The rise (and possible downfall) of configurationality

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1. Introduction[1]

The ancient Indo-European languages display a wide array of features usually connected with non-configurationality, such as free word order, discontinuous constituents, and frequent use of zero anaphora. While these features have been observed to frequently co-occur in various languages, and while they appear to be associated with a less strict hierarchical structure than that of English, there is no agreement on the nature of non-configurationality (or even on its relevance). However, since it is clear that some languages exhibit such features, while others do not, it is also reasonable to expect that there should be a reason for such a difference.

In this chapter I describe various phenomena connected with increasing configurationality in the Indo-European languages, and attempt a unified explanation for a number of changes that can be connected to each other in this framework. While non-configurationality has been discussed virtually only within formal theoretical frameworks, such as Principles and Parameters or LFG, I will offer a usage based interpretation of the relevant developments, in order to show how and for what reasons languages can change with respect to the features involved.

Research on non-configurationality in the ancient IE languages has mostly focused on discontinuous constituents, while little attention has been paid to null anaphora. I believe, following current research (Baker 2001: 1437), that free occurrence of null anaphora lies at the heart of non-configurationality, and that its appearance draws a line between free constituent order, of the type known from German or Spanish, and "real" non-configurationality. Consequently, after discussing various features of the ancient IE languages which point toward (at least partial) non-

configurationality, I will focus on null direct objects in Latin and the development in Romance.

2. Approaches to non-configurationality

Non-configurationality became a widely discussed issue within the GB framework especially after Ken Hale called attention to a number of features of Warlpiri, which seem to point toward the absence of hierarchical relations among constituents, notably the non-existence of the VP. Non-configurational languages have been assumed to have a "flat" structure, or, as argued by Hale in various publications (e.g. Hale 1983), to have a hierarchical structure at the Lexical Structure only, which does not project on Phrase Structure.

Jelinek (1984) proposed the Pronominal Argument Hypothesis, and argued that all NPs in non-configurational languages are appositional either to pronominal affixes hosted by the verb and functioning as real pronouns, when they exist (as in Warlpiri), or to null pronouns. Thus, hierarchical structure within the VP exists, but it only concerns such overt or null pronominals, and not full NPs, which, being appositional, are ungoverned. This gives the impression of a flat structure.[2]

Baker (2001) further points out that non-configurational languages appear to fall into two groups, the Mohawk, or head-marking type, and the Jiwarli, or dependent-marking type (Warlpiri is an in-between case). In Mohawk, an incorporating language, all arguments are indicated by obligatory pronominal affixes on the verb, NPs are not case marked and are not discontinuous, so null anaphora can be considered such only inasmuch as pronominal affixes are considered agreement morphemes, rather than pronouns. Grammatical relations are thus marked on the verb (i.e. the head), rather than on governed NPs (i.e. the dependents); the order of constituents is free. In Jiwarli, on the other hand, NPs are case marked and the verb lacks agreement morphemes: thus,

grammatical relations are marked on the NPs (i.e. on the dependents). Both the order of constituents and the order of words within constituents are free (that is, constituents can be discontinuous), and null anaphora is extensively used for subjects and objects.

3. Indo-European non-configurationality

The issue of non-configurationality in the ancient IE languages has never received a unified treatment. Devine and Stephens (1999: 143-148), in their study of discontinuous constituents in Ancient Greek, briefly survey some features of non-configurationality, and also attempt an explanation for the co-occurrence of such features. They suggest that the state of affairs displayed by Ancient Greek is indicative of ongoing change from non-configurationality to increasing configurationality, but leave the diachronic development on the background; their discussion of various types of discontinuity could be more insightful if it were accompanied by some statistics regarding the actual frequency of the different patterns described. Hewson, Bubenik (2006) is diachronically oriented but it virtually only deals with increasing grammaticalization of adpositional phrases, even though the authors point out that the creation of adpositional phrases was followed by various other changes that brought about full configurationality. Non-configurationality in Vedic Sanskrit is discussed in Schäufele (1990), whose major concern is to gauge which formal framework can better account for hierarchical structure in Vedic. All these works either do not deal at all with or only mention null anaphoras, a topic which has received attention in the framework of non-configurationality virtually only in research on Old Icelandic, see e.g. Sigurðsson (1993), and Rögnvaldsson (1995). However, even in the case of Old Icelandic, the relevance of null anaphora as an indicator of non-configurationality is often underestimated.[3]

In the following sections I discuss some features of non-configurationality, notably the existence

of discontinuous constituents and the occurrence of null anaphora for arguments other than the subject, in various languages. The ancient IE languages are dependent marking (i.e. the Jiwarli type); except for the subject, the verb does not bear agreement markers for other arguments. Since exhaustive descriptions are available for all languages, I refrain from discussing free word order in the ancient IE languages. It only needs to be remarked that the position of NPs relative to each other is unconstrained; in the case of the finite verb, a number of languages display a tendency toward final position, to a higher (such as Hittite) or lesser (such as Latin) extent, while in other languages, notably Greek, the verb can occur in any position.[4]

3.1. Discontinuous constituents

The fact that attributive adjectives and adnominal genitives need not be adjacent to the head noun in the ancient IE languages is well known, even though the occurrence of discontinuous constituents was clearly not felt as normal by speakers, as shown by the fact that ancient Greek grammarians refer to it with a special name, hyperbaton.

