'Direct' versus 'indirect' approaches to Transparent Free Relatives

ABSTRACT

This paper reconsiders the analysis of Transparent Free Relatives proposed in Grosu (2003), sharpening and refining some of its aspects, and bringing into bolder relief its empirical and conceptual merits relative to analyses that view its impressionistic 'pivot' as an 'external Head.' It is argued, by also marshalling novel arguments, that the analysis defended in this paper provides an empirically more adequate account of a number of syntactic and semantic properties of TFRs, as well as a conceptually more satisfactory perspective on other properties, which have no more than a definitional, i.e., stipulative, status within alternative approaches. It is also argued, *contra* Van Riemsdijk (2006), that Horn Amalgams do not have an impressionistic pivot at all, and that the only interesting property they share with TFRs is the possession of an internal equational structure.

1. Background

The central goal of this paper is to reconsider the empirical and conceptual merits and demerits of two analytical approaches that have been adopted with respect to Transparent Free Relatives (TFRs), and which will be called 'direct' and 'indirect', for reasons that will become apparent below. I propose to argue, on the basis of both 'old' and new facts, that a slightly modified version of the indirect analysis defended in Grosu (2003) is superior to direct approaches in general and to the one outlined in Van Riemsdijk (2006) in particular, from both an empirical and a conceptual perspective, specifically, in its ability to account for certain syntactic and semantic properties of TFRs, while minimizing the number of properties that need to be viewed as definitional. For reasons of space limitation, references to earlier literature will be kept to the bare minimum needed to ensure coherence and readability.

TFRs contrast with 'ordinary' Free Relatives (FRs) (i) in their pragmatic *raison d'être*, (ii) in being indefinite, rather than definite or universal (with free-choice force), and (iii) in the element that is impressionistically perceived as their 'pivot', that is to say, as the source of syntactic and semantic features of the entire complex XP. Thus, the pivot of FRs is its wh-phrase, while the pivot of TFRs is the non-subject of a copular construction or small clause (for reasons of convenience, we will use the term 'post-copular phrase' in a broader acceptance than usual, covering non-subjects in both constructions). Illustrations of FRs and TFRs are provided in (1) and (2) respectively, with the pivots in italics. The pivot role of the post-copular phrase can be prominently appreciated in relation to (2c), 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.

(1) 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 be [*what(ever)* his mother most wants him to become __]:
       a lawyer, a doctor, or whatever.
(2) a. John is talking to [$_{DP}$ what seems [__ to be [$_{DP}$ {*a policeman, his brother-in-law*}]]].
    b. John is [what I might describe [__ as [$_{AP}$ *exceedingly interested in magic*]]].
    c. John is a [$_{AP}$ devious and [$_{AP}$ what some people might describe
      [__ as [$_{AP}$ *highly unreliable*]]]]] individual.

Direct approaches to TFRs have sought to translate the intuition that the post-copular phrase serves as pivot in *configurational* terms, specifically, by assigning to this phrase the status of a 'phrasal head.' The indirect approach, on the other hand, has taken the position that TFRs are configurationally indistinct from FRs, properties of the pivot being inherited by the TFR via an *equational* relation between the pivot and an *under-specified* wh-element. In the remainder of this section, I summarize the gist of three analyses that adopt a direct approach, and of the only one known to me that adopts an indirect approach.

Kajita (1977) proposed to analyze TFRs by applying to an FR a *syntactic re-analysis* operation with 'head changing' effect. Importantly, this operation was not devised for TFRs only, but also for NPs like ***a number of*** *boys,* which is 'born' with *number* as head and ends up with *boys* as derived head, and for APs like the one in (3a), which is born with the gross internal structure of the AP in (3b) and ends up with *trivial* as derived head.

(3) a. The problem is [$_{AP}$ close to trivial].
    b. The airport is [$_{AP}$ close to the city].
    c. This is a [$_{AP}$ close to [$_{AP}$ trivial]] matter.
    d. This is a [$_{AP}$ close (*to the airport)] city.

An argument offered in support of the distinct ways in which the APs in (3a) and (3b) were analyzed was that such APs differ in their privileges of occurrence in attributive position, as can be gathered from (3c-d). Thus, (3c), in contrast to the full version of (3d), obeys the so called Head Final Filter, stated in (4) (following essentially Van Riemsdijk 1998).

(4) **The Head Final Filter**
    An XP left-adjoined to a head-initial projection needs to exhibit its own X head at its right edge.

With respect to TFRs, re-analysis turns the pivot into a derived phrasal head, and the remainder of the TFR, into an intensional modifier of this derived head.

Wilder (1998), who expressed certain conceptual qualms about Kajita's analysis of TFRs, proposed instead that the impressionistic pivot be base-generated as an external phrasal head, with a relative clause that precedes this head and includes an ultimately deleted token of the pivot.

Van Riemsdijk (1998, 2000, 2001, 2006) also proposed to view the pivot as an external phrasal head, but pointed out that Wilder's approach (as well as Kajita's) cannot work in general, because the pivot is not always string-final with respect to the TFR. In particular, it may occupy a string-medial position, as illustrated with German and English data in (5) and (6) respectively.

(5) *Ich habe mir [was man als **einen schnellen Wagen** bezeichnen könnte] gekauft.*
    I   have me what one as a   fast   car.ACC describe could   bought
    'I have bought myself what one might call a fast car.'
(6) I just noticed [what may well seem [to be construable as ***an NP*** by
    proponents of LFG] to people unfamiliar with that theory].

