from uniformity assumptions; given the overwhelming amount of evidence a language learner has to set relevant parameters, uniformity is not a necessary assumption in phonology. But evidence in syntax is much more scarce, and hence learnability considerations, or even architectural concerns (how did a given parametric choice get into the language faculty, to start with?), recommend a uniformity stand, which then immediately entails either the proliferation of syntactically abstract nodes with no role in surface syntax or the abstract postulation of such nodes after the syntactic computation ends. I find the second route more productive.

If 'lexicalization' parameters are possible (in the sense of giving syntactic presence to a category from a universal vocabulary) a further issue arises. Why could it not be the case that person, say, is an LF feature of an abstract F in English? To put this in more dramatic terms: suppose something —say a special kind of dislocation or pro-drop process— is related to some feature of F; why couldn't an abstract version of this feature license a covert version of said dislocation or pro-drop? I feel that, empirically, the range of F-related processes that concern us here do not take place covertly if they have not been signaled overtly; for instance, I see no obvious meaning to the notions 'LF topicalization', or 'LF pro-drop'. Virtually by definition 'topicalization' or 'pro-drop' are characteristics that obtain of syntactic categories in overt terms, by way of a displacement, deletion, or null element —which is null only qua its PF properties. I don't think that this is accidental, and assume it follows from a model of grammar where at least a kind of core computational machinery takes place in the overt components: precisely the Case/person system discussed in this article. If this entire system is a pre-Spell-out computation, there would be no meaning to salvaging an English derivation of the ungrammatical (28b) *at LF*. I set aside here, however, the matter of whether other (intuitively A') processes may have a covert component, and why that should be.

Returning to the problem in (28a), it looks in principle similar to what we saw for (28b): we have a v to value in the matrix and no person feature in the embedded C. Of course, the solution in this instance cannot be in terms of F, since (28a) is as good in English as it is in Romance, and English by hypothesis has no overt F. However, before I even try pursuing a solution in terms of an element which could provide person specifications for C, we should ask whether, in infinitival complements, we should be generally assuming that relevant clausal complements involve person features to value corresponding specifications in v. Whether that is the case ought to be regarded as empirical.

To try and gain a wider perspective on the question above, we may look at a language where v has morphological person specifications. Basque is one such language (it has object agreement on an obligatory auxiliary). The relevant paradigm is as in (30) (data courtesy of Itziar San Martin):

(30) a. Jonek [lurra   laua dela}   esan du.
       Jon-S   earth-def-O flat   III.O-Aux-Comp say   III.O-aux-III.S
       'John has said that the earth is flat'

    b. Ni [pisua   galtzen]   saiatu naiz.
       I.O weight-def-O lose-Nom-Loc try-inf I.O.aux
       'I have tried to lose weight'

    c. Jonek [Mariari   zoratu] erazi dio.
       Jon-S Maria-IO crazy-inf cause III.O-aux-III.IO-III.S
       'John has caused Mary to go crazy'

    d. Jonek [Maria   zoratzen]   ikusi du
       Jon-S Maria-O crazy-Nom-Loc see   III.O-aux-III.S
       'John has seen Mary go crazy'

Standard complement clauses determine III person object agreement in the main verb (30a). Obligatory control infinitivals do not determine any agreement in the main verb with either the object clause or any of its elements. Personal infinitives involved in ECM contexts determine indirect object agreement (in causatives (30c)) or direct object agreement (in perception contexts (30d)).

Basque has an 'ergabsolutive' Case system, as opposed to the 'nominaccusative' system in familiar Indoeuropean languages (see Ortiz de Urbina 1989). In essence this means that in Basque v assigns the citation Case form, or absolutive. This is equivalent to the Indoeuropean citation form, nominative, except that the latter is associated to T, not v configurations. Also, when there is a single nominal argument in the clause, this element typically shows up as absolutive (glossed as 'O' for 'object' case in (30)), where it would show up as nominative in Indoeuropean languages, especially when no pleonastic is involved in the sentence. One instance of this phenomenon is actually (30b), the obligatory (subject) control example. As the reader can easily check, the case associated to the single nominal argument in the matrix clause is absolutive, the O-case, and not the ergative or S-case (for 'subject') which is seen in all other examples in (30), crucially including the sentence involving an embedded tensed clause (30a). In other words, the grammar of Basque seems to 'bypass' obligatory control infinitival clauses in terms of the Case/person system, marking relevant clauses with no overt case and not having them determine a personal agreement in v. This thus seems to suggest that, in (28a) above, we should not be trying to value person features in v in terms of the infinitival clause, and that in fact the analogy between (28a) and (28b) can be carried only so far, especially when we observe how (30a) in Basque does involve both the agreement and the Case system, that is when things come down to more standard complement clauses.

