Clitic particles and the typology of 2P languages

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The paper is devoted to the interactions of particle typology and clitic typology. I am assuming that the notion of 'particle' belongs to the parts-of-speech classification and define particles as function words with discourse or connective functions which are not specified as conjunctions or Ps. The notion of 'clitics' comes from a classification of word forms: clitics are deficient expressions lacking features of phonological words and taking an intermediate position on the way from autonomous word forms to affixes. The class of clitics includes pronouns, auxiliaries and particles. Particles may be either clitic-like or behave as phonological words. Clitic particles are prosodically deficient discourse or connective markers. I am focusing on the distribution of clitic particles. The paper is divided into two parts consisting of five sections each. In the first part I am assuming a lexicalist approach towards defining a class of discourse markers. In the second part I am working out a syntactic approach to clitic particles in 2P-languages, where clitic clusters occur clause-externally. I argue that 2P-languages constitute a syntactic type and share a number of type-specific constraints; I retrieve typological implications from the distribution of clitic particles and principles of clitic ordering in some 2P-languages.

1 BASIC DEFINITIONS: INTERSECTING AND NONINTERSECTING CATEGORIZATION OF WORD CLASSES

The cover term ‘particle’ proceeds from a classification of word classes or, in a different tradition, parts-of-speech classification (Lat. pars orationis). Parts of speech are categories of lexical items defined in terms of morphological or syntactic behavior of the lexical item in question (Croft 1991). The first step in every parts-of-speech classification is the distinction of content words and function words: content word classes (e.g. nouns, verbs, adjectives, adverbs) are normally open, function word classes (e.g. conjunctions and prepositions) are always closed. The term ‘particle’ (Lat. particula) is a catch-all designation. Linguists who explore the parts-of-speech classification use to define particles according to a ‘leftover principle’: they start from funding the content word/ function word distinction, then define conjunctions, prepositions and postpositions and finally label the remaining function words that do not conform to definitions provided for conjunctions and Ps, as ‘particles’. This much maligned practice raises doubts whether a universal definition of particles is possible. Arnold Zwicky claims in his well-known paper on clitics and particles that particle is a pre-theoretical concept that should be expelled from UG, since particles do not

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2 A more accurate formulation would be that at least one of the content word classes is always open in every natural language, though particular languages may have a limited number of lexical items from other content word classes, e.g., adjectives or adverbs.
represent any particular syntactic category (Zwicky 1985: 284). It is plausible that particles do not belong to any classification, where the class of clitics could be defined, namely, to a classification of word forms (Jakobson 1971) or to a hierarchical classification of syntactic expressions (maximal projections $\rightarrow\ldots\rightarrow$ heads). However, Zwicky who protests against the term ‘particles’ invites a great deal of them back, this time under the cover term ‘discourse markers’. It is therefore essential to check whether discourse markers/particles constitute some lexical class or not. Discourse markers/particles may be either phonological words or expressions lacking features of phonological words, that is, be prosodically deficient elements, clitics. Clitics are usually analyzed as syntactic heads, non-projecting or ‘non-branching’ elements in syntax (Bošković 2002). There is no clear-cut syntactic distinction of clitic-like and non-clitic particles or direct correlation of prosodic and syntactic deficiency. Prosodically deficient elements are arguable always syntactically deficient, cf. (Zwicky 1977), (Halpern 1996), (Aikhenvald 2002: 57), but phonological words may be syntactically deficient too: most discourse markers, which are phonological words, are unable to project in syntax, just as clitic-like discourse markers, cf. (Thurmayr 1989). On this reason the idea of reserving the term ‘particle’ only for those discourse markers, which are not clitic-like, and, vice versa, the idea of restricting the term ‘clitic’ with those expressions, which are not discourse-markers, is not attractive.

The notion of particle could be abandoned beforehand if the parts-of-speech classification were just a pre-theoretic concept. However, virtually all world’s languages distinguish several content and function word classes. There have been raised claims that certain languages, e.g. Luumi (Salish family) or Samoan (Austronesian family) due to some aspects of their syntactic or morphologic structure (‘pronominal-argument languages’, ‘amorphous languages’ etc.) lack lexical categorization, cf. Jelinek (2000), but this is highly controversial. Martin Haspelmath argues that such claims proceed from fetishizing morphologic markers of lexical categories; he also mentions that thing-words (i.e. proto-nouns) and event-words (i.e. proto-verbs) have different properties even in Samoan or Luumi (Haspelmath 2001: 16643). Moreover, categorization into word classes under closer examination can be found in languages with a more poor morphology than Samoan, e.g. in Old Chinese. Old Chinese lacks a noun-verb distinction: according to an expert in this language, Sergei Starostin, a noun-predicative distinction came to existence only in the post-classic period (200-600 AC). Starostin, nevertheless, claims that classic Old Chinese (400 - 200 BC) distinguished content and function words and defines the latter as items with a fixed syntactic function: he lists words with functions characteristic of argument/attribution pronouns, quantifiers, sentence adverbials, discourse connectors, reflexive and reciprocal markers (Starostin 1994: 104-109). One and the same content word could be used in Old Chinese both as an argument/attribute or as a predicate. Starostin argues that content words are further subcategorized into two classes depending on the impact they have on interpretation of other sentence elements. Old Chinese content words from class I — he coins the term ‘exoactive’ for this group (Starostin 1994: 102) — change the theta-role of the preposed element. E.g. $srât$ in an argument position may be glossed as ‘murder’, but in a sentence $A srât$ it means ‘A is killed’ (A has the value of a Patient), and in a sentence $A srât B$ it conveys a meaning ‘A killed B’ (A has the value of an Agent/Causee). Content words from class II — this group of content words is labeled ‘endoactive’ (Starostin 1994: 103) — do not change theta-roles. E.g. $\bar{w}\acute{a}c$ may convey such meanings as ‘a state of fear’, ‘to fear’, ‘the one who fears’, but a sentence like $A \bar{w}\acute{a}c$ is to be interpreted as ‘A fears’, not ‘A is feared’, while $A \bar{w}\acute{a}c B$ invariably means ‘A fears B’. Content
words from class I may be roughly identified with thing-and-property words in Haspelmath’s approach, while content words from class II correspond to a subclass of event-words (items capable of predicking motion, state, disposition and affection). Starostin lists one more type of items — a closed class of auxiliary forms mediating from content to function words. These are labeled ‘auxiliary verbs’, since they can only be predicates or attributes, but not arguments. Within this class are found 1) ‘analogues of complementizers’, 2) ‘initial topic particles’, 3) ‘focus markers’, 4) ‘tense, aspect and voice markers’, 5) ‘existential or quantifying auxiliaries’, 6) ‘analogues of prepositions’ (Starostin 1994: 110-118). An alternative would be simply calling these function words complementizers, conjunctions, auxiliaries and particles — a convention accepted in other studies in Old Chinese grammar, cf. Aldridge (this vol.). Irrespective of terminological issues, Old Chinese data do not challenge the principles of word class categorization. That ‘auxiliary verbs’ in this language are further subcategorized into particles, prepositions etc. does not undermine the content word: function word distinction: Old Chinese lacks content verbs, while ‘auxiliary verbs’ and ‘particles’ in this particular language are hierarchically organized word classes — the former class includes the latter, but does not intersect with it. A bad consequence for UG is that the hierarchy of word classes and their number are language-specific as predicted by Croft (1991) and Haspelmath (2001: 16544). Good news for UG are that hierarchical principles of lexical categorization hold even in languages with the utmost poor morphology and that only the cases, where one and the same lexical item is placed into two hierarchically independent classes, really violate the parts-of-speech classification³.