To enable the pivot to be analyzed as an external head of the TFR, Van Riemsdijk proposes to adopt a model of grammar that countenances multi-dimensional representations, and which crucially allows distinct bi-dimensional trees to share a proper sub-constituent of each. This result is obtained by an operation called 'Grafting', which in Van Riemsdijk (2006) is characterized as an automatic consequence of (i) Re-Merger (Chomsky 2004) and (ii) the option of building up in parallel distinct sub-trees of an ultimately single tree

(Chomsky 1993). In a case like (5), Grafting takes as input the boldfaced constituent and re-merges it with an element of the matrix, in particular, *gekauft*. In virtue of principles of linearization that allow 'pronunciation' to shift from the 'graft tree' to the 'host tree' and back, (5) is consistent with an analysis that views the pivot as the external head of the TFR.

Much like Kajita, Van Riemsdijk does not confine the use of his analytical machinery to TFRs, but proposes to extend it to all the constructions analyzed by Kajita as having derived heads, and to additional ones as well. Thus, in Van Riemsdijk (2006), it is claimed that certain Lakovian 'amalgams' (Lakoff 1974) are optimally analyzed in terms of Grafting, and it is proposed that this mechanism belongs "right in the middle of the very core of narrow syntax" (section 7).

As hinted at above, Grosu (2003) proposed to tackle the pivot role of the post-copular phrase indirectly, by assuming that its syntactic and semantic properties are conveyed to the TFR by means of a highly under-specified (and thus, 'transparent') wh-chain and – crucially – an *equational* relation between the wh-chain and the pivot. Possibly due to an insufficiently perspicuous presentation of the motivation for this approach, the analysis in Grosu (2003) has sometimes been viewed as primarily driven by the mere desire to capture the superficial similarity between FRs and TFRs (see, e.g., Van Riemsdijk 2006, section 6). This impression is incorrect. As I hope will emerge more clearly from what follows, the indirect approach is motivated by a desire to optimally capture the syntactic and semantic properties of TFRs, and to reduce as much as possible the set of properties that need to be viewed as 'definitional', and thus in effect as stipulative.

The remainder of this paper is organized as follows: In section 2, I briefly reproduce from Grosu (2003) two syntactic empirical arguments for the indirect approach, and present a third, which is based on novel data, and which, as far as I can see, creates an insurmountable difficulty for direct approaches. In section 3, I highlight the conceptual benefits of the indirect approach, and in section 4, I argue on conceptual and empirical grounds for a refinement of the analysis in Grosu (2003), in particular, for the suppression in TFRs of the inherent definiteness of FRs. In section 5, I examine the proposals by Kajita and Van Riemsdijk to analytically unify TFRs with a number of other constructions, and I conclude that their unifying proposals are unwarranted. Section 6 addresses an intriguing *prima facie* problem for both Van Riemsdijk's analysis and mine, and section 7 is a summary of results.

2. The direct versus the indirect approach: empirical considerations

In this section and the ensuing ones, I will abstract away from an issue that has given rise to considerable controversy in earlier literature, but which is immaterial in the present context. Thus, FRs have been configurationally analyzed in the past in at least three ways: (i) the wh-phrase is initially merged as the CP-external head of the FR (Bresnan & Grimshaw 1978), (ii) the wh-phrase is moved to [Spec,CP] and the FR is externally headed by a null category (Groos & van Riemsdijk 1981, and much subsequent literature cited, e.g., in Grosu 2003), (iii) the wh-phrase is grafted from [Spec, CP] unto the matrix (Van Riemsdijk 2006 and references therein by the same author). For current purposes, one may pick whichever analysis one wishes, so long as it captures the pivot role of the wh-phrase.

In Grosu (2003, section 5.5), I examined the claim (made by Wilder and Van Riemsdijk) that extraction out of a TFR's pivot is essentially as easy as when the pivot is substituted for the TFR, and showed that this is not true in general. Thus, while extraction out of an incontrovertible external head seems to be unaffected by the presence/absence of a relative

clause, extraction out of a TFR's pivot is sensitive to TFR-internal factors. This can be appreciated in relation to the data in (7).

(7) a. Who did he buy [a picture of __ (that pleased Mary)]?
    b. Who did he buy [(?*what seems to many to be) a portrait of ___]?

Such facts point to the conclusion that extraction in the full version of (7b) has operated out of the relative clause, not out of an external head. The fact that the full version of (7b) may be felt by some speakers to be degraded, but possibly not totally out, does not affect this conclusion, 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).

    A second argument offered in Grosu (2003, section 5.4) in favour of the indirect approach rests on data like (8), which show that the pivots of TFRs are sensitive only to the Case requirements of their local environment and insensitive to the requirements of the TFR's matrix context. This is in sharp contrast with the behaviour of the wh-phrases of FRs, which are notoriously sensitive to both matrix and relative clause requirements.

(8) a. *Ich habe mir soeben gekauft, [was von vielen als {**ein merkwürdiger Wagen**,*
      I   have me just   bought what by many as   a   strange.NOM car
    ***einen merkwürdigen Wagen}** bezeichnet werden würde].*
      a   strange. ACC car   described be   would
    'I have just bought myself what might be called a strange car by many people.'
   b. *[Was viele als {***ein merkwürdiger Wagen**, **einen merkwürdigen Wagen}***
     what many as   a   strange. NOM car   a   strange. ACC   car
    bezeichnen würden] wurde trotzdem   soeben verkauft
     describe   would   is   nonetheless just   sold
    'What many people might describe as a strange car has nonetheless just been sold.'

Van Riemsdijk (2000, 2001) cites such data, and maintains that both versions of such examples are out. Van Riemsdijk (2006, section 5), reacting to the acceptability judgments noted above (which were initially expressed in Grosu 2003), dismisses such judgments as due to dialectal variation. Since variation is always a possibility, I re-submitted such 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-starred versions of data like (8a-b). This makes the claim of dialectal variation implausible, and points to the conclusion that Van Riemsdijk's judgments are idiosyncratic and non-representative.

