Pronominal doubling under topicalisation

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1. Introduction

In this article, we examine the syntax of sentences in which a topicalised VP is doubled by a demonstrative pronoun. We focus on data from Hungarian and Spanish, which are examplified in (1) and (2) below. For the purposes of this paper, we will refer to the fronted phrase as the *topic*, and to the pronoun downstairs as the *double*.

1) Hungarian

Annát meglátogatni, **azt** szokta Mari Anna.ACC PV.visit.INF that.ACC HAB Mari 'To visit Anna, Mari usually does that'

2) Spanish

Visitar a Ana, María suele hacer **eso** visit.INF to Ana María HAB.3SG do.INF that.NEUT 'To visit Ana, María usually does that'

We will argue that, in spite of the superficial similarity in the elements involved in this construction, Hungarian and Spanish make use of fundamentally different derivations in this kind of VP topicalisation. The difference affects the syntactic role of the pronominal double, as well as the relation of the VP to this double. In particular, we will show that the Hungarian double *azt* 'that' is the spell out of the trace left by VP fronting, much as in Grohmann's (2003) analysis of Contrastive Left Dislocation in German. In contrast, the Spanish double *eso* 'that' is merged as a real argument of the verb, and the to-be-fronted VP attaches to it as an apposition. When the VP is fronted, it strands the demonstrative, giving the appearance of

resumption (cf. Boeckx's 2003). In the final section, we will show that, out of the two patterns, the Spanish type also occurs in West Germanic languages (Dutch and German). This article, we hope, will help lay the foundations for further crosslinguistic investigation in this domain.

2. Hungarian VP topicalisation

2.1. Verbal elements in the topic position: the patterns

In Hungarian, there are two ways of topicalising a verbal item. One type involves the verb in topic position, and features no pronominal double. We called this construction *V topicalisation*. The other type involves a whole VP in topic position and is associated with an accusative pronominal double *azt* 'that'. We call the latter strategy *VP topicalisation*. Our interest in this paper lies in the second type. For ease of exposition, we start by introducing the first type shortly before giving a detailed characterization of the latter.

2.1.1. V topics

V topicalisation in Hungarian involves the verb alone (with its preverb, if there is one) in the infinitival form. This infinitival verb is the same verb as the finite verb that we find in the body of the sentence. The latter verb is usually adjacent to the infinitive (3)a or is separated from that by a regular topic (3)b.

- 3) a. [Énekelni], énekelt Mari. sing.INF sang.3SG Mari
 - b. [Énekelni], Mari énekelt.
 sing.INF Mari sang.3sG
 'As far as singing is concerned, Mari did sing yesterday (...but she did not play the piano)'
- 4) [Elolvasni], elolvasta a Hamletet Kristóf. PV.read.INF PV.read.3SG the Hamlet.ACC Kristóf 'As far as reading is concerned, Kristóf did read Hamlet (...but he did not write a review about it).'

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¹ Other preverbal material, such as PPs and incorporated (albeit case-marked) NPs cannot be fronted in V-fronting, regardless of the order we find in the finite clause (V-PP or PP-V):

⁽i) * Moziba menni, moziba ment tegnap Péter. cinema.INTO go.INF cinema.INTO went-3SG yesterday Péter

⁽ii) * Moziba menni, ment moziba Péter. cinema.INTO go.INF went.3SG cinema.INTO Péter

⁽iii) * Moziba menni, ment tegnap Péter. cinema.INTO go.INF went.3SG yesterday Péter

5) (Tudom, hogy Péter foglalkozott az anyaggal) de [megérteni], I know that Peter studied the material but PV-understand-INF megértette-e? PV-understood-3SG-QY/N '(It shows that Péter studied the material but...) as far as understanding goes, did he understand it?'

As the translations above indicate, in sentences with V topicalisation the finite verb expresses verum focus, i.e. focus on the truth value of the proposition. In other words, these sentences emphasize or question whether the event did or did not happen. Verum focus is represented by heavy stress on the finite verb. In a substandard set of cases² verum focus can be missing from the sentence. In this case, however, there must be a lexical focus in the tail:

6) [Elolvasni], a HAMLETET olvasta el Kristóf (és nem a MACBETHET). PV.read.INF the Hamlet.ACC read.3SG PV Kristóf and not the Macbeth.ACC 'As far as reading is concerned, it was Hamlet that Kristóf read, and not Macbeth'

In this case the truth of the event denoted by the verb is entailed, as part of the focal presupposition.

2.1.2. VP topicalisation: the basic properties

Unlike V topicalisation, VP topicalisation involves a larger string in topic position than just the verb: it contains the whole VP in topic position. VP topicalisation is also different from V topicalisation in that it involves a pronominal double (a resumptive constituent). This double is invariantly *az* 'that' in all cases. This element also occurs with left dislocation of other categories. Compare instances of ordinary left dislocation of a DP (7a), a PP (7)b with that of a VP (8):

- 7) a. [Péter], **az** AJÁNDÉKOT kapott Maritól. [DP-left dislocation] Péter that present.ACC got Mari.FROM 'Péter, *he* got a present from Mari (while other people might have got something else.)'
 - b. [Péter mellett], a mellett nem állt senki. [PP-left dislocation]
 Péter next that next not stood.3SG no.one
 'Next to Péter, there was nobody standing *next to him* (while next to someone else might have stood someone.)'
- 8) a. [Gyorsan úszni], **azt** nem tud Péter. [VP-topicalisation] quickly swim.INF that.ACC not able.3SG Péter

 'To swim quickly, that Péter cannot do (while swim slowly, he can)'

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² This pattern is a marked option for a subset of speakers.

b. [A Hamletet elolvasni], azt KRISTÓF akarta.
 the Hamlet.ACC PV.read.INF that.ACC Kristóf wanted.3SG
 'As far as reading is concerned, it was Kristóf who wanted to do that (while doing something else, other people wanted to do that)'

Just like left dislocations with a DP/PP, VP topicalisation is associated with some kind of focus in the finite clause: verum focus or lexical focus, as indicated by the translations in (8).

The fronted material in VP topicalisation is larger than in the case of V topicalisation that was reviewed above. VP topicalization can include internal arguments, manner/time/frequency adjuncts next to the verb, or verbal complexes:

- 9) a. [Péterrel telefonon beszélni], azt szokott Mari.
 Peter.WITH telefon.ON talk.INF that.ACC HABIT Mari
 'To talk to Peter on the phone, Mari does that'
 - Eannát minden nap/gyakran meglátogatni], azt nem szokta Mari.
 Anna.ACC every day/often PV.visit.INF that.ACC not HABIT Mari
 To visit Anna every day/often, Mari does not do that'
 - c. [Az újságot olvasás nélkül kidobni], azt nem szokta the newpaper.ACC reading without PV.throw.INF that.ACC not HABIT Mari

Mari

'To throw away the paper without reading, Mari doesn't do that'

d. [Úszni akarni], azt szokott Mari. swim.INF want.INF that.ACC HABIT Mari 'To want to swim, Anna does that'

Overt subjects are marginally allowed in the topic VP:

10) ?? [Zsófinak a postára menni], azt nem kell. Zsófi.DAT the post.ONTO go.INF that.ACC not need 'For Zsófi to go to the post office, that is not necessary'

When the verb has obligatory arguments, they all have to appear upfront, together with the verb. Leaving one or both arguments behind is ungrammatical:

- 11) a. * [Tenni], azt nem szokta Mari a kulcsot az asztalra.

 put.INF that.ACC not HABIT Mari the key.ACC the table.ONTO

 'To put the key on the table, Mari does not do that'
 - b. * [Tenni a kulcsot], azt nem szokta Mari az asztalra.

 put.INF the key.ACC that.ACC not HABIT Mari the table.ONTO

 'To put the key on the table, Mari does not do that'
 - c. * [Tenni az asztalra], azt nem szokta Mari a kulcsot. put.INF the table.ONTO that.ACC not HABIT Mari the key.ACC 'To put the key on the table, Mari does not do that'

d. [Az asztalra tenni a kulcsot], azt nem szokta Mari. the table.ONTO put.INF the key.ACC that.ACC not HABIT Mari To put the key on the table, Mari does not do that'

The facts in (11) suggest that the topic constituent is minimally a full VP: it is not possible to leave a complement behind in the finite clause when the verb is left dislocated in this pattern. How big is the left dislocated chunk? Facts like (9)b and (9)c, where the topic contains a time/TP adverbial or a whole adjunct clause adjoined to the VP indicate that the topic can also be larger than just a VP: it can possibly be a whole IP, if we take some of these adverbials to be tense-related modifiers. The upper limit on the size of the topic is indicated in turn by the degradation of grammaticality that we get when we include left peripheral material in the topic, like focus elements for example. These cannot easily surface in the left dislocated VP for some speakers:

12) ?(?)[%][Csak ANNÁT meglátogatni], azt nem szokta/akarta Mari. only Anna.ACC PV. visit.INF that.ACC not HABIT/wanted.3SG Mari 'To visit Anna (and not someone else), Mari does that.'