What I have just said suggests that v itself may or may not exhibit a Case/person-agreement system, just as T does. When complement embedded clauses are tensed, it would seem that v does involve the system in question, but when embedded clauses are infinitival something more subtle happens: if the infinitival employs a subject in need of Case/person specifications (ECM) then v comes with its activated settings; but if the infinitival employs a subject which does not need Case/person specifications (control) then v comes without those settings activated. At least in 'nominaccusative' languages; in 'ergabsolutive' ones, v still has to be active, but not with respect to the complement clause; rather, v determines the Case/person properties of

the subject. It is natural to ask then whether v is entirely similar to T, in that when it is full (licensing a Case/agreement system) it specifies some interpretable, Tense-like properties of the verbal system, but not otherwise. Suppose the answer is 'Yes', and in the spirit of many recently we take v to determine, in particular, Aspect. If the parallelism is complete, then, a partial v should not determine full grammatical Aspect, the way a full v does.

That idea can be tested in terms of the phenomenon of clitic climbing:

(31) a. * Juan lo dijo [que la tierra es]   (Cf. Juan dijo [que la tierra lo es])
           Juan it said that the earth is   Juan said   that the earth it is
                                                       'Juan said that the earth is that'

   b. Juan lo intentó [[PRO perder]]   (Cf. Juan intentó [perderlo])
        Juan it tried   to.lose   Juan tried   to.lose-it

   c. * Juan se hizo [a María volver loca] (Cf. Juan hizo a María [volverse loca])
        Juan self made to Maria turn crazy   Juan made to Maria turn-self crazy
                                                     'Juan made Maria go crazy'

   d. * Juan se vio [a María volver loca] (Cf. Juan vio a María [volverse loca])
        Juan self saw to Maria turn crazy   Juan saw to Maria turn-self crazy
                                                     'Juan saw Maria go crazy'

   e. ?? Juan lo parece [t estar]   (Cf. Juan parece [t estarlo])
        Juan it semms to.be   Juan seems   to.be-it
                                                    'Juan seems to be that'

The climbing of clitics is perfect only in infinitival structures involving a PRO subject (31b). It is marginal in structures involving raising infinitivals (31e) and entirely impossible in structures involving either personal infinitives (31c/d) or tensed clauses, as we already saw in section 2. Strikingly, there is a correlation between the Basque examples involving agreement as in (30) and the Spanish examples involving clitics as in (31): wherever object agreement is possible, and in fact overt, in Basque (30a/c/d), clitic climbing is impossible.

The reason I believe clitic climbing serves to test aspectual specifications has to do with the fact that sentences which exhibit climbing involve some sort of coincidence between the matrix and embedded events, in a way that sentences which do not exhibit climbing do not. This cannot be tested for raising predicates, as in these instances the matrix and the embedded event are entirely co-temporaneous: if John seems to be tired his being tired and his seemingness to be so completely coincide. However, if John tries to lose weight, his trying and his succeeding in the relevant task need not coincide at all. So if we are careful with the examples, we may be able to tease apart aspectually linked from aspectually separate events. Consider (32) in this respect:

(32) a. A Moby Dick, Ahab intentó atraparlo (#durante décadas)
           To Moby Dick Ahab tried   to.catch-it during decades

   b. A Moby Dick, Ahab lo intentó atrapar (durante décadas)
        To Moby Dick Ahab it tried   to.catch during   decades

In (32a) —without clitic climbing— the matrix and the embedded event are separate. In contrast, in (32b) the climbed clitic signals a partial coincidence of matrix and embedded events: the trying event lasts until the inception of the catching event. If this is the correct description, then the question is what the adverb *durante décadas* 'for decades' modifies. In (32a), it must be the lower event of hunting Moby Dick; that's a non-sensical reading, since even Ahab would take a break from his relentless hunt during winter (the hunt per se did not last decades, but at most a few months). In (32b), in contrast, 'for decades' can modify the event of trying which extends while the hunt does not succeed; that is a perfectly sensible reading of the sentence, indeed the tragic leit motiv of the novel. The reason this reading is possible is because the adverb is in construction with a complex 'hunt-trying' eventuality that we somehow obtain in connection with clitic climbing.

