

Double-Object Perception Verbs and Cross-Clausal Anaphoricity¹

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Abstract

In this paper perception verbs (PVs) in Bulgarian, Greek and Spanish are argued to allow for double-object subcategorization frames consisting of a phrasal object and a finite clausal complement. In all three languages an obligatory link of coreference is shown to project between the phrasal object and an external(ized) or internal argument of the clausal complement. As inter-object PV-coreference is obligatory and so is argument status of the participants in the relation the data reviewed support a comprehensive Theory of Control where obligatory referential dependence of an argument is compatible with Standard (as well as Null) Case. The analysis outlined here extends proposals by Suñer (1984/1984) for compatibility of Control and Nominative Case to compatibility of Control and Accusative/Dative Case. Theory-internal considerations and empirical evidence invalidate alternative approaches developed for Greek Control subjunctives which have been argued to license Null Case against a temporally deficient Infl (Varlokosta & Hornstein 1993) or against subjunctive particles heading MoodP (Terzi 1992/3). Neither traditional Case-deficiency formalized as Null Case (Chomsky & Lasnik (1993) and related work) nor non-lexical status of the controllee (Sigurðson 1991) can be defined in absolute terms vis a vis Control. Both lexicalization of the controlled *ec* and its Case specification are viewed as parametrizable, as opposed to coreferentiality which underlies Control universally and, subsuming it under Binding, is crucial for Full Interpretation. To ensure proper identification of controller and controllee it is proposed that their *Interpretable* φ -features are juxtaposed via Move-F(eature) in a designated Head-Head checking configuration for the licensing of [Ctrl]. [Ctrl] is thus treated as a sublabel of Comp of the clausal complement of PVs, as a tribute to their special Control subcategorization properties.

1. Introduction

Government-free Minimalism (Chomsky 1993/5) presents a challenge for Control Theory. There is no syntactic primitive which could regulate the distribution of PRO, the controlled empty category (*ec*). It remains for the match/mismatch of formal features (FFs), which are the driving force behind syntactic movement (Last

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Resort in Chomsky (1995)), to compensate for the invalidated PRO-theorem.² In other words the FF matrix of PRO and the specification of licensing functional heads should be held responsible for the non-occurrence of PRO in what LGB terms “governed positions”, viz. The Spec of [+Tense] Infl and the complement position of a transitive verb.

For the sake of theory-internal consistency Minimalism posits “Null Case” (Chomsky & Lasnik (1993) and subsequent work) as the FF propelling PRO from the position in which it is merged to the Spec of [-Tense] Infl (= reunited AgrS and Tense), presumably on the analogy of [Nominative] motivating raising of a finite subject to the Spec of [+Tense] Infl. Current assumptions are silent as to what bans PRO from the Spec of [Accusative]-licensing AgrO. The question that arises is, if Tense-deficient Infl can license Null Case, can transitivity-deficient AgrO similarly do so? Related to that is the core issue of whether a (bi)unique correspondence obtains between Null Case specification and (obligatory) referential dependence of an argument, and also whether there is a correlation between phonological non-realization of an argument and Null Case/Control status.

(1-3) list the set of data from three languages - Bulgarian (Bg), Greek (Gk) and Spanish (Sp) - based on which this article will attempt to provide answers to the questions posed above:

- (1) a. Vidjaxa Boril_i [_{CP} [_{AgrS/TP} ec_i [_{MoodP} da vliza usmixnat *Obj-Subj* (Bg)
saw-3PL Boril DA come-in-3SG smiling-MASC
'They saw Boril coming in smiling'
b. Vidjax Boril_i [_{CP} [_{MoodP} da [_{CLP} ec_i go otveždat *Obj-Obj*
saw-1SG Boril DA him-CL take-away-3PL
'I saw Boril as they took him away'
- (2) a. Akusa ton Yanni_i [ec_i na klei *Obj-Subj*(Gk)
heard-1SG the-Acc Yanni NA cry-3SG 'I heard Yanni crying.'
b. Iða ton Yanni_i [_{na} [_{CLP} ec_i ton parasimoforon *Obj-Obj*
saw-1SG the-Acc Y. NA him-CL decorate-3PL
'I saw Y. as they decorated him'
- (3) a. Vió a las niñas_i [que ec_i hugaban en el arroyo *Obj-Subj* (Sp)
saw-1SG A the girls that play-3PL in the creek
'(S)he saw the girls playing in the creek'
b. Vió a Pedro_i [que ec_i [_{CLP} lo condecoraron *Obj-Obj*
saw-1SG A Pedro that him-CL decorate-3PL
'(S)he saw Pedro as they decorated him'

² But in some analyses the PRO subject of a Control subordinate clause is governed (by the matrix predicate). (Cf. E.G. Varlokosta and Hornstein (1993) and references cited there.)

The key typological feature which all three languages discussed here share is *multiple pro-drop*. Bg, Gk and Sp may or may not lexicalize the subject position, in which case the external(ized) argument is deduced from the overt subject-agreement marking on the clausal predicate: all matrix clauses in (1-3) have *pro* subjects. Similarly, if *doubling* object pronominal clitics (CLs) (cf. the (b) examples in (1-3) for DOs, (4) for IOs) are treated on a par with object-agreement markers heading an AgrDO/AgrIO-type of functional projection³ and CLs on their own are by uniformity treated as CLs doubling a phonologically null argument DP, then *pro-drop* extends to (in)direct objects.