This indicates that the topic presumably does not contain projections that pertain to the operator/high CP domain. Our conclusion then is that the fronted constituent is maximally an IP. For convenience, though, we will keep referring to the phenomenon as VP topicalisation.

Corresponding to the topicalised VP, we always find a gap in sentence internal position, as indicated by (13):

13) $[_{\text{topic}} \text{VP/IP}]_i$, $[_{\text{RP}} \text{ } azt \text{ }] \dots \text{V} [_{\text{VP/IP}} \text{ } e_i \text{ }] \text{ } [*azt] \dots$

In the position of the boldface V we find predicates that can subcategorize for a verbal category. The VP/IP gap is licensed by predicates that are compatible with a VP/IP complement.³ Some frequently occurring predicates are listed in (14):

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³ Exceptions are those predicates that are fully stress avoiding, like *látszik* 'seem'. These cannot occur with VP topicalisation:

i) a. Beáta olvasni ^olátszott.

Beáta read.INF seemed

'Beáta seemed to be reading'

b. * [Olvasni], *azt* nem ^olátszott Beáta. read.INF that-ACC not seemed Beáta 'To read, Beáta did not seem to be doing that'

14) Predicates that license VP topicalisation

_	Auxiliaries	fog	'will'
	Auxiliaries	0	
		szokott	'(habitually) do'
	Volitional predicates	akar	'want'
		szeret(ne)	'(would) like'
		kíván	'wish'
	Ability predicates	tud	'be able to'
		képes	'be able to', 'want to'
	Modal predicates	kell	'must, have to, need to'
		lehet	'possible'
		lehetséges (adj)	'possible'
	Evaluative predicates	jó (adj)	'be good'
		butaság (n)	'be a stupidity'

These predicates might differ as to whether their infinitival complement is a VP or an IP (see among others É.Kiss 1987, Kenesei 2000). Regardless of which complement they have, they can occur in VP topicalisation.

2.2. Properties of VP topicalisation

In this section we are going to illustrate the properties of Hungarian VP topicalisation further. The aim of this section is to review arguments to the effect that VP topicalisation is indeed a true topicalisation strategy. Arguments to this effect will come from locality properties, which show that the VP left dislocate behaves like ordinary left dislocated elements: it can undergo (long distance) topicalisation and just like ordinary left dislocation, it reconstructs to the position of the gap internal to the finite clause.

Evidence for the topic nature of the VP left dislocate comes from locality properties that characterize multiply embedded constructions with these items. The behaviour VP topicalisation shows is exactly the same as that of ordinary left dislocations.

First, let us consider the behaviour of ordinary DP left dislocation in this domain. (15) illustrates that the left dislocated item can occur higher than the clause which contains its pronominal double element if the intervening clause does not contain an island:

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15) a. ? [LD A fiúkat], Péter hallotta, hogy [RP azokat] ingyer the boy.PL.ACC Péter heard that that.PL.ACC freely beengedik.
PV.admit.3PL
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'The boys, Péter heard that they are admitted for free'

b. * [LD A fiúkat], Péter hallotta **a hírt**, hogy [RP azokat] the boys.PL.ACC Péter heard the news.ACC that that.PL.ACC ingyen beengedik freely PV.admit.3PL

'The boys, Péter heard the news that they are admitted for free'

The clear grammaticality contrast between the island-free (15)a example and the island-containing (15)b example shows that the left dislocated phrase undergoes movement to the position it assumes in the higher clause. The kind of movement it undergoes is topicalisation, which can be shown by constructing an island configuration that is selective for topic constituents. So called presentational noun phrase islands are precisely this type: they are islands for A-bar moved constituents (focus or *wh*-items), but they let topics through (author #1 2005). The fact that they let left dislocated items through indicate that the latter undergo movement across clauses.

16) ? [LD A fiúkat], volt **koncert**, [RC amire *azokat* ingyen the boy.PL.ACC was concert REL.what.TO that.PL.ACC freely beengedték].

PV.admitted.3PL

'The boys, there were concerts where they were admitted for free'

When compared to these facts, VP topicalisation behaves in a fully parallel manner in all respects. It can occur higher than the clause its resumptive double is found in, and it observes the same island constraints as left dislocation with DPs. Observe the facts in (17) and (18):

17) a. ? [LD Gyorsan úszni], Péter úgy hallotta, hogy [RP azti] nem quickly swim.INF Péter so heard that that.ACC not was.able Mari tud Mari.

'To swim quickly, Péter heard that Mari can do that'

'To swim quickly, Péter heard the news that Mari can do that'

18) a. ? [LD Gyorsan úszni], volt rá eset, hogy [RP azti] nem quickly swim.INF was it.for occasion that that.ACC not tudott Mari.
was.able Mari
'To swim quickly, it did occur that Mari could not do that'

This indicates that the VP topic can undergo topicalisation across clauses, just like DP-topics in (15)-(16). The schematic structure of such topicalisation is indicated in (19):

⁴ The slightly marked nature of the sentences, indicated by ?, is due to the fact that left dislocate and resumptive element are not adjacent. This effect characterizes all kinds of left dislocated constructions, including VP topicalisation, in examples (16) and (18) as well.

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19) [_{\text{CP2}} [\text{VP/IP}]_i (...) [_{\text{CP1}} [\frac{\text{VP/IP}}{\text{IP}}]_i azt ... V [_{\text{VP/IP}} e_i ]]]
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Is there a similar movement link between the gap position, [$_{VP/IP}$ e $_i$] and the position the VP topic occupies in the lower clause? To find out, we have to turn to reconstruction effects. These are illustrated for Condition C effects in both simple and complex clauses:

- 20) a. * [Jánost_i dícsérni], azt szokta pro_i [_{VP/IP} e_i]. János.ACC praise.INF that.ACC HABIT 'To praise John, he does that'
 - b. * [Jánost_i dícsérni], azt pro_i úgy gondolja, hogy szokta Mari János.ACC praise.INF that.ACC so think.3sg that HABIT Mari 'To praise John, he thinks that Mari does that'

In this respect, too, there is full parallel with normal DP left dislocation, which also reconstructs in the same way:

- 21) a. * Péter; könyvét, *azt* még nem pro; olvasta e; Péter.POSS.3SG.ACC book.ACC that.ACC still not read.PAST.3SG 'Péter's book, he did not yet read'
 - b. * Péter; könyvét, *azt* pro; úgy gondolja, hogy még Péter.POSS.3SG.ACC book.ACC that.ACC so think.3sg that still nem olvasta Mari e;. not read.PAST.3SG Mari 'Péter's book, he thinks that Mari did not yet read'

While the simplex clause examples might not be telling in the case of VP topicalisation as the VP contains the trace/copy of the subject which can bind into the VP (Huang 1993), the example with complex clauses (20)b provide unambiguous evidence that the left dislocated item originates from the position of the gap indicated by e in (22). According to the evidence of locality effects, the left dislocated VP originates from the position of the gap in the finite clause, where it reconstructs to at LF:

22) [
$$_{\text{CP}}$$
 [VP/IP] $_{\text{i}}$ azt ... V [$_{\text{VP/IP}}$ VP/IP]] [at LF]

Again, this behaviour is fully parallel to the observed behaviour of DP left dislocates (cf. 21). DP and VP topicalisation behaves the same way when it comes to locality.

2.3. The syntactic role of the resumptive element in VP topicalisation

The structure we provided in (22) might serve as our final analysis of VP topicalisation constructions, was it not for the pronominal double element *azt* 'that.ACC'. This element is standardly part of the structure of VP topicalisation, but as it stands, we have no account of why it shows up in these constructions. As we have established, the VP/IP moves from its internal position to the left periphery of the

clause, leaving behind a trace in the complement of the finite verb that selects the VP/IP. It lands in the left peripheral position, where we find it in overt syntax. If indeed movement takes place between these two positions, in which position does the pronominal double of the VP, *azt* 'that.ACC' originate from?

Resumptive elements are associated with gaps in general. A priori, their association with the gap can be of two kinds. In cases where the element they double is base-generated in a high position, doubles can themselves "stand in" their place and undergo movement, as shown in (23):

23) [XP] [double_i ... t_i] base-generation of XP + movement of double

The other option is that their associate undergoes movement. In this case the doubles themselves are the spell-out of the trace that the moving element leaves behind:

24) $[XP]_i$ [... t_i =double_i] movement of XP + trace-spell-out by a double

The two structures differ in the way the XP comes to occupy its overt position: in the first scenario the XP is base-generated in a high position, in the second scenario, it undergoes movement.