There are different types of discontinuity: parts of a NP or of a PP can be separated by intervening P2 clitics or some other postpositive,[5] or they can be separated by heavier lexical items. In (1) both types of hyperbaton occur:

(1) **toîs** mèn toínun **állois** **hápasin** **anthrṓpois** horô

ART.DAT.PL.M PTC PTC other.DAT.PL.M all.DAT.PL.M man(M).DAT.PL see.PRS.1SG

toîs **krinoménois**

ART.DAT.PL.M charged. PTCP.PRS.DAT.PL.M

"I see that, for all other men under trial, ... (lit.: "all other accused men")" Dem. 21.236 (Ancient Greek).

The fact that a P2 clitic or some other sort of particle is positioned inside a NP only creates weak

discontinuity; it makes the NP in a sense "less discontinuous" than the occurrence of some other type of lexical item, as also shown by data from diachrony discussed below. However, both types of discontinuous constituents occur both in poetry and in prose in several languages, such as in Greek, Sanskrit, and Latin.

3.1.1. Adpositional phrase

A class of words deserves to be paid special attention to: the class of preverbs. Indeed, numerous scholars (e.g. Meillet, Vendryes 1924: 520, Hewson, Bubenik 2006) think that their syntactic development played a major role in bringing about configurationality in the IE languages. The original syntax of preverbs is best preserved in Vedic and Homeric Greek. Preverbs were local adverbs, which could semantically be closer to the verb, to a noun indicating some spatial relation, or stand free. Example (2) contains two occurrences of eis/es 'to, into', the first of which indicates that the particle could already head a prepositional phrase in Homeric Greek, while the second demonstrates its use as a free adverb:

(2) nêa mélainan erússomen **eis** hála dîan, ... **es** d'
ship(F).ACC.SG black.ACC.SG.F drag.SUBJ.AOR.1PL to sea(F).ACC.SG divine.ACC.SG.F to PTC
hekatómbēn theíomen
hecatomb(F).ACC.SG put.SUBJ.AOR.1PL
"Let us now drag a black ship to the shining sea, and place on board a hecatomb." Hom. Il. 1.141-143(Ancient Greek).

In addition, the particles could coalesce with the verb as inseparable preverbs, as they partly already did in Homeric Greek. This state of affairs, which is normal in Classical Greek, can be seen developing in Homer: the second occurrence of es in (2) can be understood as the source for the verb estíthēmi 'embark', as used for example in Herodotus, in occurrences such as:

(3) **esthémenoi** tékna kaì gunaîkas
embark.PTCP.AOR.NOM.PL.M child(N).ACC.PL and wife(F).ACC.PL

"having embarked (their) children and wives" Hdt. 1.164.3 (Ancient Greek).

Often the syntactic status of the particles in Homeric Greek is not as clear as in (2). In occurrences such as (4):

(4) purês **epi**bánt' alegeinês

pyre(F).GEN.SG.F set.upon.PTCP.AOR.ACC.SG.M grievous.GEN.SG.F

"(Menelaos) set upon the grievous pyre" Hom. Il. 4.99 (Ancient Greek),

later grammarians interpreted epibánt(a) as a compound verb form (epí+baínō), this being the only possibility in their variety of Greek; however, given the fact that postposing of such particles is common in Homer, and considering various metrical factors, one could take epí as connected with the noun purês, rather than with the verb. It must be remarked that, since only prepositions remained in later Greek, it seems plausible that postposed particles could not head syntactic phrases in Homer (i.e. that they were not real postpositions, but remained adverbs). Rather, possible pre- or postpositional, as well as preverbal function of the particles emerged[6] from usage in Homeric Greek, and later only some possibilities (preposition and preverb) became grammaticalized in Classical Greek.[7]

Similar occurrences where a particle may be taken as either a preverb or a postposition are known from Vedic:

(5) dāsvā́ṃsam **úpa** gachatam

offer.PTCP.PRS.ACC.M toward go.IMP.PRS.2DU

"approach the one who is offering"RV 1.47.3 (Vedic Sanskrit),

and, according to Delbrück (1893: 654), they served as the source for postpositions in Classical Sanskrit: similar to Homeric Greek, Vedic allowed both pre- and postposing of the particles to nouns, while Classical Sanskrit only allows one of these possibilities (contrary to Greek, it is postposing that prevailed in Sanskrit).

In most other ancient languages, adpositional phrases already seem to exist as configurational

constructions from the time of the earliest sources; in each given language the position of adpositions is fixed and they cannot normally be separated from their complement.[8] One may wonder why adpositions became grammaticalized at such an early time. Apparently, if one follows the development in Greek, this depends on two factors:[9] in the first place, since spatial meaning of cases was generic,[10] it was customary to specify it with an adverb; in addition, meaning extensions once triggered by the context became conventionalized and became part of the meaning of the particles. This happened especially with the development of non-spatial meanings. Thus, the particles started to build semantic constituents with nouns inflected in certain cases. Given their frequent co-occurrence, cases where increasingly felt as associated with certain particles and certain meanings of the particles, and ended up being governed when their contribution to the meaning of the phrase could no longer be associated to the meaning that they could express when occurring alone.

3.1.2. Noun phrase

The following example shows how discontinuous constituents could occur in Latin:

(6) Arma virumque cano, **Troiae** qui primus
arm(N).ACC.PL man(M).ACC.SG+and sing.PRS.1SG Troy(F).GEN REL.NOM.SG.M first.NOM.SG.M
ab oris Italiam, fato profugus,
from shore(N).ABL.PL Italy(F).ACC destiny(N).ABL.SG fugitive.NOM.SG.M
Laviniaque venit **litora**
Lavinian.ACC.PL.N+and come.PRF.3SG strand(N).ACC.PL
"I sing the arms and the man, who, exiled by destiny, first came from the Trojan shores to Italy and to the Lavinian strand." Verg. *Aen.* 1.1-3 (Latin).

(Similar examples from the other ancient IE languages can be found in the literature.)

