On the Pre-Theoretical Notion Phrasal Head:

Ignoring the Left Periphery is Always at Your Own Risk

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Abstract

This paper examines the multi-dimensional Grafting mechanism of Van Riemsdijk (2006), which focuses on the pre-theoretical notion *phrasal head*, and whose effect is, in certain cases, to circumvent constraints imposed by the left periphery on long-distance movement. The constructions for which Grafting has been invoked are examined one by one and compared to specific alternatives based on bi-dimensional representations; it is argued that the Grafting analyses have no advantage over their competitors for accounting for the relevant projections and clause edges. Arguments come from Transparent Free Relatives, by refining proposals in Grosu (2003, and include a new approach to the *far from simple* construction and to two Lakovian amalgams.

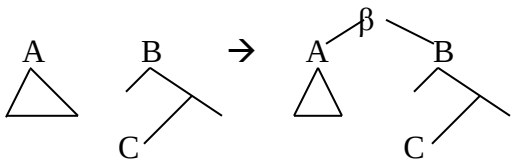
1. Introduction

Both descriptive and theoretical studies have often used the term *head* in an informal sense when characterizing certain types of *phrases* that, much like the *lexical* heads of X-bar theory, necessarily share certain properties with larger phrases that properly contain them. For example, English-type restrictive relative constructions are said to be "externally headed" insofar as they exhibit a CP-external NP which behaves in the way just indicated. To avoid confusion with head in the sense of X-bar theory, I will refer to such objects as phrasal heads or pivots. In certain cases, the fact that some phrase α is the pivot of some phrase β follows straightforwardly from the fact β is the extended projection (in the sense of Grimshaw 1991) of α's X-bar head; for example, when β is the complex DP *the* ***tall boys*** *who left*, the noun *boys* is the lexical head/pivot of the entire complex DP. In other cases, however, the behaviour of certain phrases as pivots does not straightforwardly follow from X-bar theory, and it is with a number of such cases and with the optimal analysis for each of them that the remainder of this paper is concerned.

The constructions to be addressed in what follows have each been the object of a number of analyses in earlier literature, and I propose to focus here on a specific attempt to unify them all in terms of a single generative device. I shall evaluate this device and compare analyses based on it with alternative, more conservative, analyses. My conclusion is that

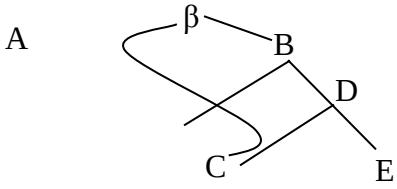
the alternative analyses are at least as good in all cases, and distinctly superior – empirically and conceptually – in some of the cases.

The device to be considered *Grafting*, such as proposed in Van Riemsdijk (2006) and a number of earlier papers by the same author (Van Riemsdijk 1998, 2000, 2001). Grafting is presented in Van Riemsdijk (2006) as a natural and automatic extension of Re-Merger (Chomsky 2004). To grasp its nature, it will be useful to consider the schematic representations in Figures 1 – 3.



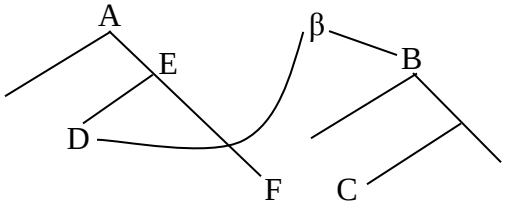
← **External Merger**

Figure 1



← **(Internal) Re-Merger**

Figure 2



← **Grafting**

Figure 3

Figure 1 illustrates External Merger, as proposed in Chomsky (1993). In contrast to the technique of Chomsky (1965) for constructing hierarchical representations, which relied on phrase structure rules that take the root of a tree as point of departure and expand it into daughters that get expanded in turn until the leaves of the tree are reached, External Merger starts from lexical items (the ultimate leaves of a tree), assembling them into larger constituents, which may then undergo further merging operations, until a single node (the ultimate root) is reached. The diagram in Figure 1 shows the merger of the roots of two (possibly) complex trees A and B to form the single parent tree b.

Figure 2 illustrates Re-Merger, a re-interpretation of Internal Merger, that is, the formation of a chain consisting of identical full copies (Chomsky 1993), which in turn constituted a re-interpretation of what was earlier called *movement*. In Figure 2, the node C, which was initially merged with E to form the parent node D, is subsequently re-merged with the current root of the tree that contains it, that is, B, to form another parent node b. In virtue of this sequence of operations, C ends up having two mothers, D and b.

Figure 3 illustrates Grafting, which combines elements of Re-Merger and External Merger, in the sense that a proper sub-element of tree A, in particular, D, which was initially merged with F, is re-merged with

the root of a different tree B. Due to re-merger, D ends up with two mothers, E and b, much as C does in Figure 2, but with the following difference: the outcome is a tri-dimensional representation, because the trees A and b do not eventually get extended to a common root. Rather, no matter how far upwards each of them is extended, D is, or at least can be, the only sub-structure that they share. Grafting thus combines re-merger with multi-dimensionality.

The combination of re-merger with multi-dimensionality is not a theoretical novelty. It was used, for example, in Moltmann (1992) in order to deal with certain types of coordinate structures, for example, data like those in (1), where the italicized constituents receive a collective interpretation.

(1) a. *John bought and Mary sold* ***a total of ten cars***.

b. *John ate and Mary drank* ***everything that there was on the table.***

Neither is multi-dimensionality *per se* (i.e., without re-merger) a novelty. It was appealed to, for example, in Cinque (1982) in relation to appositive relatives, which were assumed to lie in a different plane than their matrix, presumably sharing a common root, but no terminals. What is novel in

Grafting is the appeal to the combination of re-merger and multi-dimensionality in order to characterize constructions with pivots. When appealing to these two combined mechanisms, Moltmann (1992) carefully emphasized the need to restrict it to coordination, in order to avoid massive over-generation. Using these mechanisms for data other than coordination, as Grafting does, thus require appropriate constraints on the generative power of the theory. Van Riemsdijk (2006, section 3), while arguing that Grafting constitutes the null hypothesis within a theory that countenances Re-Merger and distinct, structurally not yet related, sub-trees, admits that this mechanism brings about massive over-generation, which needs to be suitably constrained. In defense of the absence of such constraints at the present moment, he points out that Movement and its intellectual successors have been intensely researched for a couple of decades, while Grafting is still very young. However, in section 4.3, Van Riemsdijk takes a huge step away from the need to impose constraints on Grafting, being forced to make this move by considerations of descriptive adequacy (I return to this matter, providing details, in section 3). Basically, he proposes that within a theory that incorporates phasal theory, Grafting should be able to operate before the completion of the phase that most immediately contains the candidate for Grafting. This is in sharp contrast to bi-dimensional Internal Re-Merger, which may operate only after the completion of the immediately containing phase, specifically, by

using its left edge to gain access to the immediately higher phase. The license to operate before phasal completion enables Grafting to circumvent cyclicity and Subjacency, that is to say, the various constraints that have been imposed on Movement/Internal Re-Merger by appealing to the left periphery of cycles/phases. What this means in effect is that, since trees A and b in Figure 3 can be extended arbitrarily far upwards, Grafting can ultimately give rise to unbounded dependencies which are ungrammatical, and which are effectively blocked within a framework confined to bi-dimensional representations for constructions that involve neither parentheticals nor coordination. I thus submit that supporters of the view that Grafting is a valid, or even optimal, mechanism for capturing the pre-theoretical notion pivot have to demonstrating that unwanted over-generation can be controlled by means of reasonably natural and non-*adhoc* constraints. Meantime, we can only evaluate the empirical advantages of proposed Grafting analyses, comparing them with those of alternative non-Grafting analyses. Importantly, in view of its greater generative power, a Grafting analysis needs to be empirically superior to a bi-dimensional competitor in order to justify being preferred to the latter.

In the papers cited above, Van Riemsdijk addresses five linguistic constructions in varying degrees of detail, arguing that Grafting provides optimal analyses for them, with the added advantage of unifying these constructions in terms of a single syntactic mechanism. These are: (1) Free

Relatives; (2) Transparent Free Relatives; (3) intensional modifiers of adjectives, such as *far from, close to*; (4) Horn Amalgams; and (5) Andrews Amalgams; the two "amalgams" are brought up in Lakoff (1974). In what follows, I examine these constructions both separately and jointly, comparing the Grafting analyses with alternative bi-dimensional analyses. The goal is to establish which approach is empirically more successful with respect to individual constructions, and which better captures both shared and distinguishing properties. The conclusion I reach disfavors Grafting analyses, as being inappropriate for capturing the notion pivot, while pointing out optimal alternative analyses of the constructions at issue.

2. Free Relatives

A first construction for which a Grafting analysis was proposed is the Free Relative (FR) construction, illustrated with English data in (2).

(2) a. *He will invite [**whoever** you invite__].*

b. *He will buy [{**what(ever)**, **whichever books**, **however many books**} you are willing to sell __].*

c. *He can sing [**however erect** you want him to sing_]*.

d. *He will sing [**however often** you ask him to sing__]*.

e. *He can certainly become [**what(ever)** his mother most wants him to be __]:*
a lawyer, a doctor, or whatever.

The wh-phrases of FRs in boldface in (2) are impressionistic pivots in a number of ways. Apart from constructions involving pied-piping, they necessarily agree with the FR in syntactic category and logical type, in syntactic number, and – subject to some cross-linguistic variation – in morphological Case. At the same time, the wh morphology of the pivot makes its pivot status harder to account for than in the case of externally-headed relative constructions. Thus, the configurational properties of FRs formed the object of a lively controversy in the seventies and eighties.

According to one view, defended in Bresnan & Grimshaw (1978) and Larson (1987), the wh-phrase is a CP-external phrasal head, much like the CP-external NP of headed relatives. However, various studies showed that this approach - which reduces FRs to a variety of externally headed relatives – is problematic. Thus, Groos & Van Riemsdijk (1981), Grosu (1989, 1994, 1996, 2002, 2003), Harbert (1983), Hirschbuehler & Rivero (1983), Jacobson (1988, 1995), Suner (1984) argued - with minor differences of detail among them – for an analysis which assigns the wh-

phrase to its usual [Spec, CP] position, and assumes a null CP-external head that agrees with the wh-phrase in syntactic and semantic properties (except for mismatches due to pied-piping and/or language-specific options concerning morphological Case). In particular, Grosu (2003) showed in some detail that this type of analysis effortlessly accounts for all known properties of FRs.