The facts of Hungarian VP topicalisation are compatible with the second scenario only. First of all, topicalised VPs are not base-generated in the left periphery. As was shown in example (20), they undergo movement, according to the evidence of locality effects. This rules out the structure in (23) and leaves us with structure (24) for the analysis of VP topicalisation. Next to locality effects, one finds a number of other arguments in support of (24), against (23). In a structure like (23), the double is generated in the gap position, the position where XP "belongs" internal to the clause. In Hungarian VP topicalisation, however, *azt* cannot originate from such a structure, for various reasons.

The first argument to this effect comes from selectional properties of the verbs that allow for VP-topicalisation. As we mentioned above, the gap in VP-topicalisation is licensed by predicates that select for a verbal complement (an infinitive). A subset of predicates that allow for infinitival complements cannot take a nominal complement, regardless of its size (full DP or pronominal) and its case (nominative, accusative). ⁵ Consider for example the predicate *képes* 'able, want':

⁵ Some of these verbs can take a nominal, but only with another meaning, not the meaning they have when they take an infinitive:

⁽i) a. Péter akar úszni. Péter want.3sg swim.inf 'Péter wants to swim.'

b. Péter akar egy biciklit. Péter want.3sG a bike.ACC 'Péter wants to have a bike.'

- 25) a. Péter nem képes köszönni. Péter not want greet.INF 'Péter wouldn't greet anyone.'
 - Köszönni, azt nem képes Péter.
 greet.INF that.ACC not want Péter
 'To greet someone, Péter would not do that.'
 - c. * Péter nem képes köszönés / köszönést/ azt. Péter not want greeting.NOM / greeting.ACC / that.ACC 'Péter wouldn't greet anyone.'
 - d. * Péter nem képes köszönni azt. Péter not want greet.INF that.ACC 'Péter wouldn't greet anyone.'

The fact that such predicates like $k\acute{e}pes$ cannot select a DP complement, rules out an analysis in which the pronominal azt 'that.ACC' originates from the complement position of the predicate in the clause. As (25)d shows, such a nominal cannot originate from next to an infinitival, either, since a nominative complement cannot be selected together with the infinitival one, either, in the manner of the following subcategorization property:

26) * V, [VP/IP, DP]

This rules out any VP-internal position for the *azt* 'that.ACC' double, militating against the analysis of doubling as shown in the scenario of (23).

The second argument against base-generating the pronominal double as complement of the finite verb comes from case considerations. Licensing verbs that are compatible with both an infinitival and a nominal complement always select for *nominative* marked nominals. They never select accusative marked objects. Consider for example the predicate kell 'must, have to, need to' or $j\delta$ 'be good', which can both select an infinitival or a nominal complement:

- 27) a. Nem kell bíztatni Jánost. [infinitival complement] not need encourage.INF John.ACC 'John does not need encouragement.'
 - b. Bíztatni Jánost, azt nem kell. [VP-topicalisation] encourage.INF John.ACC that.ACC not need 'To encourage John, that is not needed.'
 - c. Nem kell a bíztatás. [nominal complement]
 not need the encouragement
 'Encouragement is not needed.'
- 28) a. Jó volt úszni. [infinitival complement] good was swim.INF
 'It was good to swim.'
 - b. Úszni, azt jó volt. [VP-topicalisation] swim.INF that.ACC good was 'To swim, that was good to do.'

c. Jó volt az úszás. good was the swimming.NOM 'Swimming was good.' [nominal complement]

These examples show that the accusative marked *az* 'that.ACC' pronominal does not have its source as the complement of these verbs. If it did, it would have to show up with nominative case, contrary to facts. In VP topicalisation this pronoun is always in the accusative.

The third, last, argument against generating the pronominal as the argument in the finite verb concerns agreement properties. In Hungarian verbs that select a nominative object, always agree with this item in definiteness (cf. (29)a, (29)b). When a verb selects an infinitive, agreement morphology is indefinite (cf. (29)c):

- 29) a. Zsolt akart-Ø egy biciklit. Zsolt wanted.3SG.INDEF a bike.ACC 'Zsolt wanted a bike.'
 - b. Zsolt akart-a azt a biciklit. Zsolt wanted.3SG.DEF that.ACC the bike.ACC 'Zsolt wanted that bike.'
 - c. Zsolt akart-Ø úszni. Zsolt wanted.INDEF swim.INF 'Zsolt wanted to swim.'

Some verbs that select a transitive infinitive obligatorily agree with the object of their infinitive complement: if the object of the infinitive is indefinite, we get indefinite conjugation on the finite verb that selects the infinitive (30)a; if the object of the infinitive is definitive, we get definite conjugation on the selecting verb (30)b:

- 30) a. Zsolt nem akart-Ø meglátogatni egy beteget.
 Zsolt not wanted.3SG.INDEF PV.visit.INF a patient.ACC
 'Zsolt did not want to visit a patient.'
 - Zsolt nem akart-a meglátogatni Bélát.
 Zsolt not wanted.3SG.DEF PV.visit.INF Béla.ACC
 'Zsolt did not want to visit Béla.'

The agreement pattern in (30) remains the same under VP topicalisation as well. The finite verb shows agreement with object within the infinitival chunk that appears left dislocated.

- 31) a. [Meglátogatni egy beteget], *azt* nem akart-Ø Zsolt.

 PV.visit.INF a patient.ACC that.ACC not wanted.INDEF Zsolt

 'To visit a patient, Zsolt did not do that.'
 - b. [**Bélát** meglátogatni], *azt* nem akart-**a** Zsolt. Béla.ACC PV.visit.INF that.ACC not wanted.DEF Zsolt 'As far as visiting Béla, Zsolt did not do that.'

This rules out a structure in which the pronominal double, *azt*, is itself the argument of the finite verb. If it were, the finite verb would have to agree with this item, just like it does with its own object argument in (28)b and (28)c. The fact that the verb instead agrees with an object inside its complement shows that the pronominal *azt* is not one of its complements.⁶

The facts reviewed in this section, taken together with the argumentation in section 2.2 provide unambiguous evidence that the representation in (23) cannot be on the right track for Hungarian VP-topicalization:

23) * [VP/IP][
$$azt_i ... t_i$$
]

The pronominal double *azt* 'that.ACC' does not originate in argument position in these structures. This favours a structure like (32) instead:

32)
$$[VP/IP]_i[...[...V...t_i=azt_i]$$

According to this analysis, the VP/IP constituent undergoes movement to the left peripheral left dislocated position and its trace is spelled out as the pronominal double *azt*. The only modification we have to make to this is the position where the resumptive element spells out the trace of the VP/IP. Since in Hungarian we never find this pronominal double in the original position of the VP/IP, trace spell-out affects a trace within the topic domain:

33)
$$[VP/IP]_i[_{TopP} t_i = azt_i [... V...t_i]]$$

This is a reasonable claim since the lower copy in the position of the gap is never spelled out by any overt material. The question that remains to answer is why it is the higher copy spells out in the topic domain. The answer to this question comes from Grohmann (2003), who argues that in some left dislocation constructions this is indeed the case and for a reason. We turn to this in the next section.

'Jan has not tried to sleep yet.'

⁶ Marcel den Dikken (p.c.) has pointed out to us that these facts provide argument against an analysis that treats agreement in (30)a/(30)b as indicative of restructuring –as in, e.g., den Dikken (2004). Restructuring is unavailable with displaced infinitives, consider the lack of IPP effects (a restructuring property) in Dutch VP topicalisation cases like (ib):

⁽i) a. Jan heeft nog niet proberen te slapen.

Jan has yet not try.INF to sleep.INF

b. *[Proberen te slapen], dat heeft Jan nog niet. try.INF to sleep that has Jan yet not 'To be able to sleep, Jan has not done that yet.'

c. [Geprobeerd te slapen], dat heeft Jan nog niet. tried to sleep.INF that has Jan yet not 'To be able to sleep, Jan has not done that yet.

2.4. The analysis of Hungarian VP-topicalisation: copy spell out due to anti-locality

The structure we arrived at in (33) is the only logical possibility for the analysis of VP-topicalisations in Hungarian. Interestingly, structures like this one have been proposed for left dislocation constructions in other languages, most notably by Grohmann (2003) and other works in its wake. The original proposal in Grohmann (2003) provided the structure in (33) for German contrastive left dislocation constructions, like the one in (34):⁷

34) Diesen Satz, den mag ich besonders. this.ACC sentence that.ACC like I especially. This sentence, [it] I like especially.'

According to Grohmann, the high topic *diesen Satz* 'this sentence' undergoes movement (evidenced by locality effects). During its movement it raises from the argument domain (from its IP/TP-internal position) into the discourse domain, targeting two positions in a split CP system: that of TopP and later, an even higher position, which we can call the left dislocated position (marked as LD):

35)
$$[_{LDP}[DP]_i[_{TopP}[DP]_i ... [_{IP} ... [DP]_i]]]$$

This movement is welcome to leave the gap in the IP-internal position, but it cannot leave the trace in its phonetically empty form in TopP, Grohmann argues. This is because both the copy in TopP and that in LDP fall in the same prolific domain, where prolific domain is understood as a partitioning of the sentence according to its function. There are three prolific domains in a clause: a theta domain (VP and its arguments), and agreement domain (licensing agreement properties) and a discourse domain (pertaining to discourse information). Any syntactic object that occurs in one or the other domain needs to be exclusively represented in that domain at both PF and LF, according to the *Condition on Domain Exclusivity*. This condition rules out multiple occurrences of the same item in a given domain. This has as its consequence that movement, understood in terms of copy and deletion (Chomsky 2001), is ruled out if it is too local, i.e. if it takes place within the same domain.

