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COMMUNICATION AND GRAMMATICALIZATION. THE CASE OF (CROATIAN) DEMONSTRATIVES

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The focus of this paper is on the role that shared reference plays in communication and, relatedly, on the way in which communicative needs drive the formation and development of grammatical categories. The system used to illustrate and analyse the theoretical positions addressed in the paper is that of Croatian demonstratives, a three-way paradigm which – it is claimed – helps us identify the cognitive elements underlying the anchoring of shared reference. In the first part of the paper we explore the pointing gesture from the perspectives of developmental psychology, language acquisition and that of cognitive and linguistic universals. We observe that communicative pointing is a universal communicative device found in all cultures which serves to refer, locate in space or indicate direction of motion. In fact, pointing has been recognized as one of the earliest and most common mechanisms for establishing joint reference. Next, we explore the possible ways in which communicative pointing might have influenced the formation of 'pointing words' i.e. demonstratives. A continuum of referential devices is identified: from direct pointing with gesture, direct (pro)nominal pointing, via referentiality through (adjectival and adverbial) modification, all the way to discoursal pointing. We investigate the communicative sequence that takes us from the pointing gesture to various types of 'pointing words' (see Diessel, 2006), by exploring the underlying linguistic and, possibly, cognitive universal elements and domains. In final analysis the identified sequence is put into relation with the referential (identificational), via the modificational (qualificational), to the predicative (informative) segments of language.

Key words: demonstratives; grammaticalization; universals; cognitive semantics

"The true universals of language are universals of change." (Bybee, 2002: 6)

1. Introduction

1.1. On communication, sharing and pointing

As one reads books about the origin of language, one learns that language was born out of the human need to communicate. A full understanding of this apparently simple statement requires us to stop for a moment and consider the verb 'communicate'. What does it mean *to communicate*? Etymologically, the verb has its roots in the Latin word *commūnicāre*, meaning 'to share'. We see that, at its origin, communication is deeply ingrained in the concept of 'sharing'. In the case of linguistic communication, it is usually claimed that when using language people exchange information through a *shared system* of signs and semiotic rules. Upon closer examination, however, it might be sensible to ask whether even this view of 'sharing' might be leaving out of sight the basic, primordial 'sharing' that linguistic communication is grounded in.

In fact, if we think about two people engaged in an act of communication, we observe that one of the key requirements for their successful communication is to make sure that when they refer to something, this *reference is shared*¹. While being ultimately underpinned by the already mentioned shared system of signs and rules, shared reference is dependent on a series of shared frames: from the more general – such as the (shared) encyclopaedic i.e. socio-cultural frames, via the subjective – such as the (shared) emotional frames, all the way to the most immediate, situational – shared (or joint) attention². It is, indeed, being able to simultaneously focus our own and our interlocutor's attention on the same referent(s), that seems to be one of the (if not *the*) main prerequisites for successful communication.

From birth, infants learn to join and share: gaze, attention (focus), turn taking, intention ... It is crucial to observe that this ability to engage in joint attentional behaviours is not something that is inborn, but rather something that emerges only gradually during the first year of life (cf. Moore & Dunham, 1995; Morissette et al., 1995; Tomasello, 1995, 1999; Carpenter et al., 1998; Eilan et al., 2005; Diessel, 2006). In fact, in their interaction with others (adults), young infants – up to the age of nine to twelve months: a) either focus their attention only on the person they interact with – ignoring everything else in the environment, or b) focus on a particular object in the environment, ignoring the person(s) in their interactive environment. This is known as *dyadic* interaction. Only around twelve months do children begin to engage in *triadic* interactions, in which – crucially – the child and another person achieve joint attention

¹ Sharing is, indeed, among the core skills, if not *the* fundamental skill that defines humans as social beings. Language, as the most complex of human social artefacts, is thus, not surprisingly, entirely reliant on and geared towards establishing and maintaining shared reference. For more on the relation between sharing and language see Brala-Vukanović and Matešić, 2015.

² Let us note that this is what all pragmatic phenomena rely on.

on a particular referent (and the child is able to check whether the interlocutor is focusing on the referent – see Zlatev et al., 2005).