Example (6), from poetry, contains (i) a discontinuous constituent which contains a genitive modifier (Troiae ... ab oris) separated form the head noun by the subject and a predicative adjective

(qui primus), and (ii) an attributive adjective (Lavinia ... litora) separated from the head noun by the finite verb (venit). Such an example may suggest that anything goes, but the data from Latin prose offer a different picture.

Herman (1985) gives a brief but insightful historical survey of discontinuity within Latin NPs. His data from Cicero show that, in the vast majority of cases, discontinuity is either caused by quasi-clitic items, such as the verb 'be' in (7), postpositive connectives, pronouns, or by items that are themselves syntactically connected with the NP, as in (8):

(7) si tibi hoc sumis, nisi qui patricius

if 2SG.DAT DEM.ACC.SG.N assume.PRS.2SG if.not REL.NOM.SG.M patrician.NOM.SG.M

sit neminem **bono** esse **genere** natum

be.SUBJ.PRS.3SG nobody.ACC.SG good.ABL.SG.N be.INF birth(N).ABL.SG born.PTCP.ACC.SG.M

"if you assume that nobody is from a good family, unless he is a patrician" (Cic. Mur. 15);

(8) **virum bonum** tuaque amicitia

man(M).ACC.SG good.ACC.SG.M POSS.2SG.ABL.SG.F+and friendship(F).ABL.SG

dignum

worthy.ACC.SG.M

"a good man, and (one) worthy of your friendship" Cic. Fam. 13.51 (Latin).

Interestingly, discontinuous constituents in Early Latin display more varied patterns than they do in Cicero, while in Vulgar Latin sources, including the letters of Claudius Terentianus, the Gospels and the Peregrinatio Aegeriae, not only are they infrequent, but the occurring ones contain some postpositive, most often autem 'however' (cf. Herman 1985). Such postpositives are items with a high token frequency, and their occurrence within a NP results in a somewhat formulaic construction. Thus, configurationality within the NP seems to be achieved by the 2nd century CE, or possibly even earlier (see below, sec. 4).

With respect to non-configurationality, the behavior of adjectives is most interesting, since

adjectives in non-configurational languages that allow discontinuous NPs have been shown to displays certain features which can be summarized in their tendency to be 'nouny', rather than 'verby'. According to Baker (2001: 1437) "discontinuous constituents are possible only in languages with no more than a weak N/A contrast". Indeed, IE adjectives can function as arguments with no restrictions, as shown in (9):

(9) tābhiḥ jvalantībhiḥ dīpyamānābhiḥ upauteti rājānam

DEM.INS.PL flaming. PTCP.INS.PL shining.PTCP.INS.PL approach.PRS.3SG king(M).ACC.SG

"With the flaming, shining ones (sc. weapons) he approaches the king." AB 8.24.6 (Vedic Sanskrit).

(Another occurrence is the participle dāsvā́ṃsam 'the offering one' in (5)).

Examples are available from all ancient IE languages, as well as from many modern ones. Bath (1994: 170-171) calls attention to the fact that Indian grammarians found it difficult to distinguish between viśeṣaṇa 'qualifier' and viśeṣya 'qualified' in a noun-adjective construction independently of the meaning intended by speakers in each given context. The 6th-7th century grammarian and philosopher Bhartṛari, for example, "maintains that the ... two terms ... represent syntactic categories ...; they refer to a word as a member of a combination and not as an isolated individual."

Indo-Europeanists have long pointed out that the distinction between nouns and adjectives was weak in PIE, the only difference being that adjectives inflect for gender. In some languages, there are adjectives which do not even display gender variation. For example, Greek has a group of adjectives with no gender distinction. Interestingly, these are adjectives that indicate properties which are usually predicated of human beings; consequently they are mostly used with masculine or feminine nouns, thus behaving similarly to the (much more numerous) adjectives which only display a two-gender distinction between neuter and non-neuter. Examples are pénēs 'poor', Héllēn 'Greek', phugás 'fugitive'.[11] Indeed there is nothing else than frequent co-occurrence with a noun

that prompts one to identify such lexical items as adjectives, rather than nouns. According to Brugmann (1888: 420-426), the border between nouns and adjectives is fluid in all IE languages, and many adjectives originated from nouns which, given their meaning, were often used as appositions to other nouns. As an example, Brugmann mentions Old High German fruma 'advantage', which turned into an adjective by the Middle High German time (vrum, cf. Modern High German fromm), and writes: "Clearly adjectivization started in the appositional and predicative position" (1888: 419).[12] Thus, since they often accompanied nouns, rather than standing alone, such items were used as adjectives even before developing agreement (and some did not, as noted above). Again, as in the case of adpositions, adjectives emerged as single items in actual usage, but a morphosyntactic distinction from nouns, which characterizes them as a category, only developed later.[13]

Meillet and Vendryes (1924: 530) describe the situation as follows: "Adjectives are by no means connected with nouns. They are usually inflected in the same case, same number, and, as distinctive for adjectives, same gender ..., but because they refer to the same entity."[14] In other words, adjectives are predicated of nouns, rather then being dependents. This situation, which is traditionally reconstructed for PIE, was being abandoned in the ancient IE languages. Among other developments toward configurationality is the creation of definite articles out of demonstratives, which took place in Greek during the time span which separates the Homeric poems from classical writers. In Classical Greek, occurrence of the article did not prevent hyperbaton, as shown in (1), but it helped distinguish between attributive and predicative adjectives, thus indicating that constituency had become relevant for NPs.