With this theory in mind, we can understand what the source of the pronominal double is in (34). Both TopP and LDP being in the same discourse domain,

⁷ This analysis is most presumably also the right one for Hungarian DP left dislocations. In those, as we have shown in section 2.2 above, the DP undergoes reconstruction to the gap position inside the clause at LF. This rules out an analysis in which it is the resumptive element that originates from this gap positions. We leave the details of this for further research.

⁸ The precise definition is given in (i):

⁽i) Condition on Domain Exclusivity

For a given Prolific Domain, an object in the phrase marker must receive an exclusive interpretation at the interfaces unless duplicity of the object yields a drastic effect on the output of that Prolific Domain.

movement from one position to the other is ruled out unless a PF-driven well-formedness operation applies to the lower copy. This PF operation changes the lower of the two copies thereby saving the derivation from crashing. The result is that the copy in TopP is spelled out as a pronominal and not a full copy of the DP:

36) $[_{LDP} [DP]_i [_{TopP} [DP]_i \Rightarrow \text{den } ... [_{IP} ... [\underline{DP}]_i]]]$

We want to argue that the same kind of copy-spell-out mechanism is also available in VP topicalisation structures and this is exactly what we find in Hungarian. In the Hungarian case, the topicalised VP undergoes movement, and it lands twice in the higher discourse domain. Due to the violation of domain exclusivity, the derivation needs to be salvaged by a copy-spell out process that changes the form of the VP into a pronoun. The whole derivation is shown in (37):

37)
$$[_{LDP} [VP]_i [_{TopP} [VP]_i \Rightarrow azt ... [_{IP} ... [VP]_i]]]$$

While such a Grohmann-type analysis fits the Hungarian facts of VP topicalisation like a glove, it leaves some questions to be answered. Why is it a (pro)nominal constituent that doubles the topicalised VP as the spell-out of the lower copy of the VP in TopP? Second, why does it have accusative case?

Concerning the category status of the double, the appearance of this nominal element is not strange if we consider that Hungarian infinitives are nominal in nature (É.Kiss 2002, Tóth 2000). Although they are not DPs (they do not associate with a determiner for example), they have features associated with nominal constituents.

For this reason it is to be expected that the double of an infinitive is instantiated by a (pro)nominal category. At the same time, infinitives are not the only predicative elements that can be doubled with a pronominal. Adjectival predicates also associate with such pronominals in Hungarian (cf. 38), as well as in other languages (cf. 39), (Rullman & Zwart 1996):

- 38) Álmos, *az* nem szokott lenni Béla. sleepy that not HABIT be Béla 'Sleepy, Béla is usually not sleepy.'
- 39) Een echte soldaat, *dat* doet zoiets niet. a real soldier that does something.like.that not 'A real soldier does not do anything like that.'

Concerning the case that appears on the pronominal double, its origin is less clear. Given the nominal nature of the double, it has to be associated with some case. The easiest explanation would be to say that the accusative case on this element is default case. Yet, it is difficult to argue, as accusative case does not show up in any of the contexts where default case appears in other languages, like the following list of English default case configurations (Schütze 2001):

- 40) a. Her cheat on you? Never!
 - b. Her in New York is what we must avoid.
 - c. Him tired, they decided to camp for that night.
 - d. Me, I like beans.

Hungarian accusative thus cannot be said to be a default case, unlike the English accusative.

While this leaves us without an explanation about the presence of accusative in VP topicalisation cases, it is important to call attention to similar facts from Hungarian that display unexpected obligatory accusative case configurations as well. The example in question is the similarly mysterious occurrence of accusative case on measure phrases like that in (41):

41) Mari olvasta <u>egy kicsit</u> a könyvet. Mari read.DEF a bit.ACC the book.ACC 'Mari read the book a bit.'

The accusative found on such measure phrases shows similarity to the accusative on *azt* in VP topicalisation in that it also marks a non-argument. Moreover, the accusative marked measure phrase, just like the pronominal double *az*, does not agree with the verb in definiteness (cf. section 2.3. above). Definiteness agreement obtains with the real object argument of the verb, *a könyvet* 'the book.ACC'. What this shows is that accusative case is available as a case for non-argument material in Hungarian. We refer the study of these case facts for further research.

3. Spanish VP topicalisation

The previous section established that the Hungarian double *azt* is actually the spell out of the trace of the moved element, motivated by anti-locality reasons. In what follows, we will see that this analysis is not extensible to Spanish. The properties of doubling in this language suggest that *eso* 'that' is generated as a constituent together with the topic, and then stranded when the latter is fronted.

3.1 Pied-piping and stranding

In Spanish, it is necessary to front a full VP. It is not possible to front only the verb and leave its complements behind.

42) a. * Visitar, María suele hacer eso a Ana visit María HAB do that to Ana 'To visit, María usually does that Ana' b. * Leer, Juan suele hacer eso libros read Juan HAB do that books To read, Juan usually does that books'

This contrasts with the predicate clefting construction (aka verb copying), in which both V and VP fronting are possible. In this article, though, we will not deal with this type of sentences (see author #2 2005 for an analysis).

- 43) a. Leer, Juan suele leer libros read Juan HAB read books 'As for reading, Juan usually reads books'
 - Leer libros, Juan suele leerlos
 Read books Juan HAB read.CL
 'As for reading books, Juan usually reads them'

Note that it is nonetheless possible to strand a complement, provided that the fronted string still forms a constituent. Thus, given a ditransitive verb, it is possible to front the verb and the theme to the exclusion of the goal (44)b, but not the verb and the goal to the exclusion of the theme (44)c. This is expected under an analysis in which the goal is merged higher than the theme (cf. Demonte 1995, Cuervo 2003). This effect is also present with VP fronting in other languages, such as Japanese (cf. Yatsushiro 1999).

- 44) a. Regalarle libros a María, Juan suele hacer eso give.CL books to María Juan HAB do that 'Give books to María, Juan usually does that'
 - b. Regalarle libros, Juan suele hacerle eso a María give.CL books Juan HAB do.CL.DAT that to María 'To give books, Juan usually does that to María'
 - c. * Regalarle a María, Juan suele hacer(le) eso libros give.CL to María Juan HAB do.(CL) that books 'To give (to) Maria, Juan usually does that books'

This constraint does not hold for adverbials, which can be stranded without trouble. This is in essence the same conclusion that Landau (2005) arrives at on the basis of Hebrew data: only optional VP elements (adverbs and non-obligatory arguments) can be stranded under VP fronting.⁹

- 45) a. Escribir cartas, Juan suele hacer eso con pluma write letters Juan HAB do that with fountain pen 'To write letters, Juan usually does that with a fountain pen'
 - Comer, Juan suele hacer eso sin modales
 eat, Juan HAB do that without manners
 'To eat, Juan usually does that without table manners'

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⁹ Landau proposes an analysis in terms of late merger (Lebeaux 1988, Fox 1999) of the stranded element.

The same point can be illustrated with idioms. If the verb and the optional modifier form an idiom, the idiomatic reading is only preserved if the modifier is pied-piped along with the verb. This is probably due to the fact that the presence of a part of an idiom is *not* optional, even if that part is optional under the literal reading.

- 46) a. Levantarse con el pie izquierdo, Juan suele hacer eso get up with the foot left Juan HAB do that
 - ✓ 'Juan usually gets up on his left foot first'
 - ✓ There are a lot of days when nothing comes out right for Juan'
 - b. Levantarse, Juan suele hacer eso con el pie izquierdo get up Juan HAB do that with the foot left
 ✓ 'Juan usually gets up on his left foot first'
 - * There are a lot of days when nothing comes out right for Juan'

A constraint on stranding is that the stranded phrase must be a modifier of the VP, not of an argument within VP. This is shown in example (47)a, which cannot be interpreted as Juan using the oven to cook salmon. It only has the odd reading in which Juan himself is inside the oven while cooking the salmon. This sentence is compatible with a situation in which the salmon is not actually oven-cooked (but, for instance, grilled, if the grill happens to be located inside the oven as well). The missing reading is probably derived from having *salmón* 'salmon' and *en el horno* 'in the oven' in a small clause configuration. Compare it to (47)b and (47)c, where the 'sensible' reading is permitted.