In all (b) examples above the CL-doubled DO position in the subordinate clause is phonologically null and like the subordinate subject *ec* in the (a) examples it is referentially dependent on the phrasal matrix object. The same holds for CL-doubled IO *ecs* in (4):

- (4) a. Vidjax [_{CLP} *ec*_i ja_i da [_{CLP} *ec*_i i_i davat cvetja] (Bg)
 saw-1SG *ec* her-CL DA *ec* to-her-CL give-3PL flowers
 'I saw her as they were giving her flowers'
- b. Epjasa ton Petro_i na [_{CLP} *ec*_i tou_i kanun tatuaz] (Gk)
 caught-1SG the-ACC P-ACC NA *ec* to-him make-3PL tattoos
 'I caught Peter as they (were tattooing) him'

In the sections to follow verbs of perception (PVs) like 'hear', 'see', 'notice', 'catch/witness' in Bg, Gk and Sp⁴ will be shown to allow for double-object subcategorization frames including a phrasal object (*Boril* in (1), *ton Yanni* in (2), *a las niñas/a Pedro* in (3), *ec* in (4a), *ton Petro* in (4b)) and a clausal object headed by Bg/Gk variants of the Balkan subjunctive particle *da/na*⁵, Bg *kak/če* 'how/that', Gk *pou/Sp que* 'that' (on a complementizer, rather than on a relative *wh* reading).

- (5) *perception verb* - DP - *da-, kak-, če-*clause (Bg)/*na-, pou-*clause (Gk)/*que-*clause (Sp)

In all three languages an obligatory link of coreference will be shown to project between the phrasal PV-object and either the subject (1a/2a/3a) or the clitic-

³ Cf. Sportiche's (1992/6) Clitic Voices for Romance, Alexandrova's (1996b) CLP for Bg.

⁴ According to Suñer (1982/4) PVs are a subset of control Vs of double-object subcategorization alongside with verbs of causation such as 'let', 'make', 'force'.

⁵ Cf. Rivero's (1994) clausal structure of Balkan languages where *da/na* project MoodP; Rudin (1983) for Bg *da*.

doubled direct (1b/2b/3b) or indirect (4) object of the clausal PV-complement. It will be argued that these data support a comprehensive Theory of Control where obligatory referential dependence of an argument is compatible with Standard as well as Null Case. In this sense the analysis proposed here extends earlier proposals by Suñer (1984) for the compatibility of Control and Nominative Case to compatibility of Control and Accusative/Dative Case. Coindexation of controller and controllee will be argued to take precedence over controlled Case as the former is crucial for LF Full Interpretation, whereas the latter being the "prototypical formal feature" in Chomsky's (1995) terms becomes inaccessible to the computation by LF due to erasure after checking. Thus coreference is the core notion to Control and the Case value of the controllee is parametrizable. Preferential non-lexicalization of the controlled argument will be treated as a reflex of some version of the Avoid-Pronoun Principle, whereby natural language discourages (lexical) redundancy if mechanisms instrumental in recovering a minimal set of +*Interpretable* features are made available. Based on data from the languages discussed here it will be argued that [-lexical] status of the controllee cannot be viewed in absolute terms, just like [-Case]/[Null Case] status, and Sigurðsson's (1991) view of Control as allowing standard Case but invariably suppressing lexicalization will be replaced by the view that lexicalization of the controllee is as a rule discouraged but becomes (marginally) possible e.g. when entailing emphasis/focus.

2. The dual subcategorization frame of perception verbs

2.1. A definition of Last Resort

Minimalism recognizes operations like Select /Merge introducing items into the derivation and operations like Attract/Move applying to selected/merged items. Attract/Move is governed exclusively by Last Resort according to recent modifications in the model. Below I provide a strict version of Last Resort, defining syntactic movement as satisfying the needs of *both* moving item and target, rather than satisfying disjunctively the needs of one *or* the other:

(6) Last Resort:

- (i) An item α moves to a target β to license formal features in the FF-matrix of α , and/*or
- (ii) A target β attracts an item α to license a sublabel of β

Building on the theoretical shift from 1) *Greed* catering to the needs of moving items alone to 2) Lasnik's (1995) *Enlightened Self-Interest* & Chomsky's (1995) recognition of the needs of hosting targets as well as hosted material, (6) goes a step further in providing a *conjunctive* definition of Last Resort. In a FF-checking model movement is by necessity derivative on the notion of FF-matching as a

condition for the licensing of FFs. Barring cases of acceptable default non-match, (6) is the correct rendition of syntactic movement. I accept it as the operative definition for Attract/Move in the discussion to follow, where compliance with Last Resort is used as the determinant for the (non)availability of positions within the internal argument domain of PVs in Bg, Gk, and Sp, as well as within their embedded clausal complements.

2.2 Deducing the internal argumentation of PVs

This subsection demonstrates that PVs have a choice of realizing one (phrasal or clausal) Obj-argument or two (phrasal plus clausal) arguments. The latter case presents interest for the analysis of Control proposed below. Establishing that the designated controller and controllee are not e.g. members of a single movement chain is a necessary condition for upholding the Control hypothesis as the logical explanation for the coindexation of non-clausemate entities registered above.

Starting with Bg, (7a-c) pose no problem as to identifying the number of internal arguments - there is exactly one object: (7a) has a simple DP, (7b) exemplifies the CL-doubling option, and (7c) has a CL-doubled *pro* on the null hypothesis assimilating CLs on their own to doubling CLs.