3.2. Null objects

That the subject could be omitted freely in the ancient IE languages is a well known fact, usually

explained through the existence of a full fledged system of agreement marked by verbal endings. Much less attention has been paid to omission of definite referential direct objects. Indeed null direct objects seem to be relatively common in all ancient IE languages, in spite of the fact that the verb does not bear agreement morphemes that indicate the object. Examples are easily available:

(10) sadyó jātá óṣadhībhir vavakṣe

just born.PTCP.PRF.NOM.SG.M plant(F).INS.PL grow.PRF.MID.3SG

yádī várdhanti prasvò ghr̥téna

when increase.PRS.3PL shoot.NOM.PL.F clarified.butter(N).INS.SG

"Just born, (Agni) has grown by means of the plants, when the shoots increase (him) with clarified butter." RV 3.5.8ab (Vedic Sanskrit);

(11) ou gàr oímai themitòn eînai **ameínoni andrì** hupò

NEG PTC think.PRS.1SG righteous.ACC.SG.N be.INF better.DAT.SG.M man.DAT.SG.M under

kheíronos bláptesthai. Apokteíneie mentàn ísōs ḕ exeláseien ḕ

worse.GEN.SG.M injure.INF.M/P kill.OPT.PRS.3SG PTC equally or banish.OPT.PRS.3.SG or

atimṓseien

disfranchise.OPT.PRS.3SG

"For I believe it's not God's will that a better man be injured by a worse. He might however perhaps kill (him), or banish (him), or disfranchise (him)." Pl. Apol. 30d (Ancient Greek);

(12) quaero, ecquid **litterarum**. Negant. ... confessi sunt se accepisse,

ask.PRS1SG INDEF.NOM.N letter(F).GEN.PL deny.PRS.3PL confess.PRF.3PL REFL.ACC

take.PRF.INF

sed excidisse in via

but drop. INF.PRF in road(F).ABL.SG

"I ask (the servants) if they have found any letters. They say they haven't. ... they confessed they had taken some, but had lost them on their way" Cic. Att. 2.8 (Latin);

(13) Caesar exercitum reduxit et in Aulercis

Caesar.NOM army(M).ACC.SG take.back.PRF.3SG and in Aulercian.ABL.PL.M

Lexoviisque, ..., in hibernis conlocavit

Lexovian.ABL.PL.M+and in winter.camp(N).ABL.PL settle.PRF.3SG

"Caesar took his soldiers back and let them settle in the winter camp among the Aulercians and the Lexovians" Caes. Gal. 3.27 (Latin);

(14) *dverginn mælti, at sá baugr skyldi vera*

dwarf say.PRF.3SG that DEM.NOM.SG.M ring(M) should.PRF.3SG be.INF

hverjum hofuðsbani, er atti

whosoever.DAT.SG death REL have.PRF.3SG

"The dwarf said that that ring should bring death to anybody who possessed (it)"

(Old Icelandic, from Sigurðsson, 1993, p. 248).

The above examples suffice to show that the antecedent of the null object can have different grammatical relations. Example (13) contains an occurrence of null direct object in coordinated clauses. Such pattern was obligatory in Latin and presumably in other languages as well.[15]

How can such null objects occur freely? The explanation lies in the relation between the verb and the noun phrases, and was indicated long ago by Meillet and Vendryes, even though not directly in reference to null objects, but as an explanation for the fact that the same verb could occur with NPs in different cases, depending on semantic factors expressed through case variation. Meillet and Vendryes (1924: 522) write "An Indo-European verb did not 'govern' the case of its complement; rather, the noun juxtaposed to the verb was inflected in the case required by the meaning that was expressed by the case itself."[16] Such an approach also implies a different view on verbal valence. In a language in which verbs do not govern complements, their valence is purely semantic, and not syntactic.[17] Consequently, there is no slot that must obligatorily be filled, and the distinction between transitive and "absolute" use of transitive verbs looses relevance.

Thus, in PIE there was no real distinction between transitive and intransitive verbs. Note that this conclusion is in accordance with the well known fact that a passive diathesis is a late development, completely achieved only in the individual languages, while PIE had no real voice distinction. Transitivity started as an epiphenomenon connected with usage: on account of their meaning, a wide number of verbs were commonly associated with NPs in the accusative; the association increasingly came to be felt as obligatory, which in the end resulted in the disappearance of null direct objects and in a general increase in transitivity.

4. From Latin to Romance

Latin displays a number of features of non-configurationality together with other features that point toward ongoing change. Prepositional phrases had fixed word order and case variation with the same preposition was reduced to a minimum. Discontinuous NPs, as shown in 3.1.2, could occur in prose with a number of constraints. In this respect, data from Petronius' Satyricon (1st century CE) shed some light on future developments. Herman (1985: 332-33) remarks that the frequency of hyperbaton, which used to occur in around 20% of the NPs in classical prose, drops to 4% in the Caena Trimalchionis, a part of the book which is assumed to closely mirror the spoken language. In some of the occurrences it is not even clear whether one can really speak of discontinuity, as in the case of (15):

(15) multa pecora habet, multum lanae, **caput** praeterea
many.ACC.PL.N cattle.ACC.PL.N have.PRS.3SG much wool.GEN.SG.F head.ACC.SG.N especially
durum
hard.ACC.SG.N
"He has many head of cattle, plenty of wool, an especially hard head." Petr. 39 (Latin).

Herman further remarks that a more complicated occurrence of hyperbaton in the same text indicates an attempt by Trimalchio, an illiterate but rich man, to conform to a higher and prestigious linguistic register. This fact should make one wonder how close to the spoken language of the (mostly illiterate) population could hyperbaton have been at the time of Cicero, just a century earlier.

