



D-linking and the inability of subjects in English to topicalise

Vinculación discursiva y la inhabilidad de los sujetos en inglés para topicalizarse

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ABSTRACT

This paper inquires into the inability of subjects in English to topicalise. Treating topicalisation as a specific case of d-linking, it asks: why don't subjects topicalise in English? And why cannot they be d-linked through further movement? It concludes that the property of [aboutness] of subjects is an underspecified instance of a more composite derivative effect realised as [topic]. Given the ability of objects in English to be readily d-linked through extraction in CP, the analysis takes a detailed look at the structural differences between subjects and objects. It concludes that d-linking of an argument is contingent upon the derivational memory of its prior inclusion within vP that has yielded its denotational set-membership. Treating EPP as an A'-operation that embeds one instance of the subject-chain into discourse, the inability of subjects to topicalise is explained as an "on-line" denotational dependency on discourse, which lacks the systemic memory of the subject's embedding. In turn, their immobility is treated as a modular dependency between the two subject copies, mediated through T excluding the one instance of the chain.

Keywords: *d-linking, topicalisation, subjects, denotation*

RESUMEN

Este trabajo indaga sobre la incapacidad de los sujetos en inglés para topicalizarse. Analizando topicalización como un caso específico de vinculación discursiva (d-linking), se pregunta: ¿por qué no pueden topicalizarse los sujetos en inglés? Y ¿por qué no pueden vincularse al discurso a través de un movimiento adicional? El análisis concluye que la propiedad de [prominencia] (aboutness) de los sujetos es una instancia sub-especificada de un efecto derivado más compuesto, realizado como [topic]. Dada la capacidad de los objetos en inglés para vincularse fácilmente a discurso a través de su extracción en CP, el análisis ve en detalle a las diferencias estructurales entre los sujetos y los objetos. Se concluye que la vinculación discursiva de un argumento está condicionada a la memoria derivativa de su previa inclusión en vP, que ha dado su membresía denotacional al un conjunto. Viendo a EPP como una operación A' que integra una instancia de la cadena del sujeto en el discurso, la incapacidad de los sujetos para topicalizarse se explica como una dependencia denotacional "en-linea" del discurso, que se falta la memoria sistémica de inclusión del sujeto. Subsecuentemente, su inmovilidad se explica como una dependencia modular entre las dos copias del sujeto, mediada a través del T excluyendo una de las instancias de la cadena.

Palabras clave: *vinculación discursiva, topicalización, sujetos, denotación*

Introuduction

English subjects display some characteristics that render their syntactic behaviour and interpretation asymmetric to that of the objects. For example, in contrast with objects, they display an inability to topicalise locally (cf. Lasnik & Saito, 1992; Agbayani, 2000):

1. *The kids, always like toys.
Toys, the kids always like.

On the interpretative side of this apparent immobility, we can observe that the inability of subjects to be topicalised in English displays a concomitant inability to be discourse linked (d-linked henceforth) and interpreted as referential entities that have been already introduced into discourse. Here, the notion of d-linking as a general property sensed as “discourse givenness” (Reglero, 2003) extends Pesetsky’s treatment of d-linking (1987) in order to include the association of any entity to an already known set, beyond the ones represented by the schema which + noun. This view is essentially following an extensive parallelism between d-linking and topicalisation taken place in Grohmann (1998; also Reglero, 2003). In accord with this view, the discourse (sub)set to which a d-linked entity is referentially associated need not be only restrictive generating a *part-of* relation, as is the case of the *which* expressions, but can also be maximally overlapping, generating a relation of *identity*. The latter essentially is grounded on Copy theory of Movement of Chomsky (1993; 1995) and extends the set of quantificational phenomena to topicalisation (contra Rizzi, 1997; 2004). See the following informal representation:

2. Which toy did the kids like?
*There is an x such that x **is part of the set of toys** and the kids like x*
3. This toy, the kids always like.
*There is an x such that x **is this toy** and the kids like x.*

On the other hand, subjects share an important property attributed to discourse interpretation: that of *aboutness* (Rizzi, 2005), which is clearly a property distinct from topicalisation, although it contains something that pertains to a discourse-related interpretation (Chomsky, 2002). This ability of subjects to be what we can call *quasi* topics getting a prominent position in the structure calls for a careful comparison between topicalisation and aboutness. It seems that the former does imply the latter but not vice versa. Concretely, if an element is topicalised, it also displays the property of being in prominence. But an element that is in prominence does not necessarily

display the properties of fully-fledged topicalisation. What are the structural reasons that underlie this one-way dependency? This is the subject matter of this paper that looks closer into some structural differences between subjects and objects, in the light of the relatedness between the properties [topic] and [aboutness], seen as a partial overlapping. Rizzi (2006) argues that, in accordance with what has been termed the “duality of semantics” (Chomsky, 2002; 2008), a grammatical object can comprise two distinct positions: an A-position, typically the position where a grammatical entity gets its interpretation as an argument, and an A'-position, itself linked with a discourse interpretation. In this respect, and in the light of the special status of subjects as arguments that also share an under-specified attribute of topics, namely their [aboutness], the following question arises: what renders the subjects something less than topics? In different words, what characteristic present on subjects turns the A'-related property of them [topic] minus x?