- (7) a. Vidjax Asen b. Vidjax go Asen (Bg)
 saw-1SG A. saw-1SG him-CL A.
 c. Vidjax go d. Ne vidjax Asen da tancuva
 saw-1SG him-CL not saw-1SG A. DA dance-3SG

(7d) however is controversial. Since Bg nominals lack explicit Case marking *Asen* can in principle realize a Nominative or an Accusative DP. Moreover, clausal subjects of *da*-clauses surface to the left of the subjunctive particle and never immediately after it, so that nothing contradicts the subordinate-clause subject analysis of *Asen*. Additionally, an unambiguously Nominative-marked pronoun can be substituted for the proper name corroborating its analysis as embedded subject:

- (8) Ne vidjax ...[... [_{AgrS/TP} Asen/toj]_i [_{MoodP} [_{Mood} da [_{VP} t_i [_V tancuva (Bg)
 not saw-1SG Asen/he DA dance-3SG
 'I did not see Asen/him dance'

So far evidence points to *Asen* checking [Nom] and subject agreement ϕ -FFs in AgrS/TP of the embedded clause. This means that *vidjax* 'I-saw' has a single clausal complement. Notice however that an unambiguously accusative pronoun can equally successfully replace the proper name and an accusative pronominal CL sharing its ϕ -FFs can double it:

- (9) Ne (go)_i vidjax Asen/(nego)_i [_{AgrS/TP} ec_i [_{MoodP} [_{Mood} da [_{VP} [_v tancuva t_i (Bg)
not him-CL saw-1SG Asen/him DA dance-3SG (= (8))

Importantly, a feminine singular clitic *ja* 'her' or a plural clitic *gi* 'them' is ungrammatical in the presence of a masculine singular nominal like *Asen*. This forces the conclusion that when a CL-head is merged in the higher clause the proper name is associated to it. Therefore it must be the case that *Asen/nego/pro* check FFs in the AgrOP (or its equivalent) of the matrix clause. Additionally, since the verb in the embedded clause does not take human objects even when it is transitive, no suitable clause-mate target (AgrOP) can be projected within the *da*-clause. This rules out the possibility of *Asen/nego/pro* originating in the embedded clause and consequently raising into the main clause. If the DPs in question can satisfy their FFs in the extended projection of the higher predicate but not in that of the lower predicate they are merged and licensed in the main clause in view of Last Resort. This means that they realize an object structurally independent from the embedded *da*-complement.

In short, even if (9) allows a single clausal complement treatment, it is important to note that the alternative DP-object plus *da*-clause-complement structure is a legitimate choice.

By uniformity within the latter option, even when AgrOPs with identical FFs are available in the main and the embedded clause as in (10),

- (10) Ne [_{CLP} ec_i [_{CL} go_i [_{VP} vidjax t_i [_{AgrS/TP} pro_i [_{MoodP} [_{Mood} da [_{CLP} ec_i [_{CL} go_i [_{VP} t_j [_v otvezdat t_j
not him-CLsaw-1SG DA him-CL take-away-3PL
'I did not see him being taken away/as they took him away'

and the null arguments checking FFs in them are interpreted as coindexed, they still must belong to two distinct FF-licensing chains. Given Minimalist assumptions, (Accusative) Case being [-inter-pretable] is subject to erasure on both target (AgrO) and moving item ([+Acc] DP) after checking. Thus the needs of the AgrOs in the extended projection of the embedded transitive verb and the matrix transitive verb can be satisfied if and only if there are two objects with the relevant specification. Once again, this is in agreement with the hypothesized double-Obj subcategorization of PVs and against the raising-to-matrix-Obj analysis.⁶

⁶ For the sake of precision I should point out that a single clausal argument is a viable option for a Spell-Out ordering as in (i) if *brat ti* "your brother" is assumed to surface in the higher functional layers of the embedded clause. For Bg this would be possible on a Topic interpretation aided by an appropriate intonation contour:

- (i) Ne bix [_{VP} gledala spokojno [_{CP} [_{TopicP} brat ti_i [_{MoodP} da [_{CLP} ec [_{CL} go [_{VP} operirat t_i
not would-1SG watch-PastPart calmly brother your DA him-CL operate-3PL
'I would not watch calmly your brother being operated (on)'

In sum, Last Resort applied to Bg has identified two alternative subcategorization frames for PVs. A PV can take a single phrasal or clausal Obj as illustrated by (7a-c) vs. (8). It can also subcategorize for a phrasal and a clausal Obj (9&10), which is the option pertinent to the discussion at hand.

Gk and Sp have one advantage over Bg: the Case specification of DPs is disambiguated by the morphological marking on nouns and articles in Gk (*o Yannis*, nom. masc. sg., vs. *ton Yanni*, acc. masc. sg.) and by the preposition *a* at least for [+animate] object nominals in Sp. In agreement with (6) the explicitly [Nom]-specified DPs in (11) cannot be analyzed as matrix objects but should satisfy the needs of embedded AgrS alongside with their own.

- (11) a. Akusa [ke o Yannis na klei (Gk)
 heard-1SG and(=even) the-NOM Y. NA cries 'I heard Y (even/ too) cry'
 b. Vió [que (*a) las niñas hugaban en el arroyo (Sp)
 saw-3SG that A the girls played-Imp.Ind.3PL in the creek
 '(S)he saw that the girls were playing in the creek'

If (11) argues for a single clausal object, (12) repeating (2a)&(3a) above trivially supports the phrasal-plus-clausal-Obj analysis:

- (12) a. Akusa ton Yanni, [ec, na klei (Gk)
 heard-1SG the-ACC Y-ACC ec NA cry-3SG
 'I heard Yanni crying.'
 b. Vió a las niñas, [que ec, hugaban en el arroyo (Sp)
 saw-3SG A the girls that ec played-3PL in the creek
 '(S)he saw the girls playing in the creek'

Finally, both Bg and Gk have one advantage over Sp. While *que* in the latter case is ambiguous between a complementizer and a relative *wh*, *da* and *na* being special particles rather than (homonyms of) relative pronouns, discourage the complex DP-analysis of the DP - *da/na*-clause sequence. In the same vein, *da/na*-complements of PVs in these two languages allow *wh*-extraction (13a&b), like Sp *que*-complements of PVs (13c), but their corresponding true relatives predictably do not (14).