Summing up this part of discussion: the notions of function words and particles are problematic, but remain operational if a parts-of-speech theory produces a non-intersecting classification of word classes. It makes sense to assume two following postulates:

(i) Every natural language allows for subcategorizing lexical items in such a way that each item is placed in one and only one word class.

(ii) A hierarchical principle of lexical subcategorization is a language universal.

Neither (i) nor (ii) is proven yet, but it possible to check whether a theory incorporating these postulates is effective or not. Our main hypothesis is that subcategorization of an element with particles excludes its placement in any other class: if some item displays features of different lexical categories, one should postulate homonymy in pairs like particle/adverb, particle/verb etc. Let us see how this approach works for languages with a distinction of function vs content words.

Empirical observations on Indo-European languages with a rich system of function words (cf. Latin, Old Greek, Modern Russian, Sanskrit, Modern Danish etc.) show that those short function words, which are not specified as conjunctions or Ps, serve as discourse and connective markers. Linguists accustomed to the label ‘particle’ in descriptions of some particular languages wrongly take the existence of the class of particles for granted, but often fail to provide explicit criteria for a comparison of particles in different languages. On the contrary, linguists advancing

³ For instance, if some items combine categorical features characteristic of Ps and conjunctions, this is not a violation in a system, where prepositions and conjunction belong to the same category of a higher level. If all function words in some language combine features of Ps and conjunctions, this is not a violation either, but then one should not apply two different tags for them. If certain item combines categorical features characteristic of Vs and As, this is not a violation for a language, where both belong the same category of a higher level, but is a violation in a language, where verbs and adjectives are subordinated to different categories of a higher level, say ‘Predicatives’ and ‘Nouns’, respectively.
general definitions of lexical categories sometimes do not care of their applicability and lack intuitions concerning categorical distinctions of function words. A typology of particles could fill this gap, but since this branch is still in the making, it makes sense to start from formalizing the insights behind the existing classifications of function words.

It is customary to classify particles into discourse particles (function words providing discourse cohesion), connective particles (providing links between clauses or fragments of syntactic structure) and modal particles (contributing to semantic representation of a sentence and adding meanings characteristic of epistemic, alethic, deontic and other modal operators). This threefold distinction is pre-theoretical, though it might be convenient for some language. The boarders of the three classes are vague: most modal words link a sentence to discourse and, in turn, most discourse words also convey modal meanings. E.g., the word also used in the preceding sentence in the context \( p \text{ also } q \) (\( p \) and \( q \) stand for ‘proposition’) signals that \( q \) is true, contrary to hypotheses that \( p \) excludes \( q \) (= that \( q \) is false if \( p \) is true), that \( q \) is not relevant or should not be accounted for. Even function words corresponding to elementary logical operators like `&` or `\lor` convey modal meanings: cf. English but or Ger. aber in sentences like Er hat das aber nicht vergessen: Russian enclitic \( u \) may both convey meanings ‘and’ and ‘really’. In section 3 I argue that every discourse, modal or connective particle is a logical operator taking propositions as its arguments. Therefore, if the opposite is not specified, the terms ‘discourse’ or ‘discourse & connective’ markers are applied here for all three groups of particles.

The crucial problem is how this logical semantics assumed as categorical for particles (or different classes of particles if they prove to be many) is mapped to their syntax and morphological structure. This issue is discussed in section 2. Another important issue is the volume of the class. In some linguistic traditions particles and discourse words are classified into primary and secondary forms. Primary particles do not correlate with words from other classes and do not consist of elements that could be used as word items in the same language. Secondary particles have correlates in content word classes or consist of items all of which might be used as separate words in the same language. In section 4 I argue that the distinction of primary or secondary particles is not fully justified. If one counts secondary discourse markers, the volume of this class may exceed 100 or even 200 lexical items, as in Modern Russian. It is no wonder that Russian linguists have been so particular in analyzing particles.

The well-known manual of Russian grammar written by Victor V. Vinogradov (1972: 522-530) lists 10 subgroups of Russian particles — 1) emphatic-delimitative particles (cf. initial \( i \) in the meaning ‘too’, ‘either’, \( \text{даже и } ' \) even’), 2) conjunctive particles (cf. тоже ‘also’, также ‘as well’, к тому же ‘therewith’, и то ‘and even then’, притом ‘and besides’), 3) restrictive particles (cf. подлинно ‘truly’, именно ‘just’, как раз ‘right’), 4) deictic particles (cf. вот ‘there’, \( \text{вон 'over there'} \), это, оно ‘it’, identifying же), 5) indefinite particles (cf. \( -\text{то, -либо, -нибудь} \), 6) quantitative particles (cf. почти ‘almost’, ровно ‘absolutely’), 7) negative particles (не, ни), 8) modal adverbal particles (cf. бы ‘conditional’, -ка

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4 One should not overestimate one-to-one translations where the meaning of a particle from language 1 is juxtaposed to the meaning of some expression from languages 2. Even if such parallels are provided correctly, one-to-one translations of function words do not instruct how these items should be used. Certainly, even if e.g. Russian dubitative marker якобы glossed with English ‘allegedly’ behaves as a particle, not an adverb, this does not imply that Engl. allegedly should be considered a particle too. An attempt of giving lexicographic descriptions of Russian discourse markers is (Baranov et alii 1993).
‘imperative, hortative’, дай, давай ‘let us’, пожалуйста ‘please’), 9) **auxiliary particles** (cf. forms of the BE-auxiliary, это, как), 10) **other particles**, incl. ли ‘interrogative’, exclamative-interrogative что за ‘what for’, quotative мол, де ‘quotative’, dubitative будто ‘as if’, якобы ‘allegedly’. This categorization is deliberate. Vinogradov’s group 10) is a waste-basket: there are no reasons to unify interrogative and quotative markers, it is possible to add new groups for evidential or admirable markers. The last academic Russian grammar classifies Russian particles into six groups: 1) **formative elements** in word complexes (cf. formatives –то, -либо, -нибудь used in Russian indefinite pronouns) or changing syntactic mood (cf. conditional particle бы), 2) **negative markers**, 3) **interrogative markers**, 4) **TAM** (tense, aspect and aktionsart) markers, 5) **modal markers** in the strict sense, 6) **YES/NO-words**, i.e. affirmative/negative responses in a dialogue (Švedova et alii 1982 I: 723-731). This attempt is not felicitous either, since categorical features do not exclude each other: one and the same item may well combine features of a formative element and of an interrogative marker etc. Furthermore, syntactic behavior of items classified with the same type is different. For instance, да ‘yes’ has no other uses than being a positive dialogue response, while нет ‘no(t)’ is used both as a negative response and as a main predicate, cf. (1):

((1) У него нет этих газет.
‘He has not these newspapers’, lit. ‘of-him not newspapers’.