Argumental visibility is a matter that has been linked to Case assignment, through the once postulated Case Filter (Chomsky, 1981). If an argument is not assigned abstract Case (Vergnaught, 1978; 2008), thus violating the condition on its visibility, then it is not interpretable by the semantic component. In Rizzi (2005, also Rizzi & Shlonsky, 2006), the interpretation of subjects as such has been linked to the existence of specific criterial positions dedicated to their interpretation proper. What is interesting in the case of subjects in English though is that raising to their criterial position in Spec-TP is congruent with Case assignment. Plausibly then we can ask: to what extent does the relation between T and Case have an import to what I have called the interpretation of [aboutness] as [topic] minus x? If Visibility Condition on argument interpretation has a valid import in the theory of Case, then the notions of aboutness as well as the lack of d-linking of the subjects may find an interesting connection through the mechanics of Case assignment. There are then two interrelated questions concerning the topicalisation of subjects, alluded to above: a) why are subjects not d-linked in first place and b) why cannot subjects become d-linked through further movement?

The paper is organised as follows: sec.2 looks into the structural asymmetries between subjects and objects, partitioning subject raising into an A-like and an A'-like operation, thus accommodating the dual interpretative status of subjects. It elaborates on the interpretive consequences of these asymmetries, re-evaluating early insights into the connection between Case assignment as a binding relation and argumental visibility. Accusative case assignment is analysed as a process of denotational composition that includes a unique instance of an argument under its selecting and case-assigning

scope. Nominative case on the other hand is analysed as a referential function taking place between the two instances of a subject, whose raised copy is crucially excluded by T; sec.3 lays out how the observed asymmetries between Nominative and Accusative Case reflect on the way the referential layer of a nominal entity is associated with discourse. The d-linking effect achieved through topicalisation is re-interpreted as the memory of a raised entity's prior inclusion into vP. It is seen how the primitives of the structural status of objects are mapped into the generation of this memory and how subjects are deficient in a relevant sense, with their deficiency stemming from their inability to construct a single copy of full interpretability. A detailed analysis then looks into the subject's denotational dependency on discourse and the consequences that this has for their special referential status as well as their immobility; sec.4 presents the conclusions.

2. Structural differences between subjects and objects

2.1. Partitioning subject raising

Subject movement to SPEC-TP in English from SPEC-vP where it originates displays a uniqueness consisting of two interesting characteristics: first, it is obligatory; second, once it takes place, it immobilises the subject which gets "frozen" in place (Rizzi, 2005):

4. [CP [TP The kids [vP the kids like the toy]]

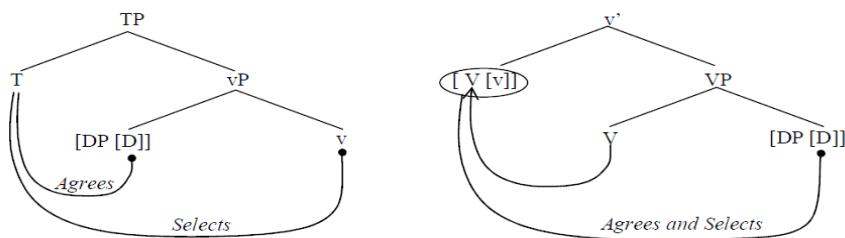


This uniqueness has led to the formulation of subject movement as criterial raising to a position dedicated to a specific interpretation, an operation that stands on a par with criterial wh-movement (Rizzi, 2005). This gives to subject raising a greed-like flavour (Chomsky, 1993) adhering to a property of A'-type that renders a given uninterpretable u-feature *quasi* interpretable by raising to the head that contains this information in its interpretable form. The very fact then that on the one hand a morphologically manifested Agree operation is involved and on the other that subjects do manifest discourse-related interpretive effects (e.g. definiteness of interpretation) suggests a partition of the process into two sub-operations: one A-like, namely Case assignment, and one A'-like, namely subject raising. The former is the valuation of the uninterpretable feature on the goal, whose misplaced interpretability (Boeckx, 2007) needs to be repaired by raising, and the latter the manifestation of a constituent's enlightened self-interest (Lasnik 1999a, b) that repairs its features' misplacement by raising to a position dedicated to the interpretation of the relevant uninterpretable but

valued feature. In the light of this partition, an important asymmetry can be observed between subjects and objects in English: whereas raising of a subject coincides with the operation that renders its features interpretable, an object raises having already left behind it the cycle dedicated to rendering its agree-features interpretable. This assumption in turn implies that subject and object Case assignment must be symmetrical with respect to the hypothesis that feature-valuation and EPP are respectively the A-like and A'-like dimensions of a single operation. Consequently, we must ask: what is the equivalent of EPP in object Case assignment? Let's look at the asymmetry between subjects and objects in this respect.

A lexical verb *V* selects a Determiner Head (D-head) which projects onto the sister of *V*, namely DP. Also, the light *v*-head (Larson, 1988) agrees and assigns Case to D. Further incorporation of *v* into *V* (Chomsky, 1995) results in a single conflated head that selects *and* agrees with D. In contrast, T agrees and assigns Case to a D-head that *does not project maximally* on the sister of T, namely *vP*. The asymmetry derivationally boils down to the observation that T does not select the head of the DP but *v*, whereas *v* after the incorporation of *V* into it both selects *and* agrees at once with the head of the DP. (5) below depicts the asymmetry:

5.