- 47) a. # Cocinar salmón, Juan suele hacer eso en el horno cook salmon Juan HAB do that in the oven 'To cook salmon, Juan usually does that in the oven'
 - b. Cocinar salmón en el horno, Juan suele hacer eso cook salmon in the oven Juan HAB do that 'To cook salmon in the oven, Juan usually does that'
 - Juan suele cocinar salmón en el horno
 Juan HAB cook salmon in the oven
 'Juan usually cooks salmon in the oven'

Subjects are only marginally allowed in the fronted VP.

- 48) a. ?? Juan leer un libro, no creo que eso sea cierto Juan read a book not think that that is true 'Juan to read a book, I don't think that is true'
 - b. ?? Leer Juan un libro no creo que eso sea cierto read Juan a book not think that is true 'Juan to read a book, I don't think that is true'
 - c. ?? Leer un libro Juan no creo que eso sea cierto read a book Juan not think that that is true 'Juan to read a book, I don't think that is true'

Sentential adverbials are not allowed in the fronted VP, but lower adverbials (manner, time, frequency...) are.

49) Leer libros despacio / a menudo / en verano / *probablemente...
read books slowly often in summer probably
... Juan suele hacer eso
 Juan HAB do that
'To read books slowly/often/during summer/probably, Juan usually does that'

The fronted VP can contain wh- words. Note that these necessarily appear at the edge of the VP, suggesting that they have undergone movement. Further, these examples require that the fronted VP be selected by a verb that independently selects for an embedded interrogative (we will return to this last point in the next subsection).

- 50) a. Cómo colarse en el tren, Juan quiere saber eso how smuggle in the train Juan wants know that 'How to get in the train without paying, Juan wants to know that'
 - b. * Colarse en el tren cómo, Juan quiere saber eso smuggle in the train how Juan wants know that 'How to get in the train without paying, Juan wants to know that'
- 51) a. Qué vino llevar a la fiesta, Juan no pudo decidir eso what wine take to the party Juan not can decide that 'Which wine to bring to the party, Juan couldn't decide that'
 - b. * Llevar a la fiesta qué vino, Juan no pudo decidir eso take to the party what wine Juan not can decide that 'Which wine to bring to the party, Juan couldn't decide that'
- 52) a. Cuándo irse de vacaciones, Juan no pudo decidir eso when go of holiday Juan not can decide that 'When to go on holiday, Juan couldn't decide that'
 - b. * Irse de vacaciones cuándo, Juan no pudo decidir eso go of holiday when Juan not can decide that 'When to go on holiday, Juan couldn't decide that'

However, focus fronting within the fronted VP is not possible (53). This is due to the fact that, as opposed to the examples above, there are no verbs that select for a VP with a focused constituent (54).

- 53) a. * UN LIBRO leer, Juan quiere hacer eso a book read Juan wants do that 'To read A BOOK, Juan quiere hacer eso'
 - b. * POR LA MAÑANA leer libros, Juan quiere hacer eso for the morning read books Juan wants do that To read book IN THE MORNINGS, Juan wants to do that'
- 54) a. * Juan quiere UN LIBRO leer Juan wants a book read 'Juan wants to read A BOOK'

b. * Juan quiere POR LA MAÑANA leer libros 10 Juan wants for the morning read books 'Juan wants to read books IN THE MORNING'

Thus, the initial conclusion is that eso is a VP/vP-proform, in the same way as Hungarian azt. While we believe this to be correct, we shall see in the remainder of this section that the fine properties of this construction call for a more refined analysis.

3.2. Embedding verbs.

In section 2, we saw that Hungarian fronted VPs had to be selected by a higher verb (an auxiliary or a modal), which we refer to as the embedding verb. At first sight, this also seems to be the case for Spanish. Nonetheless, an immediate complication comes from the fact that the range of embedding verbs in Spanish is much larger than in Hungarian: all sorts of lexical verbs can function as embedding verbs, as we shall see below. The question is what the common property of all these verbs is. The idea we want to defend here is that all of them can take a nominal complement. Thus, we propose the following descriptive generalisation.

55) Spanish doubling under VP fronting

A fronted VP in Spanish can be doubled by a demonstrative iff the embedding verb can independently select for a nominal complement.

This is a rather surprising generalisation, since it implies that the doubling demonstrative is not actually a resumptive, but the actual internal argument of the finite verb. Nonetheless, we shall see in the rest of this section that there is quite some evidence in support of it. The great majority of embedding verbs are rather uninformative in this respect, since they can select for both an embedded VP and nominal (56). We exemplify this ambiguity here with *permitirse* 'to afford'. Other verbs that behave in the same way are probar (a) 'to try out', decidir 'to decide', obsesionarse (con) 'to get obsessed (with)', saber 'to know', preguntarse 'to wonder', and *preocuparse* (de) 'to worry (about)'. 11

- Juan no puede permitirse eso Irse de vacaciones al 56) a. Caribe, to.the Caribbean Juan not can go of holiday that To go on holiday to the Caribbean, Juan cannot afford that'
 - b. Juan no puede **permitirse** eso / irse de vacaciones al Caribe Juan not can afford go of holiday that to.the Caribbean 'Juan cannot afford that / going on holiday to the Caribbean'

¹⁰ Incidentally, this example is acceptable (though somewhat marked) in the reading in which por la mañana modifies quiere -i.e., a reading in which the urge to read books happens in the morning, while the actual book-reading may happen at any other time of the day. This reading is unavailable in (53)a. ¹¹ Note that this is by no means an exhaustive listing.

The interesting cases are those verbs that select for one category but not the other. As shown below, *hacer*, 'to do', *pasar* 'to happen', and *cometer* 'to carry out' can all select for a DP complement, but not for a VP. ¹²

- 57) a. Juan quiere **hacer** eso
 Juan wants do that
 'Juan wants to do that'
 - b. * Juan quiere **hacer** leer un libro Juan wants do read a book 'Juan want to read a book'
- 58) a. Juan no quiere que le **pase** eso
 Juan not wants that CL happens that
 'Juan doesn't want that to happen to him'
 - b. * Juan no quiere que le pase suspender el examen
 Juan not wants that CL happens fail the exam
 'Juan doesn't want to fail the exam'
- 59) a. Juan no ha **cometido** ese crimen Juan not has carried out that crime 'Juan hasn't carried that out'
 - b. * Juan no ha **cometido** robar el banco Juan not has carried out rob the bank 'Juan hasn't robbed the bank'

In spite of this restriction, these verbs are perfectly licit in the VP doubling construction.

- 60) a. Leer un libro, Juan quiere **hacer** eso read a book Juan wants do that 'To read a book, Juan wants to do that'
 - b. Suspender el examen, Juan no quiere que le **pase** eso fail the exam Juan not wants that CL happens that 'To fail the exam, Juan doesn't want that to happen to him'
 - Robar el banco, Juan no ha cometido ese crimen rob the bank Juan not has carried out that crime
 'To rob the bank, Juan hasn't carried that out'

The reverse effect also holds. Modals like *poder* 'can/be able' and *soler* 'habitual' select a VP, but not a nominal complement.

¹² An idiosyncracy of *cometer* is that it requires its nominal complement to denote a criminal or immoral activity. For that reason, sentences with a bare demonstrative are generally judged odd, unless the context clearly supplies the demonstrative with the appropriate denotation. We ignore this aspect, since it is a matter of selectional restrictions at the semantic, not syntactic, level (i.e., it would be parallel to the deviance of sentences in which *think* takes a non-sentient subject). To avoid this inference, we have used full DPs instead of demonstrative, even though this disrupts the exact minimal pairs.

- 61) a. Juan **puede** irse de vacaciones Juan can go of holiday 'Juan can go on holiday'
 - b. * Juan **puede** eso Juan can that 'Juan can do that'
- 62) a. Juan **suele** ir al cine los domingos Juan HAB go to the cinema the Sundays 'Juan usually goes to the movies on Sundays'
 - b. * Juan **suele** eso
 Juan HAB that
 'Juan usually does that'

However, in spite of selecting for a VP, these verbs cannot appear in the VP doubling construction.

- 63) a. * Irse de vacaciones, Juan **puede** eso go of holiday Juan can that To go on holiday, Juan can do that
 - b. * Ir al cine los domingos, Juan **suele** eso go to the cinema the Sundays Juan HAB that To go to the movies on Sundays, Juan usually does that'

The only way in which these examples can be salvaged is by having these verbs select another verb that can itself embed a nominal.