Most interestingly for our purposes, we note that the emergence of joint attentional behaviours coincides with the emergence of a) joint communicative eye gaze, and b) communicative (or declarative) pointing (cf. Eilan et al., 2005; Diessel, 2006). Communicative pointing (known also as 'pointing-for-others', see Diessel, 2006) is intended to focus the adult's attention on a particular object of reference. Diessel (ibid.) has observed that communicative pointing is a universal communicative device found in all cultures which serves to refer, locate in space or indicate direction of motion. In fact, pointing has been recognized as one of the earliest and most common mechanisms for establishing joint reference.

Taking the next step on our argumentative path, let us note that the gesture of communicative pointing has, in language, translated into a number of devices. The most immediate and the most obvious is the demonstrative; English words such as *this, that* or their Croatian equivalents *ovo*, and *ono/to*. In the next section, we will take a closer look at demonstratives and their particular role in the context of grammaticalization.

1.2. On universality, grammaticalization and demonstratives

We have already noted that communicative pointing is a communicative universal, just as demonstratives seem to be a linguistic universal (see Diessel, 2006). Now, linguistic science has gone through cycles in which the similarity and the diversity of languages have been alternatively emphasized (Bybee, 2009; Givon, 2002), and even when universality was in the focus of scholarly attention³, it generally yielded a period of initial productivity, systematicality and excitement followed by an equally powerful stage of inconsistencies, stagnation and even, in some cases, resignation. Upon closer analysis, however, we observe that most past analyses of linguistic systems across the world that were focused on finding universal crosslinguistic patterns were conducted from the synchronic perspective. In the past three decades a new framework has been attracting the attention of the linguistic community; its central proposal is to shift the search for crosslinguistic universals from the exclusively synchronic and to include the diachronic axis of language.

Increasingly recognized under the name of *usage based linguistics*, the overall approach encompasses a variety of perspectives sharing the central position that grammar is not only a system for producing and understanding language, but is also *shaped* by those processes during linguistic interactions⁴. In other words, this theoretical perspective

³ The two main approaches to universality are from an exclusively syntactic point of view (most notably Chomsky, 1965 and what followed), from a perspective that combines syntax with meaning (e.g. Greenberg, 1963, 1966), all the way to lexical i.e. semantic universals (the NSM projects by Wierzbicka and Goddard (Goddard & Wierzbicka, 1994, 2002).

⁴ The usage based theory views language to be an embodied and social human behaviour and seeks explanations about language structure and phenomena in that context. As such, it is very close to (and actually overlaps with) cognitive linguistics.

adopts the view that usage has an effect on linguistic structure or, seen from another angle, that the formation and development of grammatical categories are driven by communication (i.e. usage). Scholars like Bybee (2002, 2009), Hopper &Traugott (2003) have been studying *grammaticalization*⁵ – the process by which grammar is created, i.e. the process by which a lexical item or a sequence of items becomes a grammatical morpheme, changing its distribution and function in the process (Bybee, 2002: 1). The study of dozens, even hundreds of languages from the diachronic perspective has shown that:

- Concrete meanings entering into the process of grammaticalization become generalized and more abstract. Conversely, the more specific the meaning of a lexical item, the more stable it remains across different contexts;
- Related to the previous point, the best candidates for grammaticalization processes are lexical items that are highly generalized in meaning, largely culturally independent i.e. universal to human experience, representing concrete and basic aspects of human relation with the environment (centrally the spatial environment including parts of the human body);
- Once that it has begun, the course of grammaticalization is universal; it is unidirectional and in principle predictable. In fact, there seems to exist a general pattern (or sequence) of grammaticalization: all languages have nouns and verbs, but as some nouns and verbs lose their categorial status and start generalizing their meaning, they become prepositions, auxiliaries, and other grammatical forms.

Some general patterns of grammaticalization include: 1) the development of the definite article *the* out of the demonstrative *that*; 2) the development of the indefinite article *a/an* out of the numeral *one*; 3) the development of modal auxiliaries expressing grammatical distinctions of tense (English future *will*, or Croatian *ću*) from verbs of volition (Engl. *will*, Cro. *hoću*).