In the case of null objects, the development in the direction of configurationality apparently started later.[18] By the time of the Vulgate, null direct objects could only occur in coordination, and even in such constructions they were no longer obligatory, as shown in (16), a pattern unknown to Classical Latin, where the whole sentence already displays the structure common in the Romance languages:

(16) et obtuli **eum** discipulis tuis et non potuerunt
and bring.PRF.1SG 3SG.SCC.M disciple(M).DAT.PL POSS.2SG.DAT.PL.M and NEG can.PRF.3PL
curare **eum**
cure.INF 3SG.ACC.M
"And I brought him to your disciples, but they could not cure him." Mt. 17.16 (Latin).[19]

The development in the Romance languages is of great interest in the light of the ongoing development of a system of pronominal clitics. In Medieval Italian, null direct objects occasionally occur in coordination to a somewhat higher extent than they do in contemporary Italian, and were also still possible in yes/no questions, as shown in (17), a pattern also common in Latin (cf. Luraghi 1997), which disappeared later:[20]

(17) or non avestú la torta? Messer sí: ebbi
PTC NEG have.PRF.2SG+2SG.NOM ART.SG.F cake(F).SG sir yes have.PRF.1SG
"So, did you have the cake? Yes sir, I did!" *Nov.* 79 (Medieval Italian).

Increasing obligatoriness of clitics concerns a wide number of constructions in the Romance languages, among which left dislocation, such as in:

(18) la torta l' ha mangiata tutta Giovanni

ART.SG.F cake(F).SG. 3SG.ACC.F have.PRS.3SG eat.PTCP.SG.F all.SG.F John

"John ate the whole cake, it was John who ate the whole cake." (Italian)

This pattern is obligatory in Contemporary Italian,[21] whereas it did exist, but was optional in Medieval Italian.

Obligatoriness of clitics in various other constructions varies among the Romance languages, but virtually all constituents can be doubled by a clitic. In French, which has obligatory clitic subjects, emphatic or dislocated subjects can also be doubled:

(19) moi je ne sais pas ce qu'il veut, ce garçon la

me I NEG know NEG DEM REL he wants DEM guy there

"I don't know what he wants, that guy." (French).

As is well known, this pattern, widely employed in spoken French, has the effect that the order of constituents becomes remarkably free. Clitic doubling in spoken French does not even imply special emphasis, as indicated in Bossong (1998: 32), who points out that a sentence such as:

(20) il la voit, la femme

he her sees the woman

"He sees her, the woman." (French)

tends to be realized without any intonational break, as:

(20)' il la voit la femme

"He sees the woman." (French)

Bossong argues that spoken French is moving in the direction of doubling all arguments by means of clitics hosted by the verb, thus virtually behaving as a head marking language, and mentions the following example, originally from Tesnière:[22]

(21) Il la lui a donné, son père, à Jean, sa moto

he it.F him has given his father to John his motorbike

"John's father gave him his motorbike" (French; from Tesnière, 1959: 175).

Note that the clitic doubling also makes possible binding of the possessive son with the oblique NP à Jean, which would be impossible with a normal word order and a normal intonation:

(21)' *Son$_i$ père a donné à Jean$_i$ sa moto.

"His$_i$ father has given John$_i$ his motorbike." (French; ungrammatical with his$_i$ = John's)

The pattern in (21), including the peculiar behavior of possessives and anaphoras in general, is typical of non-configurational languages of the Mohawk type, i.e. head marking ones.[23] Thus, spoken French is apparently abandoning configurationality and moving in the direction of a new type of non-configurationality, where the order of constituents is free, discontinuous constituents are not allowed, and, if clitics ever become completely obligatory, null objects will be allowed again, in sentences with no overt nominals. The fact that ongoing change can easily be observed in spoken language, but to a much lesser (if any) extent in the literary standard, shows how syntax is created by usage: non-configurational features of spoken French emerge in actual utterances from the need to indicate the information status of constituents.

5. Two types of non-configurationality

The two different types of non-configurationality introduced in sec. 2 turn out to be relevant to the development sketched in sec. 4 regarding Latin and the Romance languages. From the data discussed above, the two types seem to have quite different features: while in the French sentence in (21) the function of the NPs is indicated through cross-reference with clitics hosted by the verb, in Latin it is case-marking which fulfills this function. Thus, a French noun, outside the context of a sentence, is not specified for its function, whereas a Latin noun bears such specification at least in part even independent of any context.

In sec. 2 I mentioned Jelinek's PAH, which posits empty pronouns in languages of the Latin type. Such a theory has the effect of explaining non-configurationality in the same way for both head and dependent marking languages. Apart from general considerations on the need for empty categories, which essentially depends on one's theoretical beliefs, I doubt that Jelinek's hypothesis may help understand non-configurationality in any framework, since it blurs the distinction between two different phenomena.

In a head marking language such as spoken French, verbs do have a syntactic valence, which is filled by (obligatory) pronominal clitics. Co-referring nominals may be added if needed; they are appositional to such clitics. In dependent marking non-configurational languages, on the other hand, the verb does not have a syntactic valence: in other words, all verbs are so to speak intransitive, and it is normal for a verb to be able to stand alone. Nominals are added based on the meaning of the verb (its semantic valence), which ultimately refers to our knowledge of what type of participants are commonly involved in an event. In such a language, there is no distinction between arguments and adjuncts, and in a sentence such as:

(22) Seymour cut the salami with a knife

all participants are on the same plane, none is obligatory, and the PP with a knife is not more optional that the NP the salami.