Intonation can equally successfully force a double-Obj analysis. Marisa Rivero has pointed out to me that in Sp an embedded Topic is dispreferred.

- (13) a. Kakvo_i ču Maria [da pee t_i? (Bg)
 what heard-2SG Maria DA sing-3SG
 'What_i did you hear [Maria sing t_i?'
 b. Ti_i to korici akuses [na tou lei t_i (Gk)
 what the-ACCgirl heard-2SG NA to-him-CL say-3SG
 'What_i did you hear [her say t_i to him?'
 c. Con quién_i lo ves [que anda t_i en la escuela? (Sp)
 with whom him-CL see-2SG QUE go-3SG in the school
 'Who_i do you see [him going to school with t_i? (Suñer's ex. (17a))
- (14) a. *Kakvo_i ču Maria [kojato pee t_i? (Bg)
 what heard-2SG Maria WHO sing-3SGs
 'What_i did you hear [Maria who sings t_i?'
 b. *Ti_i to korici akuses [pou tou lei t_i (Gk)
 what the-ACC girl heard-2SG WHO to-him-CL say-3SG
 'What_i did you hear [the girl who says t_i to him?'

(13-14) can be taken as a proof that the sequence DP - *da/na*-clause does not equal a complex DP-object, since there are no Complex NP Constraint effects resulting from *wh*-extraction. By extension, the double-Obj analysis is ruled in.⁷

Summing up the results of this section, Last Resort considerations have proved to be an effective diagnostic for the internal argument structure of PVs in Bg, Gk, and Sp. Verbs of this class have been shown to employ a choice of subcategorization frames, viz. one consisting of a single phrasal/clausal object and its complementation-bifurcation alternative, translatable as a Larsonian double-Obj sequence, with the clausal object being more deeply embedded than the phrasal object.

- (15) ... [VP [V (PV) [DP controller_i [V (P V) ... [CP ... [VP (controllee_i) [V (controllee_i) ...

The pivot of the present discussion is the fact that the phrasal object projects a coreferential bridge into the subject or object position of the clausal object. This type of *cross-clausal anaphoricity* seen as a distinctive characteristic of Control (Alexandrova 1995) is the topic of the next section.

⁷ Cf. the detailed argumentation provided by Suñer (1984 :256-262) against the raising to object and against the relative clause analysis for Sp. To rule out the former she employs the θ -criterion prohibiting two θ -roles per chain, Binding Theory prohibiting two Cases per chain, the ECP. The latter, apart from the subjacency test used here (13), is disqualified due to the grammaticality of doubling CLs, which do not as a rule accompany relative clause heads, the compatibility with unique entities (*a Pedro*), which are in principle banned from restrictive relatives, etc. Most of these arguments apply to Bg and Gk but due to the limited space their equivalents will not be discussed here.

3. Inter-object cross-clausal anaphoricity and argumenthood

Due to their rich verbal morphology the three languages under investigation provide a straightforward proof of *obligatory* coreference holding between the PV phrasal Obj and an embedded subject or object. The parallel sentences from Sp (Suñer's (1984) exs. (24a-d) compressed), Bg, and Gk in (16) show that ungrammaticality results from the mismatch of Gender/Number/Person FFs of the matrix DP-object deducible from the morphology of the matrix CL and the Gender/Number/Person FFs of the embedded *ec* subject deducible from the subject agreement on its clause-mate predicate:

- (16) a. [_{CLP} *ec* lo [_{VP} vi [_{CP} que *ec* estaba/*estaban (Sp)
ec-MASC him-CLsaw-1SG that *ec*-MASC was-3SG/*were-3PL
 más alto/*altos/*altas
 taller- MASC/*MASC.PL/*FEM.PL
 'I noticed him to have grown taller'
- b. Ne [_{CLP} *ec* go [_{VP} zabeljazax [_{CP} [_{MP} da [_{AgrSP} *ec* e/*sa (Bg)
 not *ec*-MASC him-CL noticed-1SG DA *ec*-MASC is/*are
 porasnal/*porasnala/*porasnali
 grown- MASC/*FEM/*PL
 'I did not notice him to have grown (up/taller)'
- c. Ton epjasa ton Petro [_{CP} [_{MP} na [_{AgrSP} *ec* kapnizi/*kapnizun (Gk)
him-CL caught-1SG the-P-ACC NA *ec*-MASC smoke-3SG/*3PL
 'I caught Peter smoking'

The parallel extends to (in)direct CL-doubled embedded objects referentially dependent on the matrix phrasal object:

- (17) a. Vidjax (go) Asen da [_{CLP} *ec* go/*ja [_{VP} nagraždat (Bg)
 saw-1SGhim-CL A DA *ec*-MASC/*FEM him- CL/*her-CL decorate-3PL
 'I saw Asen as they decorated him'
- b. Vidjax (go) Asen da [_{CLP} *ec* mu/*im davat nagradata (Bg)
 saw-1SGhim-CLA DA *ec*-MASC/*FEM to-him-CL/*to-them-CL give-3PL prize
 'I saw Asen as they gave him the prize'
- c. (Tin) iða tin Maria [_{CP} [_{MP} na [_{CLP} *ec* tin/*ton parasimoforon (Gk)
her-CL saw-1SG the-M-ACC NA *ec*-FEM/*MASC her-CL/*him-CL decorate-3PL
 'I saw Maria as they decorated her'
- d. (Ton) epjasa ton Petro na tou/*tis kanun tatuaz (Gk)
him-CL caught-1SG the-P-ACC NA to-him-CL/*to-her-CL make-3PL tattoos
 'I caught Peter as they were tattooing him/having a tattoo done (to him)'

e. Lo vi a Paco [_{CP} que [_{CLP} *ec* lo/*los condecoraron (Sp)
 him-CLsaw-1SG A.P. that ec-MASC/*MASC.PL him-CL/*them-CLdecorated-3PL
 'I saw Paco as they decorated him'

The eligibility of the matrix DP-embedded *ec* pairs in (16-17) for Control status is confirmed by adherence to the Control requirement for argumenthood. Consider Bg (18) with a zero-place predicate *ima* 'there-be' in the more deeply embedded clausal complement.