Taking stock of the main theoretical points outlined above, focusing on the theory on the one hand, and demonstratives on the other, let us observe that:

- 1) Being highly generalized in meaning, being culturally independent, universal, and a very early human experience, and representing concrete and basic aspects of human relation with the spatial environment, i.e. having an immediate link with (in being derived from and frequently being accompanied by) a human bodily gesture, demonstratives represent ideal candidates for the grammaticalization process. Furthermore, demonstratives are inherently tied to the cognitive linguistic claim that language (structure) and our knowledge of and experience with space are related (for more details on this see Brala-Vukanović and Matešić, 2015);
- 2) Demonstratives are among very few crosslinguistically universal elements. Linguistic typologists have pointed out that while most word classes (notably

⁵ The terms *grammaticalization* and *grammaticization* are used interchangeably in the literature.

most closed word classes) exist only in a subset of the world's languages, the one notable exception to this – alongside nouns and verbs – are demonstratives, the *only closed-class* expressions that appear to be universally present in world languages (cf. Diessel, 1999; Dixon, 2003; Himmelmann, 1997).

3) While all linguistic analyses agree that demonstratives are not open-class words, some recent treatments of this word class, such as Diessel's (2006), see them somewhere in between the two traditional categories, open and closed. Drawing on evidence from linguistic typology, historical linguistics, and language acquisition, Diessel (ibid.) claims that demonstratives are older than other closed class items and views them as a common crosslinguistic source for some of the most frequent grammatical expressions such as definite articles, relative and third person pronouns, complementizers, conjunctions, copulas, and focus markers. He goes on to claim that these developments are motivated by the fact that demonstratives function to establish and coordinate the interlocutors' joint focus of attention (ibid.: 476). In other words, while the system of demonstratives in various languages is developed to various degrees, the focal role of the demonstrative is to replace the referent (in sight) – thus providing a successful tool for the establishment of shared reference.

Given all the above, demonstratives would appear to be crucial for the development of grammar i.e. language as such. At this point, we will try to tie this latter claim to a very elaborate system of Croatian demonstratives.

2. Demonstratives in Croatian

From the syntactic-semantic perspective, Croatian demonstratives can be grouped into the following eight main sets⁶:

- demonstrative **pronouns**: *ovaj*, *taj*, *onaj*⁷...

⁶ Traditional Croatian grammar books describe the system of demonstrative elements in Croatian as falling into two OR three main categories. The first, two-way approach proposes a distinction between demonstrative pronouns and demonstrative adverbs (spatial adverbs, modality adverbs, quantificational adverbs and temporal adverbs) – Maretić, 1963; Brabec et al., 1963; whereas in newer grammar books demonstrative particles are presented apart from adverbs (Barić et al., 1979, 1990, 1995; Raguž, 1997; Babić et al., 1991; Težak and Babić, 2000; Silić and Pranjković, 2005), which is a methodological novelty in comparison to older classifications. It should also be pointed out that there are classification doubts, as might be the case with 'this' which is classified as a demonstrative pronoun when used on its own (e.g. I likeTHIS/THAT) and as a demonstrative adjective when it precedes a noun (I'd like THIS/THAT cup of tea). Apart from traditional grammatical treatments, extensive theoretical treatments of Croatian demonstratives are found in Kordić (1997, 2003), Kuštović (2009) and Žic-Fuchs (1991, 1996), but given that the approaches and the focus adopted in these papers differ from the ones adopted here, and given the space and scope of the present paper, the works, albeit very relevant for the treatment and the understanding of the paradigm of Croatian demonstratives, are not theoretically included in this paper.

⁷ All Croatian demonstratives have the three normative forms for the proximal-medial-distal paradigm (see Table 1), with the additional marking for gender, case and number forms for demonstrative pronouns and adjectives.

- demonstrative quantificational adjectives: ovolik, tolik, onolik...
- demonstrative qualificational adjectives: ovakav, takav, onakav ...
- demonstrative **spatial adverbs**: e.g. ovdje, tu, ondje...
- demonstrative **temporal adverbs**: *sada*, *tada* and *onda*⁸
- demonstrative quantificational adverbs: ovoliko, toliko and onoliko
- demonstrative qualificational (manner)adverbs: ovako, tako and onako
- demonstrative **particles**: *evo, eto* and *eno*.