Such a state of affairs, which, as we have seen, is traditionally reconstructed for PIE, indicates that relations between a verb and an inflected noun are appositional.[24] More in general, all relations between single items seem to be appositional in such languages, as we have seen in the case of adjectives. Put in this way, the same type of relation holds between the verb and possible co-occurring nominals on the one hand, and between a noun and possible co-occurring adjectives on the other. Again, since adjectives are case marked in the same way as nouns, they bear some specification of their function independent of the noun they are apposed to. This explains why dependent marking languages allow for discontinuous constituents, but head marking ones do not.

The ancient IE languages were, to a varying extent, at least partly configurational.[25] In particular, in the case of verbal valence, ongoing development of transitivity can be observed at various stages. Cases were to a great extent obligatory with specific verbs, and no longer contributed an independent meaning. In the meantime, the distinction between arguments and adjuncts gained relevance. It became important for a verb, even in cases in which a direct object could be recovered from the context, to co-occur with an overt indicator of transitivity: this eventually led to complete disappearance of null objects, a process which can be observed not only in Romance, but in other languages as well, which did not necessarily go as far as to develop a system of clitics. The Germanic languages are a case in point. Null direct objects, which were common in Old Icelandic, are confined to coordinated clauses in Modern Icelandic (Rögnvaldsson 1995).

6. Why did configurationality arise?

In the preceding sections I have shown how semantic constituency turned into syntactic constituency in the IE languages, starting from adpositional phrases, then spreading to NPs, and finally to the VP and eventually causing constituents order to be obligatory, though to varying extents in the different languages. This last development is usually explained as a consequence of the loss of morphological cases. However, it is questionable that configurationality has been brought about by the disappearance of cases. Rögnvaldsson (1995) remarks that Old Icelandic, which is has features of non-configurational languages, has the same number of cases as Modern Icelandic, which is configurational. A thorough discussion of this issue is beyond the scope of the present discussion; here I would like to add some final remarks on the relation between the existence of a case system and the rise of configurationality.

Baker (2001: 1437) remarks that, for discontinuous NPs to be allowed, a "particular kind of case

marking is required". Herman (1985: 347) goes as far as to argue that indicating what lexemes belong to a certain constituent is a function of case systems in just the same way as indicating grammatical relations. One could conclude that the (partial) loss of cases in a number of IE languages caused discontinuity no longer to be possible: however, this conclusion hits against the evidence from actual data, which clearly point toward an earlier development of configurationality within NPs. In other words, the change seems to have worked the other way around: discontinuous NPs became increasingly dispreferred, and cases started to be lost only after the only possible position of attributive adjectives had become adjacency to the head noun. In section 3.1.1, I remarked that the grammaticalization of adpositional phrases brought about increasing loss of independent semantic contribution of cases to the meaning of the construction: such a development preceded the loss of the case system by several centuries.[26]

Thus, even if desemanticization of cases possibly started at an early time, it seems to be a consequence, rather than a cause of the rise of configurationality. Configurationality rather seems to have risen as a by-product of semantic relatedness of certain items, which used to frequently co-occur: what could initially be regarded as semantic constituents, as for example a spatial adverb specifying the precise spatial meaning of a NP inflected in a certain case, underwent grammaticalization. As a result of such a process, cases increasingly lost their meaning and started loosing their independence. Nouns that indicated properties often accompanied other nouns, and originally agreed with them only in case. The fact that they mostly co-occurred with other nouns caused them to be felt as subordinate, and brought about agreement in gender: this was the first step in the direction of configurationality within NPs. In much the same way as it had happened for adpositional phrases, the syntax of NPs also became increasingly grammaticalized and the position of adjectives increasingly fixed. Frequent co-occurrence of certain verbs with NPs inflected in the accusative brought about the grammaticalization of transitivity, which in its turn had the effect of making direct objects obligatory even when they were not expressed though a NP. Various

developments connected with configurationality had the final effect of making sentence structure less flexible: whereas the order of constituents in the ancient languages was largely determined by the information structure of the sentence, in many modern languages it mostly depends on syntactic factors.

However, non-configurationality could be restored again, as shown by ongoing change in French. Such possible downfall of configurationality would bring about a completely different type of non-configurationality, in which constituency would still be relevant for NPs and PPs, but word order would again be determined by information structure, and null objects might occur again, as a result of the reanalysis of pronominal clitics as agreement morphemes.

References

Baker, Mark (2001), 'Configurationality and polysynthesis', in M. Haspelmath, E. König, W. Oesterreicher, W. Raible (eds.), Language Typology and Language Universals . An International Handbook. Berlin/New York: Mouton de Gruyter, vol. 2, pp. 1433-41.

Bhat, D. N. Shankaram (1994), The Adjectival Category: Criteria for Differentiation and Identification. Amsterdam/Philadelphia: Benjamins.

Bossong, Georg (1998), 'Vers une typologie des indices actanciels. Les clitiques romanes dans une perspective comparative', in P. Ramat, E. Roma (eds.), Sintassi Storica. Roma: Bulzoni, pp. 9-43.

Brugmann, Karl (1888), Grundriss der vergleichenden Grammatik der indogermanischen Sprachen. Strassburg: Trübner, vol. 2.

Bubenik, Vit (2001), Morphological and syntactic change in Medieval Greek and South Slavic languages. München: Lincom Europa.

Delbrück, Berthold (1893), Vergleichende Syntax der indogermanischen Sprachen. Strassburg: Trübner, vol. 1.

Devine, Andrew M., Laurence D. Stephens (2000), Discontinuous syntax. Hyperbaton in Greek. Oxford/New York: Oxford University Press.

Dixon, Robert M. W. (1982), Where have all adjectives gone? and other essays in semantics and syntax. Berlin: Mouton de Gruyter.

Dover, Kenneth (1960), Greek Word Order. Cambridge: Cambridge University Press.