The presence of the negative element in (1) changes the case-marking on the nominal part of the predicate эти газеты ⇒ этих газет from accusative to genitive. This feature is characteristic of non-zero heads of Russian NegPs, cf. (Borshev & Partee 2002), and it seems appropriate to treat нет in (1) as a predicative negative operator. This fact is well-known: Švedova herself comments upon the asymmetry of Russian positive and negative markers (Švedova et alii 1982 II: 402-407), but traditional grammar draws no consequences from it. Postulating two homonyms — a particle of a negative response нет₁ and a predicative head нет₂ — is a counter-intuitive step that lacks any semantic motivation. A more economic solution is to conclude that Russian нет is not a particle, but a predicative operator capable of heading NegPs.<sup>5</sup>

Another problem is the so called auxiliary particles. This tag known from descriptions of different languages is attached to completive function words (or morphemes) typically used in complex predicate formations. As far as I see, there are two largely independent obstacles to analyzing such items as particles. On the one hand, many auxiliaries are frozen word forms originating in verbal, nominal, pronominal or other inflectional paradigms. If such forms retain correlates in content or function word classes, it is necessary to prove that auxiliaries are separate lexical

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5 Predicative нет is used in negative clauses in the present tense only. In the past and future sentence it is replaced by combination of the negation не ‘no’ + BE-auxiliary: не было, не был, не будет, не будут etc. It is theoretically possible to analyze Rus. нет as a projection consisting of the negative marker не + zero copula ‘BE’ in order to give a unified treatment to all Russian negative clauses. However, such a description hardly makes sense. For the first, нет does not have any element of verbal morphology neither on the synchronic level nor in a diachronic perspective – it is a clitic word consisting of the negative proclitic ne- with enclitic formation –t. It may fill the predicate position not because it includes a silent ‘BE’-head, but just because Modern Russian has non-verbal clauses (pure nominal clauses and finite clauses without overt verbal heads). For the second, if one ad hoc decomposed нет as [NegP не [ν [ν Aux ʔ ] ]], one is forced to postulate two homonymic нет in the predicative position and in negative dialogue responses – a step lacking independent motivation.
items and not specific uses of other function words. For instance, Russian (genetically a 3Sg. neuter deictic pronoun ‘this’, ‘this one’) and Polish to ‘that’ (genetically a 3Sg. neuter deictic pronoun ‘that’, ‘that one’) are used in copular structures of the type ‘X is Y’ (Rus. X émo Y, Pol. X to Y), but Rus. émo and Pol. to may be acknowledged as particles only if one proves that they lack pronominal features as copulas. On the other hand, a different group of languages has inflected auxiliaries. For instance, in Dargi grammars negation ak:u is claimed to be a particle despite it shows class-and-number agreement with the grammatical subject, cf. (2a) and (2b). It can also be the main predicate, cf. (3) or adjoin to a lexical verb in tense forms, cf. (4). Dargi examples representing the Qunkin dialect of Dargi are from Serdobolskaya (in press).

(2a) dila  paltar  d=AK:U.
I (gen)  clothes  npl=NO
‘I have no clothes’.

(2b) dila  mac:a  b=AK:U.
I (gen)  sheep  n=NO
‘I have no sheep’

(3) jašti  aw-ne  na|sil  ca=d-i,  a  it:i  AK:U.
dem.pl  shirt-pl  dirty  cop=npl-cop and  dem.pl  NOT
‘these shirts are dirty and those (are) not’

(4) u  imtihan-ne  kniga  b=elč-un-di?  ci-k'al  čeirR-ib-AK:U.
you  exam-superlat  book  n=read-aorist-2sg  that-any  understand-aor-NO
‘Did you read a textbook to the exam? Oh yes, but I didn’t understand anything’.

I suggest that forms like Dargi ak:u should be denied the status of particles, since they classify with content words morphologically. Dargi ak:u is a negative verb and can head a syntactic projection.

If one separates occasional goats like Russian нет or Dargi ak:u from true particle sheep, i.e. function words different from auxiliaries and pre-/ post-positions, a vast majority of such items turn out to be discourse and connective markers. They deviate from content words in three aspects: (1) syntactic behavior, (2) logical semantics, (3) form and derivational history. A universal definition of particles may be based on either criteria, but the validity of such definitions depends on the fact whether languages in question have a clear-cut distinction of function words vs content words as well as on more specific factors, such as the number of content and function word classes.

2 SYNTAX: PARTICLE VS ADVERB DISTINCTION REVISITED

Discourse and connective markers do not take argument or predicate positions. This feature holds cross-linguistically at least in languages with a noun-verb distinction. For languages with adjectives one has to add a condition that discourse and connective markers cannot be used as nominal modifiers. These two features make up a distinction of ‘discourse & connective particles’, on the one side, and such content word classes as nouns, verbs and adjectives, on the other side. The distinction of particles vs adverbs is more subtle on two reasons. For the first, a considerable number of world’s languages lack adverbs (Haspelmath 2001). For the second, in
languages with adverbs discourse and connective markers originate from adverbs, but not vice versa. In these cases a shift in lexical meaning goes hand by hand with change of syntactic position. For instance, Danish epistemic operator sikkert₂ ‘for sure’ originates from Danish manner adverb sikkert₁ ‘with confidence’. The latter takes a position in the VP, after infinite verbal forms: with a preposed subject in SpecIP, it gives the order S Vᵢₚ [VP Vᵢₙf Adv], cf. (5a). The operator takes a slot for Negation/Sentential Adverbs and is placed between the finite and infinite verbal forms: with a preposed subject it gives the order S Vᵢₚ Adv [VP …Vᵢₙf], cf. (5b). In addition, the change of status from adverb to particle brings about a change in phrasal accentuation: combined with particle sikkert₂ the modal verb kan in (5b) takes over the main phrasal accent, which is not the case in (5a).

(5a) Han kan køre ‘sikkert.
   ‘He can drive with confidence’.

(5b) Han ’kan sikkert køre.
   ‘He surely CAN drive’.

Syntactic and accent markers proving for a change of status from Danish adverb sikkert₁ to particle sikkert₂ are language-specific — cf. surveys of Danish discourse particles in (Davidsen-Nielsen 1996) and (Jensen 2000) — but they apparently mark general mechanisms deriving discourse particles from content words. Danish also has an epistemic operator nok₂ ‘likely’, ‘most probably’ which takes the slot for Negation/Sentential Adverbs, cf. (6b). It originates from a degree adverb nok₁ ‘enough’ which takes a postposition to adjectives, cf. (6a). Strictly speaking, the pair (6a) vs (6b) does not instantiate a contrast of postpositive and prepositive modifiers, since the operator nok₂ does not belong to AdjP syntactically, but the surface position of nok respective to the neighbor adjective head is nevertheless diagnostic for recognizing its lexical and syntactic status:

(6a) Han er klog nok.
   He be-Pres. Clever-Adj. ENOUGH
   ‘He is clever enough’.

(6b) Han er nok klog.
   He be-Pres. LIKELY clever
   ‘He is most probably clever’.

A general feature of discourse particles opposing them to adverbs is the inability of the former to project in syntax and take modifiers. Particles originating from adverbs notably lose the ability to project. One may ask whether Danish nok₁ ‘enough’ could be classified as a particle too, i.e. as a lexical item of the same level as epistemic operator nok₂. Such a qualification would be misleading, since nok₁ ‘enough’, just as its English and German equivalents enough, genug, is used in the same lexical meaning both as a degree adverb and as main predicate. In the latter case it can be modified by other adverbs, i.e. apparently heads some projection. Cf. Da. Det er [ganske [nok]] ‘It is completely enough’, Ger. Es ist [ganz [genug]]. On the contrary, epistemic operators as Da. nok₂ ‘likely’ are unable to project and lack

<p>| (Table 1) Adverb sikkert and homonymic particle sikkert in Danish |</p>
<table>
<thead>
<tr>
<th>Adverb</th>
<th>Particle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical meaning</td>
<td>‘with confidence’</td>
</tr>
</tbody>
</table>
| Illustration | (5a) Han kan køre ‘sikkert.
   ‘He can drive with confidence’.

  (5b) Han ’kan sikkert køre.
   ‘He surely CAN drive’.


modifiers: clusters of particles taking a contact position to each other, cf. Da. vel nok, måske nok, etc. are not a counterexample, since particles in a cluster are not involved in a head-complement relation.