The decision to focus on Croatian demonstratives has been motivated by the fact that the Croatian set of demonstratives is a rich, three-way paradigm (as opposed to e.g. the English two-way paradigm), thus the language providing a potentially proliferous source of information relative to the mapping between (referring by) pointing and (referring by) determiners, but possibly also – given the specific features and position of demonstratives within the context of grammaticalization – to see whether a very elaborate system of demonstratives found in the Croatian language, can be of any use within the broader framework of issues relative to language evolution i.e. structure.

In the Croatian grammatical tradition (cf. Maretić, 1963; Brabec et al., 1963; Barić et al., 1979, 1990, 1995; Raguž, 1997; Babić et al., 1991; Težak and Babić, 2000; Silić and Pranjković, 2005) the system of demonstratives is traditionally described as a three-way paradigm, differentiating between the proximal, medial and distal meanings. The system – as described by the norm⁹- is outlined in Table 1.

2.1. The analysis

We have already recalled Diessel's (2006) position that communicative pointing is a universal communicative device found in all cultures which serves to refer, locate in space or indicate direction of motion. Now, if we take a closer look at the semantic load of the various categories outlined by the system of Croatian demonstratives, we observe that there seems to be a very interesting mapping between the 'pointing' categories of *referring, locating* and *indicating direction of motion* on the one hand, and the semantic categories expressed by Croatian demonstratives. In fact, looking at the semantic elements expressed by the various categories identified in Table 1, we can identify a very interesting continuum, which could even be seen as tracing the path of word

⁸ It might be interesting to mention that the temporal adverbs such as *danas (today), jutros (this morning), večeras (this evening), noćas (tonight), sinoć (last night)* include the constituent elements -s and si- originating from the old Slavic demonstrative pronoun sə 'this'.

⁹ When it comes to usage trends, we are witnessing a shift between a three-way proximal-medial-distal system as outlined by the norm and shown in Table 1, and what most speakers of Croatian language do in everyday speech. The shift – characterized by a merging in the categories medial and distal for many usage instances – has been described and analysed in Brala-Vukanović and Matešić, 2015. However, as the focus of this paper is on the question of what a diachronic approach (to demonstratives) can reveal about grammaticalization, a detailed analysis of the usage trends is outside the scope and space of this paper, albeit representing a very relevant topic, worth pursuing further.

