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Raising cross–linguistic dust:
What can contrastive linguistics do for typology?

The paper is concerned with the relationship between typology and contrastive linguistics. Some less obvious benefits that this close encounter may have for typology are demonstrated by taking a closer look at so–called raising constructions. The usefulness of contrastive methodology in the verification or falsification of putative language universals and parameter–setting is exemplified on an earlier typological attempt by Eckman (1977) to generalize raising facts by means of an implicational scale. It is argued that the scale is untenable the way it was originally formulated. It has also been shown that a corpus–based bidirectional approach may make the picture that typology presents less neat and orderly but more realistic. Some issues bound to be uncovered by a contrastive approach, such as the importance of finiteness–non–finitness cline and productivity of syntactic constructions, together with attendant morphological and semantic factors such as morphological coding system, word order, predicate–argument structure, etc., are claimed to be essential ingredients of an alternative way of looking at the cross–linguistic differences and similarities in raising potential.

Recent years have seen a cross–fertilization of contrastive linguistics and typology. It is obvious how contrastive studies profited from this trend since they were some time ago, on a world–wide scale, on the point of obliteration and have gladly received the kiss of life from typology. The present article sets out to demonstrate some of the less obvious benefits that this close encounter has had for typology by taking a closer look at so–called raising constructions.

At various stages of the development of generative grammar several NP–raising transformations have been postulated. Their effect was some sort of movement or raising of an NP out of the lower, embedded, clause into the higher, matrix, clause. This process may but need not be accompanied by a change of the grammatical relation that the raised expression bears: the subject of the embedded clause can be raised into the subject or object position in the matrix clause, while the object of the embedded clause can be promoted

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into the subject of the matrix clause, depending on the configuration of the embedded clause and, crucially, on the matrix predicate that triggers raising:

(1)   a. It seems that John is not fit for this position.

     b. John does not seem (to be) fit for the position.

(2)   a. I believe that Bill hit Jack.

     b. I believe Bill to have hit Jack.

(3)   a. My wife tells me that it is more difficult than usual to live with me.

     b. My wife tells me that I am more difficult than usual to live with.

The three raising rules illustrated in the above examples are commonly refered to as subject–to–subject raising (henceforth: SSR) (1), subject–to–object raising (henceforth: SOR) (2), and object–to–subject raising (henceforth: OSR) or *tough*–movement (3). Scores of lengthy articles and a few books have been written in an attempt to account for the derivation of these structures, to challenge or defend certain approaches. The present paper is by no means the proper place to attempt a full historical perspective. Let us just note that we shall not be concerned with the issue whether SSR and OSR should be regarded as a single phenomenon or not, or whether there is anything like the three raising rules. We shall rather assume, without committing ourselves to any of the proposed analyses, that there may be certain semantic and structural affinities between a. and b. sentences in (1–3) respectively, as well as between the three types. The term raising will be used i. as a convenient metaphor to refer to this affinity. ii. to refer to the constructions of the types illustrated in (1–3) b. The main concern of the paper will be the propensity for such semantic and structural parallelism in a cross–linguistic perspective.

The emerging typological–contrastive approach incorporating many useful insights gained by generative linguists, as demonstrated in a number of studies by Hawkins (1986) and Comrie (1986), has a number of advantages. It enables us to relate a number of logically independent similarities and differences to a more general framework unifying the observed facts. Contrasts, i. e. both similarities and differences, are interpreted holistically in two ways. Firstly, contrastive facts observed within an individual language may be related to other facts in that same language, so as to show how various subcomponents interact in shaping the system. Secondly, contrastive facts can be related to a number of facts from the other language(s). Comparison can thus proceed in any direction we find rewarding, and in the end present its results from a bird's eye point of view, enabling us to see the general pattern of the contrastive wood, while still paying due attention to individual contrastive trees. In other words, typology may make the results of contrastive studies more orderly and neat.