The inability of ‘secondary’ discourse operators to project and change in constituent order indicate that the grammaticalization process adverb > particle is completed and the source adverb (if it is preserved) and the resulting particle have different distribution. Sometimes it is also necessary to check prosody in pairs source adverb: discourse particle. For instance, modern Russian has a manner adverb просто1 ‘easily’, ‘with ease’. It is always accented and may be either narrow focus or contrastive topic, getting the corresponding accent markings. There is also an epistemic (concessive) operator просто2 ‘simply’, ‘just’: it is always deaccented and may scramble. As predicted above, the manner adverb просто1 projects and takes a modifier очень ‘very’ — cf. Он решил задачу [очень [просто]] ‘He solved the problem with great ease’, lit. ‘He solved the problem very easily’, while the concessive operator просто2 ‘simply’ cannot — cf. Это просто Вася ‘This is simply Bazil’, but not *Это очень просто Вася lit. ‘This is very simply Bazil’.

Fixed communicative status restricts the distribution of просто1 compared with other manner adverbs. Most Russian manner adverbs are scrambleable: if they are not focused, they intervene between the subject and verb. Otherwise they are right-dislocated when focused: S Adv V (?Adv) O [FocusP Adv]. Since просто1 ‘easily’ is a focus/contrast word, non-initial просто1 must stand in the FocusP and the only available order for it is S *просто1 V *просто1 O [FocusP просто1]. As a result, просто1 and просто2 make up a complementary distribution in Modern Russian. This conclusion is fairly predictable, but one cannot establish that просто1 and просто2 are homonymic items without considering their accentual markings in an oral text. To make the thing more complicated, in addition to просто2 Russian makes use of a non-homonymic concessive operator просто-напросто ‘just’, ‘to tell the truth’: it is derived from просто1 ‘easily’ through root reduplication and use of the applicative morpheme на- ‘on’. Like просто2, просто-напросто has lexical stress, but cannot take tonal accents specific of Russian foci and topics. These results are summarized in fig. 2: following a transcription proposed in (Zimmerling 2008c) I am tagging focal elements with a prefixed tag ‘\' (reads: ‘falling accent with a normal/early timing, HL*L-) and deaccented elements with ‘˳X’ (reads: ‘no phonemically relevant pitch accent, level tone on X’). Note that the tag ‘X’ marks an absence of phrasal accent: whether X has or lacks lexical stress is not relevant.

| Focus position(s) | Adverb просто1: Он решил задачу \.borderWidth\'просто1; \. | Consessive particles: *Он \.решил задачу ; просто2. | Consessive particles: *Он \.решил задачу ; просто-напросто. |
|---|---|---|
| ‘He solved the problem with ease’; *Он \.решил задачу. | Int. ‘He simply solved the problem’. |
| | Int. ‘He just solved the problem’. |

\* A simplistic view on Russian phrasal accentuation is that focus in declarative sentences is marked with a falling contour HL*L-, i.e. a falling pitch accent with normal/early timing, symbolic representation ‘\()', IP 1 according to Russian phonetic tradition. The topics of declarative sentences are marked with a rising contour LH*L- i.e. a rising pitch accent with early timing, symbolic representation ‘\', IP 3 according to Russian phonetic tradition. For more details on the prosody-syntax interface in Russian see Yanko (2001: 137-220), (2008: 26-60) and Zimmerling (2008c).
| Non-focal & non-contrastive positions | *Он просто решил задачу. Int. ‘He solved the problem with ease’ | *Он просто не решил задачу. ‘He simply did not solve the problem’ |
| Ability to project | Он решил задачу [очень [просто]]. Lit. ‘He solved the problem very simply’. | *Он [очень [просто]] решил задачу. *Он [очень [просто-напросто]] решил задачу. Int. ‘He just solved the problem’. |
| Predicative position | Это [очень [просто]]. ‘It is very simple’. | *Это просто-напросто. Int. ‘It is simply so’. *Это [очень [просто-напросто]]. Int. ‘It is extremely simply’. |
| Highlighting function | -- | *Это [просто] [Вася]. ‘It is just Bazil’. *Это [очень [просто] [Вася]]. Int. ‘It is just Bazil, no doubt’. |

What is language-specific, here and which part of data presented above has relevance for UG? The rules of deaccenting and accent placement, the correlation of accent marking *in situ* and overt movement and the conditions on adverb scrambling are specific for Modern Russian and should not be extrapolated to other languages. Nevertheless, I believe that Russian data bring a conclusive evidence for adding two criteria to a definition of particles in UG:

(iii) Discourse particles do not change their communicative status.

(iv) Discourse particles can serve as focus or topic markers, but they themselves are never marked as foci or topics.

I assume that conditions (iii–iv) hold universally, though world’s languages do not always exhibit so favourable conditions to check them, as Modern Russian does: here discourse particles are systematically excluded from syntactic positions, where adverbs overtly marked as foci and topics may appear.

If one accepts criteria (iii–iv), the cluster of syntactic features assumed as diagnostic for particles in UG takes on the following shape:

- Particles cannot take argument and predicate positions.
- Particles cannot be used as nominal modifiers.
- Particles do not project in syntax and cannot be modified by other elements.
- Particles cannot be topical or focal and are excluded from positions where communicative status is assigned.

This apparatus works in the class of languages with adverb : discourse operator distinction, with two caveats. From the one side, these criteria may license some items, as Russian negation нет or Darga negative verb ək:u that ought be better kept apart from the class of particles. From the other side, these criteria are harder to check

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7 For the sake of simplicity I am glossing the non-agreeing predicate form in *Это очень просто* ‘It is very simple’ as an adverb, not an adjective, and skipping any discussion about the status of Russian predicative forms with an –о-final, whether these forms are adjectives in UG, or not. Cf. (Zimmerling 1998) for detail.
on auxiliaries and completive markers. Finally, inability to project is not a feature exclusively associated with discourse markers — it is also diagnostic for pronominal and auxiliary clitics. The status of the latter in the parts-of-speech classification is unclear, but it is obviously impossible to classify discourse markers and pronominal clitics with one and the same lexical category. Therefore, one has to look at semantic and derivational criteria: I’m briefly rendering them in the next two sections.

3 SEMANTIC SPECIFICITY OF PARTICLES: PRESUPPOSITION AND SCOPE

Presupposition and scope. Discourse and connective particles are usually treated as sentence-level operators taking propositions as their arguments. This point has to be reconciled with the well-known fact that many particles take a more narrow scope than a whole sentence. For instance, Russian topical marker =мо is an enclitic taking a scope over the topicol constituent Вся preceding it in (7a). Russian delimitative marker именно ‘exactly’, ‘namely’ fulfills the same function in (7b) and has a similar behavior except for it is not a clitic, but a particle retaining its lexical stress and preposed to the topicol constituent Вся. From a viewpoint of communicative perspective (7a) and (7b) are identical — in both examples the topicol accent ‘’ in the combination discourse marker + NP is located on the NP. (7a-b) make use of one more discourse operator – proclitic и= it is a focus marker which immediately precedes the verb предал carrying the focal accent ‘’.

(7a) Вся=мо нас и предал.
Bazil-Nom=TOPIC we-Acc. FOCUS deceive-3Sg.M.Pst
‘It was Bazil who deceived us. (Did you expect that?)’

(7b) Именно =мо нас и предал.
Exactly Bazil-Nom we-Acc. FOCUS deceive-3Sg.M.Pst
‘It was Bazil who deceived us. (Not anybody else.)’