| DEMONST | RATI | | EGORY with QUESTION | | | | Semantic elements |
|--|---|------------------------------|---|-------------------------------------|--|--|---|
| TAG | | | | proximal | medial | distal | Semantic ciements |
| | favantial | WHAT | Koji? (WHO/WHICH (ONE)? | OVAJ | TAJ | ONAJ | referential identification in its 'primitive' referential sense (not indexical) |
| ОНМ | PRONOTINS? (vofewontia) | identification) – WHAT | Kolik? (Of which size?) | OVOLIK | TOLIK | ONOLIK | referential 'qualification' through 'qualification' – spatial quantification (size) – salient i. e. most observable for noun |
| | PRO1 iden | | <i>Kakav?</i> (Of which type?) | OVAKAV | TAKAV | ONAKAV | referential qualification through modification |
| E | | LOCATION/ STATIC | <i>Gdje?</i> (Where?) (with static verbs) | OVDJE Here | <i>TU</i> There | ONDJE Over there | POINT STATIC |
| WHERE | l dynamic) | (KINETIC) | Kamo? (Where to?) (with motion verbs) | OVAMO (Over) here | <i>TAMO</i> Over there | ONAMO (All the way) over there | POINT MOTION GOAL |
| | ıtic and | | Kuda? (Which way?) | OVUDA Toward here | TUDA Toward there | ONUDA Toward 'over there' | LINE MOTION DIRECTION TO(WARD) |
| | location (sta | | <i>Odakle?</i> (From what point?) | ODAVDE From here | ODATLE From there | ODANDE From that direction over there | POINT MOTION SOURCE |
| | ADVERBS – referential location (static and dynamic) | MOTION/DYNAMIC (KINETIC) | Otkud(a)? (From what direction?) | ODOVUD(A) From this direction | OTUD(A) From that direction | ODONUD(A) From that direction over there | LINE MOTION DIRECTION FROM |
| WHEN | ADVERBS - | MOTION | Dokle? 1) 'SPATIAL' (To what point in space?) 2) 'TEMPORAL' (To which point in time?) | DOVDE Up to here | DOTLE Up to there Up to then | DONDE Up to (neither here nor there but) 'over there' | FROM – TO (SOURCE – GOAL) → UP TO ; SEGMENT, MOTION |
| | | | Dokud(a)? (Up to where – & when metaph.? | | \rightarrow Dokle 1)** | | FROM – TO (SOURCE – GOAL) → UP TO ; SEGMENT, MOTION |
| WHEN | | Time | Kada? (When) | SADA Now | TADA Then | ONDA (way) back then | Location of event in time – salient (observable) for verbs, predication relevant, when something happened |
| HOW | ADVERBS | | Koliko (dugo)? (For) how long/how much? | OVOLIKO This long/ This much | <i>TOLIKO</i> That long/ That much | ONOLIKO Way that long/ Way that much | Predicative qualitification through 'qualification (qualification in 'quantity of event') |
| HOW - (leading to mode) | | manner | Kako? (How, in which way/ manner?) | OVAKO This way | TAKO That way | ONAKO The other way | Predication through modification (of predicate) and comparative |
| PRESEN- TATIVE (mode of predication) PARTICLES (sentential, discourse demonstratives) | | discourse demonstratives) | Presentatives (in space or discourse) | EVO | ETO | ENO | POINT but referring to entire discourse/event units (e. g. introducting them/giving emphasis/politeness effect) |

Table 1. Croatian demonstratives' paradigm as outlined by the norm

* All the pronouns in the table are given in the masculine, nominative case form (the Nom. Fem. form is: *ova, ta, ona, ...*). Demonstrative pronouns *òna* and *òno* differ from personal pronouns *ònā* and *ònō* in prosodic terms (as indicated), and paradigmatically (Gen. Sing. Fem. of the demonstrative is *one*, Gen. Sing. Fem. of the personal pronoun is *nje*, *je* and down the line).

classes (see Croft, 2003), from objects, via properties to actions. Let us take a closer look at the categories in Table 1.

The first category of Croatian demonstratives includes elements that 'point to nouns' either in terms of their basic existential identification (by lexically pointing to them – the subcategory spatial demonstratives¹⁰ *ovaj, taj, onaj*), or by 'lexically pointing' to some properties (modificational subcategory) such as the 'size' (the set *ovolik, tolik, onolik–* as in '*Rupa je bila ovolika' –* 'The whole was this big'), or other qualitative (type/manner) information relative to the object in attentional focus (the set *ovakav, takav, onakav*; these 'adjectival demonstratives' are also known to have developed from the set of demonstrative pronouns, cf. Gadžijeva et al., 2014: 261–267).We note that the elements from this category (demonstrative pronouns and adjectives) all serve the purpose of pointing to referents i.e. provide a tool for *direct or indirect referential anchoring* (the anchoring of objects referred to) in discourse. The elements falling within this category seem to provide a tool for the speaker that makes it possible to direct (or 'guide') the addressee's attentional focus toward a particular referent, focal for the purposes of the communicative exchange. In other words, the first category either:

- a) provides tools for direct, unique (unambiguous) identification of referent(s) referred to by directly pointing to them (deictic spatial determiner – that serves as the basis for the grammaticalization of two 'direct referential' categories in languages – pronouns and definite articles), or
- b) provides tools for indirect unique identification of referent(s) and/or their properties referred to by pointing to their size or some other (observable, comparable/comparative¹¹) property (we are in the field of adjectives, i.e. noun modification). It is here important to observe that the first category following direct reference via spatial demonstratives (i.e. demonstrative pronouns) is that of 'size'. If we think about language (evolution) from the cognitive linguistic perspective, this is not surprising as size is, indeed, the most 'observable' property that direct reference can be replaced by (if we can't point directly to an object, we point to its size, a likely, 'spatial' feature to help us anchor reference). In other words, the system of Croatian demonstratives indicates that size might be the first adjective (like) referential property that finds its way into communicative needs (and tools), paving way for the category 'adjective'.