In rejecting his earlier analysis, and proposing a Grafting approach instead, Van Riemsdijk (1998, 2006) offered no empirical arguments against the null-head analysis. In fact, he noted that Grafting runs into a potential problem that the alternative analysis avoids: that of assigning distinct theta roles to the same DP, a step in conflict with Chomsky's Theta Criterion. We may conclude that FRs at best provide no support for this mechanism, and in fact, arguably, provide an argument against it.

3. Transparent Free Relatives

Transparent Free Relatives (TFRs) is the construction most prominently appealed to by Van Riemsdijk in support of a Grafting analysis, and the one that led to the conclusion that Grafting needs to be allowed to operate before completion of the immediately containing phase, thereby ultimately generating (currently unconstrained) unbounded dependencies (Van

Riemsdijk 2006, section 4.3). While superficially similar to FRs, TFRs contrast with FRs in that their impressionistic pivot is not the wh-phrase, which is invariably what or some counterpart in another language, but a CP-internal phrase that functions as the non-subject of a copular structure or small clause, whose subject is the "gap" of the syntactic chain headed by the wh-phrase (for ease of reference, we will call the pivot from now on the *post-copular phrase,* even when there is no verbal copula).

This can be appreciated by comparing the FRs in (2) with the TFRs in (3). Thus, observe that the FRs in (2b)-(2d) are nominal, adjectival, and adverbial respectively, and that the corresponding wh-phrases have the same categorical status as their FRs. Furthermore, the FR in (2d) is interpretable as a predicate owing to the fact that the wh-phrase is so interpretable; if *whatever* is replaced by *whoever*, the status of the matrix changes from predicative to equational, the interpretation being that 'he' can become a different person. In (3), on the other hand, the categorical status of the TFR is determined by the post-copular phrase. This is especially clear in (3c), where the TFR occurs in the (necessarily adjectival) attributive position, and where substitution of a nominal predicate, e.g., *idiot*, for the adjectival pivot results in ungrammaticality

(3) a. *John is talking to [DP what seems [__ to be [DP {**a policeman, his brother-in-law**}]]]*.

b. *John is [what I might characterize [__ as [AP **exceedingly interested in magic**]]]*.

c. *John is a [AP devious and [AP what some people might describe [__ as [AP **highly unreliable**]]]] individual.*

Van Riemsdijk's discussion of TFRs is carried out against the background of earlier analyses by Kajita (1977) and Wilder (1998), both of whom proposed to analyze the *prima facie* embedded pivot as a CP-external phrasal head within a bi-dimensional tree. Van Riemsdijk points out that while such an analysis is feasible when the pivot is linearly right-peripheral within the TFR, it becomes problematic with respect to TFRs with string-medial pivots, such as those in the German and English examples in (4a) and (4b) respectively.

(4) a. *Ich habe mir [was man als **einen schnellen Wagen***
I have me what one as a fast car-ACC
bezeichnen könnte] gekauft.
describe could bought
'I have bought myself what one might call a fast car.'

b. *I just noticed [what may well seem [to be construable as* ***an*** ***NP*** *by proponents of LFG] to people unfamiliar with that theory]*.

In order to deal with such data, which seem intractable within a bi-dimensional framework, Van Riemsdijk proposes a Grafting analysis, the grafted node being the pivot. Furthermore, since this operation gives rise to unbounded dependencies after linearization, as most dramatically brought out by (4b), where the pre- and post-grafting positions of the pivot are linearly separated from each other by four unpaired phasal boundaries (two VPs and two CPs), Van Riemsdijk (2006, section 4.3) proposes to endow Grafting with the ability to operate before completion of the immediately containing phases. However, the two conclusions urged by Van Riemsdijk bear a number of comments.

Concerning the alleged inescapability of Grafting, it only follows that the pivot role of the post-copular phrase needs to be formally expressed by analyzing this phrase as a CP-external phrasal head (an assumption that Van Riemsdijk shares with Kajita 1977 and Wilder 1998, as noted above). However, Grosu (2003) shows that most of the properties of TFRs can be captured within a bi-dimensional analysis. That is, TFRs have the gross configurational properties of FRs (in particular, a null CP-external head), and the pivot occupies a strictly relative-internal post-

copular position; the syntactic and semantic properties of the pivot are shared with the TFR in virtue of a *transparency channel*, which arises from an equational construal of the copular structure, a highly under-specified wh-element, and agreement of the latter with the null CP-external head. In this paper, I will offer certain refinements to this earlier analysis, which enable it to account in a more satisfactory way for certain properties of TFRs. For ease of reference, I will henceforth call the kind of approach adopted by Kajita, Wilder and Van Riemsdijk *direct*, and the one adopted in Grosu (2003) and defended below, *indirect*.

Concerning the proposal to give Grafting the power to create unbounded dependencies, it appears to be descriptively necessary for TFRs and Andrews Amalgams, and under the (incorrect) assumption that they have pivots, for Horn Amalgams as well. It is not necessary for FRs, where Grafting of the wh-phrase in [Spec, CP] may only give rise to a string-vacuous displacement, an effect that Van Riemsdijk does not account for. Unbounded Grafting must be disallowed for the *far from* construction, owing to certain facts not noted in earlier literature, and it is not clear how this can be achieved in a non-stipulative way. This point will be illustrated and discussed in section 4.

The remainder of this section is organized as follows: in section 3.1, I note three sets of (morpho-)syntactic facts that are problematic for direct analyses, but straightforwardly accounted for under the indirect

analysis. In section 3.2, I note a problem for the compositional interpretation of TFRs under direct analyses. In section 3.3, I outline the gist of the indirect analysis, bringing out its ability to account for the pivot properties of the post-copular phrase, to ensure a straightforward compositional semantic interpretation, and to shed light on properties that indirect analyses need to stipulate.

3.1. *The Direct vs. the Indirect Approach to TFRs: the Morpho-Syntactic Perspective*

According to direct analyses, TFRs have a configurational structure radically different from that of FRs. Thus, while FRs are viewed as externally headed by their wh-phrase or by a null category that agrees with it, TFRs are viewed as externally headed by their post-copular phrase. In contrast, the indirect analysis views TFRs as externally headed in just the way FRs are. Each analysis makes predictions, to which we now turn.

A first prediction made by direct analyses is that extraction out of the pivot of a TFR should be essentially as easy as out of an incontrovertible external head. The indirect analysis, on the other hand, predicts that extraction out of the pivot should be sensitive to TFR-internal factors. These two predictions were examined in Grosu (2003, section

5.5), where it was argued, on the basis of data like (5), that the empirical facts support the indirect analysis.

(5) a. *Who did he buy [a portrait of __ (that pleased Mary)]?*

b. *Who did he buy [(?*what seems to many to be) a portrait of ___]?*

(5a) shows that the acceptability of extraction out of the NP *portrait of who* is not affected by the presence or absence of a modifying relative clause. (5b) shows that extraction may get substantially degraded when this nominal is the pivot of a TFR. The fact that the internal make-up of the TFR affects the acceptability of extraction points to the conclusion that the pivot is itself internal to the relative clause. This conclusion is not affected by the observation that some informants judge the full version of (5b) to be marginal, rather than totally out, since it is well-known that the perceived deviance of extraction out complex DPs depends on a number of factors, in particular, on whether the DP is definite or indefinite, the latter situation having a mitigating effect (Erteschik-Shir 1973).

Two additional facts, the first of which was noted in Grosu (2003, section 5.4), support the view that the pivot of a TFR does not interact with the matrix, while the wh-element shows the kind of interaction found in FRs,

which is just what one may expect under the indirect approach, but precisely the opposite of what one may expect under the direct approach. The fact noted in Grosu (2003, section 5.4) concerns the morphological Case requirements imposed on the pivot. The indirect approach predicts that the pivot should be sensitive only to local Case requirements, the Case requirements imposed on the TFR by the matrix being irrelevant. The Grafting approach, on the other hand, predicts that the pivot should be sensitive to both Case requirements, on a par with the wh-phrases of FRs, which, as already noted, are subject to matching effects. The following data from German confirm the predictions of the indirect approach and disconfirm those of the Grafting approach. For the sake of clarity, I note that the local Case requirement that characterizes all small clauses in German is that the non-subject must agree in Case with the subject.[1].

[1] I note that comparable data were brought up in Van Riemsdijk (1998, 2001), but with all versions starred, and thus in support of the claim that the pivot is sensitive to both subordinate and matrix Case requirements. Van Riemsdijk (2006, section 5) suggests that such data are subject to dialectal variation. To check for this possibility, I re-submitted the data to the evaluation of large audiences of native speakers of German from various areas of Germany (at the Zentrum für Allgemeine Sprachwissenschaft in Berlin and at the University of Konstanz). I can report that not a single informant had the slightest objection to the un-

(6) a. *Ich habe mir soeben gekauft, [was von vielen als*

I have me just bought what by many as

{ein merkwürdiger Wagen/ *einen

a strange-NOM car a

merkwürdigen Wagen} *bezeichnet werden*

strange-ACC car described be

würde].

would

'I have just bought myself what might be called a strange car by many people.'

b. *[Was viele als {****ein merkwürdiger Wagen/ einen***

what many as a strange-NOM car a

merkwürdigen Wagen} bezeichnen würden]

strange-ACC car *describe would*

wurde trotzdem soeben verkauft.

is nonetheless just sold

'What many people might describe as a strange car has nonetheless just been sold.'

---

starred versions of data like (6a-b), while unhesitatingly rejecting the starred versions.

The final set of facts, which to the best of my knowledge has not been noted in earlier literature, concerns the (in)sensitivity of the wh-element to matrix Case requirements. This point cannot be checked in relation to data like (6), because *was* is compatible with both Nominative and Accusative Case. We can, however, demonstrate sensitivity of was in TFRs to matrix Case requirements by exploiting an interesting German-specific set of facts. Gallmann (1990, 1996), and subsequently Bayer, Bader & Meng (2001), observe that a small class of lexical items, in particular, *etwas* 'something,' *nichts* 'nothing,' and *was* 'what,' may occur in positions to which Dative Case is assigned by a preposition, but not in positions where it is assigned by a verb. In more generally terms, P-assigned Dative does not need to be morphologically realized as a suffix, while V-assigned Dative does. This phenomenon is illustrated in (7) with respect to interrogative was, Case requirements being indicated by subscripts on the assigner. Importantly, comparable effects are found in *was*-FRs, in the sense that Dative may be assigned to the FR by a preposition, but not by a verb, as illustrated in (8). And crucially, exactly comparable effects are found in TFRs, as can be gathered from the contrast between the (a) and (b) sub-cases of (9)-(10). The parallel behavior of FRs and TFRs is exactly what the indirect approach predicts, but is entirely unexpected under the direct approach.