Both the enclitic particle =мо and the prepositive discourse particle именно are sentential operators involving operations on the truth value of the whole sentence. The semantic contribution =мо adds to the meaning of (7a)\(^8\) can be described as following:

(7a’) \( p (X, q); \) the proposition \( q = (X \text{ deceived us}) \) is true. ];
\[ Y / A \in \{ X \} \land A \notin \{ X \}; \]
\[ \land (A \in \{ X \}) \text{ is true (the proposition that A belongs to X is true}); \]
\[ X = \text{ those who deceived us; } A \lambda (X) =\text{Vasja}; \]

(7b’) ИМЕННО \[ p (X, q); \] the proposition \( q = (X \text{ deceived us}) \) is true. ];
\[ Y / A \in \{ X \} \land A \notin \{ X \}; \]
\[ \land (A \in \{ X \}) \text{ is true (the proposition that A belongs to X is true}); \]
\[ X = \text{ those who deceived us; } A \lambda (X) =\text{Vasja}; \]

\(^8\) Like most, who have dealt with semantic descriptions of particles, I am assuming a compositional approach to the meaning of complex expressions: the meaning of the whole is a function of the meaning of its elements, the operations on meanings of the elements are additive.
Semantic redundancy and synonymy of particles. As shown above in (7a’), *то* in (7a) is an admirative marker: it signals that Vasja, contrary to expectations, turned to be a traitor. *Именно* as shown above in (7b’) is an affirmative marker: its use in (7b) signals that Vasja indeed turned a traitor, in accordance to a previously expressed hypothesis. These markers are actually compatible: therefore a sentence *Именно Вася =то нас и предал* ‘It was indeed Vasja who deceived us (imagine that)’ is well-formed. When used in isolation, both particles in addition indicate communicative status of a larger constituent they are located in: in (7a) and (7b) it is the topical constituent.

Similar observations led to claims that discourse particles are semantically redundant, do not contribute to the meaning of the sentence or have so poor lexical meanings that they are largely synonymic to each other within some subclass of discourse markers — cf. Cardinaletti (this volume): “MPs <Modal Particles> do not have a lexical meaning, but express many relations between the speaker and the context”. The substance to these claims is that in most cases one can drop discourse particles and preserve syntactic structure. As for topic-focus articulation, it is usually possible to mark communicative status overtly by changing word order and intonation. Typologists are prone to claim that in some exotic languages prosody or constituent order have no impact on topic-focus articulation, but every well-described language falsifies this: a state-of-the-art observation is that segmental markers of communicative status are simply more easy-to-get than the syntax-prosody interface. As for more subtle meanings, as, e.g. admirative, evidential, affirmative, counterfactual concepts, they get lost if one drops particles or replaces them with a different discourse operator. In this respect particles are never redundant and never synonymic within the same language, though their semantic contribution might belong to a layer of information packaging, which is not always relevant for a successful communication.

Form and semantics. Short and long discourse markers, clitic particles and non-clitic discourse markers, primary particles lacking correlates in other word classes and secondary clitics retaining such correlates have uniform features with respect to presupposition and scopal phenomena, if they share diagnostic syntactic features discussed in the previous section. I am not aware of cases, where short clitic particles take a scope lesser than maximal projection. For instance, Russian admirative particle =*мо* mentioned above is an enclitic. It may be attached either to the first

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9 With different constituent order and phrasal intonation *именно* may also combine with verification focus as in Rus. *Это сделал [рассер *именно* [Вася]]* ‘It was Vasja, who did it (not somebody else)’. Note that this does not prove that discourse particles like *именно* may shift their function from topic markers to focus markers: this proves that *именно* is neither topic particle nor focus particle, but an affirmative particle combining both with focal and topical constituents.

10 One may believe that e.g. the admirative meaning expressed by a particle in language L1 is expressed by a special admirative mood in language L2 and claim that every meaning expressed by a discourse particle in some language can be expressed in a different way in other world’s languages.

11 Aikhenvald (2002: 55) gives a pair of examples from Tariana, where change of relative order of a repetitive verbal enclitic =*pità* and completive verbal enclitic =*niki* changes the meaning of a sentence from ‘He had completely (finished) speaking again’ to ‘Again, he had completely finished speaking’. Possibly this is not a counterexample to our analysis. For the first, both =*pità* and =*niki* are sentential operators, each of them capable of taking a wider scope over other operators. For the second, it is unclear, whether =*pità* and =*niki* are particles or function words at all: Aikhenvald herself admits that they are ‘somewhat similar to independent words’ (ibid.).
phonological word of an NP — in (8a) it is the head noun сын ‘son’ and in (8b) the possessive modifier Васина ‘of Vasja’ — or to the right edge of the spelled-out NP сын Васиной жены ‘The son of Vasja’s wife’, as in (8c). This variation has little or no impact on the meaning: irrespective of the length of the preceding sentence material, in all three variants the clitic =to takes the scope over the whole NP, only the locus of the main topical accent marked ‘Topic Proper’ below is shifted.

(8a) [TopicP [NP [N Сын]=то Васиной [TopicProper жены]] [FocusP нас и]=[FocusProper>предал]].
‘The son of Vasja’s wife deceived us indeed’.

(8b) [TopicP [NP Васиной=то жены [TopicProper [N сын]]]] [FocusP нас и]=[FocusProper>предал]].
‘the same’.

(8c) [TopicP [NP [NСын] Васиной [TopicProper жены]=то] [FocusP нас и]=[FocusProper>предал]].
‘the same’.

It is easy to extend the outlined approach to all TAM markers and describe non-verbal (i.e. lacking verbal morphology) future particles as Bulg. уме or conditional particles as Rus. бы and explain them as sentential operators transposing some state of affairs into a possible world accessible from the real world. Unfortunately, presuppositional properties and a mismatch of presuppositional semantics of an element and its scope in a sentence are not diagnostic for function words. There are many content words with presuppositional semantics: verbs rewrite or answer not only describe an event, but also signal the existence of the preceding events of the same or related type. Therefore, a universal definition of particles cannot be based solely on semantics. Moreover, semantic features mentioned in our survey do not seem to be independent from syntactic features discussed in the preceding section: the changes in syntactic behavior (inability to project) notably bring about predictable shifts in lexical semantics (or vice versa: the shifts in lexical semantics always change syntactic position of an item joining the class of particles). These shifts could be traced on secondary particles, e.g. discourse operators like Russian просто, просто–напросто, именно originating from adverbs or other content words. We failed to find substantial semantic or syntactic criteria that could exclude secondary particles like Rus. именно from the class of function words where short particles like Rus. admirative marker to could be placed. Therefore, one must look at the last group of features that could be decisive for defining particles — derivational constraints.

4 PARTICLE FORMATION AND DERIVATIONAL CONSTRAINTS

At first sight, there are no reasons to oppose primary and secondary particles semantically and syntactically. The percentage of secondary particles in TAM
markers and highly grammaticalized connective markers is lower than by discourse words, but this might be merely a problem of how deep our diachronic analysis is. Starostin refers to Old Chinese function word cɨk ‘consequently’, ‘therefore’, ‘it turned out that’ and classifies it as a focus marker. He indicates that this function word is historically a special use of the content word cɨk ‘a law’ ‘a rule’ ‘to follow’ ‘to imitate’ ‘to become like to’; this content word becomes obsolete and disappears in Classic Old Chinese (Starostin 1994: 110). It might well turn that there are no primary particles at all and all particles/function words are either a combination of several items (cf. Eng. in deed > indeed) or specific uses of content words; the problem is only that not all languages have such a long documented history as Chinese. Remarkably, a similar shift in lexical meaning and function took place in Russian; it has a noun право1 ‘law’, ‘right’ and a discourse marker право2 ‘by the way’, ‘still’, ‘though’. If all semantic transitions of this kind were registered and both the source meanings (e.g. ‘law’) and the target meanings (e.g. ‘therefore’, ‘though’) were put on a semantic chart, particle studies were an easy job.