    I now turn to a third argument for the indirect approach, which I view as extremely damaging for the direct approach. The argument relies on an observation made in Gallmann (1990, 1996) and elaborated on in Bayer, Bader and Meng (2001): A small class of lexical items, one of which is *was* 'what', may occur in positions to which Dative Case is assigned by a *preposition*, but not in positions where this Case is assigned by a *verb*. In more general terms, P-assigned Dative does not need to be morphologically realized as a suffix, while V-assigned Dative does. This phenomenon is illustrated in (9) with respect to interrogative *was*, Case requirements being indicated by superscripts on the assigner. Unsurprisingly, comparable effects are found in FRs, as illustrated in (10). Now, exactly comparable effects are predicted for TFRs under the indirect approach, but clearly not under the direct one. This prediction is tested in (11)-(12), and is fully supported by the contrast between the (a) and (b) subcases.

(9) a. *Mit^{DAT} was hat er noch nicht gerechnet?*
       with what has he yet not counted
   b.***Was hat er widersprochen^{DAT}?*
       what has he contradicted
(10) a. *Er hat mit^{DAT} [was du gesagt hast] nicht gerechnet.*
       he has with what you said have not counted
       'He did not reckon with what you said.'
   b.***Er hat [was du gesagt hast] nie widersprochen^{DAT}.*
       he has what you said have never contradicted
       'He has never contradicted what you said.'
(11) a. *Er wohnt in^{DAT} [was man ein-en Hühnerstall nennen koennte].*
       he lives in what one a-ACC chicken-coop call could
       'He lives in what one may call a chicken-coop.'
   b.***Er hat [was man ein-e merkwuerdige Idee nennen koennte] viel*
       he has what one a-ACC strange idea call could much
       Aufmerksamkeit geschenkt^{DAT}.
        attention given
       'He has devoted considerable attention *(to) what one might call a strange idea.'
(12) a. *Sie spricht mit^{DAT} [was ich ein-en totalen Idioten nennen wuerde].*
       she speaks with what I a-ACC total idiot call would
       'She is speaking with what I would call a total idiot.'
   b.***Sie hat [was ich einen totalen Idioten nennen wuerde] soeben widersprochen^{DAT}.*
       she has what I an-ACC total idiot call would just contradicted
       'She has just contradicted what I would call a total idiot.'

Note that the data in (12) are especially telling, since they eliminate any possible suspicion that the judgments indicated in (11) may be due to a mistaken construal of TFRs as FRs (as Wilder 1998 showed, entity-denoting incontrovertible *what*-FRs may not denote humans, while TFRs may; this is illustrated in (13)).

(13) 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}].

   For completeness, note also that (11a) and (12a) reinforce the point made by (8), since these examples are acceptable despite the fact that the explicitly Accusative pivots are incompatible with P-assigned Dative, as can be gathered from (14).

(14) 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. The direct versus the indirect approach: conceptual considerations

   In this section, I will argue that the indirect approach can illuminate and make sense of a constellation of properties of TFRs, which, under the direct approach, can only be viewed as definitional (in fact, Van Riemsdijk 1998, section 4.1, actually proposed to view properties (II), (IV), and (V) in this way). I propose to address the following five properties.
   (I) The superficial similarity between TFRs and FRs appears to be exception-less cross-linguistically. A significant fact, noted in Grosu (2003, section 5.7), is that FRs exhibit considerable cross-linguistic variation in the morpho-syntactic properties of their left periphery, and these properties are invariably shared by TFRs in the corresponding languages. This state of affairs is quite different from, say, the superficial similarity

between restrictive relatives and interrogatives, which is found in some languages, but certainly not in all.

(II) The FRs of various languages employ a rich inventory of wh-pronouns, both 'plain' *and* 'free choice', and may even exhibit wh-phrases of arbitrary complexity (e.g., *I will accept [**whichever plans already approved by your boss** you happen to propose*), but TFRs are invariably limited to *what* and its cross-linguistic counterparts.

(III) Not all languages that have FRs also have TFRs, and the presence/absence of TFRs in languages with FRs appears to be predictable (Grosu 2003, section 8).

(IV) The chain headed by *what* is always footed in the subject position of a post-copular structure or small clause, and the pivot is always the non-subject of that structure.

(V) Unlike *what*-FRs, which, like FRs in general, always have definite force, (Jacobson 1988, 1995), TFRs may – and arguably must (see below) – have indefinite force.

I discuss these properties in reverse order. Our starting point will be the pragmatic *raison d'être* of TFRs, which is different from that of FRs, and which I state in (15) (in earlier literature, the discourse function of TFRs has been characterized as 'hedging', a too vague and insufficiently general characterization; see Grosu 2003, section 4.1 for discussion).

(15) The *raison d'être* of a TFR is to denote a 'counterpart' of the pivot that is potentially distinct from the pivot's denotation at the indices at which it is defined.

What this implies is that an explicit or implicit intensional operator of some sort, i.e., modal and/or temporal, must exist in the relative clause, that the logical type of the pivot must be intensional, that the pivot must be extensionally defined only at the indices of the operator, and that its extension at these indices must be potentially distinct from the extension of the TFR at other indices. As pointed out in Grosu (2003, section 7.3), if no intensional operator is detectable, infelicity results (as illustrated by the contrast between the full and reduced versions of (16)), basically because the denotation of the pivot and of the TFR become indistinguishable *at all the indices that are contextually taken into account*, and the use of the TFR, rather than of the pivot, becomes pragmatically pointless. Anticipating a point to be made below, a TFR without an intensional operator makes *trivial* use of equation, something that results in infelicity elsewhere as well (consider, e.g., John telling Mary "#I love a person who is you" instead of "I love you").