The facts are confirmed in (33):

(33) a. El   meteorito, a las 12.00 NASA intentó destruirlo   (a su entrada
        the meteorite at   12.00 NASA tried   to.destroy-it at its entrance
        posterior en la   atmósfera).
        posterior in the atmosphere

     b. El   meteorito, a las 12.00 NASA lo intentó destruir (#a su entrada
        the meteorite at   12.00 NASA it tried   to.destroy at its entrance
        posterior en la   atmósfera).
        posterior in the atmosphere

When the matrix and the embedded event are not joined in correlation with clitic climbing (33a), independent, non-coincidental temporal modification of each sub-event is possible: NASA tried something at 12.00 whose consequences would be felt later, if at all. In contrast, when the matrix and event events are joined (33b), this type of separate modification is impossible.

Suppose the following, somewhat natural correlation holds:

(34)   Partial Aspect <–> Weak v

We saw in (30)/(31) that complete v coincides with absence of clitic climbing; suppose the converse is true as well (idealizing the fact that (31e) is not perfect): partial v coincides with clitic climbing. If so, (34) can be strengthened to (35) (at least for languages with F and clitics):

(35)   Partial Aspect <–> Weak v <–> Clitic climbing

There is an obvious family resemblance between the statement in (35) and the one in (36):

(36)   Partial Tense <–> Weak T <–> Clitic climbing

That is, clitic climbing is possible not just across weak v, but also across weak T, the head of the embedded clause where clitics originate. And of course, these are bijective implications, so we are also demanding it to be the case that full T or v correspond with a strong T or v carrying person features, and importantly also *absence* of

clitic climbing. That describes both (31a), where clitic climbing would be across a tensed clause boundary and (31c/d), where clitic climbing would be across a subject.

One cannot fail to mention, with Quicoli (1976), the connection this must have with the situation involving the classic Tensed Sentence Condition (TSC) and Specified Subject Condition (SSC). This suggests that the bit in (35) and (36) that involves a given T or v (henceforth generalized I) having person specifications if and only if it induces a kind of opacity in their domain relates to the still unclear nature of TSC and SSC. In current terms:

(37) *The Person Generalization*
    Full (as opposed to weak) generalized I <–> Person (as opposed to only number) features in I

Full generalized I implies a kind of semantics involving Tense and Aspect specifications, apparently the ones incompatible with clitic climbing. This, for some reason, has to do with the fact that full generalized I involves person features (the key to TSC/SSC situations).

I will not discuss in this paper why the Person Generalization in (37) should hold, as it is clearly not logically necessary, natural though it is (basically, richer morphological structure corresponds to richer semantic structure). The generalization obviously holds beyond the I system; thus neither the D, nor the C or any other systems (whatever is involved in small clause or participial agreement) involves person features in Agree operations. It is also the case that standard minimalist analyses assume (37), albeit implicitly. For instance, in all recent works by Chomsky it is full T that has corresponding person and 'real' Case features, while partial T does not. Logically it could have been the other way around, but the entire system would collapse if this were the case. Thus observe:

(38) *John to love Mary.

If the person/'full'-Case system were optional for T, nothing would rule out (38). It might seem that making the (non-obvious) assumption that person features are both obligatory and uninterpretable in nouns takes care of the problem, since a personless T would not be able to eliminate these allegedly uninterpretable features. But consider (39):

(39) *PRO loves Mary.

Whether PRO does or does not have uninterpretable person features we can always find an unwanted representation for (39): if PRO does have such features, we generate (39) with full T; otherwise, we generate (39) with partial T. It can't be the case that PRO has and does not have uninterpretable person features, hence there is no way of ruling out all possible representations for the ungrammatical (39). So the Person Generalization is necessary.

The only thing I am doing is generalizing the Person Generalization to v. Independently of anything we have discussed so far, this must also be true in other minimalist accounts, given (40):

(40) a. *Jonek Miren   maite da   b. *John loves PRO
         Jon-S Miren-O love is-AgrS
         'John loves [no PERSON in v] Mary'

We cannot say that person features in v are merely optional, or (40a) would be good in Basque (the example is untestable in English in simple transitive structures). Even if person features were uninteptretable that system would fall apart, given the ungrammaticality of (40b), for the same reasons it would fall apart inasmuch (39) is ungrammatical.