To the end of reducing the notion of specifier to properties of Merge, current research (Chomsky, 2007; 2008; Starke, 2004) contends that the distinction complement-specifier can be reduced to the distinction first Merge-second Merge. Following the parallels that stem from this unification, I propose that the EPP-equivalent in the context of [V[v]]-[DP[D]] relation is selection:

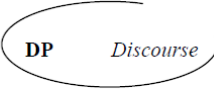
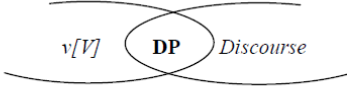
6. In the context of Case assignment, selection in first Merge equals EPP in second Merge.

Elaborating on the interpretative relevance of these structural asymmetries between subjects and objects, in the next section I will employ a version of the notion of *Case as a binding relation* (Bittner and Hale, 1996; Bittner, 1994; Pesetsky, 2011) manifested either as a) *a referential process* or b) *set-membership*. I will argue that these two manifestations correspond to Nominative and Accusative Case and are implemented by *exclusion* and *inclusion* respectively.

2.2. Case-binding and the levels of nominal embedding

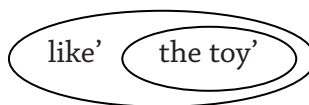
The idea to be advanced is that, in the context of structuring θ -relations, some type of binding or co-reference is needed between assigner and assignee, in current terms formulated as probe and goal (Chomsky, 2008). This is not implausible, with the literature often reducing agreement in T to a transition from a referential function to the incorporation of the pro-form into the verbal system, possibly through an intermediate stage of cliticisation (Fuß, 2005; Bresnan & Mchombo, 1987).

Following a theory of referential association of nominal expressions like that developed in Longobardi (1996; 2005), DPs can anchor their denotational value through their D-head (Abney, 1987), either the latter is filled with an overt determiner or with the nominal itself after N-to-D raising. This process is what renders a nominal a denoting expression. The contextual definition of a DP in Government and Binding theory states that it must be *not bound* (Chomsky, 1981; Baker, 1988). Therefore, it is referentially associated through the universe of discourse (Chierchia and McConell-Ginel, 2000). A denotation function over a DP as an R-expression concerns what I will call *first* or *discourse-embedding* (D-embedding), consisting of a direct link of a DP with the universe of discourse. Accusative-Case Assignment respectively will be defined as the *second* or *proper embedding* and constitutes the syntactic anchoring of a DP through [v[V]]:

7. a. *D-embedding* :
- 
- b. *Second/proper embedding*:
- 

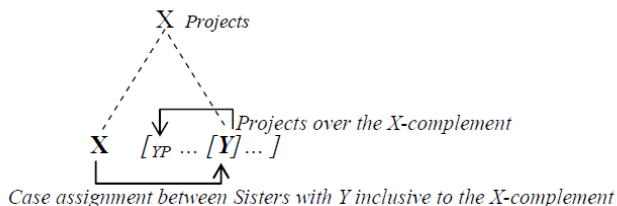
This view co-aligns the structural and featural context of accusative case assignment and the ability of a vP to express the set-membership of a nominal phrase, in parallel with Pesetsky’s (2011) analysis of dependent case as binding. The argumental interpretation of a vP-complement as set-membership adheres to a relevant notion of *inclusion* and its properties derive from the characteristics pertaining to it. A vP-complement is thematically interpreted at the site of its first Merge as part of vP, as shown in (8) below. A DP is embedded in what Alexiadou et al. (2007: 144, 200) call a D-level as the referential anchor permitting both denotation-value assignment and syntactic co-reference, depending on the level of its embedding. In this light, apart from its behaviour as an R-expression, a DP is also compositionally interpreted as a thematic part of the vP it is merged with. This is what semantically corresponds to denotation through set-membership and according to standard assumptions it involves the relation between an Accusative-Case assigner and D̄ (Ouhalla 1993). Accordingly, a DP like “the toy” is compositionally visible through its membership to the denotation of the verb “like”:

8. [vP like [DP the toy]]



In the context of sisterhood, Case-marking holds between an X-Head and a position *internal* to its sister. The sister of the assigner, namely Y, is embedded in the assigner’s complement, namely YP. In different terms, a projecting X assigns Case to a head Y which also projects over the complement of X:

9.

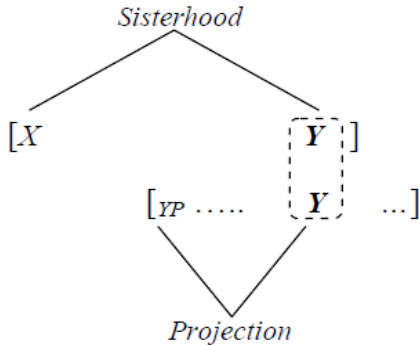


The [V[v]]-DP relation is *most local*, with no element Y intervening between X-assigner and Y-assignee in the context of what I have called sister first Merge:

10. [X ...[*Z]...Y]
 *I punished happily the kid.

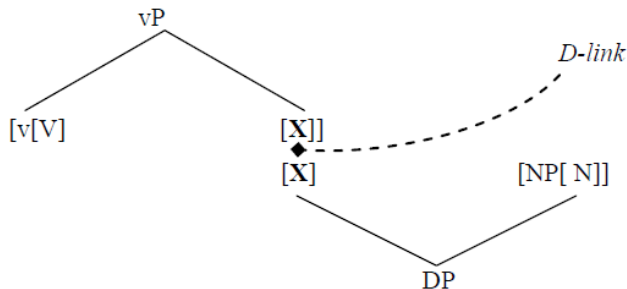
This condition stems from a stricter notion of locality, where the head of a phrase is also the sister of the selecting head:

11.