(7) a. *Mit was hat er noch nicht gerechnet?*

With-DAT what has he yet not counted

b. **Was hat er widersprochen?*

what has he contradicted-DAT

(8) a. *Er hat mit [was du gesagt hast] nicht*

he has with-DAT what you said have not

gerechnet.

counted

'He did not reckon with what you said.'

b. **Er hat [was du gesagt hast] nie widersprochen.*

he has what you said have never contradicted-DAT

'He has never contradicted what you said.'

(9) a. *Er wohnt in [was man ein-en Hühnerstall*

he lives in-DAT what one a-ACC chicken-coop

nennen koennte].

call could

'He lives in what one may call a chicken-coop.'

b. **Er hat [was man ein-e merkwuerdige Idee nennen*

he has what one a-ACC strange idea call

koennte] viel Aufmerksamkeit geschenkt.

could much attention given-DAT

'He has devoted considerable attention *(to) what one might call a strange idea.'

(10) a. *Sie spricht mit [was ich ein-en totalen Idioten*

she speaks with-DAT what I a-ACC total idiot

nennen wuerde].

call would

'She is speaking with what I would call a total idiot.'

b. **Sie hat [was ich einen totalen Idioten nennen*

she has what I an-ACC total idiot call

wuerde] soeben widersprochen.

would just contradicted-DAT

'She has just contradicted what I would call a total idiot.'

That the bracketed structures in (8) and (9)-(10) are FRs and TFRs respectively follows from the following considerations: since the internal configuration that characterizes TFRs, that is, a copular structure or small clause with the trace of was as subject, is lacking in (8), these data necessarily exhibit FRs. Since what-FRs and their cross-linguistic counterparts are incompatible with human denotata (a point to which I

return in more detail in section 3.3), as illustrated by the (a) subcase of (11) (adapted from Wilder 1998), the structures in (10) can only be TFRs. As for the structures in (9), they are ambiguous between an FR and a TFR construal, the latter being more likely (the two readings can be paraphrased roughly as follows: FR: he lives in the (contextually unique) thing that may be called a chicken-coop; TFR: he lives in something that may be called a chicken-coop).

(11) a. *#She is talking to [{what was addressing a large audience yesterday],*
i.e., {a policeman, Bill, her brother-in-law}.

b. *She is talking to [what seems to be {a policeman, Bill, her brother-in-law}].*

I note in passing that (9a) and (10a) also support the conclusion reached on the basis of (6), since these examples are acceptable despite the fact that the explicitly Accusative pivots are incompatible with P-assigned Dative, as illustrated in (12).

(12) a. *Er wohnt in {ein-em, *ein-en} Hühnerstall.*
he lives in a-DAT a-ACC chicken-coop

b. *Sie spricht mit {ein-em, *ein-en} totalen Idioten.*

she speaks with a-DAT a-ACC total idiot

3.2. *The Direct vs. the Indirect Approach to TFRs: the Semantic Perspective*

Van Riemsdijk, much like the proponents of earlier direct analyses of TFRs, discussed their semantic and pragmatic properties only in the vaguest terms, and did not address the task of providing an explicit compositional semantics for them. When this issue is seriously addressed, it emerges that a straightforward solution is not obviously available.

The semantic *raison d'être* of TFRs may be described as follows:

(13) The denotatum of the TFR needs to be a *distinct* version ('counterpart', *alter ego*, etc.) of the pivot which is defined at intensional indices distinct from those at which the denotatum of the pivot is defined.

That the denotatum of the TFR needs to be distinct from that of the pivot at some index is revealed by the infelicity of data like (14a,c), which contrast with the felicity of (14b,d).

(14) a. *#Bill is eating with [what is **your fork**]*.

b. *Bill is eating with [what **seems** to be **your fork**]*.

c. *#Evgeny lives in [what is **St. Petersburg**]*.

d. *Evgeny lives in [what was **once Leningrad**] (but is now St. Petersburg).*

Note that in the felicitous examples (14b,d), the pivot is defined at the indices of a CP-internal intensional operator (in boldface), while the TFR is defined at matrix indices. Furthermore, the quantificational force of the TFR is potentially distinct from that of the pivot, being in fact invariably existential. This can be seen quite clearly in relation to (14b), where the pivot is a definite description, and the TFR is most naturally paraphrasable as 'something that seems to be your fork', not as 'the thing that seems to be your fork.' Similarly, in the version of (11b) with *Bill*, the natural paraphrase is 'she is talking to someone who seems to be Bill', not 'she is talking to the individual who seems to be Bill.'

Under the indirect approach, the meaning of TFRs can be captured straightforwardly. In (14b), for example, we may assume that the copula equates, at the indices of the intensional operator *seems*, the value of the individual concept denoted by *your fork* (type <s,e>) with the value of an individual-concept variable in subject position. Using a two-sorted logical language, abstraction over this variable yields (15a) as the translation of the relative CP, and the application of Existential Closure to this abstract

enables the entire sentence to end up with the intuitively correct meaning in (15b).

(15) a. $\lambda i \lambda x_{<s,e>} \forall i' \in \text{SEEM}(i)\ [x(i') = \text{YOUR FORK}(i')]]$

b. $\lambda i.\ \exists x_{<s,e>}\ [\text{EAT}(i)\ (\text{BILL}(i),\ x(i)\colon \forall i' \in \text{SEEM}(i)\ [x(i') = \text{YOUR FORK}(i')]]$

Under the direct approach, and in particular under Van Riemsdijk's Grafting approach, the pivot is a member of both the matrix and the relative, and since it is defined only at the indices of a CP-internal operator, it follows that only the token of the pivot internal to CP needs to be visible to the semantics. In other words, the approach at issue is faced with a so called 'reconstruction effect', for which a variety of proposals have been made in earlier literature. Insofar as externally-headed relative clauses are concerned, there have been proposals based on head-raising, which, much like the Grafting analysis, assume a chain of identical copies, or one constituent with multiple mothers, as input to the semantics (see Bhatt 2002, Fox 1999, a.o.), as well as proposals based on direct interpretation of the surface representation (see Grosu & Krifka 2007, Jacobson 2002, 2004, Sharvit 1996, 1999). However, all these proposals addressed constructions in which only an NP, not a full DP, needed to be 'reconstructed'. For example, Grosu & Krifka (2007)) analyzed in

considerable detail a construction with *almost* the configurational properties assumed by Van Riemsdijk for TFRs, and with a number of shared semantic properties. This construction, to which they refer as Equational Intensional 'Reconstruction' (EIR) relatives, is given in (16).

(16) a. *[The gifted mathematician that Bill **supposedly** is __] should have little difficulty with this easy problem.*

b. *[The gifted mathematician that Bill **allegedly** is __] should have solved this trivial problem with greater ease.*

Note that, under a head-raising analysis (with or without multi-dimensionality), the italicized NP is assumed to occur in post-copular position, where it restricts an individual-concept variable at the indices of the boldfaced intensional operator (Grosu & Krifka argue in detail that in EIR relatives, much as in TFRs, the copular structure is necessarily equational, and an intensional operator is necessarily present for felicity. However, the interpretation of the complete complex DP, as well as the *raison d'être* of EIR relatives, contrast crucially with the construal/*raison d'être* of TFRs: whereas the latter are necessarily defined at intensional indices distinct from those at which the pivot is, the former are defined

just at the indices at which the 'reconstructed' NP restricts the variable. In (16b), for example, the bracketed DP denotes Bill as a gifted mathematician in worlds of allegation, but not necessarily in other worlds, e.g., those of the speaker's assumptions about reality (in fact, this sentence implicates that the speaker does not view Bill as a gifted mathematician). What this means is that TFRs are a *sui generis* type of construction, which requires a *sui generis* 'trace conversion' procedure (to borrow a term from Fox 2002 and Bhatt 2002, where a special operation was proposed and used in order to deal with relatives that involve NP reconstruction). What can this procedure be? Since no proposals have been made, I am reduced to conjectures, but the minimal thing that can achieve the desired semantics would seem to be something essentially like (17).

(17) $\text{PIVOT}_{<\alpha>} \rightarrow \text{PIVOT}_{<\alpha>} = \text{VARIABLE}_{<\alpha>}$

With such a procedure, a variable equated with the pivot is introduced, and if the copula and the chain headed by *what* are ignored (or rendered redundant in some way), the semantic interpretation of, for example, (14b) can proceed essentially along the lines that yielded (15); that is, abstraction over an individual concept variable introduced by the schema in (17), and Existential Closure at the level of the matrix.

Therefore, if we look at the semantics of TFRs the Grafting analysis of TFRs is inappropriate. It arguably makes little sense to resort to the *ad hoc* operation schematically indicated in (17) in order to create a representation that is straightforwardly obtainable from precisely the portion of structure that this analysis makes no use of (the copula and the chain headed by *what*). Moreover, observe that under this analysis, no portion of the putatively CP-external pivot plays any role in the semantics. I submit that this state of affairs in conjunction with the incorrect syntactic and morpho-syntactic predictions made by the Grafting analysis (see section 3.1) points to the conclusion that the Grafting analysis of TFRs is on the wrong track.

For completeness, I will take a brief look at a somewhat different conceivable approach to the semantics of TFRs, which is suggested by the kind of syntactic analysis put forward in Kajita (1977). Basically, Kajita proposed that the grammar should include rules of syntactic reinterpretation, whose function is to turn a non-head that exhibits head-like properties into an actual head, and the remainder of the construction, into a derived adjunct of this derived head. Kajita does not discuss the compositional semantics of the output of such rules, but a possibility that one might want to try to explore would be to view the derived adjunct as an intensional modifier of some sort of the derived head. To be sure, we noted at the beginning of section 3 that Kajita's bi-dimensional proposal

seems unable to cope with data like those in (4), but the semantic tack just envisaged may be adapted to the Grafting analysis, in the sense that the possibility to be explored is one in which the graft tree serves as an intensional modifier of the pivot *qua* member of the host tree. This tack may seem initially promising in view of the existence of lexical intensional modifiers, such as *alleged, presumed, potential, apparent*, etc., with which a DP denotes something potentially different from what it would denote without it (recall that a TFR also denotes something potentially different from what its pivot does). However, the semantics of such modifiers cannot be straightforwardly extended to TFRs, because the former modify NPs, while TFRs *qua* modifiers of their pivot would need to somehow modify DP. The different semantics of the two constructions can be appreciated by noting the distinct meanings of (18a) and (18b) (which a prominently brought out by the distinct parenthesized continuations).