Recently, there have been made a attempt to restrict the class of particles with primary forms only. Tatyana Nikolaeva, who published a monograph on particles, believes (though does not specify it from the start) that particles are some kind of special morphemes that combine with each other and form word units not consisting of roots and affixes (Nikolaeva 2008: 113-124). Along these lines, Rus. conjunction или ‘or’ and Bulg. complementizer дали ‘that’ should be also considered particles, since they are formed by attaching proclitic particles a, да to the enclitic particle ли: some of these smaller units are still used as independent function words in languages in question (2008: 115-116). Such an analysis is obviously not consistent with the approach chosen in this paper: if one and the same function word under given assumptions belongs to two or more word classes simultaneously and или ‘or’ is both a conjunction (due to its syntactic position) and a particle (due to its derivational history), then also Dargi ak:u in (2)-(4) is both as a particle and a negative verb. Exploring this path, one can only arrive at an intersecting classification of word classes. As I suggested above, a general theory of particles should base on an non-intersecting classification of word forms, since the class of particles or several classes of discourse & connective & modal markers & TAM markers result from the class of function words after subtracting function word classes with a more specific syntactic function — that of a conjunction, complementizer and P. Nikolaeva’s analysis has other drawbacks. A combination of particles may form a new particle item, cf. да + уже > Rus. даже ‘even’, but new particles may also result from combinations preposition + particle, cf. у ‘by’, ‘at’, ‘of’ + уже > уже ‘already’, ‘by now’. Secondary particles can also be frozen phrases; Eng. indeed is a frozen PP, while Rus. вряд ли ‘scarcely’ is a PP в ряд ‘in the row’ extended with the alternative marker ли ‘whether’. There are numerous instances of particles resulting from a combination of a content and a function word. E.g. Danish simpelt ‘easy’ is an adjective in the neuter form (cf. Da. Det er meget simpelt ‘it is very easy’), and hen ‘there’, ‘in the direction of’ is a deictic word, but simpelt hen is a modal particle with a meaning ‘just’. In Russian, the meaning corresponding to Da. simpelt hen is expressed by the reduplication of the adverb посмотру ‘easily’ discussed above in section 2, while a formal analog of Da. simpelt hen, a combination of посмотру with a particle там ‘so’, ‘in this way’ signals another meaning — ‘for no special reason’. Finally, reduplication of short word forms may or may not change their categorical features: that means that if a language has an item like so or now, items like so so or now now should not necessarily belong to the same word class. E.g. reduplication of
Russian affirmative marker да ‘yes’ + REDUPL > да-да adds semantic nuances, but does not change its status, since the reduplicated form is used in the same syntactic position of a positive dialogue response. On the contrary, reduplication of Russian negative predicative нет (which is a *not* a particle) нет ‘no’ + REDUPL > нет-нет drastically changes its categorical status and makes a secondary particle of it, since the reduplicated form cannot be used in the predicative position, cf. well-formed examples (9a-b) with the ill-formed (9c):

(9a) A. — Ты написал письмо? ‘Did you write a letter?’.
B. — Нет/ нет-нет ‘No/no-no’.

(9b) = (1) У него нет этих газет.
‘He has not these newspapers’, lit. ‘of-him not newspapers’.

(9c) *У него нет-нет этих газет.

All these facts entirely falsify the idea of particles as a magic field consisting of primary forms only, which in a mystical way retain their original status when used as parts of larger word units.

5 SUMMARY TO SECTIONS 1-5

I argued that neither purely syntactic, nor purely semantic, nor purely derivational criteria used in isolation prove the hypothesis that all discourse markers should be put in one class of PARTICLES. At the same time, a combined application of these three criteria shows that mechanisms deriving discourse markers from content words or function words bring about predictable changes in syntax and lexical meaning of the items in question. Discourse markers are similar to clitics in their inability to project: some discourse markers are also prosodically deficient. Discourse markers bear a similarity to content and function words with presuppositional semantics.

The most disputed issue is the status of discourse markers in a parts-of-speech classification, which is a non-intersecting classification of lexical categories. The behavior of discourse markers across languages neither proves nor falsifies theories of lexical subcategorization. There are at least four possible solutions:

1) Parts of speech classification, with further classification into >> function words >> particles is no good, and one should use syntactic definitions of particles instead. This is a ‘radical syntactic’ standpoint, exemplified by (Zwicky 1985).

2) Parts of speech classification, with further classification into >> function words >> particles is good for describing particular languages, but not valid on the level of UG. This is a modest variant of the preceding standpoint.

3) Parts of speech classification should be withhold, but there is no universal definition of particles. This is an ‘agnostic’ position.

4) Particles form a lexical class if they don’t intersect with other items and a combination of their categorical features is not shared by any other word class. This is a ‘lexicalist’ approach.

In this paper I opted for the last variant and proposed hypothesis (ii) that hierarchical principle of lexical subcategorization into parts of speech is a language universal. If
(ii) is correct and subcategorization into content vs function word classes and hierarchy of function word classes pertain to UG, it makes sense to assume that PARTICLE is not a single class, but a group of several function word classes, while the exact number of particle classes may be specific for a particular language. In this case putting of all discourse and TAM markers into one class ceases to be a hot theoretic issue and might be considered a merely descriptive task.

6 CLITIC AND PARTICLES IN SYNTAX: PROSODIC VS SYNTACTIC CLITICS

The main puzzle concerning the status of discourse markers in UG is when their insertion into syntactic structure takes place. A theory of particles as non-projecting operators taking propositions as logical arguments suggests a late insertion when all arguments, parts of the predicate complex and adverbial projections are already generated and merged. However, the conditions for particle placement, be it clause-initial, clause-final particles, second-position particles, head-adjacent particles or floating word forms, are apparently syntactic by nature, which suggests a relatively early insertion when some slots for the insertion of particles still are available.

In the first part of this paper I argued that particles are a word class or a set of related function word classes and showed that it is difficult to fund categorical features of any discourse markers without specifying their meaning respective to lexical meanings of function words. At the same time, if the existence of discourse markers as a separate set of expressions is taken for granted it is easy to find such aspects of syntax that do not require detailed analysis of particle semantics. If a linguist is defining position of a discourse element, it will normally do to tag this item ‘focus marker’ ~ ‘topic marker’ ~ ‘evidential marker’ etc. and ignore all general and specific objections from semantic theory — that genuine focus markers do not exist, that a given evidential marker in a given language probably also conveys some other meanings etc. One of such aspects is clusterization of particles with pronominal and auxiliary clitics. A cluster is a group of prosodically deficient elements taking contact position in a rigid order. In one class of world’s languages, notably 2P languages (= languages with 2nd position clitics, languages with C-oriented clitics) clitic clusters including particles also take a fixed position to clausal left edge — a fact that can be accounted for both in phonetic (Anderson 1995) or in syntactic terms (Zimmerling 2008). In any case, the placement of a cluster in a given syntactic position indicates that different categories of clitics included in such clusters have similar behavior and that particle clitics when they clusterize with pronominal and auxiliary clitics might well share some syntactic features with them. Linguists, who assume different properties for pronominal and other clitics, sometimes deny the existence of clusters in syntax, cf. (Bošković 2002) or (Franks 2008): I argue below that this claim is not funded. I also argue that the position of clusters cannot be accounted for in purely phonetic terms, contra (Anderson 1995) or (Zaliznjak 2008).

Clitic studies are a more popular field than particle studies, but some of the basic terms, as, e.g. ‘phonetic clitics’, ‘syntactic clitics’, unfortunately are interpreted differently. The first step is to decide, whether clitics are definable in UG or not. A pessimistic minority, cf. (Sadock 1995: 260) concludes that clitics do not form any ‘natural class’ that could be defined in terms of genuine grammatical properties. In this case the notion of clitic is more vague than the notion of particle, since clitics do not constitute any uniform lexical word class. I am joining the optimistic majority and assume that a) clitics are definable in UG, b) at least one type of clitics — labeled ‘special clitics’ in the seminal publication of Zwicky (1977) — take syntactic
positions that cannot be filled by any non-clitic elements. In the Minimalist framework clitics are analyzed as non-branching phrases. For the purposes of this paper it does not matter, whether clitics are introduced as non-branching elements, cf. (Bošković 2002) or become such in the course of the derivation, cf. (Franks 2008: 107). A theory-internal issue, which is of greater relevance for formal typology, is whether pronominal clitics are merged as arguments, within VP, or as Agreement (or Case) heads in some functional projection above the VP. Given that besides argument clitics there are clitic auxiliaries and clitic particles that may clusterize with the former in 2P languages, the second option is preferable. I assume here that all 2P clitics are merged as heads and their linearization is a result of head movement. One more controversial issue is the status of clitics respective to affixes and roots. There is a vast literature on the subject, cf. Aikhenvald (2002) who argues that some kinds of clitics may be affix-like, while some other clitics from the same language may resemble roots (2002: 70-74): for reasons of space I make a simplistic assumption that clitics as syntactic elements can always be distinguished from affixes.