Y participates in two relations: sisterhood with X *and* projection over YP. Significantly, YP penetrates the sisterhood domain created between X and Y. It is instance of *partial incorporation* whereby a DP partially overlaps with a vP:

12.

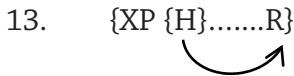


This overlapping between the DP-Head and the [V[v]-sister is what compositionally defines DP as a member of [V[v]]'s denotational set. X is in (12) the *D-link* rendering a DP properly embedded within a vP and therefore Accusative Case-marked. In Accusative Case assignment then X is defined

as the link that denotationally *includes* DP into vP.

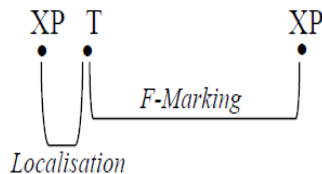
2.3. Subjects as excluded categories

How do subjects get compositionally referential in this respect? Can the binding view at Accusative Case assignment be extended to Nominative Case? I argue that this is possible, if we assume a shift in the way the identification of XPs takes place, briefly touched on in Chomsky (2008), initially formulated regarding the binding of reflexives (see also Boeckx et al. 2007: 8). When a specifier XP of a given head H is identified as the c-commanding antecedent of a co-referential reflexive R as in (13), the relation constitutes a sub-case of head-probing between H and R and not a direct relation between XP and R due to XP c-commanding R:



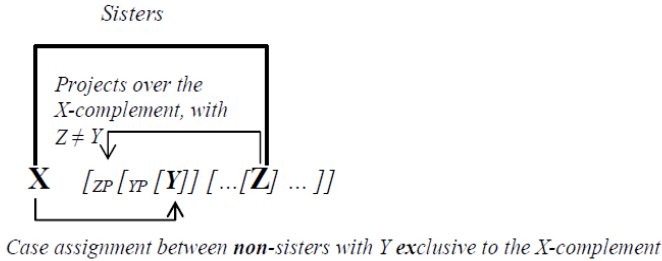
In much the same sense, Nominative Case can be reduced to a referential function between Spec-TP and its lower copy in Spec-vP with T being the mediator of this co-reference. T implements this relation by carrying an element resembling Chomsky's D-feature (1995a: 232) that establishes a dual reference to a phrase XP: one through Feature marking, in other words Case assignment, and one through localisation which excludes one instance of XP:

14.



Structurally speaking, the relational configuration between a Nominative-Case assigner and its assignee differs from (11) in that the head projecting

15.



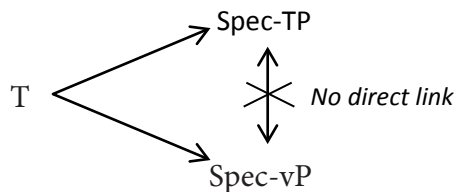
In terms of sisterhood and projection, the distinction in the structural arrangements between (11) and (15) yields what Chomsky (1986) formulates as exclusion in terms of domination. This is the relation of an XP-phrase to a localising H-head as defined in (o):

16. XP-exclusion

- A Feature-marking H excludes XP when: (a) H localises the non-sister XP
 (b) H projects

Concentrating on the implications of the points (a) and (b) of the definition, another interesting correlation arises that yields a more illuminative wording of exclusion. Concretely, localisation of an XP implies that *one instance of the excluded category is not localised*. For reasons ultimately pertaining to the Copy Theory of Movement (Chomsky 1995), raising of an argument that does not project in its new site results in its exclusion. In Nominative Case Assignment, there is a copy-identification process where an *external probe* is the mediator between the two Copies. T locates and agrees with the head of a phrase whose own head is *not* the sister of T. In this light argumental identification is achieved through the phrase's raising into Spec-TP and not solely because of a unilateral criterial raising. Instead, T operates a dual probing over the two phrasal copies. It mediates between the two subject-instances, corresponding to what is called in (12) D-link. The lowest DP-Copy in Spec-vP uses its Agree relation with T to identify itself with its extracted Copy in T's Specifier. Conversely, T refers to Spec-TP, thus giving to the latter its identity:

17.

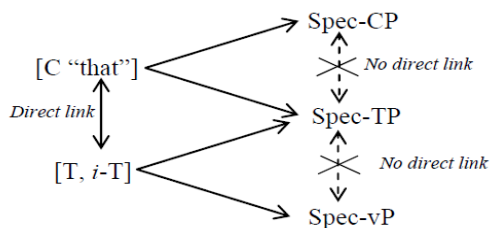


In a relevant sense T *excludes* XP, meaning that the D-link is external to the head projecting over the XP, even if *quasi* pronominally co-referential. We can observe that no necessity exists of a second copy manifested as argument externalisation in complement inclusion. An inclusive D-link overrides that need. Conversely, the identification of two exclusive copies always needs an external D-link corresponding to the syntactic anchor that implements what in the case of a vP-Complement constitutes the *second* or *proper embedding*. Interestingly, the asymmetry is naturally extended to subject relativisation, where the identification of a relativised subject always needs an external X-link:

18. The boy *(that) likes these toys.

If what is involved in (18) is subject-raising (cf. Bianchi 2000), and if COMP-“that” is the manifestation of a binding relation between C and T, then a binding C is the X-Link between the extracted subject and Spec-TP. C is the head that plays the role of common probe in accord with (13) above and its featural identification with T renders it a *quasi* referential pronoun mediating between Spec-CP and Spec-TP and, through transitivity, ultimately between Spec-CP and Spec-vP:

19.