- 64) a. Irse de vacaciones, Juan **puede** hacer / decidir / permitirse eso go of holiday Juan can do decide afford that To go on holiday, Juan can do/decide/afford that
 - b. Ir al cine, Juan **suele** hacer/pensar en / apuntarse a eso go to the cinema Juan HAB do think in join to that To go to the movies, Juan usually does/thinks about/joins in that'

In short, all these data show that doubles are only allowed in places where regular DPs are also allowed. Thus, we find support for the generalisation in (55), and its theoretical implication: in a VP doubling construction, the doubling demonstrative — and not the fronted VP — is the real argument of the verb. As a final indication that the double is a real argument, consider verbs whose complement is headed by a preposition. For these verbs, *eso* can only replace the complement of the preposition (65)a/(65)b. As shown in (65)c, it is ungrammatical for the preposition to be piedpiped. This follows if *eso* is not the spell out of a trace (as in Hungarian), but an actual DP selected by a higher head. This restriction follows from our hypothesis, since *soñar* 'to dream' does not select a DP, but a PP. ¹³

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¹³ Intriguingly, it is marginally possible to repeat the preposition, as in (i). We do not have anything interesting to say about this example.

- 65) a. Juan ha soñado *(con) irse de vacaciones Juan has dreamed with go of holiday 'Juan has dreamed with going on holiday'
 - Irse de vacaciones, Juan ha soñado con eso go of holiday Juan has dreamed with that
 'To go on holiday, Juan has dreamed about that'
 - c. * Con irse de vacaciones, Juan ha soñado eso with go of holiday J has dreamed that 'About going on holiday, Juan has dreamed that'

3.3. More on embedding verbs.

The conclusion of the previous section was that the fronted VP is not a real argument of the verb. Rather, the double is the argument and (as we shall argue in section 3.7), the doubled VP adjoins to it as an apposition. This does not mean, though, that *any* VP can attach to the double. In spite of not being directly selected by the embedding verb, the fronted VP must still abide by the selectional restrictions of that particular verb. For instance, *decidir* 'to decide' selects for a non-stative predicate. The contrast below shows that this requirement is preserved in the doubling construction.

- 66) a. Juan ha decidido aprender / * saber francés Juan has decided learn know French 'Juan has decided to learn/know French'
 - b. Aprender / * saber francés, Juan ha decidido eso learn know French Juan has decided that 'To learn/know French, Juan has decided that'

Similarly, the verb *preguntarse* 'to wonder' selects for an interrogative finite CP. Again, this contrast is preserved in the doubling construction.

- 67) a. Juan se pregunta quién se ha bebido el vino Juan SE wonders who SE has drunk the wine 'Juan wonders who has finished the wine'
 - b. * Juan se pregunta que María ha leído un libro Juan SE wonders that María has read a book 'Juan wonders that María has read a book'
 - c. Quién se ha bebido el vino, Juan se pregunta eso who SE has drunk the wine Juan SE wonders that 'Who has drunk the wine, Juan wonders (about) that'

i) ? Con irse de vacaciones, Juan sueña con eso with go of holiday Juan reams with that

 d. * Que María ha leído un libro, Juan se pregunta eso that María has read a book Juan SE wonders that 'That María has read a book, Juan wonders (about) that'

The same effect holds for all the embedding verbs listed so far (we do not provide the examples here due to space limitations, though). The question is, why such a restriction should hold, given our hypothesis so far that these constituents are not selected by the verb. First of all, note that such restrictions hold also in cases when the embedding verb does not select a VP. As we saw earlier, *hacer* 'to do' is one such verb (57). In the doubling construction, though, *hacer* behaves like *decidir* in that it requires the doubled VP to be non-stative.

68) Aprender / * saber francés, Juan quiere hacer eso learn know French Juan wants do that 'To learn/know French, Juan wants to do that'

This looks like a paradox, since *hacer* itself does not select for an embedded VP, so it is implausible that it should impose any requirements on doubled VPs. Yet the requirement exists. Our proposal is that this paradigm, in fact, is not a consequence of the verb directly imposing any requirement on the doubled constituent. The verb only imposes selectional requirements on the pronominal double (in this case, that it denotes a non-stative event). However, once the double is specified like this, the denotation of the VP must be consistent with it. That is, the verb imposes a certain requirement on the semantics of the pronominal double, which in turn imposes the same restriction on the semantics of the doubled VP.

3.4. Doubling with fronted nominals

In Spanish, doubling with *eso* is not restricted to VPs and clausal complements. DPs can also appear in this construction. Some examples are given below. Note that there are no definiteness/specificity restrictions. Bare plurals and generics are also fine.

- 69) a. La bicicleta, me han robado eso the bike CL have stolen that 'My bike, I've had that stolen'
 - b. Un billete de 100 euros, a nadie le gustaría perder eso a bill of 100 euro to nobody CL like lose that 'A 100 euro bill, nobody would like to lose that'
 - c. Libros de historia, Juan quiere leer eso books of history Juan wants read that 'History books, Juan wants to read that'
 - d. La carne de vaca, a los perros les gusta eso the meat of cow to the dogs CL like that 'Cow meat, dogs like that'

Doubling of DPs is intriguing, in that the demonstrative can agree in gender and number with the fronted DP, unlike what happens with VPs. Thus, both the agreeing and the non-agreeing form in the examples below are grammatical.

- 70) a. La torre de Pisa, eso / esa nos gustó mucho the tower of Pise that.NEUT that.FEM us liked a lot "The tower of Pisa, we liked that a lot"
 - b. El libro de Juan, he comprado eso / ese the book of Juan have bought that.NEUT that.MASC 'Juan's book, I've bought that'
 - c. Las rimas de Becquer¹⁴, eso / esas nos gustaron mucho the rhymes of Becquer that.NEUT those.FEM us liked a lot 'Becquer's rhymes, we liked those a lot'
 - d. Los sonetos de Shakespeare, eso / esos nos gustaron mucho the sonnets of Shakespeare that.NEUT those.MASC us liked a lot 'Shakespeare's sonnets, we liked those a lot.

The examples have different interpretations, though, depending on whether the agreeing or non-agreeing form is used. In (70)a, if the non-agreeing form is used, the tower of Pisa can be contrasted with anything (say, French wine, Stonehenge, etc). On the other hand, if it is the agreeing form that is used, then the tower of Pisa can only be contrasted with other towers. As an example, consider the follow-ups in (71)b and (71)c.

- 71) a. La torre de Pisa, esa nos gustó mucho the tower of Pisa that.FEM us liked a lot 'The tower of Pisa, we liked that a lot'
 - b. En cambio, la torre Eiffel no on the other hand the tower Eiffel not 'On the other hand, the Eiffel tower wasn't so great'
 - c. # En cambio, la Capilla Sixtina no on the other hand the chapel Sistine not 'On the other hand, the Sistine Chapel wasn't so great'

We would like to claim that this is a partially pragmatic effect. By this we mean that the agreeing demonstrative reduces the set of entities that the topic can be contrasted against to those that have the same φ specification (in this case, feminine singular). Out of these, towers are picked, as they are prominent in the discourse (i.e., in some sense, they already have been established as the baseline for comparison). However, if the context is set up right, (71)c becomes a possible follow-up to (71)a. Thus, (a) establishes Italy's architecture as the baseline, making the Sistine Chapel contrastable with the tower of Pisa.

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¹⁴ Becquer, Gustavo Adolfo (1836-1870), one of the most famous Spanish romantic poets. He is also known as a writer of short stories.

- 72) a. ¿Qué pensáis de las [obras arquitectónicas]_{FEM} de Italia? what think of the works architectural of Italy 'What is your opinion about Italy's architecture?'
 - La torre de Pisa, esa nos gustó mucho the tower of Pisa that.FEM us liked a lot 'The tower of Pisa, we liked that a lot'
 - c. En cambio, la Capilla Sixtina no on the other hand the chapel Sistine not
 'On the other hand, the Sistine Chapel wasn't so great'

3.5. Form and position of the demonstrative

The VP-doubling demonstrative *eso* 'that', need not always appear in the complement position of the matrix verb. Given the right discourse context, it can be freely topicalised or clefted, in which case it itself is doubled by a clitic. Regular objects show this same behaviour.

- 73) a. Leer libros, eso lo quiere hacer Juan read book that CL wants do Juan 'To read books, Juan wants to do that'
 - b. Los libros, Juan los quiere leer the books Juan CL wants read
 'The books, Juan wants to read (them)'
- 74) a. Leer libros, eso es lo que Juan quiere hacer read books that is CL that Juan wants do 'To read books, that is what Juan wants to do'
 - b. Los libros es lo que Juan quiere leer the books is CL that Juan wants read 'The books are what Juan wants to read'

There is no requirement either that the fronted VP and the demonstrative be clausemates. As shown below, the demonstrative can stay in a lower clause, or even surface on an intermediate landing site. Note that the clitic doubling the topicalised demonstrative always stays in the lower clause. This is expected, given that clitic climbing cannot cross finite clause boundaries.