(18) a. *Mary shot [all the apparent unicorns] (which turned out to be merely bulls with one horn sawed off).*

b. *Mary shot [what appeared (to her) to be all the unicorns] (but turned out to be just two of them).*

I see no obvious way of making sense of the notion ‘intensional modifier of DP,' so the onus of proof is entirely on proponents of the Grafting analysis of TFRs. Until they offer an explicit proposal, the conclusion urged at the end of the preceding paragraph stands.

3.3. *The Empirical and Conceptual Merits of the Indirect Analysis of TFRs*

The negative conclusions reached with respect to the Grafting, and more generally, with respect to direct approach to TFRs, are only significant if it can be shown that the indirect approach successfully copes with the various properties of TFRs. Insofar as the facts that proved problematic for direct approaches are concerned, the ability of the indirect approach to deal with them has already been demonstrated in section 3.1 and 3.2. In this section, I propose to address the remaining interesting properties of TFRs. In particular, I propose to examine in some detail the 'transparency channel' that was alluded to in earlier sections, to introduce a small, but significant refinement in my earlier analysis (Grosu 2003), and to argue that the indirect analysis is also conceptually superior to the direct one in being able to shed light on certain properties that the latter approach needs to stipulate.

Starting with the last point, Van Riemsdijk 1998, section 4.1, proposed that the following three properties of TFRs are 'definitional,' that is, in need of stipulation.

(19) a. The wh-phrase is exclusively *what* or some counterpart in another language.

b. The trace of *what* is always in the subject position of a copular structure or small clause.

c. In contrast to FRs, which are inherently definite (Jacobson 1988, 1995), TFRs may also be indefinite, their (in)definiteness properties being inherited from those of the pivot.

Insofar as (19c) is concerned, I argued in section 3.2 that this characterization of TFRs is not quite right, since these appear to be invariably indefinite (see the text immediately after the examples in (14)). The view that TFRs reflect the (in)definiteness status of their pivots, which was also shared by a number of predecessors (Nakau 1971, Kajita 1977, Wilder 1998) and which was viewed as providing strong support for an analysis in which the pivot heads the TFR, rests primarily on the shared privileges of TFRs and their pivots to occur in the context *there BE __ XP*, a point illustrated in (20).

(20) a. *There is {a, #the} virus in this program.*

b. *There is [what seems to be {a, #virus}] in this program.*

However, as has been widely acknowledged in the literature, this context does not test for definiteness, but rather for specificity, in the sense that it only allows entities that are entirely discourse-novel and disallows entities that are discourse-linked in some way, be they definite or indefinite. The inability of discourse-linked indefinites to occur in this context is illustrated in (21a).

(21) a. *#There is a particular virus we both know in this program.*

b. *#There is [what seems to be a particular virus we both know] in this program.*

The infelicity of the version of (20b) with a definite pivot is thus consistent with the possibility that the TFR has discourse-linked existential force. In fact, given the *raison d'être* of TFRs stated in (13), it makes good sense for a version/counterpart of the pivot to be indefinite, since even if the pivot is unique and contextually presupposed, the version

denoted by the TFR is neither necessarily unique nor contextually presupposed. At the same time, any version of a discourse-linked entity is itself discourse-linked (hence, the infelicity of (21b)), while a version of something novel is itself novel. In sum, all the facts in (20)-(21) can be explained under the hypothesis that the TFR reflects the discourse-(un)linked properties of the pivot, rather than its definiteness properties.

Turning now to (19a,b), these two properties appear arbitrary and mysterious under the direct approach, since neither the copula nor the chain headed by the wh-element can play any role in determining the semantics of TFRs, as was seen in section 3.2. In fact, two additional facts about TFRs (stated in (22)), are also mysterious under the direct approach.

(22) a. In every language that has so far been examined, the left periphery of TFRs exhibits exactly the morpho-syntactic properties of *what*-FRs in the corresponding language, a remarkable fact, since the left periphery of FRs varies dramatically across languages (Grosu 2003, section 5.7).

b. The existence of FRs in some language does not guarantee the existence of TFRs in that language. At the same time, the presence/absence of TFRs in languages with FRs is not an arbitrary fact. Rather,

it appears to depend on whether the cross-linguistic counterpart of *what* is suitably under-specifiable, and also on whether it is free from free-choice import (see Grosu 2003, section 8, for detailed discussion and illustration).

In contrast, the conjunction of (19a-b) and (22a-b) makes sense within the framework of the indirect approach. (19a), i.e., the fact that the wh-element can only be *what* or a counterpart in another language, is the natural consequence of the fact that *what* is the wh-form which allows the greatest amount of under-specification and flexibility, being, at least in English, (in principle) compatible with human and non-human denotata (e.g., *what did you see there?* {*a table*, *John and Mary*}), with individual and predicate denotata (the latter being illustrated by, e.g., *what John definitely isn't is a genius*), with nominal and adjectival status (an illustration of the latter being *what John definitely isn't is brilliant*), with universal and existential quantification (as brought out by the observation that the question *where can I buy a newspaper?* can be answered either by a full enumeration of the contextually accessible places, or by a mention of a single place, presumably, the most easily accessible), and with singular and plural syntactic number (this will be illustrated below). In contrast, other wh-forms are not nearly as extensively under-specified; for

example, who is compatible only with human individual denotata. As for items with free-choice import, in particular, whatever, these are inappropriate for a different reason (which will be made clear below).

It needs to be emphasized that under-specification is a vital component of an analysis of TFRs in which the wh-phrase does not itself serve as pivot, but rather needs to enable another constituent to function as a pivot, in particular, by endowing it with 'derived' properties. In view of this, the state of affairs outlined in (22b) is precisely what one may expect, as far as under-specification is concerned (i.e., languages in which the counterpart of *what* resists under-specification unsurprisingly do not exhibit TFRs)

At the same time, under-specification is just one of two factors needed for the creation of a transparency channel. Thus, in order for a 'non-head' to serve as pivot, it is necessary not only that the wh-element (which, by assumption, determines the content of the null CP-external head; see section 2) be 'receptive' to its properties, but also that an appropriate mechanism for 'conveying' these properties from the pivot to the wh-element be ensured. I submit that equation is an optimal mechanism for achieving this end. If so, the syntactic configuration indicated in (19b), that is, a copular structure or small clause whose terms are the pivot and a variable bound by *what*, is arguably necessarily found

in TFRs because such a configuration most naturally serves as basis for an equational construal.

The thesis that the copular structure/small clause within TFRs is equational is sometimes met with initial skepticism, on the grounds that TFRs do not feel equational. This reaction is, however, traceable to the fact that equational statements are in general felicitous when they equate entities that are contextually assumed to be potentially different and infelicitous when they express no more than the proposition that something is identical to itself. This can be appreciated by noting the contrast in felicity between (23a-b) and (24b), when the latter's speaker purports to tell Mary no more than that he loves her (something that is naturally expressed by (24a)). Importantly, an infelicitous sentence like (24b) can be salvaged by resorting to intensional operators in order to assert a correspondence relation between entities defined at distinct indices, which, unlike identity to oneself, is non-trivial; this is shown in (24c), with the context: the speaker fell in love with the description of a woman he hadn't met, and it eventually turned out that woman was Mary.

(23) a. *The Evening Star is the Morning Star.*

b. *Jack the Ripper is (in fact) your cousin John.*

(24) a. *Mary, I love you!*

b. *#Mary, I love someone who is you!*

c. *Mary, I fell in love with someone who turned out to be you!*

It was pointed out in section 3.2 that TFRs are themselves infelicitous when their denotatum is characterized by mere identity with the pivot, as in (14a,c), and are salvaged by a characterization that establishes correspondence with the pivot at distinct indices, as in (14b,d). This is precisely what one may expect under the assumption that TFRs rely on equation. The crucial role of equation in the creation of a successful transparency channel can be appreciated by considering a number of facts discussed in detail in Grosu (2003), and which I will now summarize.

First, note that in equation, the equated terms are necessarily of the same logical type, while in predication, the predicate is necessarily one type higher than its argument. This fact is crucial in enabling a straightforward compositional semantic interpretation of certain TFRs, for example, of (25).

(25) *Bill has become what I would characterize [__ as boring]*.

The import of this sentence is that Bill has acquired a certain property that the speaker would characterize as being the BORING property (with the

implicature that other people might characterize it differently, thereby enabling this example to satisfy the *raison d'être* of TFRs). If the bracketed small clause is predicative, its subject gap must have the logical type of individuals, and abstraction over this variable followed by Existential Closure assigns to the TFR the logical type of generalized quantifiers of individuals. This type cannot be predicated of the matrix subject, and in order to allow an interpretation for the matrix, the existentially quantified TFR must be given matrix scope (by Quantifier Raising, Cooper storage, or some equivalent mechanism), with its 'trace' construed as a variable of the type of individuals. This forces an equational construal of *become*, and the entire sentence is assigned the unwanted reading that Bill has become a certain (inanimate) entity that the speaker views as boring. In contrast, if the bracketed small clause is equational, we get the desired reading. The subject gap is construed as a property variable, abstraction yields a set of properties, Existential Closure yields a generalized quantifier of properties, Quantifier Raising/Cooper storage yields a property variable whose value at the indices of the matrix may be predicated of the value of the subject at those indices, and the sentence ends up with the desired reading (see above).

The second important fact is that despite the ability of *what* to exhibit under-specification, this option is limited in certain contexts by independent factors, and is only revealed under special licensing

conditions. An illustration of this state of affairs can be provided with respect to syntactic number. Thus, although *what* is compatible with semantic plurality, as noted earlier in this section, it is typically semantically singular even when semantically plural, as illustrated with an interrogative construction in (26a). However, syntactic singularity appears to be no more than a default value which may be neutralized in an equational copular configuration, the latter having the power to convey syntactic number specifications to *what*, as shown in (26b-c).