This analysis explicitly holds a symmetrical view as to the abstract primitives holding of the identification between XPs when the latter are interpreted by exclusion. This view implies an extension of the referential function of C to T, in spite of the latter’s A-nature. All partial characteristics that pertain to a reduction to the primitives of relativisation are met in “subjecthood” too:

XP-externalisation, XP-exclusion, mediation between its externalised and its original copy through a common probe.

3. The mechanics of d-linking and the asymmetry of subjects revisited

3.1. Argument externalisation and d-linking.

In order to make coherent sense when drawing a parallel between the notions of inclusion as defined above and the semantic one of denotation through set-membership, I ask: If accusative objects and nominative subjects are asymmetric in terms of their structural arrangement that renders subjects not properly embedded, what is the corresponding interpretive difference rendering them asymmetrical regarding set-membership? I will argue that the d-linking asymmetry met between subjects and objects is actually a reflection of the structural differences analysed above. This will be done by mapping the primitives of the notions of inclusion and exclusion, to the components of d-linking.

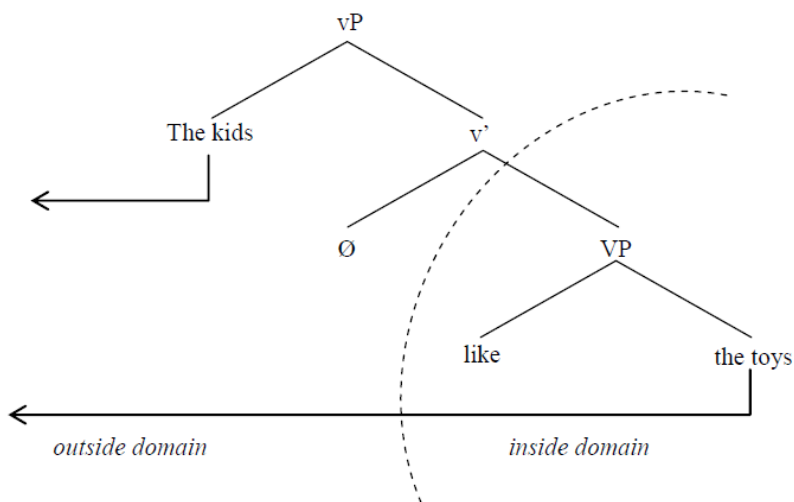
If topicalisation were neither a quantificational nor an argumental phenomenon (Rizzi 1997; 2004), what operationally constitutes its implementation in English is taking a prominent c-commanding position over the sentential CP, dedicated to a specific interpretation. But as alluded to in the introduction, an extension of the range of quantificational phenomena to topicalisation calls for a more elaborate treatment that derivationally builds up an interpretative effect.

With topicalisation being indeed a dislocation phenomenon, an alternative approximation taking into consideration the import of Case assignment into the asymmetry discussed would be the following: a topic must vacate TP, in an operation that has an analogue in that of an argument vacating vP, what Alexiadou & Anagnostopoulou (2001; 2007) call argument externalisation. Their analysis regards a condition on arguments which in an operation related to Case assignment must vacate vP, where they originate according to vP-internal subject hypothesis (Fukui & Speas, 1986; Kitagawa 1986). In English, the vacating constituent is the subject. Having set forth the hypothesis that Case considerations are relevant to the inability of subjects

to topicalise, I ask: a) why is it the subject that vacates vP in English and b) why does vacating TP lead to topicalisation in the case of objects but not in the case of subjects? I argue that both questions can receive a unified answer, if the formulation of the premises underlying them is slightly amended. Concretely: a) subjects in English do not actually vacate vP and b) extraction in the case of both subject and object leads to topicalisation but not uniformly to d-linking.

Regarding (a) and as the diagram below demonstrates, subject raising takes place out of a position outside v's probing domain, whereas object extraction takes places from a site c-commanded by v:

20.



As lying in the domain of v's probing alone does not equal topicalisation, what must be at stake is precisely vacating the domain where a constituent is under the scope of a relevant probe. What must be explained in this stipulation is what relevant means. I start by considering what would be the difference between subjects and objects in terms of this assumption. Taking vP to be special in "some relevant sense", the difference between subject and object lies in the observation that the object is assigned Case within the domain of v, whereas the subject not. But again this ends up being a mere stipulation that assigns to v a special ad hoc status, if we consider

that both have been assigned Case before they raise. How can we connect then the observation that the object crosses the boundary of the v-domain with the concept of relevance of a given probe and the observed interpretive asymmetries?

3.2. Decomposing d-linking further

In English, insofar as the DP-head is selected by [v[V]] with the domain of selection being identical to that of Case assignment, the two operations sketched above co-exist. But as we have seen, this does not suffice to render a fully-fledged topicalisation. D-linking is the result of vacating the domain under the scope of some relevant probe. This Probe is the one that selects and assigns Case to the extracted constituent. D-linking then is essentially an operation resulting from vacating a domain, but a domain with some properties. Thus, d-linking of arguments takes the following derivational definition:

21. Argument D-Linking

Externalisation of an argument vacating the domain in the scope of the probe that has: (a) Case-valued & (b) selected the extracted argument.