- 75) a. Leer libros, creo que Juan quiere hacer eso read books think that Juan wants do that 'To read books, I think that Juan wants to do that'
 - Leer libros, creo que eso lo quiere hacer Juan read books think that that CL wants do Juan "To read books, I think that Juan wants to do that"
 - c. Leer libros, eso creo que lo quiere hacer Juan read books that think that CL wants do Juan 'To read books. I think that Juan wants to do that'

As for its morphology, the demonstrative always surfaces as *eso*, which is 3rd person singular neuter. Neuter morphology is expected, given that VPs plausibly have no gender specification. However, singularity is more intriguing. Even in cases when the fronted phrase consists of two coordinated VPs, the plural form is barred, and the singular is used instead.¹⁵

76) Leer libros y beber cerveza, a Juan le gusta hacer ✓ eso / *esos read books and drink beer to Juan CL likes do that.SG that.PL To read books and to drink beer, Juan likes to do that'

Most usually, the demonstrative used is a distal one. However, the proximate demonstrative *esto* 'this' can also be used. *Esto* is usually employed where the topicalised VP appears at the right periphery of the sentence. In these situations, *eso* is dispreferred. Given this complementarity (and the fact that this generalisation can be overridden, given the appropriate context), we will assume that this is simply a discourse effect.

- 77) a. Leer libros, Juan quiere hacer ✓eso / ?? esto read books Juan wants do that this To read books, Juan wants to do that'
 - b. Juan quiere hacer ✓ esto / ?? eso, leer libros
 Juan wants do this that read books
 'Juan wants to do this, to read books'

Nonetheless, there is no requirement for the doubling element to be a demonstrative. It may also be a full DP like *esas cosas* 'those things', *algo así* 'such a thing/something like that' or more colourful epithets (78)d.

- 78) a. Leer libros, Juan quiere hacer **algo** así read books Juan wants do something such To read books, Juan wants to do something like that'
 - b. Leer libros y beber cerveza, Juan quiere hacer **esas (dos) cosas** read books and drink beer Juan wants do those two things To read books and to drink beer, Juan wants to do those things'
 - c. Leer libros y beber cerveza, Juan quiere hacer **ambas cosas**. read books and drink beer Juan wants do both things 'To read books and to drink beer, Juan wants to do both things'
 - d. Ver la tele, Juan no suele hacer **esa bobada** watch the TV Juan not HAB do that nonsense 'To watch TV, Juan isn't usually up to such nonsense'

¹⁵ Note, though, that for the plural demonstrative, the neuter and masculine forms are homophonic (*esos*). As a separate issue, note also that example (76) need not be interpreted conjunctively, i.e., watching TV and drinking beer can be enjoyed separately by Juan. Thanks to Marcel den Dikken (p.c.) for raising this question

Such substitution is also possible for CPs and DPs (examples for the latter adapted from Escobar 1995).

- 79) a. Que Juan iba a venir, nadie ha dicho **nada así** that Juan went to come nobody has said nothing such 'That Juan was going to come, nobody ever said such thing'
 - b. Que iba a nevar en verano, Juan se creyó **esa tonteria** that went to snow in summer Juan SE believed that silly thing 'That it was going to snow during summer, Juan believed that nonsense'
- 80) a. Tu hermano, **ese mentiroso** me va a oir your brother that liar me goes to listen 'Your brother, the liar will listen to what I have to say'
 - b. La sopa, ya estás tirando **esa guarrada** the soup already are throwing away that filthy thing 'The soup, please throw that gruel away!'
 - c. Juan, aún no he hablado con **el pobre infeliz**Juan yet not have spoken with the poor unhappy
 'Juan, I still haven't talked to the poor devil'

3.6. Reconstruction effects.

Material in the fronted VP can be bound by constituents in the main part of the clause. This suggests that the fronted VP is not base generated in its surface left-peripheral position. Rather, it starts off in a low position and then it moves higher up. This is exemplified below for Condition C and variable binding.

- 81) a. * Visitar a Juan_i, él_i piensa que María quiere hacer eso visit to J he thinks that M wants do that 'To visit Juan, he thinks that María wants to do that'
 - b. Reirse de sus_i chistes, todo_i humorista espera que el público haga eso laugh of his jokes every comedian hopes that the audience does that 'To laugh at his jokes, every comedian expects the audience to do that'

Note that, in these examples, the binder and the demonstrative (which is plausibly the position the fronted VP starts off from) are separated by a finite clause boundary. This is to control for Huang's (1993) observation that fronted VPs contain a trace/copy of the subject, which can bind material inside VP. Thus, it is necessary to have the binder in a different (finite) clause altogether. Unfortunately, this means that we are introducing an extra binding domain, which makes Condition A and B uninformative in this respect. The only relevant reconstruction effects are the ones for Condition C and variable binding, which can apply across binding domains.

Finally, NPIs are not allowed in the fronted VP, even if the matrix clause contains and NPI licenser. This is possibly related not to lack of reconstruction, but to the topic status of fronted VPs. It seems to be a universal property of NPIs that

they cannot be topicalised. Hence, it is expected that they cannot appear inside a larger topicalised phrase.

- 82) a. * Leer nada, Juan no quiere hacer eso read anything J not wants do that 'To read anything, Juan doesn't want to do that'
 - b. * Nada, Juan no quiere hacer anything J not wants do 'Anything, Juan doesn't want to do'

Reconstruction effects are also present when the fronted part is a finite clause, as shown below. Since the fronted phrase constitutes a binding domain by itself, we can only test for Condition C and variable binding.

- 83) a. Que el publico se ría de sus; chistes, todo; humorista espera eso that the audience SE laugh of his jokes every comedian hopes that 'That the audience will laugh at his jokes, every comedian hopes that'
 - b. * Que Juan; va a venir a la fiesta, él; nos ha prometido eso that J goes to come to the party he us has promised that 'That Juan is coming to the party, he has promised us that'

For nominals, it is not easy to test binding under reconstruction in doubling constructions. The main problem is that *eso* needs to be correferential with the topicalised object. However, *eso* is a pronoun, not an anaphor. Thus, if it doubles an anaphoric object, the derivation would result in a Condition B violation, since the subject would be binding a coindexed pronoun (84). This can be circumvented by embedding the anaphor inside the object DP, as in the examples in (85).

- * [DP] anaphor, [DP] binder, [DP] pronoun,
- 85) a. Juan siente [vergüenza de sí mismo]

 J feels shame of him self

 'Juan is ashamed of himself'
 - b. [Vergüenza de sí mismo], Juan siente eso shame of him self J feels that 'Ashamed of himself, Juan feels like that'

In this same context, Conditions B and C show the expected results, and so does variable binding.

- 86) a. * Juan $_{\rm i}$ siente [vergüenza de él $_{\rm i}$] J feels shame of him 'Juan is ashamed of him'
 - b. * [Vergüenza de él_i], Juan_i siente eso shame of him J feels that 'Ashamed of him, Juan feels like that'

- 87) a. * El_i siente [vergüenza de Juan_i] he feels shame of J 'He is ashamed of Juan'
 - b. * [Vergüenza de Juan_i], él_i siente eso shame of J he feels that 'Ashamed of Juan, he feels like that'
- 88) a. Todo_i padre siente [vergüenza de su_i hijo] en algún momento every father feels shame of his son in some moment 'Every father feels ashamed of his son at some point'
 - b. [Vergüenza de su_i hijo], todo_i padre siente eso en algún momento shame of his son every father feels that in some moment 'Ashamed of his son, every father feels like that at some point'

3.7. Analysis

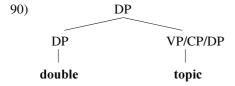
As the previous discussion shows, Spanish doubling differs from Hungarian doubling in important respects: distribution (strictly left-peripheral vs. free), subcategorisation (VP-embedding vs. DP-embedding verbs) morphology (strictly non-agreeing vs. agreeing), complexity (strictly atomic vs. phrasal). All these differences can be made sense of under the hypothesis that Spanish *eso* is not the spell out of a trace, as we proposed in section 2 for Hungarian. Rather, our claim is that Spanish doubling makes use of the structure — (23), repeated below — that we initially discarded for Hungarian. That is, one in which the fronted element and the double start off as one constituent, and the double gets stranded under XP fronting. Such a structure has been proposed previously in the literature to account for similar phenomena: e.g., Sportiche (1988) for quantifier float, Uriagereka (1995) for clitic doubling, and Boeckx (2003) for resumption. This structure accounts for the fact that the double behaves in all respects like a regular DP because it *is* a regular DP.



Further, the fact that the doubled category is merged to the double in the base position of the latter accounts for the reconstruction effects. Extra evidence in favour of merging the doubled VP so low comes from the observation that it is possible to have the double and the topic together, as in the example below. Note that variable binding is possible, showing that we are indeed dealing with one single sentence.

89) Todo_i humorista espera eso, que el público se ría de sus_i chistes every comedian hopes that that the audience SE laughs of his jokes 'Every comedian expects that, that the audience laughs at his jokes'

So far we have remained silent as to the nature of the relation between the double and the topic. An initially plausible proposal is that the topic is an adjunct to the double as in (90). This hypothesis would account for the islandhood of VP topics in their base position (91).