Let us now turn to the advantages that this convergence may have for typological studies. Contrastive linguistics is typically concerned with a detailed comparison of two languages. Language typology, on the other hand, devotes itself to an investigation of a broader range of facts from a number of languages, and normally cannot go into details. What is more, there is often a tendency to gloss over some disruptive data in the search for universal or near–universal regularities and implications. Contrastive approach can, as most traditional contrastive analysts were well aware of, in many cases uncover some interesting points that have gone unnoticed in monolingual descriptions that will serve as input for typological studies. The implementation of contrastive methodology may also help in the verification or falsification of putative language universals and parameter–setting. It is, as Comrie (1986: 1155ff) points out, possible to envisage a compromise approach, combining the strength of both approaches, i. e. concentrating on fewer languages and providing an in–depth study of a given phenomenon while retaining the typological methodology and pursuing more general objectives. In other words, contrastive linguistics may make the picture that typology is supposed to deliver less orderly but more realistic. In the remaining part of this paper we shall try to substantiate this claim by taking a closer look at so–called raising constructions.

A glaring example of typological fallacy — and our point of departure in this part of the paper — is an earlier attempt by Eckman (1977) to systematize and explain typological facts about raising in eleven languages, some of which are typologically and genetically very different (Armenian, Egyptian Arabic, Lebanese Arabic, Hebrew, Turkish, Hungarian, Modern Greek, Polish, English, French, and German). All these languages have impersonal constructions roughly equivalent to English sentences (1–3) a., and at least one type of raising, as is borne out by a selection of Eckman's examples (German: (4–6), Hungarian (7–9), Turkish (10–12)) repeated below in an adapted version:

    (4)   a. Johann glaubt,   daß er   reich ist.
             John believes   that he   rich is
             'John believes that he is rich'

            b. Johann glaubt   sich   reich (zu sein).
             John   believes   himself–ACC rich   to be
             'John believes himself to be rich'

    (5)   a. Es scheint   mir,   daß Sie reich sind.
             it seems   me–DAT that you rich are
             'It seems to me that you are rich'

            b. Sie scheinen mir   reich zu sein.
             you seem   me–DAT rich to be
             'You seem to me to be rich'

(6)   a. Es ist leicht, ihn   zu befriedigen.
         it is easy him–ACC to please
         'It is easy to please him'

       b. Er   ist   leicht   zu befriedigen.
         he–NOM is   easy   to please
         'He is easy to please'

(7)   a. János azt   hiszi,   hogy ő   gazdag.
         János that–ACC   believes   that   he–NOM rich
         'János thinks that he is rich'

       b. János gazdagnak hiszi   magát.
         János rich–DAT   believes self–ACC
         'János thinks himself to be rich'

(8)   a. Úgy látszik, hogy János   szereti Máriát.
         so   seems that János   likes   Máriá–ACC
         'It seems that János likes Mária'

       b. János szeretni   látszik Máriát.
         János like–INF   seems Máriá–ACC
         'János seems to like Mária'

(9)   a. Máriának   könnyű téged   szeretni.
         Mária–DAT easy   you–ACC like–INF
         'It is easy for Mária to like you'

       b. *Te   könnyű vagy Márianak   szeretni.
         you–NOM easy   are Mária–DAT like–INF
         'You are easy for Mária to like'

(10) a. John inanir   ki   kendisi zengin dir.
         John believes   that he   rich   is
         'John believes that he is rich'

       b. John kendinin zengin olduguna inanir.
         John himself   rich   to–be   believes
         'John believes himself to be rich'

(11) a. Emin dir ki   sen kazanacaksin
         certain is   that you will–win
         'It is certain that you will win'

       b. *Kazanmak eminsin.
         win–INF   certain–you–are
         'You are certain to win'

(12) a. Seni memnun etmek kolay dir.
         you to   please easy is
         'It is easy to please you'

    b. *Memnun etmeye kolaysin.
       to   please   easy–you–are
       'You are easy to please'

There seems to emerge a pattern from Eckman's data: some languages, notably English, German, and French, exhibit all the three types of raising discussed so far; languages like Hungarian, Modern Greek, or Polish are shown to allow only two types of constructions, whereas Turkish, Egyptian and Lebanese Arabic, Hebrew, and Armenian have only one raising construction. When these facts are summarized as in (13), they clearly fall into three types:

(13)

	SOR	SSR	OSR
Armenian	+	—	—
Egyptian	+	—	—
Lebanese	+	—	—
Hebrew	+	—	—
Turkish	+	—	—
Hungarian	+	+	—
Greek	+	+	—
Polish	+	+	—
English	+	+	+
French	+	+	+
German	+	+	+

A natural consequence of these data is that in a sense SSR should be considered the most basic of these constructions, since many languages that have it actually lack the other two types. A more exciting outcome is the generalization made by Eckman that if a language has SSR, it automatically follows that it must have SOR as well, but it may lack the third type. If, however, OSR is attested in a language, this language must have the other two types as well.