- (18) */? Ne go zabeljazax da ima dostatačno xora i ne ostanax za objad (Bg)
 not it-CL noticed-1SG DA there-is/has enough people and not stayed-1SG for lunch
 (a)*I did not notice *there to be* enough people and did not stay for lunch
 (b)?I did not notice him *having* enough people at his disposal and did not stay for lunch

On the strict *existential reading* of the embedded predicate (18a) the Control link is precluded from the start by the lack of a subject argument of 'there-be' and hence of an eligible controllee.⁸ The sentence may be improved on a *referential reading* of the embedded subject (18b), e.g. a company manager who may "have people", and likewise of its potential controller, the matrix CL-associate. In other words, PV inter-Obj coindexation patterns like referentiality-conditioned Control.

If Arg-status vs. non-Arg-status echo Control-status vs. non-Control-status, an intermediate value in the former opposition is predicted to result in marginal acceptability of double-Obj PV structures if they are in reality Control structures. The prediction is borne out by empirical evidence: a weather verb in the embedded clausal PV-complement which projects a *quasi*-argumental dummy subject results in questionable grammaticality (19), thereby corroborating the Control hypothesis.

- (19) ??? Vidjaxme *ec*, go, [če *ec*, se kani da vali i vzxeme čadări (Bg)
 saw-1SG ec it-CL that ec is-about-to rain-3SG and took-1PL umbrellas
 'We noticed it was about to rain and took our umbrellas with us'

Judgements of native speakers predictably vary meeting the expectation that to the extent to which the embedded weather *pro* subject is interpreted as argumental, given the special double-Obj frame, it will/will not be able to project a cross-clausal

⁸ Mirroring for a PVSuñer's exs (22&23) for Control double-Obj *hay* "there-be" the impersonal reading of *parer* "seem" in (i) is predicted to be ungrammatical as opposed to its personal reading in (ii) in which case starred (18a) is echoed by (i).

(i) **ec*, lo, ves [que *ec*, parece [que comen ... (ii) *ec*, los, ves [que *ec*, parecen [PRO, comer ...
 ec it-CL see-2SG that ec-Imprs seems that eat-3PL ec them-CL see-2SG that ec-3PL seem-3PL eat-INF
 Predictably, the form *que coma* 'that eats' is aligned with personal (ii), rather than impersonal (i).

Control link to the *ec* associate of matrix CL.

To sum up, this section has demonstrated the *obligatory* coreference obtaining between the higher Obj and subject/object arguments within the lower clause of Bg, Gk, and Sp PVs. The three pro-drop languages pattern identically in enforcing a cross-clausal anaphoric bridge as natural language does in instantiations of standard Control. Additionally, data from Bg/Sp corroborate the treatment of PVs on a par with Control environments as the graded acceptability of examples with embedded zero-place and weather predicates reflects the graded argumenthood of the coindexed pairs, just like candidates for controller-controllee pairs do. It will be possible to uphold the Control hypothesis for PVs given that either the designated controlled entity (finite subject or CL-doubled object) is invariably a bearer of Null Case, whether it realizes an external(ized) or internal argument of the embedded predicate, or given that Standard Case ([Nom], [Acc], [Dat]) is not incompatible with Control. Section 4 provides arguments in favor of the latter option.

4. The Control Parameter

In order to show the theoretical and empirical advantages of reconciling Control and Standard Case the global problem can be approached by way of 1. Establishing that coreference and deficient/dependent Temporality need not be forcefully correlated. This paves the path for 2. Compatibility of Control and Nominative Case, and by extension for 3. Compatibility with Standard Case in general. This in turn gains legitimate access to 4. Lexicalization of controllees constrained by emphasis/focus. The outcome of the outlined logical sequencing is the justification of a Com-prehensive Control Theory whose possible implications are sketched in the concluding section 5.

4.1. Parametrized Case

Studies of Control in Gk, which like Bg lacks infinitives but may employ instead finite (subjunctive) clauses, have concentrated on preserving the exclusively subject status of controlled entities. They either set out to demote Tense in finite clauses to a non-Nominative Case-assigner (Varlokosta & Hornstein 1993) or seek alternative licensors of Null Case (Terzi's 1992/3 Gk subjunctive particle *na*) which is deemed to be the prerogative of nonfinite as opposed to finite Infl.

V&H have argued that Gk has PRO- and pro-subjunctives. The former generate referentially dependent null subjects and only the latter allow subjects of disjoint reference. This partitioning is argued to correspond, even if imperfectly, to the impossibility vs. possibility of Tense alternations and to the (non)availability of a CP layer. Absence of embedded CP allows for PRO to be governed Bouchard-style and bound by matrix S. When present CP is the locus of the otherwise unaccounted for *temporal sequencing* of the embedded T-deficient *na*-clause, relative to the fully-

fledged matrix clause. In sum, on the Control hypothesis V&H's analysis predicts that the clausal complements of PVs would have a very restricted choice of Tense values and also that a CP layer and presumably relevant lexical material is unavailable. Empirical data reviewed below invalidate both claims: Bg and Gk PV-complements employ Tense alternations as well as CP material.