(26) a. *What {bothers, *bother} you?*

Possible answer: *Many things.*

b. *What {seems, *seem} to be the problem?*

c. *What seem to be the problems?*

What also exhibits a singular default value in incontrovertible FRs, as illustrated in (27a), where the indicated acceptability values hold even in situations where the speaker sees more than one object in his room. In TFRs, however, the syntactic number of the construction depends on that of its pivot, as illustrated in (27b-c). This is exactly what one may expect, given the equational copular construction within TFRs.

(27) a. *[What I see in my room] {scares, *scare} me.*

b. *[What {seems, *seem} to be the dagger] {is, *are} lying on the desk.*

c. *[What seem to be the daggers] {are, *is} lying on the desk.*

Given the ability of equation to convey specification to *what* under equation, overcoming default values, when these exist, it seems reasonable to assume that this ability extends to other syntactic and/or semantic features for which *what* or a cross-linguistic counterpart can in principle be under-specified in the corresponding language, in particular, to syntactic category, thereby providing an account of the acceptability of (3c), and to the [+/-Human] feature, thereby providing an account of the facts in (11). Furthermore, it also makes perfect sense to assume that the transparency channel within a TFR can also convey information in the 'converse direction', yielding an account of Dutch data like (28) (adapted from Van Riemsdijk 2006), where the agreement features received by a TFR of category AP can be inherited by the adjectival pivot via an under-specified *wat*-chain and an equational small clause (this example has a number of interesting ramifications, which will be addressed in section 5).

(28) *Bill ontdekte een [AP wat ik zou noemen*

Bill discovered a what I would call

eenvoudig-*(e) *] oplossing*

simple solution

'A what I would call simple solution'

A fact that deserves special discussion concerns the quantificational force of TFRs. It is widely recognized since at least as early as Jacobson (1988) that FRs have definite force (at least insofar as FRs with 'plain' wh-elements, such as *what*, are concerned). To my knowledge, there is no known interesting derivation of this fact anything else, so it may be viewed, at least at the moment, as an inherent property of FRs. In Grosu (2003), I assumed that this inherent property of FRs is also present in TFRs, and proposed to account for their existential force by appealing to the fact that definiteness in FRs may target something other than individuals, e.g., degrees, kinds, properties, and by assuming that in TFRs, it always targets properties. I now think, however, that this view is in need of revision, on both empirical and conceptual grounds. Empirically, this assumption lead to a subtly unsatisfactory interpretation for property-denoting TFRs, such as (25), which seems to be more appropriately paraphrased by 'Bill has acquired *a* property that I would characterize as being the BORING property' than by 'Bill has acquired *the* property …' Conceptually, it seems more compatible with the overall nature of TFRs to assume that since *what* is in principle compatible with both

universal/definite and existential quantification, TFRs are free to exhibit the quantificational force required by their *raison d'être*, which, as we have seen, is existential.

With the refinement just proposed, TFRs emerge as a construction that differs minimally from FRs, specifically, to the extent needed to satisfy their *raison d'être*, which is achieved by a maximal exploitation of language-specific under-specification options. As for the fact that TFRs systematically appear to borrow the superficial garb of FRs (see (22a)), the reason arguably is that *what*-FRs endowed with the appropriate internal configuration constitute an optimal vehicle for conveying the intended import of TFRs in a maximally wide range of contexts. For example, while some TFRs can be paraphrased reasonably well by relative constructions externally headed by *something*, some of them cannot, because this item is less extensively amenable to under-specification. This state of affairs can be appreciated by examining the following data, which show that *something*, while compatible with both individual and property denotata (see (29a-b)), is not compatible with human denotata (see (29c)) or with adjectival status (see (29d)).

(29) a. *John is looking at {what, something that} seems to be a wall*

b. *John is {what, something that} I might characterize*

as exceedingly interested in magic.

c. *John is talking to {what, *something that} seems to be {a policeman, his brother-in-law}.*

d. *John is a devious and {what, *something that} some people might describe highly unreliable individual.*

To complete the picture of TFRs, we will now address the second part of (22b), which is also implicit in (19a), that is, the fact that free-choice items are inappropriate in TFRs, as illustrated by (30). Note that the full version of (30) is an FR, roughly paraphraseable as 'Bill intends to invite anything (in fact, anyone) that looks like a policeman' (with the copular structure construed predicatively), in contrast to the reduced version, which is a TFR, roughly paraphraseable as 'Bill intends to invite a person who looks like a policeman.'

(30) *Bill intends to invite what(#ever) seems to be a policeman.*

The incompatibility of the full version of (30) with a TFR reading is basically traceable to the fact that it is in general incongruous to equate a fully or partly specified entity with something whose choice is left free, as can be gathered from the examples in (31).

(31) a. *#John is anyone at all.*

b. *#Anyone at all is John.*

The full version of (30) with a purported TFR interpretation seeks to establish a correspondence between an entity defined at indices of appearance and an entity defined at the index of evaluation in the matrix. The extension of the TFR at the matrix index is thus fixed by this index in conjunction with equation, so that free choice is inappropriate.

Summarizing section 3, we have achieved two twin sets of results. On the one hand, it has been shown that the direct approach as represented by Van Riemsdijk's Grafting analysis is beset by (morpho-)syntactic and semantic problem, and seems unable to shed light on a number of properties of TFRs, in particular, their striking cross-linguistic morpho-syntactic similarity to FRs, their particular internal configuration, their highly restricted inventory of wh-elements, and their (non-)existence in languages with FRs. On the other hand, it was shown that the indirect approach can successfully handle all these challenges. The general view of TFRs I have proposed is that they are a syntactic variety of FRs which maximally exploits the under-specification options available in the corresponding language in order to convey a meaning and to live up to a *raison d'être* that are quite different from those of FRs.

4. Intensional Modifiers of Adjectives

In arguing for rules of syntactic reinterpretation, Kajita (1977) proposed to apply them not only to TFRs, but also to constituents like those in (32), where, according to standard grammatical principles, the italicized element appears to be the head, but the boldfaced element exhibits pivot properties.

(32) a. This is [AP *close* to **trivial**].

b. These people are [AP *far* from **innocent**].

Van Riemsdijk (2001, 2006) adapts Kajita's views to his own framework, and proposes that the boldfaced element is grafted unto the matrix, becoming in effect the head of the AP.

The principal basis for this claim is that the boldfaced elements exhibit head-like behaviour when the bracketed APs serve as pre-nominal modifiers, in the sense that they satisfy the principle in (33).

(33) **The Head Final Filter**

An XP (in particular, an AP) left-adjoined to a head-initial projection needs to exhibit its own X head at its right edge.

Thus, observe that the AP in (32a) contrasts with the superficially similar AP *close to the city* insofar as ability to satisfy the Head Final Filter is concerned. Van Riemsdijk furthermore shows that in Dutch data like (34b), the pivot adjective bears the agreement suffix that typically occurs on the heads of modifying ad-nominal APs (demonstration omitted).

(34) a. *This is a [AP close (*to the airport)] city.*

b. *This is a [AP close to trivial] matter.*

Both writers, however, fail to point out a fact that poses a serious challenge to the view APs like those in (32) and TFRs should be analytically unified by means of a single syntactic mechanism (rules of syntactic reinterpretation or Grafting). As a preamble to showing this, let us note that the construction in (32) automatically found only in English (32a) and Dutch (35b), but not in other languages (e.g., German (35c), French (35d), Romanian (35e) or Hebrew (35f)).

(35) a. These people are [far from innocent].

b. *Deze mensen zijn [verre van onschuldig]*.

c. **Diese Leute sind [weit (entfernt) von unschuldig]*.

d. **Ces gens sont [loin d'innocents]*.

e. **Indivizii ăştia sunt [departe de nevinovaţi].*

f. **Ha-anashim ha-ele [rexokim mi xafim mi-pesha]*.

At the same time, all the above languages can convey the intended import of the various sub-cases of (35) by introducing a non-finite form of the copula, as illustrated in (36a, b, c, d, e, f) for the same languages.

(36) a. *These people are [far from **being** innocent]*.

b. *Deze mensen zijn [verre van (om) onschuldig **te zijn**]*.

c. *Diese Leute sind [weit davon entfernt, unschuldig **zu sein**]*.

d. *Ces gens sont [loin d'**être** innocents]*.

e. *Indivizii ăştia sunt [departe de **a fi** nevinovaţi].*

d. *Ha-anashim ha-ele [rexokim mi **lihyot** hafim mi pesha]*.

Notably, these more complex APs cannot satisfy the Head Final Filter, as shown for English (37a), French (37b) and Romanian (37c).

(37) a. *This is a [far from (*being) interesting] proposal.*

b. *Voici une [(*loin d'être) intéressante] proposition.*

c. *Iată o (*departe de a fi) interesantă propunere.*

This plainly shows that, in contrast to TFRs, where reinterpretation/Grafting needs to operate over an ultimately arbitrary large context, these operations can only be highly local insofar as the creation of intensional modfiers of adjectives is concerned. In particular, Grafting must be denied the power to operate before completion of the immediately containing phase with respect to APs like those in (32) (recall that Van Riemsdijk 2006, section 4.3, proposed that it be granted such power in relation to TFRs).

The optimal analysis of data like (32) is not our concern here, and I thus confine myself to noting that a *local* and *language-specific* re-analysis of the kind envisaged by Kajita would seem to be adequate. Such a rule is needed to account for contrasts like that in (34), but it is not necessary for getting the correct semantics, since the intended reading is also available in constructions like (36), where re-analysis needs to be blocked. As far as I can see, the preposition may receive its standard interpretation as a two-place relation both in constructions like *close to the city* and in constructions like *close to trivial*, with the difference that it relates two spatial locations in the former case and two points or segments on an abstract scale of degrees ranging from complete triviality to maximal interest.

The results of this section point to the conclusion that Grafting is not only inappropriate for analyzing TFRs (as argued at length in sections 3.1 and 3.2), but also fails to provide an initially plausible basis for unifying TFRs with other constructions, in particular, with data like (32).

5. Horn Amalgams

Lakoff (1974) introduced to the linguistic community two constructions that he characterized as *amalgams*, presumably because they seem to be amalgamated out of two (or more) independent sentences. These two constructions, which have come to be known as Horn Amalgams and Andrews Amalgams, are illustrated in (38) and (39) respectively.