If Eckman's implicational scale can be shown to apply universally, it would be not only extremely useful in the description of particular languages, but also a significant contribution towards formulating principles of Universal Grammar. However, the evidence for this putative implicational scale is far from being water–tight. By stirring up the layer of dust that has settled over Eckman's contribution, we shall be able not only to upset his generalization but also to show the benefits to typology that stem from its being teamed up with contrastive studies.

Typology can, of course, do the job of overturning the generalization for itself just by including some more languages into the sample, and we do not necessarily have to invoke contrastive linguistics here. It is quite easy to find

some languages in which the distribution of the three types of raising constructions runs afoul of Eckman's generalization. We shall therefore first broaden the perspective in this part of the paper and consider some data from three languages not included in Eckman's sample, viz. Croatian, Lango and Irish, and then take a closer look at various types of raising constructions in English, German, Hungarian and Croatian in order to demonstrate how some flaws of typological approach could be mitigated.

At first blush, Croatian does not seem to undermine the implicational scale under discussion. Cf. the following OSR constructions:

(14) a. Knjiga   je   zanimljiva   za čitati.
         book–NOM:FEM AUX:3SG interesting–FEM for read–INF
         'The book is interesting to read'

      b. Kvar   je   lak   za popraviti.
         damage–NOM–MASC   AUX:3SG easy–MASC for repair–INF
         'The damage is easy to repair'

Admittedly, above sentences are rejected by some native speakers and by most traditional grammarians. Since it appears that Croatian has the other two types of raising constructions:

(15) a. Vidjeli   su   ga   ući.
         saw–3PL AUX   him   enter–INF
         'They saw him enter'

      b. Ivan se   čini   tužan/tužnim.
         Ivan REFL seem–3SG   sad–NOM/INST
         'Ivan seems sad'

the implicational scale is in no danger because it predicts that a language that has OSR will have the two constructions in (15). If we exclude examples such as (14), the scale is not affected at all. There are some other grave problems with the assumption that Croatian has all the three or at least the two left-most raising constructions that will become more obvious in a moment when we come to consider the advantages of a detailed contrastive study.

A more decisive piece of evidence against this generalization comes from Lango (an Eastern Sudanic language). It does not permit SSR (Noonan l985: 72). The following is the only way of expressing the meaning conveyed by the English translation:

(16) Ámìttò   nii   'lócà kwál   gwènò
       want–1SG COMP man steal–3SG–SUBJ chicken
       'I want the man to steal the chicken'

'lóca is here obviously subject of the 3rd person sg. subjunctive predicate *kwál*. In other words, there seems to be no SOR in Lango. If Eckman's hypothesis

were correct there would be no other raising constructions in Lango. However, Noonan shows that Lango surprises with OSR:

(17) Twòl   bɨ́r   àcámà.
      snake   good   for–eating
      'Snake is good to eat'

Returning to the prediction of existence or non–existence of certain raising phenomena, we note a small gap in Eckman's data. There is no mention of any object–to–object raising (OOR). The nearest that English approaches this type or raising is found in:

(18) a. I believe that Bill hit John.

      b. I believe John to have been hit by Bill.

But we are actually dealing here with a passive form. In other words, it is the passive subject that appears to be raised. So it is again SSR, otherwise the construction is not grammatical:

(18) c. *I believe John to Bill hit.

      d. *I believe John for Bill to hit.

However, there are languages, more or less exotic, which seem to exhibit constructions which may deserve to be termed OOR. One of them is, according to Noonan (1985: 71), Celtic Irish:

(19) D'eirigh   leis   iad   a   thabhairt   leis
      rose–3SG   with–him   them   COMP   bring–NLZ   with–him
      'He managed to bring them with him'

Noonan argues that *iad*, 'them', has been raised from object position in the embedded clause to object position in the matrix clause, because, among other things, of its position within the sentence: Irish is a strict VSO language and objects follow predicates. However, *iad* precedes not only the verb but the complementizer too. On the other hand it occupies the usual position for objects with regard to the matrix verb *d'eirigh*.