(16) a. John is eating with what is #(incontrovertibly) {a, your} fork.
    b. John lives in what is #(now) St. Petersburg (but was once Leningrad).

Having established the *raison d'être* of TFRs, we may now tackle (V). Since all we know about the extension of a TFR at matrix indices is that it is potentially distinct from the extension of the pivot at the indices of the operator, it cannot be something familiar from previous discourse, and is thus necessarily indefinite. Wilder (1998) concluded, on the basis of the observation that data like (17b) exhibit a contrast parallel with that found in (17a), that TFRs have the quantificational force of their pivots, but this conclusion is, I submit, subtly wrong. To see this, consider (13b) (repeated below for convenience).

(17) a. There is {a virus, #the virus (you feared)} in this program.
    b. There is [what appears to be {a virus, #the virus (you feared)}] in this program.
(13) b. She is talking to [what seems to be {a policeman, Bill, her brother-in-law}].

It seems to me that the versions of (13b) with definite pivots are more appropriately paraphrased by 'she is talking to *an* individual who seems to be Bill/her brother-in-law' than

by 'she is talking to *the* individual who seems to be Bill/her brother-in-law', and that (2b) is more appropriately paraphrased by 'John {is *something,* has *a* property} that I might describe as exceedingly interested in magic' than by 'John {is *that thing,* has *the* property} that I might describe as exceedingly interested in magic'. As for the contrast in (16b), it is important to recall that the context *there BE __ XP* does not exclude just definite expressions, but rather 'specific' ones, a class that includes both definites *and* 'discourse-linked' indefinite and interrogative phrases like *a certain boy, which boy*. If discourse-linking in such cases is sufficient to make an indefinite expression specific, it seems reasonable to assume that an indefinite phrase which denotes a counterpart of a contextually known unique entity counts as specific as well. Given this assumption, the deviance of the starred version of (17b) is predicted even under the assumption that TFRs are always indefinite.

The properties (II)-(IV) form a conceptual complex. Under the indirect approach, the properties of the pivot can only be conveyed to the TFR via the wh-chain. The importance of property (IV), i.e., the fact that (the foot of) the wh-chain and the pivot are the two terms of a copular structure or small clause, lies in the fact that such structures allow an *equational* construal, and it is precisely this construal that is 'exploited' by TFRs. Equation, in contrast to 'strict predication', enables (in fact, forces), equated expressions to be of the *same logical type,* and it furthermore makes it possible for the wh-chain to *inherit syntactic properties* of the pivot when it is not itself inherently specified for them.

What has just been said ties in with property (II), the exclusive use of *what* in TFRs. What distinguishes this element from other wh-elements is that it can in principle be under-specified for logical type and syntactic category (being, e.g., compatible with both individual and predicate denotations, as well as with both nominal and adjectival status), and that it can be under-specified in equational contexts for certain properties, even when it exhibits default specified values elsewhere. This is illustrated in (18) with respect to syntactic number in interrogative constructions.

(18) a. What {bothers, *bother} you?
　　 b. What seem to be the problems?

(18a) shows that *what,* despite compatibility with semantic plurality, is syntactically singular in non-equational contexts, and (18b) shows that it may inherit syntactic number from a post-copular phrase under equation. It is thus an un-remarkable fact that TFRs may inherit syntactic number from their pivot, as illustrated in (19b), even though FRs like the one in (19a) exhibit the default singular value.

(19) a. [What was lying on the desk a moment ago] {is, *are} now in the drawer.
　　 b. [What seem to be *three books*] {are, *is} lying on the desk

More generally, it seems natural to assume that any feature for which *what* (or a cross-linguistic counterpart) can in principle be under-specified *is* in fact under-specified in TFRs, thereby allowing them to function as counterparts of their pivot under the widest possible range of circumstances. We thus have a straightforward explanation for the contrast in (13), since *what,* while sometimes limited to a non-human denotation, is not incompatible with a human denotation in general (e.g., *what can you see at the end of the tunnel? Bill*). Furthermore, the under-specification of the *what*-chain also makes the TFR transparent in the 'converse direction', thereby making it possible to account for Dutch data like the following, where the agreement features of the AP can be inherited by the adjectival pivot via the *wat*-chain.

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

Still in connection with property (II), the fact that free-choice wh-elements, including *whatever*, are excluded in TFRs is attributable to the fact that such elements constrain the quantificational force of the TFR, and thus reduce the transparency of the wh-chain, thereby interfering with the ability of the TFR to derive a maximal number of properties from its pivot.

Concerning property (III), it was shown in Grosu (2003) that TFRs appear to be excluded or dispreferred in languages where the counterparts of *what* either fail to exhibit under-specification (by being limited to individual denotations and/or to nominal categorial status), or tend to be construed with free-choice force. This is exactly what may be expected, given what was said in relation to (II).

Finally, property (I), i.e., the fact that TFRs seem to invariantly exhibit the morpho-syntactic appearance of FRs, can also arguably be made some sense of, since *what*-FRs are in general compatible with a wider variety of syntactic categories than other (overtly headed) XPs, and adopting the form of such constructions expands the potential expressive range of TFRs. To illustrate, observe that DPs headed by *something,* while compatible with a predicative use, are not compatible with adjectival status, as illustrated in (21).

(21) a. John is [{what, something} I would describe as ridiculous].
     b. John is an awkward and [{what, *something} I would describe as ridiculous]
        individual.

I hope I have shown that the indirect approach can shed a great deal of light on the complex of properties (I)-(V). In contrast, I do not quite see how a direct approach can accomplish this result, since the wh-chain is not directly involved in determining the syntactic and semantic content of the TFR.