4. The Minimal Array Condition and a puzzle it creates

But how does the Person Generalization actually help us build structures? What exactly goes wrong with a structure that does not satisfy this generalization? In simple transitive structures, this is easy enough to state. Suppose person features are added to a lexical array only when necessary, as expected if the construction of lexical arrays is sensitive to an economy condition minimizing information:

(41)   *The minimal array condition* (MAC)

       Given a collection of substantive items, select into the array only those Case/person dimensions that are necessary for convergence.

MAC applies within phases, and results in generalized I having only a number dimension (thus null Case specifications) by default, but not a person dimension (thus full Case specifications) unless something in the substantive items chosen demands it. For example, if upon construction of a v phase we include only a DP, then we could choose not to invoke person features in v (given an assumption about the next phase that I return to immediately); if in contrast the v phase is to involve more than one DP, we must choose to invoke person features in v.

Notice that, within the assumptions just given, convergence of a transitive structure is impossible at the v phase, since only v's person/Case system is involved for one of the arguments. This must mean that convergence for the purposes of MAC is determined in one phase *and the next*, and also that a given phase must be able to detect whether a particular feature has been checked in the previous phase and thus a further person/Case dimension should be made operational. Perhaps this only happens at the edge of the lower phase, as suggested in Chomsky (2001) for transformational processes. If so, MAC at the C phase will be able to detect whether the subject (the hierarchically highest argument) in the v phase is in need of activation of the person/Case dimension in T or not. The situation where that is the case concludes at this point: the sentence is transitive with familiar properties if there was a person/Case involved in the lower phase, or unaccusative/passive if there was no person/Case active in the lower phase. In any event, the argumental properties of the C phase end then and there, as the last argument in need of checking its person/number features meets the relevant valuation and Case requirements in T.

It is worth considering how languages differ when only one argument is involved in a v phase (unaccusatives). An interesting tension arises between representational

and derivational demands: the ideal representational option, according to MAC, is to do nothing whatsoever about the grammatical demands of a phase —at that derivational stage anyway— in the blind hope that these will be taken care of somewhere else; this is because this 'short-term' strategy involves less extra grammatical featural baggage, hence is representationally more economical. But that inevitably creates more computation, since eventually the derivation will need to converge by addressing the grammatical demands that were left unsolved, possibly by way of several extended movements. A derivationally more economical strategy would be to resolve all checking demands right at the v phase, at the cost of adding representational machinery already at that stage. When sentences are complex enough (transitive), these possibilities are untestable, since in any case arguments have to abandon the v phase in search of Case. But for simple unaccusatives there is a decision to be made: either to go economical in representational terms or in derivational terms; the first instance involves object Case in unaccusative 'subjects', whereas the latter does subject Case —a well attested parametric difference.

Consider next derivations involving embedded clauses. If these are paratactic, they will be no different from what we just said, since by hypothesis these sorts of derivations involve a DP complement. How about hypotaxis, though? As we saw for (28b), arguably true hypotaxis is impossible when regular CPs are involved and now we want to understand why that is. This would follow if MAC is blind to detailed feature specifications, and can only detect whether a given category (in this instance C) is complete or partial. Let's assume, furthermore, that if MAC detects a complete C/D category, it automatically determines that person/Case specifications in the I system must be activated. Unfortunately CPs, unlike DPs, do not have interpretable person specifications to value the blindly activated person/Case dimension; thus the activation of the person/Case system turns out to be too hasty, and the relevant derivation crashes. Languages with a subjunctive system have a way of resolving this tension: the overt F element that is possible in these languages provides interpretable person specifications in C, just in time to save the derivation from crashing by having those features value the person/Case dimensions that MAC has activated upon recognizing a complete C.

In contrast, two different situations emerge when MAC detects a partial C, corresponding to (generalized) raising and Control, respectively. Let's examine raising conditions first. MAC detects a full DP which is still 'live' in the derivation (and will undergo Agree and possibly Move) and hence the need to activate the person/Case dimension. In principle it now has two options: to place relevant features in v (ECM or subject-to-object raising) or do nothing until the next phase (subject-to-subject raising). This once again creates the (now intralinguistic) tension between representational and derivational demands that we saw for unaccusatives: in this instance, too, the grammar has the option for a given phase to literally 'pass the buck' to the next, thus involving no person/Case representational options, at the price of more delayed computation. From this perspective, ECM and raising are abstractly identical; morphologically and semantically, however, they exhibit rather different properties. If person/Case is activated at v, we will have object agreement and rich Aspect

specifications (thus, for instance, preventing clitic climbing). If person/Case is activated at T, we will have subject agreement and poor aspect specifications (thus, all other things being equal, more or less marginally allowing clitic climbing across the partial v element).