This observation does not by itself damage Eckman's generalization. Admittedly, there arises a question of ordering the structures, but the generalization is safe if we suppose that this construction should come at the very end of the list, after OSR. This would not clash with the fact that English, French, and German do not have this construction, and would be consistent with the fact that languages like Polish, Turkish, etc., do not have it, because they do not have OSR either, provided we can prove that Irish has the other three. We could find in literature data supporting only SOR and SSR in Irish.

However, this neat typology suggested by Eckman seems to be falsified in a more obvious way by one of the languages actually included in his study, viz.

by Hungarian. Kenesei (1980: 184f) argues that there is some sort of OOR in Hungarian on the bases of evidence from verbs such as *akar* 'want', *kíván* 'wish', *fog* 'will', etc. All these verbs can — in the case the subject identity requirement is met — take infinitive complements:

(20) Távozni   akarok.
     leave–INF want–1SG:SUB
     'I want to leave'

According to Károly (1972: 99) there are two types of verb conjugation in Hungarian, their choice being determined by the absence or presence of a definite object. An object counts as definite in Hungarian if it is (a) a proper name; (b) a noun with a definite article; (c) a noun with a personal ending (roughly equivalent to possessive); or (d) a personal pronoun in the third person (*őt* 'him/her', *őket* 'them'). In all these cases the conjugation will be objective, otherwise (in intransitive sentences, or transitive sentences with indefinite objects) it will be subjective. The two types of conjugation are characterized by different sets of endings:

(21)   a. objective   b. subjective

            sg.   pl.   sg.   pl.,

        1   –m   –juk/jük   –k   –unk/ünk
        2   –d   –itek/játok   –sz   –tek/tök/tok
        3   –i/ja   –ik/ják   –Ø   –nek/nak

Cf. examples with *várni* 'wait':

(22) a. Várunk.
        wait–1PL:SUB
        'We wait' (intr.)

     b. Várjuk   őt.
        wait–1PL:OBJ him/her–ACC
        'We wait for   him/her'

Infinitives, unlike finite clauses with *hogy* 'that', count as indefinite objects in Hungarian. Hence the 1st person sg. subjective ending *–ok* on the matrix verb in (20). If the embedded verb is transitive, like *lát* 'see', we note that the matrix verb behaves in a different way, i. e. it does not take subjective but objective endings in sentences where the embedded object is definite. Consider the following set of sentences:

(23) a. Látni   akaro**m**   őt/ **a**   **barátomat**.
        see–INF   want–1SG:OBJ him/ART friend–my–ACC
        'I want   to see him/my friend'

b. *Látni   akaro**k**   őt/ **a**   **barátomat**.
    see–INF want–1SG:SUB him/ART friend–my–ACC
    'I want   to see him/my friend'

c. Látni   akaro**k**   **valakit**/**egy embert**.
    see–INF want–1SG:SUB somebody/a man–ACC
    'I want   to see somebody/a man'

d. *Látni   akaro**m**   **valakit**/ **egy embert**.
    see–INF want–1SG:OBJ somebody/a   man–ACC
    'I want   to see somebody/a man'

This seems to argue in favour of a putative OOR structure in Hungarian, because, as Kenesei (1980: 185) points out, there seems to be no reason why we should suppose that the object–verb agreement in Hungarian should work across the boundaries of the embedded clause. These facts certainly do not fit into Eckman's generalization, because it would predict, if the supposed OOR should be at the right–most end of the list, as suggested by Irish on the one hand and English and German on the other, that Hungarian should have OSR, which is patently untrue, as shown by (9) b.

Let us now see what kind of objections contrastive studies can help level against the putative implicational scale under discussion. In other words we might ask ourselves what kind of data would be unearthed if for example English, German, Croatian and Hungarian were compared with each other with particular respect to raising constructions.