(38) a. *John is going to – I {think, regret to say} it's **Chicago** – on Saturday.*

b. *John is going to – is it **Chicago**? – on Saturday.*

(39) a. *John has just eaten [you will never guess **how many apples**].*

b. *John invited [you'll never guess [DP **how many people**]] to [you can imagine [DP **what kind of a***

***party**]] at [it should be obvious [DP **which place**]] with [God only knows [DP **what purpose in mind**]], although he was [you can guess {[AP **how tired**,[PP **under what kind of pressure**]}], having come home [you certainly know [ADVP **when**]].*

Lakoff, and later, Van Riemsdijk (2001, 2006), viewed the boldfaced constituents in (38) and (39) as pivots. Within Van Riemsdijk's framework of assumptions, this means that the pivots need to be grafted unto the main clause, Grafting availing itself in these cases of the power to create unbounded dependencies, much as in TFRs. This is in effect what Van Riemsdijk (2006, section 6) proposes for both types of amalgams[2].

Van Riemsdijk argues at some length that Horn Amalgams need to be analytically unified with TFRs in terms of Grafting, in view of a number of properties shared by the two constructions. As the title of his forthcoming contribution indicates (i.e., "Towards a unified analysis of wh- and non-wh-amalgams"; see the References list) he views Horn and Andrews Amalgams as analytically unifiable by means of a Grafting analysis. I argue, however, that whatever properties Horn Amalgams may

[2] Van Riemsdijk actually discusses only Horn Amalgams in some detail, alluding only briefly to Andrew Amalgams in his footnote 22, but makes it nonetheless clear that he views a Grafting analysis as appropriate for both.

share with other constructions, an analytical unification by means of Grafting with pivot-possessing constructions is not possible, because Horn Amalgams have no pivots at all.

Crucially, the string flanked by hyphens in (38a-b) is simply a parenthetical sentence, the boldfaced constituent having no corresponding syntactic 'counterpart' in the matrix, whether overt or null, at any level of representation. Thus, my proposal is that the main clause is a syntactically incomplete sentence, with the object of *to* left unfilled. (38a) or (38b) may be uttered, for example, when the speaker stops in the course of producing a sentence and refrains from producing an object for *to*, because (s)he is unsure of what to say, or is reluctant to utter what (s)he believes needs to be said, and utters a hedging parenthetical instead. Evidence for the thesis that the matrix clause is incomplete in such cases emerges from a consideration of the contrast between (40) and (41).

(40) a. **I think it's Chicago – is a large city.*

b. **Is it Chicago? – is a large city.*

c. **It is Chicago, isn't it? – has a most important university.*

(41) a. *Hasn't – I seem to recall it was Chicago – been once claimed to be the capital of the US?*

b. *Hasn't – it was Chicago, wasn't it? – been once claimed to be the capital of the US?*

What (40) shows is that the parenthetical part of a Horn Amalgam cannot occur in utterance-initial position, but any preceding linguistic context, however slight, as in (41) for example, restores acceptability. My explanation for this effect is that the non-realization of an expected constituent cannot be signaled without some prior context. When no such context exists, the main clause is perceived as incomplete in languages like English. In pro-drop languages like Romanian, the main clause is complete in data like those in (40), but the entire string is interpreted as a sequence of two independent sentences, much like the English data in (40) with insertion of *it* after the parenthetical expressions (which is not the intended reading on a Horn Amalgam construal).

Van Riemsdijk (2006, footnote 27) notes the existence of data like (40), but dismisses them as a mere garden-path effect, which he attributes to the fact that the utterance-initial parentheticals look like independent sentences. If this were the correct explanation, (40a-c) should become acceptable once the intended reading is recognized, just as it does in well-known examples like *the horse raced past the barn* fell. However, data like (40) in no way improve under such circumstances, indicating that more is at stake than simply a garden-path effect. It is instructive in this

connection to consider situations comparable to (40), but involving Andrews Amalgams, as in (42).

(42) a. *[You can well imagine **who**] is still hiding under my bed.*

b. *You can well imagine [who is still hiding under my bed]*.

The bracketed constituent in (42a) is also a possible independent sentence, as can be seen by considering, for example, the following discourse: *Someone is still hiding under my bed*. *You can well imagine who.* However, (42a) is not deviant, and there is no tendency to construe the string following the bracketed constituent as an incomplete sentence. If anything, the string in (42a) is structurally ambiguous, so that (42a) may in principle be misconstrued as (42b), but this effect is not persistent, and can in fact easily be overcome by careful intonation.

To complete the emerging picture of Horn Amalgams, note that the boldfaced constituent in (38a-b) plays no semantic role in the matrix, either. This can be appreciated by comparing (38) with (43).

(43) a. *John is going to **Chicago** – I {think, regret to say} it's **Chicago** – on Saturday.*

b. *John is going to **Chicago** – is it **Chicago**? – on Saturday.*

In (43), the speaker initially commits himself/herself to the view that John is going to Chicago, and subsequently hedges about the claim (s)he has just made, while in (38), there is no such initial commitment.

I conclude from what has been said above that Horn Amalgams consist of a syntactically and semantically incomplete matrix, and a parenthetical insert. Like all structures with parentheticals, the representational needs to be multi-dimensional, but without any structure shared by the distinct bi-dimensional trees.

A consequence of the conclusion thus reached is that whatever similarities may exist between Horn Amalgams and TFRs, they cannot support an analytical unification by means of Grafting. Nevertheless, such similarities are not necessarily without interest, and in the remainder of this section, I address the similarities noted by Van Riemsdijk, exploring their underpinnings and possible theoretical interest.

One similarity noted by Van Riemsdijk is, as far as I can see, of minor theoretical interest, if any. Van Riemsdijk observes that both constructions can be used to express *hedges*. But while the parenthetical of a Horn Amalgam needs to hedge, as suggested by the oddity of (44), a

TFR merely may hedge, as in (45a), but does not have to, as shown by the felicity of (45b).

(44) *#John is going to – (I know) it is Chicago – on Thursday.*

(45) a. *John is eating with what might well be a fork.*

b. *John is eating with what is definitely a fork.*

The two constructions thus have distinct pragmatic *raisons d'être*, which partly overlap in the sense that both are consistent with hedging. This is basically the pragmatic story, and I fail to see that it has any implications of interest for the formal analyses of the two constructions.

The second similarity is more interesting, and can be traced, I believe, to the fact that both constructions include an equational proposition. As Van Riemsdijk puts it, both constructions exhibit certain 'transparency effects.' In sections 5 and 6, he brings up data like the following, which exhibit small-clause complements of *call* (in which the equated terms are presumably construed meta-linguistically).

(46) a. *Nick has **made** what one may call [significant **headway**]*.

b. *They didn't **make** a lot of, I think the correct term is [**headway**]*.

(47) a. ***She*** *was what I might call [proud of* ***herself****]*.

b. ***She*** *was, I think you might call it [proud of* ***herself****]*.

Van Riemsdijk's view that the bracketed constituents in (46a-b) need to be grafted unto the matrix rests, apparently, on the assumption that idiom chunks need to form a continuous constituent at some level of representation (in particular, the one that serves as input to the semantics). This is however incorrect, because idiom chunks are also found in equational pseudo-clefts like (48a), where they cannot be part of a continuous constituent at any level of representation. That is to say, the bracketed constituent in this example may not be viewed as grafted from the position of the gap, because the gap is pre-empted by what.

Furthermore, as Van Riemsdijk (2000, section 2.1, 2006, section 5) himself observes, there exist acceptable equational constructions like (48b), where one of the chunks is missing, but may be plausibly viewed as implicit in the interpretation of the under-specified element *that*; that is to say, *that* is contextually construable as *what they made,* so that (48b) is in fact an elliptical pseudo-cleft. Now, observe that *what* in (46a) is also contextually construable as *what Nick has made*, and so is *the correct term* in (46b), as *the correct term for what they didn't make.*

(48) a. *What they are rumored to have made __ is [significant **headway**]*.

b. *That was [significant **headway**]*.

The upshot of the above is that the rightmost idiom-chunk in (46a-b) does not need to be part of the matrix in order to be licensed by the other chunk, since licensing may effortlessly take place within the subordinate equational structures.

Turning now to (47), Van Riemsdijk's claim that the bracketed constituents need to be grafted unto the matrix apparently rest on the assumption that the italicized anaphors and antecedents need to be in some kind of local c-command configuration, since he suggests (in section 4.2) that the anaphoric relation in data like (46a) would "not be possible if the relative clause were a 'real' relative clause." Actually, the suggestion within quotes is too strong. Undoubtedly, antecedent-anaphor relations are not freely permitted 'across' relative clause boundaries, but they do seem to be permitted in data with incontrovertible externally-headed relatives that exhibit internal configurations comparable to that found within TFRs, as shown in (49a). If so, the acceptability of the essentially synonymous TFR in (49b) is unsurprising.

(49) a. *She is something that can only be call proud of*

herself.

b. *She is what can only be call proud of herself.*

Apparently, the anaphoric relation is licensed in both (49a) and (49b) via equation. That this is a possible form of licensing is also brought out by the fact that such relations are found in equational pseudo-clefts where the antecedent fails to locally c-command the anaphor, as in (50).

(50) a. *What **she** (unquestionably) is __ is [proud of **herself]***.

b. *What she (certainly) isn't __ is [proud of **herself]***.

Now, observe that the Horn Amalgam in (47b) most plausibly includes an elliptical pseudo-cleft, *it* being construable as *what she was*. If so, its acceptability is reducible to whatever factors license (50a-b). Taking stock of what has been established so far, the parallelism between the (a) and (b) sub-cases of (46)-(47) is traceable to the fact that both TFRs and Horn Amalgams include equational structures.

Van Riemsdijk (2006, section) also brings up two further properties arguably shared by the two constructions, which he presents as transparency effects, but which turn out upon closer consideration to be more properly viewed as opacity effects. One of these two properties is an

alleged transparency to extraction from the (presumed) pivot. In section 3.1, we saw that this thesis is incorrect with respect to TFRs (see (5) and the immediately preceding and following text). Concerning Horn Amalgams, offers the data in (51), which he views as acceptable, but all the informants I have consulted found them barely comprehensible, and severely unacceptable. On the assumption that extraction has operated out of a parenthetical, the judgments of my informants are unsurprising, since extraction out of parentheticals is in general notoriously difficult.