4. A refinement of the analysis of TFRs in Grosu (2003)

In Grosu (2003), I proposed to assume that TFRs not only exhibit the configurational and morpho-syntactic properties of *what*-FRs, but in fact possess *all* the properties of such FRs, including the inherent definiteness operator argued for in Jacobson (1988, 1995). Since this assumption is in prima facie conflict with their indefinite status (see section 3), I proposed to circumvent the conflict by exploiting the independent observation that the definiteness operator of FRs need not target an individual variable, but also degree or kind variables, and proposed on this basis that definiteness targets a property variable in TFRs. This assumption, for which I know of no independent motivation, led to unnecessarily complex and, in some cases, counter-intuitive semantic translations. To illustrate the implications of the assumption at issue in informal terms, the version of (13b) with *Bill* translates as "she is talking to an individual who possesses the unique property P such that in the worlds of what seems to be the case, P is the property of being Bill, and (2b) translates as 'John {is that thing, has the property} that I might describe as exceedingly interested in magic', which, as proposed in section 3, seems inadequate. The point just made about (2b) may be somewhat subtle, but it is independently supported by the following observation: in the course of field work on Russian, a language which seems not to allow TFRs, informants volunteered only alternatives with *indefinite* overt heads for data like (2b).

What has just been said points to the conclusion that TFRs do, after all, differ from FRs in lacking an inherent definiteness operator. This conclusion is virtually forced under the view that the *raison d'être* of TFRs is as stated in (15). Furthermore, it seems entirely natural under the indirect approach, since an inherent definite specification, much like *-ever* wh-forms, restricts the quantificational properties of TFRs, and thus interferes with their ability to reflect properties of the pivot. It may be pointed out in this connection that the definiteness of FRs, while certainly real, has never been shown to be interestingly derivable from anything else, and is viewed as the moment as a primitive property, for which only 'historical explanations' may be envisaged (e.g., one may speculate that FRs evolved out of correlatives, which in turned evolved out discourse E-type anaphora, and that the definite properties of E-type anaphors were somehow preserved during these evolutionary processes). In any event, there is nothing necessarily definite or universal in *what,* since questions like *what can I buy you for your birthday?* may be construed existentially, a natural answer being *that ring*). In sum, I see no obstacle to proposing that TFRs are FRs lacking inherent specification for definiteness.

On this view, the translations of the version of (13b) with *Bill* and of (2b) are as shown in (22a-b) (I use a two-sorted logical language; 'x' is an individual concept variable, IMD stands for 'I might describe', and EIM stands for 'exceedingly interested in magic').

(22) a. $\lambda i.\exists x_{<s,e>}$ [TALK-TO(i) (SHE(i), x(i)) $\wedge$ $\forall i' \in$ SEEM(i) [x(i') = BILL(i')]]
    b. $\lambda i.\exists P_{<s,<e,t>>}$ [P(i) (JOHN(i)) $\wedge$ $\forall i' \in$ IMD(i) [P(i') = EIM(i')]]

One nice consequence of this semantics is that it yields a straightforward and perspicuous characterization of the ways in which TFRs differ from another construction, with which they share a variety of properties. Crucially, this construction exhibits an *incontrovertible* 'gap' in post-copular position and an external head interpreted as though in the position of the gap, which is essentially the kind of analysis Van Riemsidjk assigned to TFRs (modulo multi-dimensionality)   The construction at issue, called Equative Intensional 'Reconstruction' Relatives (EIRRs) in Grosu & Krifka (ms.), is illustrated by the bracketed constituent in (23).

(23) [The *brilliant mathematician* that Bill {***supposedly*** is, ***claims*** to be} __] should have had
      less difficulty with this easy problem.

Much like TFRs, EIRRs (i) exhibit an internal copular structure or small clause (ii) with necessarily equational semantics, (iii) are felicitous only if the relative includes an explicit or implicit intensional operator (boldfaced in (23)), and (iv) the NP construed as though in post-copular position has narrower scope than the operator, while (v) the copular subject has wider scope than the operator (for detailed argumentation and illustration of these points, see Grosu & Krifka op. cit.). Crucially, EIRRs are not defined at indices other than those within the set of indices denoted by the operator, but only at indices *included in those denoted by the operator*. This can be appreciated by noting that the complex DP in (23) denotes Bill as a brilliant mathematician, but only in the worlds of supposition or of Bill's claims, and not necessarily in the worlds of the speaker's views (note that (23) is easily construable as implicating that the speaker does *not* view Bill as a brilliant mathematician). Further support for the semantic characterization of EIRRs just proposed is provided by the observation that if the matrix VP in (23) is replaced with one that implies the existence of the denotatum of the EIRR at indices not included in those of the operator, e.g., *{has just solved, is working on} a tough problem,* infelicity results.

EIRRs and TFRs thus contrast with respect to the indices at which they are defined: EIRRs must be defined at indices *included in* those denoted by the intensional operator,

TFRs must be defined at indices *other than* those denoted by the intensional operator. This contrast can be appreciated in relation to data like (24), where the intensional operators (which here denote sets of temporal indices) are italicized.

(24) a. #The university has just hired [the secretary that Mary *once* was, and no longer is].
  b. The university has just hired [what was *once* a secretary] (but is today a world famous physician).