Finally, consider the interesting situation that arises with obligatory control. We have seen from Basque examples that control never involves agreement in person, which must mean that, unlike in situations involving regular movement to object or subject positions, the system does not detect any DP 'live' with person features unchecked at a lower phase. This is plausible if, as we have already suggested, PRO does not have person features, and is thus entirely invisible to the person system. More specifically, we are assuming that MAC blindly acts when detecting a complete C/D element; in this instance it detects none, since both C and the D subject of its complement IP are partial D elements (null C and PRO, respectively). MAC decides not to invoke person features for v, since it need not.

In turn, recall that PRO is always a surface subject, although it may be a deep object (42a), indirect object (42b), or of course subject (42c):

(42) a. I tried [PRO not to arrive t late]
      b. I tried [PRO to be given [t a present]]
      c. I tried [PRO to [t give [Mary a present]]]

In other words, PRO is always the hierarchically higher argument, in configurational terms. This would follow if the person system implicit in MAC essentially does not detect PRO, as it has no person specifications. In other words, it makes no sense to say that PRO is, say, the lowest element in (42c), among the arguments of *give*, if MAC doesn't even 'know' that PRO happens to be live. The fact that PRO is always the last element in the thematic array of a predicate is because 'last' simply means that nothing has recognized PRO in the core systems of the sentence (Case and person agreement), and eventually the element gets to be identified in terms of default systems of number and null Case, getting its interpretation via the process of control (whatever that turns out to be).

Multiple PRO's are also impossible, which is currently taken to follow from the fact that only partial T assigns null Case. Of course, that's no explanation: we want to understand why only partial T has that property. In fact, in my system all partial I elements could in principle assign null Case, so the question of why (43) is bad is entirely pertinent:

(43)   * [I tried [[PRO to see PRO]] (Cf. 'I tried to see myself.')

The answer is straightforward in a blind system of the sort just presented: (43) is ungrammatical because there is no way of telling one invisible argument from another. Indentifying a 'last' element as having theta properties and not having participated in the person feature is doable, but only once.

Consider also the fact that PRO is not generally possible as a matrix subject:

(44)   *PRO to love Mary.

Actually, a sentence like (44) becomes possible if it is highly affective, which presumably involves an overt F position even in English:

(45)   Ah, PRO to love Mary!

So it seems that the impossibility of (44) has nothing to do with MAC or any condition on the valuation of T or the features of PRO; rather, what is missing in (44) is an interpretation for PRO, which is achieved in (45) in discourse terms (the speaker is the referent).

Rizzi's contrast in (1), repeated now as (46), is also important:

(46) a. [To talk to her] is what he should at least try __ .
     b. * [To have talked to her] is what he definitely seems __ .

Why can the infinitival in (46a) cleft, unlike its counterpart in (46b)? Suppose this sort of clefting is an indication that the elements within the infinitival get their grammatical functions determined internal to this phrase (e.g. PRO in *to talk to her* checks its null Case in association to T), and thus the clefted structure acts as an independent unit. In *he to have talked to her* the overt *he* cannot check its (full) Case features against defective T, and must instead invoke the upper *v* in the next clause up; as a result the infinitival phrase is not independent and cannot be freely clefted.

To be fair, however, it should be said that (46a) seems far from perfect in English, and it sounds clearly worse than its Spanish counterpart in (47b) or even the English variant in (47c) ((47a) has my own judgement for (46a); Rizzi's original examples were in Italian):

(47) a. ?? [To talk to her] is what he should at least try __.
     b.   [Hablar con ella] es lo que debería   cuando menos intentar __.
            to-talk with her is it that should.he at   least try
     c.   [To talk to her] is what he clearly wants __.