¹⁰ The direct referential demonstrative is known to have served as the basis for the development of the personal pronouns, and this fact is confirmed for Croatian as well (Lukežić, 2015: 221–228, Gadžijeva, 2014: 141–142).

¹¹ Here we talk of 'comparable/comparative' features as both the 'size' and the 'modification' (type/ manner) adjectival demonstrative categories express notions the semantic value of which is determined in comparison with another known size/type/manner in the mental space active on-line in the communicative act and shared by the speaker and addressee (e.g. 'this big' – requires a hand gesture as the first element of comparison, or 'like this' requires, again, a comparable value known to both speaker and addressee that the demonstrative can be compared to, i.e. take value from).

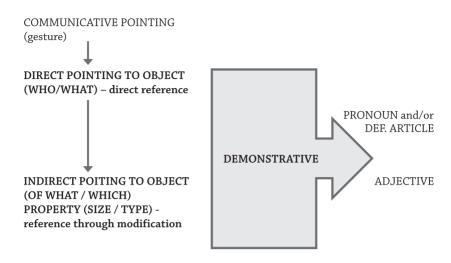


Figure 1. The continuum of Croatian demonstrative pronouns – adjectives

The category of 'indirect pointing to object' ends with the adjectival 'modification', which serves as the point of closure to the WHO/WHAT category, and as a point of entry into the 'WHERE' category, which is a predicative category (in fact, the set of modificational adjectives *ovakav*, *takav*, *onakav*, i.e. 'like this/like that', 'of this/that type', can also be used in copulative, i.e. existential constructions 'X is like this/like that'). The same dual usage (only that in this case we have copulative and pure adverbial) is possible in the locational (*ovdje, tu, ondje*) subcategory¹². Static location is hence seen as a point of transition between the adjectival and the adverbial categories.

Within the adverbial category of demonstratives, static location is followed by a series of motional / dynamic subcategories which combine elements of Source, Goal and Path¹³ to express various adverbial meanings. In fact, the motional (dynamic i.e. kinetic) schema presents three 'sets of doubles' where the first element of the pair is 'MOTION' + 'POINT' and the second one is 'MOTION' + 'PATH'. The pairs are mapped onto three main subcategories: a) where + goal; b) source + goal; c) where + source / goal¹⁴. Space further develops into time (the standardly recognized first metaphoric transition), and

¹² It might be interesting to observe that the first 'adverbial' category, i.e. 'static location', is used interchangeably as a copulative (X is here/there) or as an adverb of place (some sort of nominalized adverbial structure). Contrast: '*Marko je ovdje*' ('Marko is here') and '*Ovdje je lijepo*' vs. '*Ovo je lijepo*' ('This is pretty' vs. 'Here is pretty' i.e. 'It is pretty (over) here').

¹³ Source, Goal and Path are standardly treated in the cognitive linguistic literature as prelinguistic universals and semantic atoms (see e.g. Talmy, 2000).

¹⁴ For a thorough analysis of the Source and Goal components and their cognitive underpinning in the Croatian particles 'od' and 'do' see Brala-Vukanović & Memišević (2014), and Brala-Vukanović & Memišević (2012).

time then becomes a self-standing category of predication forming the quantification category for verbs (just as size was the quantification category for nouns). This is not surprising as the 'quantity' for objects (names) is most saliently observed ('measured') in terms of size (space), whereas the quantity for events (verbs) is most saliently observed ('measured') in terms of time (location in time or duration – the latter giving rise to the actual 'time subcategory', which follows after the spatial one). Put in simpler terms we may wish to state that while the referent (object – expressed by the noun) occupies space, the predicate (activity – expressed by the verb) occupies time¹⁵.