- (20) a. Ne sme ja zabeljazali/ ja zabeljazaxme da vliza (Bg)
 not are-1PL her-CL notice-PastPart-PL/her-CL noticed-3PL DA come-in-Pres
 'We have not noticed her enter(ing)'
- b. Ne sme ja zabeljazali/ ja zabeljazaxme da e vlizala
 not are-1PL her-CL notice-Part-PL/her-CL noticed-1PL DA is come-in-Part.FEM
 'We have not noticed her to have entered'
- c. Vidjax go će štē padne i mu pomognax
 saw-1SG him-CL that will fall-3SG and to-him-CL helped-1SG
 'I noticed he would fall and helped him'
- d. Vidjax go će pada/ e padnal i mu pomognax
 saw-1SG him-CL that is-falling/ is fallen-MASC and to-him-CL helped-1SG
 'I noticed he was falling/had fallen and helped him'

Bg which like Gk (and unlike e.g. English) does not observe the Sequence of Tenses rule accepts Present Tense (20a) or Past Indefinite (=Present Perfect) (20b) in the *da*-clause, embedded in a main clause specified for Past Indefinite or Preterite. If the embedded clause is headed by complementizer *će* "that" instead of by the particle *da* the inventory of tenses comprises the Future (20c) as well. The range of tenses is wide enough to disprove even a milder version of the desirable [-Tense] specification, assuming that an impoverished tense paradigm is a reliable diagnostic of [-Tense] status (cf. V&H, Terzi (1992/3), Iatridou (1993)) to start with. In Gk too the variety of tenses in the subordinate clause of double-Obj PVs is significant, even if it does not (nor can it realistically be expected to) exhaust the verbal paradigm in this language. Present Tense (21a), Aorist (21b), and Present/Past Perfect (21c&d) are all acceptable:

- (21) a. Δ en ton iða pou/na pēnai (Gk)
 not him-CL saw-1SG that/NA pass-by-Pres
- b. Δ en ton iða pou/na perase
 not him-CL saw-1SG that/NA pass-by-Aorist
 'I did not see him pass(ing) by'
- c. Δ en ton proseka na exi perasi simera
 not him-CL noticed-1SG NA has pass-by today
 'I did not see him pass(ing) by today'

- d. Δ en ton_i ixa_i δ i pou ixe pari_i tis fotografies
 not him-CL had-1SG seen that had taken the photos
 'I did not see him to have taken pictures'

Clearly, Tense variation is possible in both Bg and Gk, and this happens in the face of obligatory matrix-Obj - embedded-Subj coreference. If Control is assumed to entail Null Case in the FF-matrix of the controllee and its checking necessitates establishing T-deficiency, the desired Infl-specification is unattainable. Moreover, the same choice of Tenses coincides with matrix-Obj - embedded Obj obligatory coreference and Tense is not a factor in the licensing of object FFs:

- (22) Ne ec_i go_i bjax_i usetil ... (Bg)
 not ec him-CL was-1SG felt-MASC
 a. \check{c} e/kak ec_i go_i mestjat/ sa ec_i go_i mestili / ? ec_i go_i
 that/how ec himCL move-Pres.3PL/be-Pres.3PL ec CL moved-PL/ ec CL
 bjaxa prelestili
 be- Past.3PL moved-PL
 b. da ec_i go_i tegljat/ sa ec_i go_i izteglili / ? ec_i go_i bjaxa teglili
 DA ec CL pull-Pres.3PL/be-Pres.3PL ec CL pulled-PL/ec CL be-Past.3PL pulled-PL
- (23) Δ en ec_i ton_i ixa_i δ i ... (Gk)
 not him-CL had-1SG seen
 a. pou ec_i ton_i fotografisan/ixan fotografisi
 that ec CL photograph-Pres.3PL/had-3PL+Part
 b. na ec_i ton_i fotografizun/exun fotografisi
 NA ec CL photograph-Pres.3PL/have-3PL+Part

If one were to pursue Terzi's alternative, viz. correlating Control and (subjunctive) particles *da/na* this could provide a leeway for circumventing finite T and also transitive AgrO⁹, presumably treating them as inactive targets and ascribing Null Case-licensing for controlled Subj (as Terzi does) and Obj alike to the MoodP head. Barring the difficulty of accounting for T and AgrO-inactivity, the MoodP corollary is inapplicable to Sp which lacks comparable particles but has both infinitives as potential Control environments and morphological subjunctives widely discussed for their obviation effects, i.e. the antithesis of Control, despite subjunctive T-deficiency acknowledged across languages (cf. Avrutin & Babyonyshev (1994) for

⁹ I exclude Acc-deficiency of AgrO in the presence of CL since Bg & Gk do not employ devices like Sp *a/Romanian pe* argued to compensate for absorption of verbal Acc Case by CL (cf. the well-known Kayne/ Jaeggli Generalization). NB! In Sp/Rom too these are markers for [animate]/[human] rather than Case per se.

references and examples from Sp, Russian). This line of thought does not look promising for Bg and Gk either, since not only is PV coreference targeting Subj and Obj-positions preserved in the absence of the particles in question (Bg *čē* 'that' & *kak* 'how' clauses, Gk *pou* 'that' clauses - cf. (20)&(21)), but it is not the case that *da/na* are restricted to environments conducive to coreference. Just as Sp PV *que*-clauses (24a) are homo-nymous with standard Case-licensing finite clauses (24b), so Balkan clauses headed by *da/na* or by CP material are in principle environments for standard Case, whether in subordinate (25a&b) or main clauses (25c&d). The non-PV examples below are insensitive to coreference, allowing it optionally.