As noted above, the Spanish example in (47b), unlike the corresponding English sentence, presumably involves the F projection. Perhaps this too is involved in, specifically, the clefting process. One reason for this might be that a CP with an incorporated F is, in essence, a DP in my terms, unlike a CP without F features. The structure of clefts arguably invokes predication over a DP, thus is entirely compatible with a C+F=D projection, but is degraded in a mere CP projection. If so, the complement of English *want* (and perhaps, more generally, of verbs involving partial control, as noted by Martin 1996) might involve the F projection at LF, since (47c) seems much better than (47a).

The final problematic instance to discuss is (2) in section 1, repeated now as (48):

(48)   * I *v* believe [PRO to be old]
                        IP

Evidently, this would be predicted ungrammatical if *v* were forced to invoke the Case/person system. But why should it, given everything we have said so far about PRO being invisible to the system? And needless to say, if PRO is not there for the

purposes of MAC, v should have no person features, just default number features. Can't PRO check those number features, valued in terms of a null Case in v?

A natural stipulation is available to us: the number features of PRO are uninterpretable. This can be independently argued for on the basis of the facts in (49):

(49)

  a. Quedarse   callado   en una situación así es casi   imposible.
     to.remain-self silent-masc-sing in a   situation thus is almost impossible

  b. Quedarse   callados   en una situación así es casi   imposible.
     to.remain-self silent-masc-pl in a situation thus is almost impossible

  c. Quedarse   callada(s)   en una situación así es casi   imposible.
     to.remain-self silent-fem-sing/pl in   a situation thus is almost impossible

There is considerable idiolectal variation in Romance with regards to the kind of number concord that one can associate to arbitrary PRO. Some speakers invoke III, singular (49a), some III, plural (49b), some (assuming the speaker is either female or politically correct) III feminine, singular or plural (49c). This suggests that PRO per se has number features as a grammatical fact, not an interpretable one. If this is indeed the case, then PRO could not value v's number features in ungrammatical ECM/control constructions like (48), as PRO would check (and erase) these features against the embedded T. That would neatly solve the classic problem that (48) poses. Unfortunately, it also creates immediate problems for (50):

(50)   Armstrong tried [PRO to be seen [t to appear [t to be tired]]]

If (50) is grammatical, it is unclear how PRO with uninterpretable number features can value more than one such feature in T. A similar problem is posed by (51), involving expletive raising:

(51)   [There is likely [t to seem [t to be a man in the room]]]

Chomsky (2001) stipulates that a partial T is incapable of eliminating the uninterpretable person feature of the pleonastic, hence this element can keep raising until it hits the sort of complete category where that feature is eliminated (matrix T in (51)). That sort of solution does work also for the uninterpretable number feature of PRO, as it would be active in all the intermediate steps in (50), thus carrying PRO upwards. But it poses two problems. First, how do we ever eliminate the uninterpretable feature in PRO, then, if in my terms all the T's that PRO visits are partial? Plausibly, control eliminates this feature by making the PRO chain collapse, in Martin's (1996) terms, into the chain of the antecedent. More seriously for the puzzle that (50) poses, however, if the embedded T in (50) has not erased the uninterpretable number feature in PRO, why can't PRO raise to v and check its number features?

One further stipulation, implicitly or explicitly entertained in all minimalist analyses I am familiar with, is that for some reason v does not engage the null Case system; in other words, (surprisingly) null Case is an exclusive property of partial T, not a property of generalized partial I. If so (48) could be ruled out in terms of the

number dimension of v not being valued by PRO, since the last site where PRO could be activated in terms of null Case is the embedded T, and this null Case is used up by way of PRO checking number features in that T. From this perspective, we could still say that partial T cannot eliminate the uninterpretable number feature of PRO any more than it can eliminate the uninterpretable person feature of *there* in (49), thus predicting the grammaticality of (48); that would not be what rules (48) out —lack of Case for PRO would.

That of course makes predictions not just for PRO, but also for other elements which arguably need null Case, if these exist. Consider (3) in section 1, repeated now as (52):

(52)   I tried v [[PRO to lose some weight]]

MAC makes v have no person features, but it still has number features by default. These are easily checked by the CP. We have been assuming so far that the way to do this is through Case activation, which would have to be null Case in this instance as it does not involve the person system. But if v has no Case whatsoever, it must be that clauses do not need Case visibility in order to engage into probe valuation. That is a reputable position that is explicitly defended in Stowell (1981), although it remains to be seen whether it can generalize in present terms. The idea goes well with the tendency of many S-O-V languages (such as Germanic ones, where presumably objects are realized at PF in their Case checking position) to still present the S-V-CP order, which would perhaps correlate with absence of Case checking for the clause. Then again, in some other languages, especially those where complementizers are also last (e.g. Japanese or Korean), clauses are first, as objects are. One would have to say that in those instances clauses have either person features or a DP analysis, as in the paratactic proposal we saw. Most of these questions are beyond my scope here.