The boundaries of the class of clitics crucially depend on which approach to defining clitics in UG is taken — a prosodic or a syntactic one. Accordingly, one may speak of **prosodic clitics** vs **syntactic clitics** (Zaliznjak 2008: 8).

- **Prosodic clitics** are elements, which cannot form a phonological word without combining with other words, cf. (Jakobson 1971), (Selkirk 1995).
- **Syntactic clitics** are elements, which take syntactic positions that cannot be filled by non-clitic words, cf. (EuroClitics 1999), (Zimmerling 2002: 64).

This distinction does not coincide with the distinction of ‘phonetic’ vs ‘syntactic’ clitics proposed by Tracy Holloway King & Steven Franks (2000). Franks (2008) ascribes uniform phonetic features to all clitics in a given language, while genuine prosodic theories take into account that clitics may have different phonetic properties, e.g. be stressed/ lack stress, bear a high tone/ a low tone etc. In this paper, I am adopting syntactic criteria of cliticity. Before exploring the syntactic path I’ll provide a pair of illustrations for prosodic clitics. This notion originates from a classification of word forms with and without phonological stress proposed by Roman Jakobson in 1935. Word forms are classified into clitics (cannot form a phonological word when used in isolation) vs non-clitics, and the latter are further classified into so called **orthotonic** forms (always retaining their accent) and so called **enclinomenal** forms (occasionally losing their accent in a given environment)\(^{12}\). In Old Russian and other early Slavic idioms many of which were documented by accentuated texts this threefold distinction of word forms still was instrumental. A group of non-clitic words gave their accent over to adjacent clitics, but in a highly selective way. It is crucial that a phonological word consisting of a host category and clitics attached to it has only one main stress (Selkirk 1995), but this does not mean — contra simplistic accounts — that stress should necessarily fall on the clitic host and not on the clitic. The so called Vassiliev-Dolobko’s law revised by Vladimir Dybo (1975) predicts that Old Russian non-clitic word forms from the enclinomena class give the accent over to a subclass of **dominant** (presumably: + High tone) clitics. In this case, the stress falls on the right edge of the phonological word (= ‘tact group’, in Jakobson’s terms), i.e. on the last enclitic in the group. If no enclitics are present, stress falls on the leftmost proclitic in the group.

\(^{12}\) Languages without (prosodic) clitics lack the orthotonic ~ enclinomena distinction, but the reverse is not true: the loss of the orthotonic ~ enclinomena distinction in Modern South Slavic languages did not bring about the loss of clitics. However, diachronic accentology predicts that languages with clitics once had the orthotonic ~ enclinomena distinction.
Non-dominant clitics (presumably: - High tone) could not take the accent over from enclinomena. Modern Russian preserved some remnants of Vassiliev-Dolobko’s Law in the accentuation of reflexive verbs with a postfix –ся: historically, –ся is a reflexive clitic pronoun. Reflexive verbs with stems from the former enclinomena class have stress on the postfix: cf. past tense forms [родил-съ], “was born” [взял-съ], “set to (work)”, [начал-съ] “began”, [обнял-съ] “embraced” still accepted as standard pronunciation in the beginning of the XX century13. A scalar approach to syntactic deficiency — Cardinaletti & Starke’s (1999) hypothesis on the so called weak elements that share with clitics the inability to project, but may bear stress, at least on occasion — owes much to the idea that real clitics have some markers of segmental change, and probably also to the idea that real clitics do not bear stress, while weak elements can. Though this theory focuses on syntax of weak elements, it needs prosodic criteria to check their status: weak elements may be analyzed either as words that get deaccented or as deaccented words that may be prosodically reinforced in some contexts. Along these lines, a discourse element as German/Viennese particle =dn is recognized as a clitic particle mainly because is a degraded form of the deictic/modal adverb denn ‘then’ derived by dropping the vowel /e/ in positions lacking phrasal stress: /den/ > /d#n/. Cardinaletti (this vol.) and Bayer & Obenauer (this vol.) give German examples proving for that =dn may show up in positions, where the non-reduced form denn cannot be inserted: Ger. Ва́с шенкств=dn (*denn) ду их denn (??=dn) zum Geburstag? ‘What will you give her then as a birthday present?’ I am not sure whether these fine examples give general criteria of cliticity: it is naïve to expect that prosodic reduction takes place in each position. Besides, in some languages a special status of (prosodic) clitics respective to affixes is marked by the fact that unlike affixes, they don’t undergo prosodic reduction (but not bear contrastive stress — this option is reserved for ‘strong’ or ‘full’ elements!). On these reasons I reject the morphological approach to cliticity and don’t restrict the class of (syntactic) clitics with those expressions that differ in segmental structure from the corresponding full forms and weak elements.

Genuine phonetic accounts of 2P cliticization (not in Franks’s terms, but in Jakobson-Dybo’s terms) are rare. An amazing exception is Agbayani & Golston (2008). These authors claim that Indo-European connective markers which end up in clausal 2nd position (cf. Lat. =que, O.Greek =te) actually take clausal 1st position, since ‘purely phonetic (sic!) 2ndP conjunctions lie external to their right-hand conjuncts, and for clausal coordination, this means that the conjunction sits in an extra-sentential position’. As far as I can see, this approach cannot be extended to 2P pronouns and 2P clusters: it is no wonder that Agbayani & Golston deny the existence of clusters. Franks’s approach to 2P clusters seems more reliable. He claims that in Bulgarian and other Balcanic Slavic languages with 2P clitics syntactic mechanisms apply not to isolated clitics but to ‘clitic groups’ (clusters, in terms of this paper)

13 On the contrary, much quoted Greek examples like ’dose =’mu=to ‘give-Imp=me=it’ do not belong here. They exemplify more simple constraints on stress placement: the stress in Modern Greek cannot be located farther from the right edge of a phonetic word than penultimate syllable.
formed by adjacent clitics:… “it is this entity that is targeted by Vocabulary Insertion” (Franks 2008: 105). May I once again remind that King & Franks (2000) and Franks (2008) approach is syntactic, not phonetic, despite they call certain mechanisms of clitic linearization ‘phonetic’ and speak of ‘phonetic’ 2P clitics. This is due to the fact that Franks’s theory explains some word orders in a 2P language as a direct output of the syntactic component, while other orders are explained as an output of some ‘post-syntactic mechanism that reorder the clitics’ (ibid.). In a different formalism both ordering mechanisms could be integrated in syntax, but Chomskyan Minimalist Program does not allow for left-to-right movement of sentence categories. Agbayani & Golston try to get rid of post-syntactic linearization, which by itself is desirable. But within the Minimalist Program this goal is hard to achieve.

Irrespective of formalization issues, a major problem with prosodic and syntactic clitics is that these classes may overlap. Modern Slovene serves as an illustration. This language has two kinds of 2P elements. Pure ‘prosodic’ clitics in Slovene are represented by auxiliary and pronominal forms. These lack stress and behave as strict enclitics. However, in special contexts, when the speaker is confirming a dialogue reply or refuting a counterfactual hypothesis, pure ‘prosodic’ clitics may be fronted. This is summarized in fig 3: the symbol ‘#’ stands here for clausal edge, CL reads ‘clitic/clitic cluster’.