Gusmani, Roberto (1968), Il Lessico Ittito. Napoli: Libreria Scientifica Editrice.

Hale, Ken (1983), 'Warlpiri and the grammar of non-configurational languages'. Natural Language and Linguistic Theory 1, 5–47.

Haug, Dag (2009), 'Does Homeric Greek have prepositions? Or local adverbs? (And what's the

difference anyway?)', in V. Bubenik, J. Hewson & S. Rose, eds., Grammatical Change in Indo-European Languages, Amsterdam/Philadelphia: Benjamins, 103-122.

Herman, József (1985), 'La disparition de la déclinaison latine et l'évolution du syntagme nominal in Syntaxe et latin, in C. Touratier (ed.), Syntaxe et latin. Actes du IIe Congrès International de Linguistique Latine, Aix-en-Provence: Université de Provence-Laffitte, pp. 345-55.

Hewson, John, Vit Bubenik (2006), From case to adposition : the development of configurational syntax in Indo-European languages. Amsterdam/Philadelphia: Benjamins.

Hopper, Paul (1998), 'Emergent Grammar', in M. Tomasello (ed.), The New Psychology of Language: Cognitive and Functional Approaches to Language Structure. Mahwah, NJ: L. Erlbaum, pp. 155-17.

Jelinek, Eloise (1984). 'Empty categories, case, and configurationality'. Natural Language and Linguistic Theory 2, 39-76.

Kühner, Raphael, Friedrich Blass (1890), Grammatik der griechischen Sprache, Hannover: Hahn.

Luraghi, Silvia (1990), 'Osservazione sulla Legge di Wackernagel e la posizione del verbo nelle lingue indoeuropee', in P. Ramat, M. E. Conte, A. Giacalone (eds.) Dimensioni della Linguistica, Milano: Franco Angeli, pp. 31-60.

Luraghi, Silvia (1997), 'Omission of the direct object in Classical Latin'. Indogermanische Forschungen 102, 239-257.

Luraghi, Silvia (1998), 'Omissione dell'oggetto diretto in frasi coordinate: dal latino all'italiano', in P. Ramat, E. Roma (eds.), Sintassi Storica. Roma: Bulzoni, pp. 183-96.

Luraghi, Silvia (2003a), On the Meaning of Prepositions and Cases. A Study of the Expression of Semantic Roles in Ancient Greek. Amsterdan/Philadelphia: Benjamins.

Luraghi, Silvia (2003b), 'Definite referential null objects in Ancient Greek'. Indogermanische Forschungen 108, 169-196.

Luraghi, Silvia (2004), 'Null Objects in Latin and Greek and the Relevance of Linguistic Typology

for Language Reconstruction', in Proceedings of the 15th Annual UCLA Indo-European Conference, JIES Monograph 49, pp.234-256.

Luraghi, Silvia, Claudia Parodi (2008), Key Terms in Syntax and Syntactic Theory. London/New York: Continuum.

Meillet, Antoine, Joseph Vendryes (1924), Traite de grammaire comparee des langues classiques . Paris: Champion.

Payne, Thomas (1997), Describing Morphosyntax. Cambridge: Cambridge University Press.

Rögnvaldsson, Eiríkur (1995), 'Old Icelandic: A Non-Configurational Language?'. North-Western European Language Evolution 26, 3-29.

Ross, Sarah (2005), A corpus-based approach to infinitival complements in Early Latin. Ph. D. dissertation, Louisiana State University.

Schäufele, Steven (1990), Free Word-Order Syntax: the Challenge from Vedic Sanskrit to Contemporary Formal Syntactic Theory. Ph. D. dissertation, University of Illinois at Urbana-Champaign.

Sigurdsson, Halldór A. (1993), 'Argument-drop in Old Islandic'. Lingua 89, 247-280.

Taylor, A. (1994), 'The change from SOV to SVO in Ancient Greek'. Linguistic Variation and Change 6, 1–37.

Tesnière, Lucien (1959), Éléments des syntaxe structurale. Paris: Klincksiek.

Thompson, Sandra, Paul Hopper (2001), 'Transitivity, clause structure, and argument structure: Evidence from conversation', in J. Bybee, P. Hopper (eds.), Frequency and the Emergence of Linguistic Structure. Amsterdan/Philadelphia: Benjamins.

Welo, Eirik (2008), The information structure of hyperbaton. A case study of Galen's commentary on Prognosticum. Ph. D. dissertation, University of Oslo.

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[2] Jelinek's hypothesis has been challenged especially within the LFG framework; see Baker (2001) for discussion.

[3] In particular, Rögnvaldsson (1995) believes that null anaphora does not have much to do with non-configurationality, and argues that if it did, then pro-drop languages such as Italian should be considered non-configurational. Clearly this argument rests on a misunderstanding: null direct objects in languages such as the IE ones have nothing to do with null subjects, since subjects, but not objects, normally agree with the verb.

[4] See Dover (1960) and Welo (2008); for a different view, see Taylor (1994).

[5] Postpositives are items which cannot stand in initial position in a sentence; beside pronouns, various types of connectives and discourse particles are postpositive, as well as modal particles. Postpositives are often enclitic, but not necessarily, and are usually placed in P2 (second position), following Wackernagel's Law. In Greek, postpositives in the same sentence can be placed in two different positions: in this case, connectives are always in P2, while pronouns appear in a more internal position (see Dover 1960, Luraghi 1990).

[6] I use 'emerge' in the sense of Hopper (1998) as indicating a synchronic circumstance. Such a circumstance may or may not later be reflected in a diachronic development.