Thus, (24a) is infelicitous because it implies that the university has hired an individual that existed in the past, but no longer exists at the moment of hiring, i.e., Mary as a secretary. In contrast, (24b) is fine, because the person hired by the university need not be a secretary at the moment of hiring. In needs to be emphasized that this distinction follows from the distinct configurational properties attributed to the two constructions under the indirect approach to TFRs in conjunction with the shared properties (iv)-(v). Thus, if the CP-external NP of an EIRR is construed as restricting a variable at the indices of the operator, quantification (applied to an abstract formed) over that variable will yield a denotatum defined at those indices as well. Conversely, if the *what*-chain of a TFR is construed as an abstract with wider scope than the operator, the application of Existential Closure to the abstract yields a denotatum defined at indices other than those of the operator.

   To my knowledge, the proponents of analyses falling under the direct approach have not addressed the issue of the compositional semantics of TFRs, and it is not obvious how they might proceed. Under Van Riemsdijk's analysis, the fact that the pivot is construed relative to the indices of the operator implies that what needs to be interpreted is its unpronounced 'token' within the relative. In (25), for example, one needs to 'reconstruct' the italicized pivot *in toto,* because reconstructing just the boldfaced NP would incorrectly predict the kind of construal that is appropriate for EIRRs only, and would moreover attribute definite, rather than indefinite (specific) force to the TFRs.

(25) Mary is talking to [what seems to be *the **guy who danced with her last night***].

But if one reconstructs the entire DP, and thus interprets it solely within the relative, it is unclear how an abstract to which Existential Closure may apply can be formed (unless one chooses to form it on the basis of the wh-chain, in which case one has in effect adopted the indirect approach).

   Under Kajita's analysis, which views the (remainder of the) TFR as an intensional modifier of the pivot, the situation is not very different. One might attempt, for example, to analogize to data like (26), where there is an intensional modifier (in italics), and where the DP is not construed as necessarily possessing the property denoted by the head noun.

(26) I have just met [{the, a, every} *presumed* murderer].

However, the DP's determiner is outside the scope of the intensional modifier in this case, and the source of quantification is straightforward. As far as I can see, TFRs as analyzed by Kajita face essentially the same challenges as Van Riemsdijk's. The ball is thus in the court of proponents of the direct approach.

5. Some attempts to analytically unify TFRs with other constructions

   In the preceding three sections, I have argued for an analysis of TFRs that largely unifies them with FRs (modulo the absence of an inherent definiteness specification), not in order to capture a superficial similarity, but because, as I hope to have shown, this tack yields an optimal account of the syntax and semantics of TFRs, and also sheds light on a number of

properties that constitute prima facie conceptual puzzles. This proposal does not rule out a (partial) analytical unification of TFRs with other constructions, but does not necessarily imply one, either. Since two earlier writers have proposed extending their analytical machinery beyond TFRs, an evaluation of their proposals seems appropriate.

5.1. (Non)local application of head-changing re-analysis and Grafting

As noted in section 1, Kajita proposed to resort to a 'head-changing' analysis not only for TFRs, but also for expressions like *a couple of (weeks)* and *close to (trivial)* (see (3) and the comments thereon), and Van Riemsdijk also proposed to extend Grafting to such constructions. This extension is, however, not without problems, as will be seen forthwith.

First, the construction in (3a,c) arguably contrasts with TFRs in that its presence/absence in specific languages does not seem to be predictable. An illustration of the highly language-specific status of this construction is illustrated in (27).

(27) a. These people are [far from innocent].   ← **English**
    b. Deze mensen zijn [verre van onschuldig].   ← **Dutch**
    c. *Diese Leute sind [weit (entfernt) von unschuldig].   ← **German**
    d. *Ces gens sont [loin d'innocents].   ← **French**
    e. *Indivizii ăştia sunt [departe de nevinovați].   ← **Romanian**
    f. *Ha-anashim ha-ele [rexokim mi xafim mi-pesha].   ← **Hebrew**

The intended import of the ungrammatical sub-cases of (27) can, however, be expressed by slightly more complex expressions, which include a non-finite form of the copula, as illustrated in (28).

(28) a. These people are [far from *being* innocent].   ← **English**
    b. Deze mensen zijn [verre van (om) onschuldig *te zijn*].   ← **Dutch**
    c. Diese Leute sind [weit davon entfernt, unschuldig *zu sein*]. ← **German**
    d. Ces gens sont [loin d'*être* innocents].   ← **French**
    e. Indivizii ăştia sunt [departe de *a fi* nevinovați].   ← **Romanian**
    d. Ha-anashim ha-ele [rexokim mi *lihyot* hafim mi pesha]. ← **Hebrew**

This brings us to the second problem: the more complex expressions, which are fine in predicative position, are deviant in pre-nominal attributive position, as revealed by the contrast between (28) and (29).

(29) a. This is a [far from (*being) interesting] proposal.   ← **English**
    a. Voici une [(*loin d'être) intéressante] proposition.   ← **French**
    b. Iată o (*departe de a fi) interesantă propunere.   ← **Romanian**

This contrast strongly suggests that the Head Final Filter is violated in (29), and thus that re-analysis/Grafting is inapplicable in (28).

This raises an immediate problem for the proposal to analytically unify this construction with TFRs by means of re-analysis/Grafting. In TFRs, the positions of the pivot before and after the application of re-analysis/Grafting are typically separated by an arbitrarily large number of unpaired phasal boundaries (Chomsky 2001); this is illustrated most strikingly by (6), where the initial position of the pivot is contained within two clauses, and thus within four phases that do not contain its derived position (two VPs and two CPs). Recognizing this state of affairs, Van Riemsdijk (2006, section 4.3) proposed to reconcile his Grafting approach with Phase Theory by assuming that Grafting may operate *before completion of the phase under construction,* thereby allowing 'Grafting chains' across an unbounded expanse of the ultimately constructed graft tree. However, data like (29) point in exactly the opposite direction, that is to say, they point to the conclusion that Grafting

should only be allowed to operate phase-internally, since even one unpaired phasal boundary (the one created by the introduction of the copula, which heads a VP) seems to block this operation. We thus have a conflicting situation: Grafting needs to operate 'locally' in the construction in (3a,c), but not in TFRs.