(51) a. **Who did they publish, I believe it was a dirty picture of __ ?*

b. **What conversation did John make, I believe it very probably was an unauthorized recording of __ ?*

The second of the two properties alluded to two paragraphs earlier concerns certain alleged Case-matching effects that concern the (presumed) pivot. In section 3.1, I showed that no such effects exist in TFRs, the pivot being sensitive only to relative-internal Case requirements (see (6) and the immediately preceding and following text). The following facts show that in Horn Amalgams, the putative pivot is comparably sensitive only to parenthetical-internal Case requirements.

(52) a. *Er wohnt in – naja, man koennte es {einen, *einem}*

he lives in-DAT well one may it a-ACC a-DAT

Hühnerstall nennen.

chicken.coop call-ACC

'He lives in, well, one may call that a chicken-coop.'

b. *Er hat sich – ich glaube das nennt man {?*einen, *einem}*

he has REFL I think this calls ACC one a-ACC a-DAT

Wahrsager – anvertraut.

soothsayer entrusted-DAT

'He entrusted himself *(to), I believe one calls that a soothsayer.

Thus, the version of (52a) with *einen* is fine, because the local Case requirements within the parenthetical are satisfied, the requirements of the matrix preposition being irrelevant. The version of (52a) with *einem* is unsurprisingly atrocious, because Dative Case is not licensed within the parenthetical. The version of (52b) with *einem* is crashingly deviant, for the same reason that the corresponding version of (52a) is. As for the version of (52b) with *einen*, it is, while somewhat less severely deviant than that with *einem*, still degraded, owing to the fact that the Dative requirement of the matrix Verb is morphologically unrealized (see discussion of (7)-(10)).

The last set of facts presented by Van Riemsdijk as shared transparency effects concerns satisfaction of the Head Final Filter in Dutch in data like the following:

(53) a. *Bill ontdekte een [AP wat ik zou noemen*
Bill discovered a what I would call
***eenvoudig**-*(e)] oplossing.*
simple solution
'Bill discovered a [what I would call simple] solution'

b. *Bill ontdekte een, ik denk dat je het zou mogen.*
Bill discovered a I think that you it would may
*noemen **eenvoudig-*(e)**, oplossing*.
call simple-AGR solution
'Bill discovered a – I think you may call it simple – solution.'

In section 3.3, I showed that the presence of the inflectional agreement suffix on the pivot in (28) (=(53a)) can be accounted for within the indirect approach by appealing to the transparency channel. However, Van Riemsdijk (2006, sections 1 and 4.2) notes a *prima facie* challenge for both his analysis and mine. Thus, according to both analyses, there is a

token of an inflected adjective in predicative position within the relative clause, although continental West Germanic languages (Dutch and German) generally disallow inflected adjectives in this position. Van Riemsdijk proposes an ingenious way of circumventing this problem: he proposes to assume that the structure shared by the relative and the matrix is just the adjectival stem, the inflectional suffix being part of the matrix only. On this view, there is only one inflected adjective, and it occurs in attributive position.

The problem with this ingenious solution is that it cannot be extended to comparable situations that do not involve complex morphology, and which are not limited to West Germanic languages. Thus, it is well-known that adjectives like *alleged, presumed, former, pseudo,* etc., can only be used ad-nominally, not predicatively, as illustrated in (54), but such adjectives can nonetheless function as pivots of TFRs, as shown in (55).

(54) a. *Bill is a {false, pseudo-} prophet.*

b. **This prophet is {false, pseudo}.*

(55) *He is a [dubious and [what some people might even call {**false, pseudo**-}]] prophet.*

Data like (40)-(41) were discussed in Grosu (2003, section 7.5), where it was pointed out that the restriction illustrated in (54b) is typically illustrated with *strictly predicative* data, and it was proposed, relying on data like (56), that it does not extend to *equational* constructions. We may note here that the ban on inflected predicative adjectives in continental West Germanic languages is also usually illustrated with strictly predicative data, and that inflected adjectives may occur in certain equational contexts, as illustrated with German data in (43). If so, the data in (53a) and (55) cease to be puzzling.

(56) *alleged* is *presumed*; *pseudo* is *false*; *former* is *earlier*.

(57) a. A: *Maria ist eine genial-e Frau.*
Maria is a brilliant-AGR woman

b. B: *Was ist 'genial-e'?*
what is brilliant-AGR

c. A: *'Genial-e' ist 'sehr klug-e'.*
brilliant-AGR is very smart-AGR

A possible objection against using data like (56)-(57) to get (53a) and (55) 'off the hook' is that the equated adjectives in the former two examples clearly have meta-linguistic import, something that does not

seem to be the case in the latter two. It is possible, however, that the necessarily meta-linguistic status of the equated adjectives in (56)-(57) is a consequence of the fact that what gets equated are fully specified properties. To control for this potentially interfering factor, it is more instructive to consider equational constructions with under-specified subjects. A perfect test case is provided precisely by Horn Amalgams, in particular, by (53b) and (58).

(58) *The police have named Bill as the only – I think it's still* ***presumed*** *(at the moment) – murderer.*

For reasons made clear earlier in this section, the boldfaced constituents in these examples cannot possibly be members of the main clause, because Horn Amalgams were shown to have no pivots. The fact that these data are both acceptable and devoid of meta-linguistic flavor supports the hypothesis that the ban on Dutch/German inflected adjectives and on attributive adjectives in post-copular position does not extend to equational constructions, and shows that the challenge raised by data like (53a) and (55) has been successfully met.

Finally, I draw the attention to the fact that the acceptability of the full version of (58) further strengthens the thesis that that the boldfaced

constituent is not a member of the matrix, because if it were, a violation of the Head Final Filter should result.

6. Andrews Amalgams

In the preceding section, it was noted that the contrast in acceptability between (40) and (42a) points to the conclusion that Andrews Amalgams, unlike Horn Amalgams, need to be viewed as possessing pivots. Thus, while both constructions exhibit what we may call *inserts* with the appearance of an independent sentence, this appearance does not reflect reality in the case of Andrews Amalgams. In addition to the contrast just mentioned, Andrews Amalgams also differ from Horn Amalgams prosodically: while the inserts of the latter are most naturally uttered with a parenthetical intonation, those of the former are uttered with the continuous intonational contour that characterizes arguments, predicates, and adjuncts of comparable length and heaviness. These facts point to the conclusion that Andrews Amalgams are constitutive elements of their matrix, and that they are complex XPs of a category appropriate to their matrix slot, rather than independent sentences.

A brief examination of (39) reveals that Andrews Amalgams invariably include a wh-phrase whose logical type, syntactic category, and

morphological Case match the corresponding properties of their insert. On these grounds, the wh-phrase qualifies as the pivot of its Insert, as indicated in (39) by means of boldfacing.

Semantically, the inserts of Andrews Amalgams have existential quantificational force. To see this, note that the Inserts in (59) are most naturally paraphrasable by means of indefinite expressions, as, for example, in (60).

(59) a. *He gave me [you will never guess **what**]*.

b. *He invited [you will never guess **how many people**]*.

(60) a. *He gave me something such that you will never guess what it was.*

b. *He invited a number of people such that you will never guess how large that number was.*

Note that the content of the external heads used in the paraphrases is essentially that of the wh-phrase, with the proviso that its force is not interrogative. At the same time, the wh-phrase plays an incontrovertible semantic role in its Insert-internal position, being – as has been widely recognized in the literature – the remnant of a sluiced interrogative

clause.[3] The facts just outlined can be captured in (at least) two conceivable ways. One possibility is to merge the wh-phrase insert-internally and then to Graft it unto the matrix. Under this analysis, both copies of the chain need to be interpreted, the one in the host tree without interrogative force. An alternative possibility is to adopt a bi-dimensional framework, generating the wh-phrase insert-internally and assigning the insert a null external head, whose syntactic and semantic content matches the content of the pivot, except for the interrogative force of the latter (which I assume that can be implemented, without further dwelling on the analysis).

The former approach faces the kind of objection that was noted in section 2 with respect to FRs: the same constituent is assigned two thematic roles (when the insert is argumental). Another objection arises in connection with the phenomenon known as *swiping* (Merchant 2002), and which is illustrated with respect to a standard sluicing construction in (61).

(61) *Mary has eloped with someone, but I won't tell you* ***who with***.

[3] This clause is interrogative because wh-phrases are allowed only in the complement position of predicates that can select interrogative complements, e.g., *she met you probably {suspect, *believe} who last night*).

At least some informants accept Andrews Amalgams with swiping, as in (62); this raises a problem for the Grafting analysis, which – recall – assumes that the grafted element is pronounced as part of the host tree. If the boldfaced string in (62) is viewed as part of the matrix in overt representation, it occurs in an *in situ* position, where swiping is otherwise excluded, as illustrated in (63).

(62) *Mary seems to have eloped [only God knows **who with**] an hour ago.*

(63) a. **Who spoke who with yesterday?*

b. **Napoleon shouted who at before the battle of Austerlitz?*

In sum, a non-Grafting analysis seems to do better than a Grafting one with respect to Andrews Amalgams as well.

Before concluding this section, I will take a brief look at the ways in which Andrews Amalgams seems to relate to other constructions, in particular, to standard sluicing construction and Horn Amalgams, without in any way attempting to do full justice to this interesting construction within the limited scope of this paper. One way in which Andrews

Amalgams seem to differ from standard sluicing constructions concerns the optional/obligatory status of the ellipsis. The data in (64) show that standard sluiced constructions always have essentially synonymous non-elliptical counterparts, regardless of whether the ellipsis is syntactically controlled, as in (64a), or pragmatically controlled, as in (64b) (on these notions, see Hankamer & Sag 1976).

(64) a. *Bill wants to play poker with someone, but I won't tell you **who** (he wants to play poker with).*

b. [Context: someone discovers a murdered relative, and exclaims:]
*My God, **who** (can have done such a thing)?*

In Andrews Amalgams, however, non-elliptical Inserts seem to force a Horn Amalgam reading. Thus while (65a) is fine with continuous intonation, (65b) seems to require a parenthetical intonation, as signalled by hyphenation.

(65) a. *Bob found [you can easily guess **what**] last night.*

b. *Bob found – [you can easily guess **what** he found] – last night.*

Furthermore, non-elliptical inserts are impossible in utterance-initial position, just like the Horn Amalgams in section 5, as shown in (66).