- (24) a. $ec_i lo_i \underline{vi}$ [que ec_i estaba más alto/[que $ec_i lo_i$ condecoraron *EmbedCl*(Sp)
 ec him-CL saw-1SG that ec was taller-MASC/that ec him-CL decorated-3PL
- b. $ec_i le_i \underline{dijeron}$ [que ec_j estaba más alto/[que $ec_j lo_j$ condecoraron *EmbedCl*
 ec to-him-CL said-3PL that ec was taller-MASC/that ec him-CL decorated-3PL
- c. *ec* estaba más alto/ *ec* lo condecoraron *MainCl*
 ec was taller-MASC/ec him-CL decorated-3PL
- (25) a. Vidjax $ec_i go_i$ [kak/čē/da ec_j se usmixva / [kak/čē/da *EmbedCl*(Bg)
 saw-1SG ec him-CL how/that/DA ec Refl smile-3SG/how/that/DA
 $ec_j go_j$ snimat
 ec him-CL photograph-3PL
- b. Kazax $ec_i mu_i$ [kak/čē/da ec_j se usmixva [kak/čē/da *EmbedCl*
 saw-1SG ec to-him-CL how/that/DA ec Refl smile-3SG/how/that/DA
 $ec_j go_j$ snimat
 ec him-CL photograph-3PL
- c. Kak se usmixva Jasen samo! *MainCl*
 how Refl smiles Jasen only 'Look at the way J. smiles!'
- d. Da se usmixvat milite, njamam ništo protiv *MainCl*
 DA Refl smile-3PL dears-DEF not-have-1SG nothing against
 'Let the darling things smile, I don't mind'

The data reviewed in this subsection lead to the conclusion that no part of the triple correlation (*subjunctive*)*T-deficiency*~ *Case-deficiency*~ *Control* can be maintained without costly assumptions. If in the spirit of Minimalist uniformity identical morphological composition of coreference-sensitive PV finite complements and coreference-insensitive finites (23b&c/24b,c&d) is considered to condition identical Tense, Transitivity, and correspondent Standard Case values, then the Control Parameter can be formulated to allow alternative settings: A. *Null Case* (for *nonfinite Subj*) B. *Nominative/Accusative Case* (for *finite Subj/transitive Obj*). The empirical and theoretical advantages of parametrized Case in the FF-matrix of controlled entities have been established and the next logical step is to retrace the entailment in Vergnaud's Case Filter. If reconciling Control and standard Case means

that little pro can be controlled, the prediction can be made that an obligatorily referentially dependent cased position may be lexicalized. The subsection below shows that this prediction is borne out for Subj and Obj controlled positions in the three languages under investigation.

4.2. Parametrized lexicalization

Consider the self-explanatory examples in (26)&(27) below:

- (26) a. Vidjax go_i Asen_i [*toj_i kak/da gotvi*
 saw-1SG CL A. he how/DA cooks 'I saw Asen_i as HE_i was cooking'
 b. Vidjax go_i Asen_i [*(nego_i) će/da go_i snimat (nego_i)*] (Bg)
 saw-1SG CL A. (him-EMPH) that/DA CL photograph-PL (him-EMPH)
 'I saw Asen_i as they photographed HIM_i'
- (27) a. Ton_i akusa tonYanni_i [*(ke) aftos_i na klei*] (Gk)
 CL heard the Y. and he-EMPH NA cries
 'I heard Y_i as HE_i (too) was crying'
 b. Lo_i vió a Pedro_i [*que lo_i condecoraron a él_i*] (Sp)
 CL saw A P-ACC that CL decorated-3PL A him-EMPH
 'I saw Pedro_i as they decorated HIM_i'

The important fact to note is that the controlling matrix arguments can be lexicalized as proper names as well as pronouns. By contrast the referentially dependent positions in the clausal complement can be lexicalized as pronouns, which in all three languages are a morphological explication of Case and ϕ -FF, the only concession granted to them being desamentized epithets such as "the poor chap/soul", "the poor devil", etc. This shows that the embedded positions are deprived of descriptive content. It must be the case then that Control is not restricted to null categories but to those categories that give the bare FF skeleton of a nominal. Association to a potentially fully-fledged nominal category must obtain to allow them to reconstruct their descriptive content and ultimately their semantic reference.

The necessarily emphatic reading that the embedded pronouns in Bg and Sp receive and the licensing effect of the focus particle in Gk can be treated as a reflex of the pro-drop parameter. In this sense avoiding lexicalization of a Cased position is motivated by the same natural language principles that discourage the usage of a coreferential overt pronoun in any environment characterized by retrievability of content, whether this is an environment conditioning obligatory (the PV case) or optional coreference: *Kazax ec_i mu_i će [toj/TOJ]_{i, j} e naj-visok* 'I told him_i he_{i, j} was the tallest'.

In conclusion, lexicalization of the designated controlled Subj or Obj is in agreement with the Control Parameter formulated to allow compatibility with

Standard Case. The need for emphatic in-tonation/focus particles licensing lexicalization corroborates effectively the parallel with pro-drop mechanisms whereby overtness is a marked option. Thus the data in this section are indisputable proof for the availability of Standard Case for the constituents bound by *Obj - Subj/Obj* cross-clausal anaphoricity characterizing Control, and going back a step earlier, for the availability of a sufficient number of syntactic positions to fill out the double-Obj internal argument domain of PVs. This completes a full round of argumentation necessitating another look at the starting point of the discussion.

5. Conclusion and extensions

The question yet to be addressed concerns some primary motivation for Control. The answer hinges on an empirical generalization that has gained acceptance in the generative literature without finding proper formalization. This is to say that the collocation "verb of Control" is the operative notion. If members of a certain semantic group of verbs pattern as Control-mediators in more than one language it must be the case that they share a host of lexical-syntactic properties. Following Alexandrova (1995/1996a) I treat the properties in question as being associated with the CP-layer of embedded complements typing a clause for subordination. I can further propose that whereas [Ctrl]-specification for the finites discussed here is V-mediated, for adjunct Control nonfinites it is specification by default, properly embedding a nonsubcategorized constituent. To make the picture complete [Ctrl]-checking can be viewed as involving Head-Head juxtaposing of Interpretable ϕ -FFs. After being checked in non-clausemate AgrPs (or the equivalent) ϕ -FFs undergo Move-F to the CP of the Control clause, ensuring identification of controller and controllee for LF Full Interpretation.