So from location in time (WHEN), we move into duration (FOR HOW LONG) and then, finally, we have modification of predication in the category HOW. Before we attempt to sketch the above continuum, let us just note that the subcategory HOW closes the adverbial category, and introduces the last category of Croatian demonstratives, that of demonstrative particles expressing mode of presentation¹⁶. Let us sum up the remarks relative to the demonstrative adverbs in a graphic outline proposed in Figure 2:

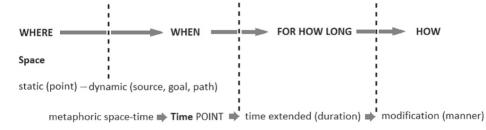


Figure 2. The continuum of Croatian demonstrative adverbs

At this point, we could combine the schemata proposed in Figures 1 and 2 above and propose a Figure 3, which outlines the continuum of Croatian demonstrative elements as a whole. We will sketch the continuum departing from 'question tags' introducing each category of demonstratives, and link them to communicative needs. We observe that the system of Croatian demonstratives starts with the category of demonstrative pronouns answering the question WHAT/WHO. Communicatively, this is in many ways the most immediate linguistic equivalent to the gesture of pointing to an object (referent) that the speaker wants the addressee to put into his/her attentional focus on. The WHAT/WHO basic referential function is, in the demonstrative pronouns

¹⁵ Let us observe here that a number of demonstratives, such as '*dotle*' apart from having spatial and temporal meanings have developed futher, metaphorical senses. What is important for us is that all these developments seem to be motivated and have the spatial domain as their starting point.

¹⁶ This category of demonstratives represents a challenge for traditional Croatian grammatical approaches. The systematic review and a novel analytic approach to this category has been proposed in Brala-Vukanović and Matešić, 2015.

category, possible either by direct verbal pointing to the referent, or by indirect pointing via answers to (demonstrative adjectival) questions 'OF WHICH SIZE' (thus directing the addressee's attentional focus to the size of the referent – a prominent and perceptible feature in the visual field, good for referential purposes) or 'OF WHAT/ WHICH TYPE' (referential identification by means of modification). This communicative move from direct toward indirect reference paves way for the grammatical rise of pronouns and adjectives.

From here we move on into the category of demonstrative adverbs, with a well ordered sequence of WHERE (LOCATION) via WHERE (MOTION) and the metaphorical WHERE (TIME) to WHEN (time proper) and HOW (manner i.e. predicative modification). This sequence possibly sketches the development of the 'event path': from basic, static, 'existential' (ontological) copulative 'is X' construction, toward more developed motion events (that serve as the basis for a series of metaphorical extensions, starting with 'time' toward 'manner'). It is also worth observing that WHERE (MOTION) portion of the continuum is further subdivided into very neatly organized categories that go from WHERE TO (WHERE + GOAL OF MOTION – point); WHICH WAY (WHERE + DIRECTION OF MOTION – line); WHERE FROM (source + point); FROM WHAT DIRECTION (source + line); UP TO WHICH POINT (goal + point); WHICH WAY UP TO (goal + direction). All these elements in the 'motion' portion of the adverbial category are standard primitive (universal) features found in (cognitive) analyses of motion (and, more generally, spatial) language (see Talmy, 2000; Brala, 2002) and might well be derived from general cognitive principles (such as vision).

The continuum ends with the sentential demonstratives (the discourse, pragmatic level, i.e. the level of complex thought and complex grammar). Schematically, the continuum outlined above looks as follows:

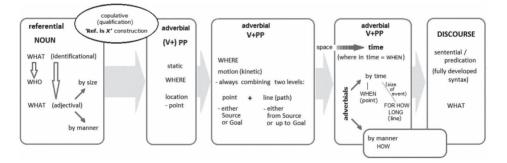


Figure 3. The 'demonstrative continuum' in the Croatian language

3. Conclusion

The data relative to the system of Croatian demonstratives has been outlined and analysed above in the hope of:

- trying to systematize the set of demonstratives in Croatian, as traditional grammar books fail to provide a thorough and systematic account of the paradigm; and
- suggesting that the ordering within the paradigm might possibly pave way for further questions relative to a) grammaticalization processes and routes in general, and b) the developmental path that leads from demonstratives toward other word classes, in particular.