I conclude that the proposal to analytically unify the *close to/far from* construction with TFRs by means of re-analysis or Grafting faces a serious challenge, without any obvious empirical advantages. If my argumentation against the direct approach to TFRs is viewed as successful, it may be concluded that the mechanisms at issue should at best be retained for constructions where they apply locally, e.g., for data like (3a,c).

I myself have nothing of interest to propose about the syntax of such constructions, but wish to note – for the sake of completeness – that the unavailability of a re-analysis/Grafting analysis of data like (28) does not prevent an adequate semantic interpretation for them. Such data may be interpreted along the lines of expressions like *far from Paris*, except that *far* expresses a relation between two points on an abstract scale of innocence/guilt, rather than between two spatial locations.

5.1. TFRs and Horn Amalgams

Van Riemsdijk (2006, section 6) emphatically argues for an analytical unification *by means of Grafting* of TFRs with 'Horn Amalgams' (HAs) (Lakoff 1974), which are illustrated in (30).

> (30) 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.

This proposal is based on two claims: (A) HAs exhibit transparency effects of the kind found in TFRs, and (B) HAs exhibit a pivot in post-copular position (in italics in (30)), as well as the hedging force of TFRs.

I believe that (A) is basically correct, except that some of the shared 'transparency' effects are in effect opacity effects, but that (B) is totally wrong, because HAs *have no pivots of any kind*; that is to say, I maintain that the strings flanked by dashes in (30) are not complex XPs, but simply (parenthetical) independent sentences. I take up these two points in reverse order.

Consider the data in (31), where HAs occur in utterance-initial position, and which contrast sharply in acceptability with (32), where the HA is preceded by some linguistic context. Importantly, the deviance of data like (31) is persistent and unaffected by the recognition of the speaker's intentions, and thus cannot be dismissed as a mere garden-path effect (as suggested in Van Riemsdijk 2006, footnote 27). If this were the case, we would expect comparably persistent deviance in data with utterance-initial Andrews Amalgams (Lakoff 1974), and this expectation is not fulfilled, as can be appreciated in connection with (33). While (33a) may give rise to an unintended parse as (33b), this effect is not persistent.

> (31) a. *I think it's Chicago – is a large city.
>   b. *Is it Chicago? – is a large city.
>   b. *It is Chicago, isn't it? – has a most important university.
> (32) 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?
> (33) a. [I don't need to tell you *what*] is still lying on my desk.
>   b. I don't need to tell you [what is still lying on my desk].

These facts point to the conclusion, also supported by intuition, that data like (29) and (32) exhibit an *incomplete* matrix, due to the fact that the speaker has refrained from generating

a constituent, either because (s)he was unsure of what to say or because (s)he was reluctant to utter it, and has produced a parenthetical hedge instead. The persistent deviance of (31) is due, I suggest, to the fact that it is impossible to detect the site of an envisaged, but omitted constituent, unless there is some preceding overt string within the utterance consisting of the parenthetical and its matrix. For this reason, (31a-c) can only be construed as sequences of two sentences. Note that in English, the second sentence happens to be ungrammatical due to the fact that English disallows null subjects in finite sentences, but even in a language that allows such subjects, e.g., Romanian, the null subject of the second sentence can only be understood to occur *after* the first independent sentence (and construed as anaphoric to *Chicago*), and not *before* it, as required for an HA construal. To avoid any possible confusion, I emphasize that the issue is not that *Chicago* in e.g., (30a,b) is not (also) interpreted as an element of the matrix (if it were, it would be incorrectly predicted that the speaker initially commits himself/herself to Chicago being the city at issue, and subsequently expresses doubts about what (s)he has just said), but rather that the HA is not a complex XP of any kind, but simply a parenthetical independent sentence.

Concerning (A), I believe these facts are interesting, but largely attributable to the fact that HAs include an equational construction whose subject is under-specified or elliptical in ways that make it construable as 'anaphoric' to what the speaker intended to utter and refrained from uttering. I briefly review the principal shared transparency/opacity effects.

Consider the following data (from Van Riemsdijk 2006, sections 5 and 6).

(34) a. *She* was what can only be interpreted as [proud of *herself*].　　 ← **TFR**
　　　b. *She* was, I think you might call it [proud of *herself*].　　 ← **HA**
(35) a. Nick has *made* what one may call [significant *headway*].　　 ← **TFR**
　　　b. They didn't *make* a lot of, I think the correct term is [*headway*].　　 ← **HA**

In (34) and (35), we have, respectively, an antecedent-anaphor and an idiomatic dependency between the elements in italics. Van Riemsdijk's view that the bracketed constituents need to be grafted onto the matrix presumably rests on the assumption that these dependencies require representations in which the antecedent c-commands the anaphor and the idiom chunks form a continuous constituent. However, this assumption is too strong, as revealed by (36).

(36) a. What *she* unquestionably is __ is [proud of *herself*].
　　　b. What they certainly didn't *make* is __ [significant *headway*].

In (36), the dependencies at issue are found in equational pseudo-clefts, without c-command or continuity. Crucially, grafting the bracketed constituents from the position of the gap is not an option in this case, because the gap is 'pre-empted' by *what*. The inescapable conclusion (which Van Riemsdijk 2000, section 2.1, comes close to reaching with respect to idioms) is that such dependencies can also be licensed via equation with a suitable under-specified or elliptical element. In particular, we may assume that *it* in (34b) stands for *what she is*, and *the correct term* in (35b), for *the correct term for referring to what they didn't make*).