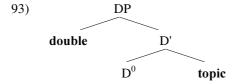
- 91) a. Juan ha prometido eso, [leer un libro]

 J has promised that read a book
 'Juan has promised that, to read a book'
 - b. * ¿Qué libro ha prometido Juan eso, [leer t]? what book has promised J that read 'Juan has promised that, to read which book?'
 - c. ¿Qué libro ha prometido [leer t] Juan? what book has promised read? J 'Which book has Juan promised to read?'

However, this hypothesis also predicts that VP topics, being adjuncts, should be sensitive to weak islands. This prediction is falsified by the example below, where a VP topic originating in a lower clause can be moved without trouble across matrix negation.

92) ✓ [Leer un libro], no creo que a Juan le guste hacer eso read a book not think that to Juan CL.DAT likes do that 'To read a book, I don't think Juan likes to do that'

Instead, we want to propose that the topic and the double form a small clause headed by a (null) D head. The topic starts off as the complement, and the double, as its specifier. This is schematically shown below.



In this structure, the topic is actually an argument, which predicts its insensitivity to weak islands. Moreover, under this structure, the strong island effect in (91)b can be seen as CNPC violation. Finally, it also provides a way to incorporate the agreement effects discussed in section 3.4. This would not be possible under an adjunction analysis, since agreement between a phrase and an adjunct is generally thought not to be possible.

The proposed structure is somewhat based on the presupposition that VPs and CPs can combine with determiners. In fact, in other contexts (e.g., when VPs and CPs act as subjects), this can be seen overtly.¹⁶

- 94) a. [El leer un libro de Chomsky] te da un aire de intelectual the read a book of Chomsky CL.DAT gives a air of intellectual To read one of Chomsky's books makes you look like a smart guy'
 - b. [El que llueva en otoño] entristece a mucha gente the that rains in autumn saddens to many people 'The fact that it rains in autumn makes many people sad'

Let us also point out a paradigm that seems to support this hypothesis. In Spanish, one can also topicalise adverbs and adjectives. In this case, however, the double is not *eso* or a full DP. Rather, one finds *asi* 'so' or *de esa manera* 'in such a way', or various equivalent expressions with an adverbial/adjectival meaning.

- 95) a. Rápidamente, Juan ha leido Hamlet así / de esa manera / *eso quickly Juan has read Hamlet so in such a way that 'Quickly, that's the way Juan has read Hamlet'
 - b. Caliente, a Juan le gusta tomar la sopa así / de esa manera / *eso warm to J CL likes have the soup so in such a way that 'Warm, that's the way Juan likes his soup'

These data could be interpreted as follows: VPs, CPs, and obviously nominals can combine with a D head, hence the double is a pronoun or a DP. In contrast, this is not possible for adjectives¹⁷ and adverbials, and consequently, one cannot use a pronominal as the double. Instead, an adjectival or adverbial expression must be used. While this analysis is somewhat sketchy, it seems to us that it captures our core intuition about Spanish, namely, that the double and the topic are merged together as a constituent and then separated. In addition, the various paradigms reviewed in this subsection make the complementation structure in (93) more plausible than the adjunction structure in (90).

4. Conclusions and further directions of research

In this paper, we studied VP topicalisation in two unrelated languages. The purpose of the paper was to show that although languages might look similar in VP

 $^{^{16}}$ Also, Torrego & Uriagereka have argued on independent grounds that VP and CP complements to epistemic predicates are introduced by a null determiner. See also Jouitteau (2005), who claims that ν P has nominal features, at least in some languages.

¹⁷ In Spanish, it is sometimes possible to have [D Adj] strings, e.g., *el viejo* 'the old'. However, this is best analysed as involving noun ellipsis (i.e., *el* [silent N] *viejo*). Since adjectives require the local presence of a noun to be appropriately inflected, it must be the case that these example involve unpronounced nouns that provide the required gender and number specifications.

topicalisation on the surface, they can employ very different structures and derivations. The Hungarian cases of VP topicalisation prove to be instances of VP fronting from the complement position of the licensing verb. The pronominal double that associates with such fronted VPs spells out a high trace position in the structure. The Spanish cases on the other hand, feature VP fronting from a marked configuration in which the VP is a complement to a null determiner, which hosts the double as its specifier.

The existence of the latter strategy provides important addition to recent theorising in the domain of resumption. A substantial amount of research deals with the configurations that underlie resumptive strategies. One important result is the recognition that these strategies can involve appositive configurations. Most importantly, Aoun *et al* (2001) claim that resumptive elements can be linked to their associate through an appositive configuration like (91).

96) lexical DP i ... [DP lexical DPi [double]]

"Certain constructions that appear to involve resumption by a pronoun [...] actually involve movement from a position within the maximal projection containing the pronoun [...]. The relation between the launching site and the apparent resumptive pronoun is apposition."

We hope to have shown that resumption can also consist of a structure in which the associate and the double are respectively the complement and the specifier of a head.

97) lexical DP_i ... [DP double [D [lexical DP_i]]]

While this is an important result, our analysis of Hungarian and Spanish VP-topicalisation brings up many important questions, some of which we could not yet dedicate enough attention to. First and foremost, are these two strategies of resumption the only strategies available for VP topicalisation in a language, or are there other, yet unknown strategies? Secondly, what determines whether a language employs one or the other mechanism of VP-topicalisation? Does the

Let us nonetheless point out two interesting differences between both options. First, a *det*-doubled VP does not count as "first" for V2 purposes (i), whereas a non-*det*-doubled one does (ii). Second while the non-*det*-doubling variant does not allow stative predicates, the *det*-doubling one does (iii). Källgren & Prince conclude from this data that both constructions have a different source, and we agree with them.

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¹⁸ For instance, Källgren & Prince (1989) point out that in Swedish it is possible to left-dislocate a VP containing a finite verb, doubling it with *det* 'it'. Downstairs we find the dummy verb *göra* 'to do', which is also inflected. This pattern is also present in VP topicalisation, where no *det* doubling is present. At present, we have no account of this pattern.

i) [Läser boken], det gör han read.3SG book.DEF it do.3SG he 'Reads the book, he does that'

ii) [Läser boken] gör han nu read.3SG book.DEF do.3SG he now 'Reading the book he is now'

iii) [Kan svenska] *(det) gör Kari know.3SG Swedish it do.3SG K 'Knows Swedish, Kari does that'

presence of the Hungarian- or Spanish-type mechanism follow from some other, independent property of language?

While we hope to address the second set of questions in future research, the first question needs a great deal of research in the empirical domain with the involvement of many more languages. Initial explorations in this domain suggest to us that the Spanish pattern is by all means attested in other European languages as well, including Dutch and German, for example. As Zwart (1997) has already mentions, Dutch/German VP-topicalisation is licensed by predicates that select for a nominative complement, just as we have seen to be the case in Spanish.

We illustrate this with the case of Dutch.¹⁹ A verb like *doen* 'do.INF' cannot occur with infinitive comlements, but can with nominal ones. As a result, it can also occur with VP-topicalisation:

98) a. * Ik doe niet boeken lezen.
I do not book read
'I don't read books.'

b. [Boeken lezen], dat doe ik niet.
books read that do I not
'To read books, I don't do that.'

c. Ik doe dat niet.
I do that not
'I don't do that.'

[VP-topicalisation]

[DP complement]

Placht 'used to' on the other hand, can only occur with infinitivals, and not with nominal complements. As a result, it is excluded from VP-topicalisation:

- 99) a. Jan placht destijds misdaadromans te lezen. [VP/IP complement]
 Jan used.to then crime.stories to read.INF
 'Jan used to read crime stories then.'
 - b. * [Misdaadromans lezen], dat placht Jan destijds. [VP-topicalisation] crime stories read.INF that used.to Jan then 'To read crime stories, Jan used to do that then.'
 - c. * Jan placht dat destijds. [DP complement]
 Jan used.to that then

 'Jan used to do that then'

Dutch also patterns with Spanish in the availability of reconstruction (section 3.6. above) and full DP doubles (examples 76-78). Where Dutch differs from Spanish is the syntactic position and discourse role of the pronominal double: this element is mostly confined to the left periphery. It only occurs in internal positions of the clause for a subset of speakers we consulted:

100) % [Marie kussen], Jan heeft *dat* niet geprobeerd.

Marie kiss.INF Jan has that not tried

'To kiss Marie, Jan has not tried that.'

¹⁹ German appears to behave in the same way. Our thanks to Martin Salzmann for his judgements.

Having the VP to the right of the double results in full ungrammaticality in Dutch, as opposed to Spanish:

101) * Jan heeft *dat* niet geprobeerd, [Marie kussen].

Jan has that not tried Marie kiss.INF

'Jan has not tried that, to kiss Marie.'

This shows that while languages might employ the same underlying strategy, they can differ in the particular details. Unfortunately, a detailed comparison between Spanish and Dutch goes beyond the scope of this paper, and must defer it for future work. It is our hope, though, that our contribution inspires further comparative research in this area.

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