(66) *[You know **who** (*I have in mind)] wants to kills us.*

The necessary status of ellipsis appears to be a consequence of a more general fact: the wh-phrase needs to be in a string-final position within its Insert. This can be appreciated by noting that the full version of (67), in contrast to the reduced version, greatly favors a Horn Amalgam construal.

(67) *Bob has obtained [I'll never reveal **what** (to any of you)] from Mary.*

I conjecture this is due to the fact that Andrews Amalgams, in view of their superficial appearance as independent sentences, require special help for their complex XP status to be recognized. Placing the wh-phrase at the insert's right edge, where it can naturally receive special stress, is apparently one way of signalling its pivot role, and thus the complex XP status of the insert. In fact, Andrews Amalgams seem to need some help at their left edge as well, as suggested by the fact that (68) is not a felicitous alternative to (39b) (up to the first comma). I conjecture that the juxtaposition of the various inserts, as well as the absence of left-adjacent

matrix elements, makes the constitutive status of the inserts harder to recognize, with the result that (68) sounds like a sequence of independent sentences.

(68) *John invited [you'll never guess [DP **how many people**]] [you can imagine [PP **to what kind of a party**]] [it should be obvious [PP **at which place**]] [God only knows[PP **with what purpose in mind**]]*.

In short, Andrews Amalgams need special conditions to overcome an alternative reading that takes them at face value, and the obligatory status of ellipsis falls out from them.

There is one more interesting aspect of Andrews Amalgams that I wish to draw attention to, and which is arguably a consequence of their *raison d'être*. The latter is, I submit, to veil information that may lead to the identification of the intended denotatum, by indicating or hinting at knowledge that certain individuals (most commonly, but not necessarily, the speaker and/or the hearer) may (or may not) have. Thus, note Andrews Amalgam inserts tend to be infelicitous when they cannot be construed as pragmatically implying something about the state of knowledge of certain relevant individuals. To illustrate, consider the (in)felicity of the following utterances in out-of-the-blue situations.

(69) a. *Ed is marrying [I won't tell you **who**] next week.*

b. *#Ed is marrying [Bill doesn't know **who**] next week.*

(70) *Ed is marrying [#(even) God doesn't know **who**] next week.*

(71) *Ed is marrying [Bill {#knows, KNOWS} **who**] next week.*

The example in (69a) transparently suggests that the speaker possesses the relevant information, and is unsurprisingly felicitous. (69b) does not obviously imply anything about anyone else's state of knowledge, and is thus infelicitous out-of-the-blue; however, if it is assumed that Bill is the speaker's only source of information about Ed's plans, (69b) becomes felicitous, in virtue of the pragmatic implication that the speaker doesn't know, either. Similarly, the reduced version of (70) is strange for the same reason that (69b) is, but the full version is felicitous, because *even* suggests that God is the Being most likely to possess the relevant information, so that if He doesn't have it, the speaker doesn't have it, either. Finally, (71) is OK with emphatic stress on *knows* because it suggests a prior assumption that Bill doesn't know, and thus makes Bill's state of knowledge contextually relevant.

Hankamer (1978), in discussing a challenge by Schachter (1977) to the claim (made in Hankamer & Sag 1976) that VP-ellipsis allow only syntactic control, argued that pragmatic control is allowed, but only in "(certain) illocutionary charged utterances", being "possible only in modes other than those that are concerned in a straightforward way with the transmission of information." Sluicing was also claimed in Hankamer & Sag (1976) to be restricted to syntactic control, but (64b) shows that pragmatic control is possible under the kind of circumstances indicated in Hankamer (1978). Importantly, Andrews Amalgams always satisfy Hankamer's conditions (for reasons made explicit in the preceding paragraph), and thus should always be compatible with pragmatic control.

In this connection, we may note that there are situations where pragmatic control is the only reasonable option, (72) being a case in point.

(72) *Does [{you, we both} know **who**] want to kill us?*

Thus, (72) does not (necessarily) purport to ask the tautological question 'does someone such that {you, we both} know that (s)he wants to kill us want to kill us?', but rather something like 'does someone such that {you, we both} know who I {have in mind, am thinking of} want to kill us?' Also, in a construction with multiple inserts, such as (39b), it is rather hard to see what the syntactic controllers of the various ellipses might be (the

skeptical reader is invited to try), while reasonable interpretations of the ellipses under the assumption of pragmatic control are very easy to find.

In addition to such semantic-pragmatic considerations, the assumption that pragmatic control is available can explain certain syntactic facts that would otherwise be quite puzzling. Thus, in standard sluicing constructions, preposition stranding within the ellipsis is generally allowed just in case the individual language independently allows it in comparable non-elliptical constructions (Ross 1969, Merchant 2006, section 3.2.2). This can be appreciated by examining the Romanian example in (73) on the one hand and its English translation, as well as (64a), on the other, and by noting that in all these cases, the (un)acceptability of the full version extends to the reduced version.

(73) **Ion a reuşit datorită cuiva, dar n- am să-*
Ion has succeeded thanks.to someone-DAT but not have
ţi spun ***cui*** *(a reuşit el*
SUBJMARK you-DAT tell who-DAT has succeeded he
datorită).
thanks.to
'Ion succeeded thanks to someone, but I won't tell you who.'

Now, consider (74). The full version (which, for reasons pointed out above in connection with (65), can only be a Horn Amalgam) is expectedly ungrammatical, just like the full version of (73). Unlike the reduced version of (73), however, the reduced version of (74) is grammatical as an Andrews Amalgam. Comparable facts obtain in Modern Greek, a language where data like the two versions of (73) are both ungrammatical (see Merchant 2006), but where data like the reduced version of (74) are grammatical, as illustrated by (75) (provided by Jason Merchant, p.c.).

(74) *Ion a reuşit datorită [ştii tu* ***cui*** *(*a*
Ion has succeeded thanks.to know you who-DAT has
reuşit el datorită)] la examenul de ieri.
succeeded he thanks.to at exam.the of yesterday
'Ion succeeded thanks to [you know who] at yesterday's exam.'

(75) *O Giannis pige [me [dhen ksero pjon]].*
the Giannis went with not know.I who-ACC
'Giannis went with I don't know who.'

The acceptability of the reduced version of (74) and of (75) seems to suggest that the constraint on P-stranding is somehow suspended in Andrews Amalgams. However, this fact is only puzzling if it is assumed

that syntactic control of the ellipsis is the only option. If the pragmatic control option exists, there is no puzzle, since a deviant structure like the one within parentheses in (74) never exists at any stage of the derivation.

The assumption that the reduced version of (74) relies on pragmatic control raises the issue of how the wh-phrase gets Case. My proposal is that it gets Case via agreement with the null external head, there being no other possible source. This thesis is supported by the observation that the Case (or prepositional marking) of the wh-phrase must always match the corresponding requirements imposed on the Insert. In (74), for example, the insert is assigned Dative Case by the preposition *datorită*, and the Case of the wh-phrase can only be Dative, substituting, say, the Nominative/Accusative form *cine* for *cui* results in ungrammaticality. Note that unless the Case of the wh-phrase is coerced by agreement, there is no reason why a Nominative form should not be acceptable, since it is very easy to imagine plausible pragmatically-induced construals of the ellipsis (e.g., *ştii tu cine e persoana la care mă gândesc* 'you know who the person I am thinking of is').

A similar point is made by the facts in (76). .

(76) *Vrea [ştii tu (***la) cine**] să mă omoare?*
wants know you at who SUBJMARK me kill
'Does [you know who] want to kill me?'

The reduced version is an essential counterpart of (72), in the sense that pragmatic control is the only plausible option. Here, too, a plausible construal of the ellipsis that is consistent with the full version is very easy to imagine (e.g., *mă gândesc* 'I am thinking'). The severe ungrammaticality of the full version points to the already established conclusion that Case/prepositional properties can only be assigned to the wh-phrase by the matrix, via agreement with the null external head.

The grammaticality of (75) and the reduced version of (74), as well as the interpretation of (72), are consistent with the hypothesis that pragmatic control is always available for Andrews Amalgams. The following data suggest that it might be the only option available.

(77) *Ion a reuşit datorită cuiva, dar n- am*
Ion has succeeded thanks.to someone-DAT but not have
să- ţi spun ***datorită cui*** *(a*
SUBJMARK you-DAT tell thanks-to whom-DAT has
reuşit el).
succeeded he
'Ion succeeded thanks to someone, but I won't tell you who thanks to whom (he succeeded).'

(78) **Ion a reuşit datorită [ştii tu* ***datorită cui****]*

Ion has succeeded thanks.to know you thanks.to who-DAT

la examenul de ieri.

at exam.the of yesterday

'*Ion succeeded thanks to [you know thanks to whom] at yesterday's examination.'

The example in (77) is the grammatical way counterpart of (73), in which the potentially offending preposition has been pied-piped, rather than stranded, and the ellipsis is syntactically controlled by the underscored string. If syntactic control were available in Andrews Amalgams, (78) ought to be grammatical as well, with the same controller and a nominal null external head (the latter is expected to be possible, because in the absence of pragmatic control, there is no reason to expect matching effects between the null head of the insert and the wh-phrase). The ungrammaticality of (78) leads us to the conclusion that Andrews Amalgams are restricted to pragmatic control. Presumably, this is in an inherent property, conceptually motivated – even if not logically predicted – by the fact that the conditions for pragmatic control always exist in Andrews Amalgams, in contrast to standard sluicing constructions, which can certainly deal with no more than the straightforward transmission of information.

7. Summary and Conclusion

In this paper, we have examined the proposal to use the syntactic mechanism of Grafting in order to capture (presumed) pivot properties in five linguistic constructions. It was shown that this approach is empirically and/or conceptually problematic in all five cases, and that in each case, a superior more conservative analysis is available. There is thus no known evidence at the moment that Grafting is ever needed for capturing pivot properties. While multi-dimensional representations with shared sub-structures may be expected within a theory that assumes re-merger, a reasonable notion of economy might dictate that its greater power should not be used when adequate bi-dimensional analyses are available.

On the positive side, I have attempted to shed novel light on the nature of the constructions examined and on the underpinnings of shared properties, when these exist. I have found no grounds for syntactically unifying constructions other than FRs and TFRs, which, I argued, have the same gross configurational properties, and differ only in the extent to which they exploit the under-specification options made available by the language, TFRs going farther than FRs in this direction, a state of affairs

clearly motivated by their specific *raison d'être*, which is quite different from that of FRs.

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