We shall pay special attention here to two features of contrastive studies that have often been regarded as their most serious drawbacks. First, although some contrastive projects were inherently adirectional in design, classical contrastive studies were largely unidirectional, and some were in the course of research enriched and made bidirectional, e. g. the project directored by Filipović (1975). Secondly, as Filipović (1984) points out, all contrastive projects have been based on some sort of corpora. Being based on a corpus, contrastive studies must take care not only of the type level, i. e. of constructions and rules, but also of the token level, i. e. of their concrete realizations, the number of their triggers and relative frequency as well.

The two features of contrastive studies mentioned above would at one stage require translation and back–translation of at least some representative sample of the corpus, and a detailed check of the structures involved by plotting them against each other lexeme by lexeme and morpheme by morpheme. This wealth of data would at once make it clear that the Irish structures we have used as counterevidence are formally different in that they are not infinitival complements, unlike their English counterparts.

The other grave deficit in Eckman's presentation of data that would become apparent under a contrastive approach is also linked with the two features of contrastive studies mentioned above. Taking into consideration not only the type level, i. e. constructions and rules, but also the token level, i. e. their concrete realizations, the number of their triggers and relative frequency in the

corpus, as well as the lack of constructional overlap with some portions of his corpus, a contrastive researcher could find that one language may lack the requisite construction in certain cases. He thus becomes acutely aware of the differences in the productivity of raising phenomena in one or more of the languages involved.

We now turn to consider the non–finite clause status of the complement that is a prototypical ingredient of raising structures. To begin with, we note that Irish OOR structures do not involve infinitives but verbal nouns, i. e. nominalizations. Further, if we accept Croatian OSR structures, which are clearly infinitival, we have a slight problem because SSR in Croatian is found only with small–clause–like constructions in which we cannot have overt infinitives of the copula *biti*:

(15) b. Ivan se   čini   tužan/tužnim.
      Ivan REFL seem–3SG sad–NOM/INST
      'Ivan seems sad'

   c. *Ivan se   čini   biti   tužan/tužnim.
      Ivan REFL seem–3SG be–INF sad–NOM/INST
      'Ivan seems to be sad'

Needless to say, there is a sizeable number of Croatian equivalents of English SSR triggering predicates that can appear only in impersonal constructions with finite *da*–complements. A similar observation could be made for Croatian SOR constructions: in additon to perception verbs *vidjeti* 'see' and *čuti* 'hear', there are only triggers that take small clause–like constructions without infinitives in copula support.

The situation found in Hungarian closely resembles what we have observed in Croatian: Eckman's example cited here as (7) b. contains a non–clausal complement *gazdagnak* (rich–DAT) which cannot be expanded by a copula verb under any circumstances. Verbal predicates may appear in the complement in the infinitive but adjectival and nominal ones do not allow the infinitive of the copula *lenni*. Cf. the following examples:

(24) a. Miközben   Clinton 'puhulni', a hivatalban lévő
        while   Clinton soften–INF DEF office–in being

        amerikai   kormány   'keményedni' látszik.
        American government harden–INF   show–3SG

        'While Clinton appears to be softening, the American government in office appears to be hardening'

   b. Miközben Clinton 'puhának',   a   hivatalban lévő
      while   Clinton soften–DAT DEF office–in   being

      amerikai   kormány   'keménynek' látszik.
      American government harden–DAT show–3SG

> 'While Clinton appears (to be) soft, the American
> government in office appears (to be) hard'

Again, there are some Hungarian equivalents of English SSR triggering predicates that can appear only in impersonal constructions with finite *hogy*–complements.

In German, predicates like *sich erweisen* 'turn out' and *sich zeigen* 'prove, turn out' appear only in impersonal structures followed by finite *daß*–complements and in personal constructions taking small clause–like complements that denote states and cannot be expanded by *sein*–infinitives. There are again some matrix predicates appearing only in impersonal constructions with finite complements. Moreover, the 'raised' element need not become the subject with *scheinen* 'seem', the only trigger that takes infinitival complements:

(25) Ihm   scheint   geholfen   zu werden.
     him:DAT seem–3SG help–PART   to become
     'He seems to have been helped'

As for German SOR, Reis (1973) and Harbert (1977) argued that the best candidate for a trigger, *lassen* 'let', is rather a case of clause union than raising in which a constituent shows characteristics of belonging to both clauses. Literal German equivalents of English *believe*–type sentences are violently ungrammatical:

(26) *Ich glaube Johann   krank zu sein.
      I   believe Johann:ACC   ill   to be
     'I believe Johann to be ill'

(27) *Ich glaube   den Bauern, die   Kuh
      I   believe ART:ACC peasant–ACC ART:ACC cow

     geschlachtet zu haben.
     slaughter–PART to have
     'I believe the peasant to have slaughtered the cow'

Verbal predicates in the complement are ruled out and the only chance for German to have an infinitive is with stative adjectival and nominal predicates if the matrix predicate is reflexive. The occurence of examples like:

(28) Ich glaube ihn   tot.
     I   believe him–ACC   dead
     'I believe him (to be) dead'

(29) Man vermutet ihn   in England.
     one supposes him–ACC   in England
     'One supposes him to be in England'

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(30) Eine   solche   Behauptung empfinde ich als Lüge.
     INDEF–ACC such–ACC claim   feel   I   as lie
     'I consider such a claim a lie'

(31) Ich halte ihn   für dumm.
     I   take him–ACC for stupid
     'I consider him stupid'

as equivalents of English raising structures is, however, severely restricted. They are possible only with equivalents of only a fraction of English raising verbs. Secondly they are possible only with stative embedded complements whose finite pendants contain the copula *sein*. These object complements come in several forms, as adjective phrases, noun phrases, prepositional phrases, *für* + adjective/noun phrases, and *als* + noun/adjective phrases. German is quite similar to Croatian and Hungarian because the only matrix predicates taking infinitives in complements are verbs of perception.

It appears now that providing certain slots in the scale with pluses or minuses the way Eckman does without considering the morphological status of complements is an oversimplification. We have established some interesting points of contrast between English and German on the one hand and Croatian and Hungarian on the other since the former pair has all the three raising constructions with infinitival complements, the latter lacks at least one. Further, German, Croatian and Hungarian differ from English, and from each other, with respect to adjectival and nominal predicates in the complement appearing with infinitives of copulas. This distribution of finite and various types of non–finite complements is a fact that a typology of raising constructions should take into consideration as well. On the one hand, there is a language like English that seems to avail itself evenly of all the possibilities: there are impersonal and personal constructions with finite complements, both infinitives and small clause–like adjectival and nominal predicates. In contrast, Croatian and Hungarian seem to be fond of the extremes, either finite constructions, particularly impersonal ones, or very non–finite ones, i. e. small clauses, but not of infinitives as prototypical clausal verbal complements, while German is slightly closer to English in this respect. This characteristic predilection for extreme types of complementation has also been observed with control structures (cf. Brdar 1994a), and may deserve to be considered as an additional typological parameter.

Productivity of certain constructions should also be taken into account when making generalizations of this kind, not to prove or disprove that a language has a certain construction at all, but just in order to refine our analysis, to show that there are gradient differences between types of constructions we are dealing with. To begin with a language that lies outside the real focus of our discussion, there is admittedly only one trigger of OSR in Lango, the language that we have shown to run against Eckman's prediction. We have already shown some data indicating that the same objection could be brought

against much of Eckman's data and that some raising phenomena may be extremely restricted.

One of the problems with Hungarian SOR and SSR is that the class of predicates triggering both constructions is rather small. As for the first construction, in addition to the triggers quoted in Eckman there is a small class of verbs of perception taking the so–called accusative–with–the–infinitive constructions (*hall* 'hear', *lát* 'see'). The second construction type exhibiting an infinitive in the complement is triggered by two verbs only: *látszik* 'seem' and *tűnik* 'appear'. All other Hungarian equivalents of both types of English raising structures with infinitives either exhibit non–clausal complements or non–raising structures.

One could expect that if the productivity of raising constructions does not gradually decrease as we move from OSR to SSR and finally to SOR (if this is their correct order), then at least that the constructions on the right side of the scale should not be more productive than those on the left side.

As for Croatian SOR constructions: in addition to perception verbs *vidjeti* 'see' and *čuti* 'hear', there are only triggers that take small clause–like constructions without infinitives in copula support. Croatian SSR constructions conform to the above expectations and do not allow any non–finite copula support. It is then a bit surprising that OSR should be slightly more productive in the prototypical domain, always coming in the canonical infinitive form.