Needless to say, I am not particularly eager to give up the idea that v is *completely parallel* to T, even in its null-Case/number properties. If T and v are but two instances of a generalized I, it is far from clear that null Case should be anything other than a trivial property of the partial option, associated to number features. For what it's worth, (48) is the only instance I know of where PRO checks a feature in v. In simple transitives, where v has both person and number features, it is a full DP that does the checking; the same is true of paratactic constructions, essentially simple transitives, and even hybrid paratactic ones where what checks the v features is a CP enriched with a person-bearing F. In grammatical ECM structures, where again v has both person and number features, the valuation is also done by way of a full DP. In grammatical raising, either v is not involved at all (as in Chomsky 1995) or else v does not have any person features (in order to meet Burzio's generalization, as in Chomsky 1999); if it has number features, the raising, regular DP could check them. Finally, in grammatical control structures it is always a CP that checks the number features in v, which has no person features. So perhaps there is something wrong with PRO checking a number feature of v, as in (48), since what checks the features of v is always a full DP or a CP (which for us is also a DP, albeit a personless one).

5. Conclusions and avenues for future research

This paper tries to simplify certain assumptions within the Minimalist Program, as pursued in Chomsky (1999) and (2001). In particular, rather than proposing different sorts of T for regular, control, and raising constructions, I argue that the system can be simplified by assuming a single expression, albeit one that presents differences in its morphological make-up. Such differences turn out to be very important in various domains, as the computational engine appears to work best with categories that it identifies as complete, or full of their canonical features. Thus checking proceeds differently if a category is complete or not, in which case the process can iterate; similarly, complete categories are identified by the part of the system responsible for assembling lexical arrays as elements in need of corresponding functional structure (of the Case/agreement sort). In this spirit, I take complete D categories to participate in a Case system whose essential characteristic is that it is personal, whereas partial D elements engage on a default sort of system (Null Case) which correlates with mere number specifications, not person ones.

Differences in featural completeness are obvious, and have been already exploited in some instances by Chomsky in (2001). I am attempting to systematize that intuition, showing how pursuing it seriously has interesting consequences for a variety of subsystems, and different parametric specifications across languages. In general, I am studying in this paper the relation between fully specified categories, a rich Case/agreement system, and a full-fledged semantics —and the converse situation: partially specified categories, an impoverished Case/agreement system, and a somewhat partial or even degraded semantics. The paper does not explain this correlation, but suggests that assuming a natural mechanism for implementing part of it, has some considerable empirical pay off without adding theoretical baggage. My main theoretical proposal is the Minimal Array Condition (MAC), which is to be understood as an economy (of design) condition that tells the computational system how to best build its first access to lexical representations. The constructive role of MAC interacts with the presence of parametric options depending on the nature of a peripheral F category which, if I am correct, is responsible for point-of-view/person specifications.

I have been considering an approach to (48) in purely featural terms, seeing what are possible and impossible checkings, given some reasonable assumptions that extend beyond this instance. We have seen that the only simple way to account for the ungrammatical example is in terms of the set of stipulations we have discussed at the end of the previous section, the last of which is particularly troubling. More importantly, we have not said anything insightful about the correlations we have encountered about controlled PRO, its being null and its appearing in tenseless constructs. To add to the mystery, we have observed TSC and SSC effects on clitic climbing in precisely the domains were PRO is involved, which my system so far is consistent with, but has not predicted. The latter immediately suggest that Binding Theory should be implicated in some form. Interestingly, the traditional account of (48) is in binding terms, as a violation of either condition A or Condition B of the Binding Theory. This theory also had something serious to say about why PRO

appears in tenseless (ungoverned) contexts, and why, consequently, it had to be null (short of violating the traditional Case Filter). It is thus possible that in order to solve the puzzle that (48) poses, and gain some insight on the distribution and shape of PRO, we still need some version of familiar binding conditions. Though reasonably straightforward, pursuing this matter here would take us too far afield, thus I leave the matter for future research.

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