D-Linking is reducible then to the derivational result of vacating the domain wherein a constituent has become interpretable in first place. A further refinement concerns the treatment of Case as a derivative feature comprising two primitive properties, namely Selection and Feature-Marking. Along these lines and in correspondence with the definition of exclusion given above, we can define Accusative Case as an inclusion relation that involves what I have called proper embedding:

22. Accusative Case

A Relation between X and Y, with X properly embedding Y.

X properly embeds Y if: (a) X is sister of Y, (b) X Projects, (c) X Feature-marks Y

The correlation between (21) and (22) implies that the postulate of Case as

a derivative feature given in (22) can substitute for the postulate (21a). This formulation permits us in turn to admit a structural make-up of d-linking, itself decomposable in a cluster of further primitives. Consequently, this renders it possible to find contexts that are underspecified for one or more aspects of the definition of d-linking. What I will argue in the remainder of this paper is that the difference detected at the beginning of this analysis between [topic] and [aboutness] seen as a partial overlapping between the two where [aboutness]=[topic] minus x precisely reflects this fact. Let's see then which is the property to which x corresponds, postulated to be missing from the structural status of the subjects, rendering them underspecified non-d-linked topics.

3.3. The “illusion” of d-linking

Capturing Case assignment as a binding relation that builds up the denotational composition of a vP as set-membership, it is easier to look into the decomposed notion of d-linking as a referential process built on prior application of proper embedding. There is a paradoxical effect that generates what can be called the “illusion of association with discourse”. D-linking builds on a process whose interpretive derivative surfaces as a direct access of a grammatical entity to discourse. Somehow, a d-linked unit “finds its way out”, disentangling an aspect of itself from syntactic binding relations that have forced a compositional interpretation of the grammatical entity, giving itself a position of discourse-prominence. This process corresponds to a reversal from the second to the first level of noun embedding as defined in sec. 2.2. Let's look closer into the specifics of this process.

We saw above that a DP comprises a unit that is a “free” or differently an R-expression which is in a structural state enabling it to be assigned a value directly from discourse. As the derivation proceeds and the DP gets properly embedded in a vP, its denotational value compositionally shifts from a direct embedding into the discourse-universe to that of binding with a derivation-internal syntactic probe-binder, inviting parallels with Chomsky's D-Feature. Although a DP does not drop the value that it was assigned once, the system compositionally interprets it through membership in the context of a “part-of” relation with [v[V]]'s own denotational value which comprises a set of

entities. The latter are the range of individuals over which the membership function between [v[V]] and DP is valid. Thus we get the following informal semantic representation for a vP-complement construction:

23. There is an x such that x belongs to what vP denotes.

The crucial difference then between an *R*-expression and a topicalised entity is that the latter's access to discourse through raising does not drop the interpretation gained through its inclusion within vP. Crucially, its interpretation retains a dual status, that of an *R*-expression *and* a vP-complement. The latter derives from its compositional membership in a set and the former from its raising that leads to prominence.

In this light, the object/subject asymmetry regarding d-linking gains a surprising re-interpretation. What is termed "d-linking" is not a direct relation of a grammatical entity with discourse but the reverse: the *memory* of its relation with it, mediated by an element's prior argumental inclusion. This memory is created by proper embedding itself which due to the completeness of the relational matrix [+Selection, +F-Marking] between [V[v]] and [DP] satisfies the two prerequisites of d-linking:

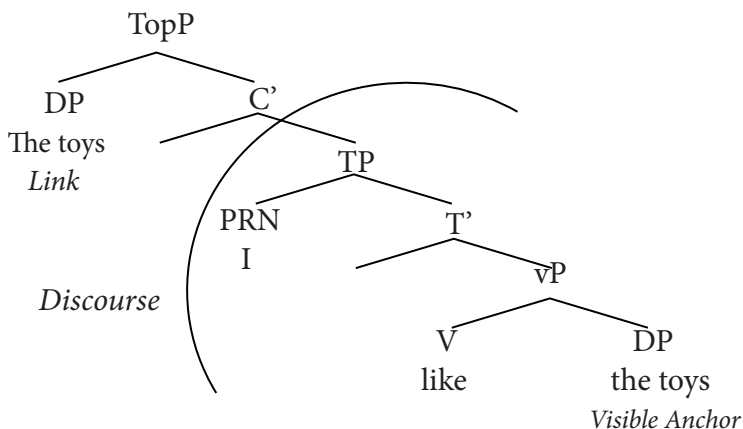
- a. a syntactic anchor that marks the point where DP's second embedding occurs
- b. a barrier to DP's access to Discourse.

Prominence then, what following Rizzi I have called [aboutness], constitutes the third requirement over topicalisation without which the memory of a DP's membership in the structural context of Accusative Case assignment has been lost. What is paradoxical in this respect is the counter-intuitive observation that d-linking constitutes a discourse effect that in terms of processing is felt as a top-down process (Hengeveld & MacKenzie 2008), but requires a systemic memory generated in a bottom-up fashion. Highlighting this paradox is precisely intended through the use of the term "illusion" in this respect; prior loss of direct linking with discourse, implemented through its inclusion, is what renders an argument eligible for d-linking.