Finally, if we assume that there is an OSR rule in German — although it is not clear yet whether the German constructions in (6) are on a par with English *tough*–movement constructions (see Comrie and Matthews 1990, Brdar and Brdar–Szabó 1992, and Demske–Neumann 1994) — we should find more convincing evidence for SOR than demonstrated above.

We have pointed out that one of the advantages of contrastive studies based on a corpus is that they may take care not only of the type level, i. e. of constructions and rules, but also of the token level, i. e. of their concrete realizations, the number of their triggers and relative frequency as well. If we take the raising constructions to be phenomena at the type level, we have their triggers as the token level. But since the corpus ideally contains a number of examples with one and the same token, it is possible to view all the examples with the same trigger (or with semantically and syntactically similar triggers) as an intermediate level of mini–type, and the concrete sentences in the corpus that instantiate them as being their tokens. Semantic and syntactic variation in these concrete examples, due to a number of factors such as interaction with other syntactic constructions and lexical material, etc., may help refine the productivity picture even further.

Zeroing in on SOR constructions in English and German, we shall now proceed to demonstrate that this aspect of contrastive methodology may uncover some surprising restrictions on productivity in one language and some unexpected productivity oases in the other, making obvious some crucial parallels.

Postal (1974: 305ff) shows that some subject–to–object raising triggers in English are subject to Derived Object Constraint (DOC) which is used as a

cover term for a cluster of some highly undesirable traits for raising triggers. With trigger predicates like:

> (32) acknowledge, admit, affirm, allege, assume, certify, concede, decree, deduce, demonstrate, determine, discern, disclose, discover, establish, feel, gather, grant, guarantee, guess, intuit, know, note, posit, reveal, state, surmise, think, understand, verify;

certain types of raisee NPs resist placement in the post–matrix–verbal position. Simultaneous application of raising and such rules as topicalization, *wh*–Q–movement, *wh*–Rel–movement, complex NP shift, all of which move raisees out of post–matrix–verb position and virtually destroy their derived object status and alleviate potential clashes with selectional restrictions as well as eliminate any possibility for garden–paths, are grammatical with all kinds of derived objects. Predicates like:

> (33) ascertain, declare, figure, hold, imagine, judge, presume, proclaim, reckon, recognize, remember, report, rule, specify, stipulate, suppose, take;

share some of these idiosyncracies of a poorly understood sort with predicates in (32). Many of these verbs do not permit the raisee to be animate, although in some cases such potentially ill–formed sentences may be rescued by removing the offending derived object out of the post–matrix–verbal position. Cf. some examples for the two classes of predicates:

> (34) a. He alleged that Melvin was a pimp.
>
> b. Melvin was alleged to be a pimp.
>
> c. *He alleged Melvin to be pimp.
>
> d. Melvin, he alleged to be a pimp.
>
> e. Who did they allege to be a pimp?
>
> f. the Parisian who they alleged to be a pimp
>
> g. They alleged to be pimps — all of the Parisians who the CIA had hired in Nice.

> (35) a. He holds certain principles to be absolute.
>
> b. *He holds gorillas to be telepathic.
>
> c. Gorillas, he holds to be telepathic.

> (36) a. I presumed that to be the case.
>
> b. *I presumed Tom to be here.
>
> c. Tom, I presumed to be there.

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There have been several attempts to account for these odd facts. Most of them account only for preferences with a fraction of data and still leave the question why such personal, active constructions are possible with *believe*. A possible explanation for such surprisingly severe restrictions on the productivity of infinitival complements may have to be partly formulated in terms of mutual reinforcing of their relative infrequency of occurence with non–finite sentential complements and their inherent semantics preventing them from taking animate objects. They are, on the one hand, considerably less frequent than *believe*, *want* or *expect*; on the other hand, their selectional restrictions, due among other things to their distribution and frequency, are still relatively tight and they are compatible only with a fraction of raisees. The selectional restrictions get relaxed and the degree of grammaticality increases when the verb and the 'raisee' are not adjacent so that there are no longer garden–paths or flagrant violations of semantic compatibility.