Turning now to shared opacity effects, the deviance of the full version of (7b) (reproduced below for convenience) is paralleled by that of (37) (from Van Riemsdijk 2006, section 6).

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

Van Riemsdijk characterizes the data in (37) as acceptable, but the informants I consulted found them worse, if anything, than the full version of (7b). I find this unsurprising, since extraction out of parentheticals is in general notoriously difficult.

Finally, consider the data in (39), which are essentially parallel to those in (12) (reproduced with minor modifications in (38)).

(38) a. *Sie spricht mit^{DAT} [was ich { ein-en, *einem} totalen Idioten nennen wuerde].*
    she speaks with what I a-ACC a-DAT total idiot call would
    'She is speaking with what I would call a total idiot.'
  b.*Sie hat [was ich einen totalen Idioten nennen wuerde] soeben widersprochen^{DAT}.*
    she has what I a-ACC total idiot call would just contradicted
    'She has just contradicted what I would call a total idiot.'

(39) a. *Er wohnt in^{DAT} – naja, man koennte es {einen, *einem} Hühnerstall nennen^{ACC}.*
    he lives in   well one may   it a-ACC a-DAT chicken-coop call
    'He lives in, well, one may call that a chicken-coop.'
  b. *Er hat sich – ich glaube das nennt^{ACC} man {?*einen, *einem} Wahrsager – anvertraut^{DAT}*
    he has REFL I think this calls   one   a-ACC a-DAT soothsayer entrusted
    'He entrusted himself *(to), I believe one calls that a soothsayer.'

The version of (39a) with Accusative is fine, just like the corresponding version of (38), because the local Case requirements of the post-copular phrase are satisfied, and the requirements of the matrix preposition are irrelevant; the version with Dative is, as expected, atrocious, due to a violation of local Case requirements. The version of (39b) with Accusative seems to be less crashingly ungrammatical than the one with Dative, but it is still degraded, for a reason already pointed out in section 3: the Dative requirements of verbs, in contrast to those of prepositions, need to be morphologically realized.

6. Attributive adjectives in 'predicative' positions

In addition to the shared transparency effects that were discussed in the preceding section, Van Riemsdijk notes that data like (20) (reproduced below for convenience) also have HA counterparts. Before introducing and discussing an actual example, however, it is of interest to note that data like (20) exhibit a prima facie puzzle for both Van Riemsdijk's analysis and mine: under 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) disallow inflected adjectives in this position.

(20) *Bill ontdekte   een [$_{AP}$ wat ik zou noemen **eenvoudig-*(e)**] oplossing*
    Bill discovered a   what I would call   simple   solution
    'A what I would call simple solution'

Van Riemsdijk proposes to circumvent this problem by assuming 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. However, the problem resurfaces elsewhere, and – importantly – in situations where it cannot be handled in the way proposed by Van Riemsdijk for (20). Thus, it is well-known that adjectives like *alleged, presumed, former, pseudo,* etc., may not be used predicatively (see (40)), but such adjectives can nonetheless function as pivots of TFRs, as shown in (41).

(40) a. Bill is a {false, pseudo-} prophet.
    b.*This prophet is {false, pseudo}.
(41) He is a [dubious and [what most people might 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 by (40b) seems to have been inferred on the basis of *strictly predicative* constructions, and it was proposed, relying on data like (42), 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 respect to strictly predicative constructions, and that inflected adjectives may occur in certain equational contexts, as illustrated with German data in (43).

(42) 'Alleged' is 'presumed'; 'pseudo' is 'false'; 'former' is 'earlier.'
(43) 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 (42)-(43) as supporting evidence is that the equated adjectives are used meta-linguistically, something that does not seem to be the case in data like (20) or (41). It is possible, however, that the necessarily meta-linguistic status of the equated adjectives in (42)-(43) 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, of all things, precisely by HAs, which exhibit equational constructions analogous to those found in TFRs, except that the post-copular phrase cannot be a pivot (see section 5.1), and is thus necessarily a member of the HA only. With this in mind, consider (44)-(45).

(44) *Bill ontdekte een, ik denk dat je het zou mogen noemen **eenvoudig-*(e)**, oplossing.*
    Bill discovered a I think that you it would may call   simple.Agr   solution
    'Bill discovered a – I think you may call that simple – solution.'
(45) The police have named Bill as the only – I think it's still **presumed** (at the moment) –
    murderer.

The fact that these data are acceptable confirms the correctness of the hypothesis that the ban on Dutch/German inflected adjectives and on attributive adjectives in post-copular position does not extend to equational constructions. Note also that the acceptability of the full version of (45) shows that there is no violation of the Head Final Filter, and strengthens the thesis that such post-copular elements are not pivots, and play no role in the matrix.

7. Summary and conclusion

In this paper, I have re-examined the analysis of TFRs proposed in Grosu (2003), strengthening the empirical argumentation for its basic features, bringing its conceptual merits into bolder relief, and introducing a small, but non-trivial refinement, which permits a sharpening of the semantic analysis. The emerging view of TFRs is that they are FRs unspecified for definiteness, but possessing the gross configurational properties of FRs (in keeping with the thesis defended in Grosu 2003).

I have also compared my analysis with other analyses that assign to the post-copular phrase the status of a(n external) phrasal head, and have argued that it allows a superior account of the syntax and semantics of TFRs, as well as a conceptually satisfactory account of properties that are not obviously explainable under direct approaches.

Finally, I considered some earlier attempts to analytically unify TFRs with intensional modifiers of adjectives like *far from* and with Horn Amalgams, and have argued that unification with the former is unpromising, and that unification with the latter should go no further than the recognition of an equational structure within both.

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