In fact, the most immediate question to ask following the analysis outlined above is: could it be the case that demonstratives have, historically, constituted a particular class of words (possibly, as suggested by Diessel, 2012, distinct from both ordinary grammatical markers and content words) that have served the function of (helping) setting the communicative stage for pronouns, determiners, but possibly also for adjectives and adverbs¹⁷? Most notably, this sequence perfectly maps onto the basic communicative reference-modification-predication continuum (see Croft, 2003), but with an additional demonstrative i.e. deictic 'opening' in each category (yielding 'demonstrative reference', 'demonstrative modification' and 'demonstrative predication' – Gärdenfors and Brala, in prep.).

While not having the aspiration to support the claim that ontogeny¹⁸ recapitulates phylogeny – since the task is outside the scope and reach of this work – we do hope that the above analysis might help provide support for the view that there is a clear, both evolutionary and developmental link between the gesture of pointing and demonstratives in language (see op. cit. in 1.1. above). As direction for further research let us just observe that it might be interesting to take a closer look at the dichotomy that holds between a) deictic (pragmatic) categories expressed by demonstrative particles – as those outlined in Section 2 above – on the one hand, and Gärdenfors' (2014) fast meanings on the other, vs. b) 'fully blown' referential i.e. lexical contents on the one hand, and Gärdenfors' (ibid.) slow meanings on the other. The contrast between the two sets of categories interestingly parallels Buhler's dichotomy between 'pointing' and 'naming' (see Diessel, 2012). Whether 'pointing' really paves way for 'naming'

¹⁷ Diessel (2012) reports that 'a number of scholars have argued that genuine demonstratives are deictic particles that only later developed into pronouns, determiners and adverbs' (ibid.: 37). It might be worth taking a look at a) how adjectives fit into this list and b) whether the notion of 'deictic particles' (and/or 'poiting words') should be replaced by 'directional words' as their main function actually seems to be that of directing the addressee's attentional focus toward a referent (ally salient feature).

¹⁸ Demonstratives are amongst the first words to appear in child language. In fact, demonstratives are one of the few non-content words that children produce during the one-word stage (Clark, 1978). Diessel (2006) motivates the early appearance of demonstratives by their communicative function and their relationship to deictic pointing.

remains to be seen, but the data outlined in this paper seem to suggest that the question might be worth pursuing further.

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SAŽETAK Maja Brala-Vukanović KOMUNIKACIJA I GRAMATIKALIZACIJA. ANALIZA (HRVATSKIH) DEMONSTRATIVA

Teorijska postavka prema kojoj komunikacijske potrebe potiču razvitak (novih) gramatičkih kategorija propituje se u ovome radu na paradigmi demonstrativa u hrvatskome jeziku. U prvome su dijelu rada predstavljene teorijske postavke koje istražuju čin pokazne geste iz perspektive razvojne psihologije, usvajanja jezika te kognitivno-jezičnih univerzalija. Središnja je teza da je pokazna gesta primarni komunikacijski uvjet i alat, bez (usvajanja) kojega nema sposobnosti paralelnoga fokusiranja pažnje (govornika i sugovornika) na referentne objekte, odnosno nema temeljnoga preduvjeta za uspješnu komunikaciju. Promatra se i poveznica između pokazne geste i dijeljene pažnje (engl. *shared attention*) s jedne strane, te demonstrativa kao temeljnih 'usmjernih riječi' (usp. Diessel, 2006) s druge. Drugi je dio rada analitičke prirode, a njegov je središnji cilj sistematizacija kompleksne paradigme demonstrativa (od pokaznih zamjenica, preko pokaznih pridjeva i priloga, sve do čestica) u hrvatskome jeziku. Predlaže se moguća konstrukcija takva kontinuuma za hrvatski jezik koji od pokazne geste vodi do "usmjernih riječi", pri čemu se dobiveni niz povezuje s referencijalnim (identifikacijskim), modifikacijskim (kvalifikacijskim), te predikativnim (informativnim) segmentima jezika.

Ključne riječi: demonstrativi; gramatikalizacija; univerzalije; kognitivna semantika