The closest German can come to prototypical raising structure, including *zu* in front of infinitives, with *glauben* 'believe', *erwarten* 'expect', *fürchten* 'fear, be afraid for', *wissen* 'know', *meinen* 'think' and similar verbs as matrix predicates is in sentences in which the putative 'raisee' is separated from the matrix verb, e. g. in questions, or in various types of dependent clauses (relatives, temporal etc.), as shown by the following set of examples discussed in Mair (1989–90). Several of these are judged by native speakers to be ungrammatical or on the verge of acceptability:

(37) ^{??} Hans, den   ich klug   zu sein glaubte.
        Hans REL–ACC I   clever to be   believed
        'Hans, whom I believed to be clever'

(38) ^{??} Wen   glaube ich klug   zu sein?
        Whom   believe I   clever to be
        'Whom did I believe to be clever?'

(39)   der Mann, den   man das   getan zu   haben glaubte
        DEF man REL–ACC one   that made to   have   believed
        'The man whom one believed to have done that'

(40)   ... die   Städte, die   er brennen fürchtete...
         DEF cities   REL–ACC he burn   feared
       'the cities that he feared to be afire'

This minor oasis in which raising structures with *zu*–infinitives enjoy restricted productivity is quite similar to the above phenomenon in English.

We may speculate about the variables that are conducive to the ability of such structures to survive on the verge of ungrammaticality. We may suggest, along with Givón (1990: 777) that one of such factors accountable for 'a language's propensity for raising is lexical structure... where the verb sense that takes a propositional object adjusts its structure to resemble the structure of the verb sense that takes a nominal object' and thus provides an analogical

pathway for raising through interplay of semantics and morphology of the arguments subcategorized by a given matrix predicate. Some German, Croatian and Hungarian equivalents of English SOR predicates seem to be reluctant to allow such adaptation. With a sizable portion predicates in these languages animate NP arguments are not coded in the same way as their propositional arguments. The former arguments are coded datively, the anticipatory or anaphoric elements referring to the latter class appear in the accusative or are preceded by prepositions. Cf. the counterparts of *believe*: G. *glauben*, X *glaubt jemandem* 'someone–DAT' vs. X *glaubt etwas/das/es* 'something/that/ it'; C. *vjerovati*, *vjerovati nekome* 'someone' vs. *vjerovati u nešto/nekoga* 'in someone/something', *to ne vjerujem* 'that–ACC not believe–1SG'; H. *hisz*, X *hisz valakinek* 'someone–DAT' vs. X *hisz valamit* 'something–ACC'.

To sum up, we have shown several pieces of evidence running contrary to Eckman's generalization. It is without doubt an appealing idea to try to group languages according to their raising potential. However, too many problems crop up, not only because of idiosyncracies in certain languages which prevent them from falling neatly into one group or other, but also due to the fact that the nature of these constructions is far from being well understood.

By demonstrating that this putative implicational scale is untenable the way it was originally formulated, we have shown how the implementation of contrastive methodology may also help in the verification or falsification of putative language universals and parameter–setting. We have also shown that a corpus–based bi–directional approach may make the picture that typology presents less neat and orderly but more realistic. By pointing out the importance of finiteness–non–finiteness cline and productivity of syntactic constructions, together with attendant morphological and semantic factors such as morphological coding system, word order, predicate–argument structure, etc., our contrastive approach indicates that an alternative way of looking at the cross–linguistic differences and similarities in raising potential must be based on a whole network of parameters. The construction of such a network would provide a typological continuum with more space and more break off points accomodating more languages, so that English, German and Croatian, or at least the first two, are not forced into the bed of Procrustes designed by Eckman's original three groups of languages.

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Dizanje poredbene lingvističke prašine:
Što može kontrastivna lingvistika donijeti tipologiji?

Prilog na konkretnom primjeru konstrukcija s podizanjem razmatra odnos tipologije i kontrastivne lingvistike. Pokazuje se koliko kontrastivna metodologija može pridonijeti u verifikaciji ili modifikaciji jezičnih univerzalija. Dvosmjerni kontrastivni pristup utemeljen na bogatom korpusu jasno pokazuje da su implikacijske skale poput one kojom Eckman (1977) pokušava univerzalno objasniti distribuciju konstrukcija s podizanjem neodržive te da se moraju obogatiti podacima o stupnju finitnosti odnosno infinitnosti struktura i njihovoj plodnosti unutar pojedinih jezika.