3.4. Subjecthood as discourse dependency

I have assumed that d-linking necessarily involves an identity relation between an argument and an interpretable copy of it lying in the domain from which it is extracted. The inability of a subject to express d-linking characteristics was attributed to the latter's relation with an identical but *uninterpretable instance* of it, namely with the initial argumental position. If some version of the Visibility Filter holds (Chomsky 1981), then the effect can be described as follows: A topicalised constituent that through its D-head serves the function of the discourse-link identifies itself as the participant in an event from which it is extracted. This is mediated through a discourse visible syntactic anchor which is a) identified with the discourse-link through Copy Identity and b) interpretable through Case Valuation (cf. Ward & Birner 2001). This is a revealing possibility for the very nature of Internal Merge itself (Chomsky 2001), with the interpretability of an A'-copy originating in the interpretability of the initial A-copy and furthermore in its actual separation of it. See the diagram below:

24. The toys, I like



The subject then in SPEC-TP gains the [aboutness] that topicalisation requires but lacks the relation with a *discourse-visible anchor*. This is why a subject appears as Rizzi (2006) characteristically points out “out of the blue” as if it does not have any anchor to be linked with, an anchor which

would return it as “already introduced in the discourse”. This view weakens the postulation of given interpretable criterial positions where an element gets an interpretation dedicated to them. A criterial position in my analysis is *derived* by having as one of its metrics the separation of a constituent from another instance of itself, in the same sense that the reflexive relation between two argumental copies might be derivable from constituent movement in a position relatively higher than the position the initial copy occupies (Boeckx et al., 2007).

This account reverses the assumptions holding in the literature about the subject/object asymmetry in terms of d-linking (Pesetsky 1987; 2000). If structural prominence generates d-linking only through extraction from a domain that includes an argument under [+Selection, +F-Marking], then what Rizzi calls “out of the blue” aboutness of the subject in Spec-TP (2005; 2006) is attributable to the following possibility: a subject, with T failing to include both occurrences of it thus excluding Spec-TP, *has never lost access to the universe of discourse*. Subjects are embedded into discourse but they lack the “memory” of this on-line process, being *denotationally dependent on it*. Hence, d-linking as it appears in the context of subject/object asymmetries is indeed an illusion, with subjects’ composition lacking the memory of a bottom-up interpretation. Tentatively, I contend that this is an interesting way of looking at the general opacity of subject domains (see also the discussion in Uriagereka 2008). Thus EPP, although the derivational equivalent of [aboutness], is [topic] minus a *fully built denotation*.

3.5. The immobility of subjects

This relation between the copy in SPEC-TP and the copy in SPEC-vP infers identity of copies *only indirectly*, through the mediation of T. This gives to the relation a modular nature which implies that each instance gets a full copy of each other only through T: SPEC-TP through SPEC-head localisation and SPEC-vP through valuation. In this light, Invisibility Condition on subjects (Chomsky 2008, Radford 2010) and the ban on subject topicalisation can get a unified account on these grounds. It also follows that if extraction applies, the dependency between SPEC-TP and SPEC-vP must be reflected in some induced deficiency, interpretive or other. I ask then: why cannot

subjects become d-linked through further movement?

Nevins and Anand (2003) argue that when Agree co-occurs where EPP is operative, reconstruction effects (Chomsky, 1977; Fox & Nissenbaum 2004) can take place. Otherwise, if EPP applies independently of Agree, inverse scope resulting from reconstruction cannot be obtained. Their generalisation that *Purely EPP Eliminates Reconstruction* sees Agree-related EPP as a violation of the *Earliness Principle* (Pesetsky, 1989; 1995) which requires that every operation apply as early as possible in a derivation. If that happens, in their view reconstruction is possible, indicating that the higher copy of a raised element “returns back” to its initial site to satisfy the requirement for interpretability. In other words, the possibility of reconstruction reveals the sites where uninterpretable features had not been satisfied as early as the constituent carrying them had been introduced in a derivation. A typical example for English is Locative Inversion where a locative PP displays subject behaviour (Bresnan, 1994; Collins, 1997), but without being able to reconstruct by inverting its scope (Kuno 1971):

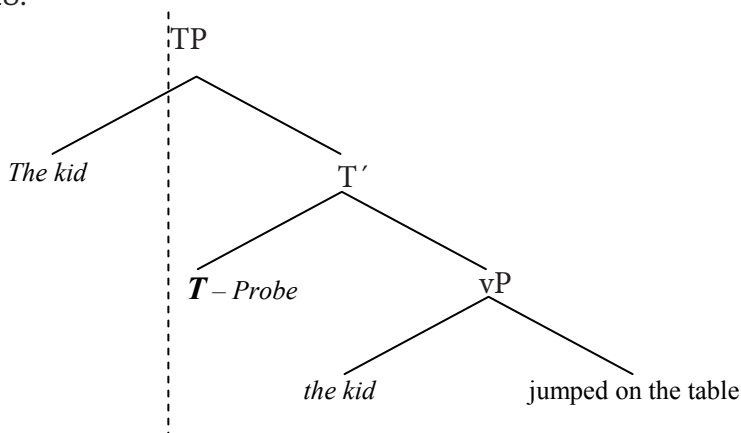
25. On some table sat every cat ($\exists > \forall, * \forall > \exists$)
 26. Some cat sat on every table ($\exists > \forall, \forall > \exists$)