[7] Indeed, such a state of affairs is less striking than one may think at first sight: even in a highly configurational language such as English there are numerous occurrences in which the categorial status of a particle (preposition or verb satellite) cannot be gauged, as in she has fit **into** the mold, discussed in Thompson, Hopper (2001: 45-46).

[8] Space adverbs in Anatolian would deserve more discussion, but for reasons of space I cannot go into the issue here; see Hewson, Bubenik (2006) for extensive discussion and reference regarding all other IE languages.

[9] See Luraghi (2003a) for extensive discussion of such development.

[10] In the sense that cases only indicated general spatial relations; more specific ones, such as inessive vs. adessive or superessive, for example, were indicated by spatial adverbs.

[11] Kühner, Blass (1890: 547-51) contains a discussion of a number of Greek adjectives that do not inflect for gender. The authors show that some of these adjectives always refer to human males, while some others always refer to human females: thus, their categorial status seems closer to nouns (they have inherent gender); only their syntactic behavior (they accompany other nouns) allows one to consider them adjectives.

[12] "Es ist klar, dass die Adjektivierung in der appositionellen und prädikativen Stellung begann."

[13] Most likely, the hypothesis that no adjectives should be reconstructed for PIE is too strong. In particular, a class of deverbal adjectives with the suffix -u is widely attested, with cognates in Hittite, Sanskrit, Greek, and Germanic among others (see Gusmani 1968: 91-119). In fact all languages appear to have a class of basic adjectives such as 'bad/good', 'many/few', 'broad/narrow' (some of the meanings of the -u adjectives), as argued in Dixon (1982).

[14] "L'adjectif n'est nullement lié au substantif. Il est généralement au même cas, au même nombre, et, ce qui est le trait caractéristique de l'adjectif, au même genre ..., mais parce qu'il s'applique au même objet."

[15] An occurrence such as Mustum si voles totum annum habere, in amphoram mustum indito "If you wish to keep grape juice through the whole year, put the grape juice in an amphora" (Cat. Agr. 120) is not counterevidence to obligatoriness of null objects in coordination, as Ross (2005: 123) suggests: indeed the two clauses are not coordinated, rather, the first is a subordinate clause and the second is the main clause. Some occurrences in which a pronominal direct object occurs in coordination, for emphasis or for disambiguation in an otherwise unclear context, are discussed in Luraghi (1997); see further Luraghi (2003b) and (2004).

[16] "Un verb indo-européen ne 'gouvernait' pas le cas de son complément; mais le nom apposé au verbe se mettait au cas exigé par le sens qu'il exprimait lui-même."

[17] Semantic valence refers to the number of participants which are typically involved in an event, while syntactic valence refers to the number of actual constituents which a verb needs in order to stand in a grammatically acceptable construction (see Payne 1997: 169-170 and Luraghi, Parodi 2008: 197-199).

[18] The fact that discontinuous constituency disappeared at an earlier time with respect to null objects is in accordance with the implicational scale in Baker (2001: 1437), which states that the existence of discontinuous constituents in a language implies the occurrence of pronoun drop, but not the other way around.

[19] Similar to Latin, New Testament Greek also attests to the extension of anaphoric pronouns to coordinated clauses, as in this passage, in which the third person pronoun autón occurs in both clauses and corresponds to the two occurrences of eum in (16); however, the occurrence of a pronoun in the second clause in Latin does not always match Greek, especially where Greek contains participles, and cannot be considered simply a matter of translation; see the examples in Luraghi (1998).

[20] The development in Medieval Italian is discussed in Luraghi (1998).

[21] The clitic may be omitted, in which case the left dislocated constituent is focused and contrastive, but in this case it does not trigger gender agreement with compund forms of the verb: La torta ho mangiato tutta (non la macedonia) "I ate up the whole cake, not (the whole) fruit salad". Note that the verb form in this sentence contains the participle mangiato (masculine) rather than mangiata (feminine, as in (18)).

[22] Clitic doubling is not limited to the Romance languages but also exists elsewhere in the modern IE languages, such as, for example, in Modern Greek and in Macedonian, cf. Bubenik (2001), who argues that Macedonian has gone as far as to become completely head marking in this respect (2001: 64-65).

[23] See Baker (2001: 1436) with further references.

[24] I hasten to say that this is not the case in any of the Indo-European languages at least for the subject, which triggers agreement with finite forms of the verb; subject-verb agreement is reconstructed for PIE as well. However, the exitence of impersonal verbs (as Latin taedet 'be bored', Hittite irmalya- 'be/become sick', Gotic huggrjan 'be hungry', and various other) may be a trace of an earlier stage, at which subject-verb agreement had not yet developed, and the subject was on the same plane as other constituents with respect to the verb (that is, it was inflected in a case that indicated its semantic role, rather than a grammatical relation). For reasons of space, I am not going to speculate further on this matter here.

[25] This is an important point, which must be stressed: non-configurational syntax can be reconstructed for PIE on the basis of features of non-configurationality in the attested languages, which had all already moved in the direction of configurationality.

[26] As I have already pointed out, grammaticalization of adpositional phrases was the first move in the direction of configurationality in the IE languages. One may wonder why. I think that the reason why adverbs changed into adpositions giving birth to adpositional phrases at an early stage may depend on the fact that they specified the semantic role of accompanying nouns. In other words, already at the stage at which adverbs were independent their function was similar to the function of cases, that is of bound morphemes: adverbs were already more grammatical than other lexical items. Once they had changed into adpositions, they became the equivalent of bound morphemes, as shown by the fact that they partly substituted for cases in languages in which the case system was lost completely, such as the Romance languages. Clearly, this development is different from the development that led apposed nouns to develop into adjectives, since adjectives are far from being the equivalent of bound morphemes even in the modern IE languages.