Developing a comprehensive Theory of Control where neither Case-deficiency nor non-lexicalization are viewed in absolute terms whereas BT-properties are considered universal has been shown to have empirical justification in three languages. What deserves further exploration is subsuming a number of currently idiosyncratic environments of coindexation such as parasitic gaps, tough constructions under Control compatible with e.g. Accusative side by side with Null Case. If this reasoning is on the right track, in the spirit of minimizing theoretical primitives Binding types could ultimately be bipartitioned into 1) Control, coindexing members of independent FF-checking chains and 2) Trace-licensing, coindexing chain-mate members. Such an approach would obviously require reorganizing a number of traditional views, but its theoretical appeal is undeniable since it promises what Minimalism aims for - an economical theory with dynamic explanatory adequacy.

Bibliography

- Alexandrova, Galia. 1995. 'Participial clauses in Bulgarian, Italian and Spanish: AGR and Case'. Paper presented at the 25th LSRL. March 1995, Seattle. Published in 1996 in *Grammatical theory and Romance languages: Selected papers from the 25th LSRL*. 1-12. In the series: *Current issues in linguistic theory*. Ed. by Karen Zagona. Amsterdam: John Benjamins.
- Alexandrova, Galia. 1996a. 'Aspects of Control in Bulgarian with cross-linguistic references'. Paper presented at the Annual meeting of CLA. May 1996, St. Catharines.
- Alexandrova, Galia. 1996b. 'The case for Cl(itic)P'. In *Cahiers Linguistiques d'Ottawa* 24:117-150. Ed. by Margarete Ling. University of Ottawa, Ottawa.
- Avrutin, Sergey & Maria Babyonyshev. 1994. 'Obviation in subjunctive clauses and AGR: Evidence from Russian'. In *Annual Workshop on Formal Approaches to Slavic Linguistics*. Ed. By S. Avrutin, Steven Franks & Ljiljana Progovac. 1-21. Ann Arbor: Michigan Slavic Publications.
- Bošković, Željko. 1996. 'Selection and the categorial status of infinitival complements'. *NLLT* 14:269-304.
- Bouchard, Denis. 1984. *On the distribution of empty categories*. Dordrecht: Foris.
- Chomsky, Noam. 1993. 'A minimalist program for linguistic theory'. In *The view from building 20*. Ed. By Kenneth Hale & Samuel J. Keiser. 1-52. Cambridge, Mass: MIT Press.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam & Howard Lasnik. 'The theory of principles and parameters'. In *Syntax: An international handbook of contemporary research*. Berlin: Walter de Gruyter.
- Iatridou, Sabine. 1993. 'On Nominative Case assignment and a few related things'. MIT WPL 19.
- Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.
- Lasnik, Howard. 1992. 'Two notes on control and binding'. In *Control and Grammar*. Ed. by J. Higginbotham, S. Iatridou, U. Lahiri, R. Larson. Kluwer Academic. 235-251.
- Lasnik, Howard. 1995. 'Case and expletives revisited: On Greed and other human failings'. In *Linguistic Inquiry* 26:4.
- Larson, Richard. 1988. 'On the double-object construction'. *LI* 19:335-391.
- Martin, Robert. 1996. *A minimalist theory of PRO and Control*. Ph.D. diss., UConn.
- Rivero, Maria-Luisa. 1994. 'Clause structure and verb movement in the languages of the Balkans' In *Natural Language and Linguistic Theory* 12.
- Rivero, Maria-Luisa. Forthcoming. 'On two locations for complement clitic pronouns: Serbo-Croatian, Bulgarian and Old Spanish'. In *Inflection and*

- syntax in language change*. Ed. by Ans van Kemenade & Nigel Vincent. Cambridge: Cambridge University Press.
- Rudin, Catherine. 1983. 'Da and the category *Aux* in Bulgarian'. In *Linguistic categories: Auxiliaries and related puzzles* 1. 3-20. Ed. by F. Heny & B. Richards. Reidel.
- Sigurðsson, Halldór-Ármann. 1991. 'Icelandic Case-marked PRO and the licensing of lexical arguments'. In *Natural Language and Linguistic Theory* 9:327-363.
- Sportiche, Dominique. 1992. Clitic constructions. Ms. UCLA. Revised version published in 1996 in *Phrase structure and the lexicon*. 213-277. Ed. by Johan Roorych & Lauri Zaring.
- Suñer, Margarita. 1982. 'Controlled *pro*'. Ms. Cornell University. Revised version published in 1984 in *Papers from the 12th LSRL*. 253-273. Ed. by P. Baldi. Amsterdam/Philadelphia: J. Benjamins.
- Terzi, Arhonto. 1992. *PRO in finite clauses: A study of the inflectional heads of the Balkan languages*. Ph.D. diss. CUNY, Graduate Center.
- Terzi, Arhonto. 1993. 'PRO and Null Case in finite clauses'. Ms., University of Ottawa.
- Todeva, Elka. 1984. *Anglijskijat infinitiv v njakolko funkcii i negovite bălgarski funkcionalni ekvivalenti*. [The English infinitive in several functions and its equivalents in Bulgarian]. Unpublished Ph.D. diss. University of Sofia, Sofia.
- Varlokosta, Spyridoula & Norbert Hornstein. 1993. 'Control in Modern Greek'. *Proceeding of NELS* 23. 507-521.
- Watanabe, Akira. 1993. *AGR-based Case Theory and its interaction with the A-bar system*. Ph.D. diss. Cambridge, Mass.: MIT WPL.

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