But if in English Nominative Case valuation is almost always concomitant with Agree, Nevins and Anand’s generalisation does not explain why in English we find this systematic obviation of Earliness. In my analysis EPP is a defective form of selection that vacates a domain *before* the constituent becomes fully interpretable. It is an operation that indecisively shares the output of two distinct operations: selection and topicalisation. It is a peculiar violation of the forced *Procrastinate Principle* (Chomsky, 1995), whereby a forced violation leads to convergence. In accord, what I expect is that this derivational state where the system has “run ahead of its own needs” must have its consequences throughout every derivational step that is taken afterwards. I argue that one aspect of this defectiveness is reflected precisely in the fact that subjects do not topicalise:

27. *The kid, jumped on the table.

However far a subject is extracted from SPEC-TP, it cannot topicalise because it can never be interpreted as being extracted from a domain where it is fully visible. The interpretability of its occurrence will always lie partly out of the scope of the probe that valued it:

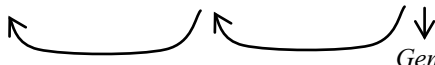
28.



It also follows that if extraction applies, the dependency between SPEC-TP and SPEC-vP must be reflected in some induced deficiency, interpretive or other. When extraction of the subject does take place on the condition that the trigger of movement does not belong to the same set of Agree dependencies as the one that triggered its movement in first place, the following happens: the newly formed copy ceases to be interpretable as it is unable to draw its visibility from the domain from which it was extracted in first place. There is no way for it to be linked with its copy in SPEC-TP due to the lack of copy-identity. When it is the case that this link fails, we get ungrammatical results like the following relative clause where a subject has been extracted and a relative pronoun is missing:

29. The kid *(that) jumped on the table was punished.

Why is (29) ungrammatical? The heart of the problem in its origin lies in the very inability of the subject to be fully interpretable at a single site. However far a subject is extracted, it remains in principle out of the domain of a probe:

30. The kid [C] *the kid* [T] *the kid* [v] jumped on the table

 Generated out of v-Pobing

In contrast, object-extraction readily gives the desirable binding effect without a phonologically rescuing overt relative pronoun being needed:

31. The table the kid [v] jumped on *the table*


The effect boils down to the assumption that subjects get a full copy of the individual instances that comprise their chain through the mediation of T. This gives to the relation a modular property and extraction of the subject leads to its availability for re-selection/re-valuation. This availability in the absence of an appropriate probe leaves the raised DP unvalued and, under the Case requirement over argumental visibility, invisible.

4. Conclusion

This article inquired into the inability of subjects in English to topicalise, elaborating on the possibility posed in the literature that topicalisation presents some parallels with the phenomenon of d-linking. It addressed two interrelated questions: why are subjects not d-linked in SPEC-TP? And why cannot they be d-linked by further movement? Evaluating the dual status of subjects as argumental entities that also share some A-bar properties, I analysed the property of [aboutness] of subjects as a subset of the derivative effect of [topic]. My analysis then looked at the structural differences between subjects and objects, in the light of the asymmetry that they display in terms of their d-linking ability. Interpreted essentially as a quantificational phenomenon, d-linking was analysed as the reference to an entity's set-membership. The extraction itself of an element, although a necessary condition, is not a sufficient one. D-linking is a composite derivational result of vacating the domain wherein the constituent has become interpretable and its function consists of an element's prominence resulting from its extraction, but only on the following condition: that the extraction take

place from a domain headed by a probe able to select and feature-mark the head of its complement in the context of Case assignment. The inclusion of an element in a local context of [+Selection, +F-Marking] sets a syntactic anchor that marks the point where a DP is interpreted compositionally but at the same time a barrier to DP's access to Discourse as an R-expression. In this light what is generally termed d-linking is not a direct relation of a grammatical entity with discourse but the systemic memory of its inclusion in a verb phrase. Extraction of an object from within vP generates, through identification with its lower copy in vP, an effect felt as association with discourse that restores its interpretation as an R-expression. In this light, the curious characteristic of subjects being topics without being d-linked is readily given by the implication that they are not fully interpretable within their extraction-site, lacking the ability of being visible in a unique site. Crucially, an object is interpreted by inclusion, whereas a subject by exclusion. EPP, a greed-like property of the deficiently Case-marked subject, in an A'-like raising operation restores subject's visibility. The T-Head in this sense is a referential mediator between two instances of an identical element: SPEC-TP and SPEC-vP. This account reverses the assumptions generally holding in the literature about the subject/object asymmetry in terms of d-linking. The effect that has been described as "out of the blue" aboutness of the subject in Spec-TP was attributed to the following possibility: T fails to include both occurrences of the subject in a unique position under a unique point that both selects and F-marks it; the A-bar-like raising of the subject, implemented by EPP as a counterpart of selection, renders its compositional membership into a vP dependent upon its direct association with discourse. Hence, d-linking as it appears in the context of subject/object asymmetries is indeed an illusion: subjects, interpreted by exclusion, are embedded into discourse but they lack the "memory" of this on-line process, being always denotationally dependent on it. This turns the interpretation of subjects into a *quasi* modular referential relation between a phrase localised by a head which in turn feature-marks the phrase's lower copy. Further topicalisation of the subject would disturb its localisation and consequently its argumental visibility.

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