(3a) #Rekla (1) sem, da pridem “I said that I will come”.
(3b) #Sem (1) rekla (2), da pridem “I have indeed said that I’ll come”.

This typologically rare for phonetic enclitics fronting option is equivalent to a more wide-spread discourse strategy — lexical insertion of a particle. The variant with order #V – CL, cf. Slov. Videl =sem=ga ‘I have seen him/it’ is discourse-neutral, while the variant #Cl-V, cf. Slov. #sem=ga=videl conveys a meaning like ‘But I have already said that I have seen him/it’. In languages with a more rich particle system than Slovene the same meaning could be expressed by a particle, cf. Russian: #da videl я его ‘I have but said that I have seen him’, lit. ‘But saw I him’. There exists also a third strategy — reduplication of the predicate, cf. Rus. #видел-видел, lit. ‘saw-saw’. It seems that one and the same sentential operator can be expressed differently across languages — 1) by fronting of resumptive clitics; 2) by insertion of a particle; 3) by reduplication of the verb.

Turning back to Slovene. In addition to ‘phonetic’ 2P clitics that lack stress but nevertheless may be fronted in resumptive contexts, Slovene has such ‘syntactic’ 2P clitics as modal verbs morati, smeti, moči: they are stressed and cannot be viewed as ‘phonetic’ clitics. Nevertherless, morati, smeti, moči DO NOT leave clausal 2P and MAY NOT be fronted, as shown in (Golden & Milojević -Sheppard 2000).

(4-1) #Vinf — morati — #Napisati mora pismo. “One must write a letter”.
(4-2) *#morati — Vinf — #??Mora napisati pismo. “the same”
(4-3) # XP — morati — #Janez mora napisati pismo. “Janez must write a letter”.

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<tr>
<td>4-2. *#morati — Vinf —</td>
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<tr>
<td>4-3. # XP — morati —</td>
<td>#Janez mora napisati pismo. “Janez must write a letter”</td>
</tr>
</tbody>
</table>
The paradox is that in spite of the fact that Slovene morati is a strict 2P-enclitic, its 2P properties cannot be derived prosodically (since it is a stressed word). Slovene is an extreme case of a language where phonetic and syntactic criteria of cliticity give non-overlapping sets of elements.

A crucial question is why clausal/phrasal 2nd position attracts clitics and clusters. If syntactic approach is chosen, it is a problem of movement analysis. Some authors argue that 2P clitics move to C, Infl or other node capable of hosting clitics in order to license features of the some functional categories, but if such motivation can be found only for a some categories of clitics, they claim that the remaining part of the cluster is adjoined to the former part on non-syntactic reasons. An analysis along these lines is Migdalski (2007). If a prosodic approach is chosen, the main problem is to ascribe uniform prosodic features to all clitics in a cluster. This is not always possible: note that the general definition of prosodic clitics as items that cannot form phonological words does not necessary imply that deficient word forms are necessarily shorter, have less prosodic weight than categories hosting them and are unable to carry stress. Some 2P particles as Old Greek δέ or γάρ are always marked as stressed in the texts, but nevertheless pattern with pronominal and particle clitics lacking stress. In many languages 2P enclitics attach to initial proclitics. All this makes straightforward accounts of 2P cliticization as prosodic lowering i.e. arranging of sentence categories according to some prosodic scale, cf. (Anderson 1995) unlikely. Berthold Delbrück and Jakob Wackernagel, the first linguists who discovered 2P cliticization, have been more cautious and admitted that clusters might combine more light and more heavy elements, cf. (Wackernagel 1892)\(^\text{14}\). Roman Jakobson (1935), the first man who discovered 2P cliticization in Slavic, advanced a theory that ascribed different prosodic features to different kinds of clitics. Basing on Jakobson’s theory, Vladimir Dybo (1975) and Andrej Zaliznjak (1985: 113-165) developed a combinatory model of Slavic prosody that accounted for all combinations of clitics with all accentual classes of non-clitic words. This model got a general acclaim in Slavic accentology, but neither Dybo nor Zaliznjak attempted to adjust it to Slavic 2P clusters. When Zaliznjak later turned to clusterization issues, he opted for a syntactic approach to Old Russian 2P clusters in (Zaliznjak 2008: 24-36). It is indeed implausible that any language would license sequences of five-six prosodically identical stressless word forms arranged in a rigid order.

7 2P- LANGUAGES AND 2P-CLUSTERS

There are about 70-100 languages with clitic clusters in clausal 2nd position. I refer to this group as 2P languages. Below I am listing some living and extinct 2P languages from different groups in different areas: the number of speakers varies from several

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\(^{14}\) It is therefore misleading that Agbayani & Golston (2008) who reject the prosodic lowering analysis of 2P elements aim their criticism at Delbrück or Wackernagel, but not at Anderson and his followers. Delbrück directly states in his description of Sanskrit that stressed and non-stressed elements alternate in clausal 2nd position.
hundred to over 20,000,000 (Cebuano). The most early documented 2P languages are Old Hittite and Luwian (ca. 1800-1500 BC).

- Hittite, Luwian, Old Greek, Old Indian, Old Persian, Avestan, Old Novgorod Russian, probably Old Norse (Old Indo-European languages).
- Serbian/Croatian/Bosnian, Slovene, Czech, Slovak (South and West Slavic).
- Pashto, Ossetic (East Iranian).
- Kabyle Berber, Tuareg Ahaggar (Afroasiatic).
- Lumi (Straight Salish).
- Makah, Ditidaht (Wakashan).
- Luiseño, Mayo (Uto-Aztecan).
- Quiavín Zapotec (Otomanguean).
- Warlpiri, Djaru (Pama-Nyungan).
- Cavineña (Tacanan).
- Bulgarian (South Slavic), Tagalog, Bikol, Cebuano (Central Philippine).

2P languages have very different prosodic features: some of them are tone or pitch languages with tonal accents, some have free lexical stress, some have fixed stress or completely lack a phonemically relevant word accent. That means that the property ‘being a clitic’ is hard to define in terms of general phonetics. If one wants to add phonetic features to the general characteristics of clitics as ‘elements that cannot form a phonetic word’, for one 2P language it will be ‘absence of a high tone’, for some other — ‘absence of a tonal contour’, for some third — ‘number-of-syllables’. On the contrary, the syntax of 2P clusters including their capacity to move or be split is strikingly similar across 2P languages. These observations do not sweep away concerns that clusters or ‘second-position’ are fake values, cf. Agbayani & Golston (2008), but they prompt that theory-minded authors should look at the class of 2P-languages in its entirety instead of picking up isolated facts of clitic placement.

A feasible definition of a cluster is that it is a string of two or more clitics taking adjacent position, such that (a) the clitics are arranged in a rigid order and are not permutable, (b) insertion of non-clitic words is not allowed, (c) all clitics have one and the same prosodic host they are attached to; (d) all clitic belong to one and the same projection and not to two adjacent phrases; (e) all clitics can move as a unit; (f) adjacent clitics in a group do not form new lexical items. Criterion (a) is needed to prove that ordering of clitics is grammaticalized. Criterion (b) is needed to prove that all elements in a cluster are homogeneous in syntax. Criteria (c-d) are crucial for distinguishing clitic clusters from occasional word orders like X°—CL1 | CL2 — Y° where two adjacent clitics belong to different syntactic heads X° and Y°. Criterion (e) is crucial for proving that clitic clusters are subject to syntactic operations changing their position in a phrase/clause. Criterion (f) is essential for checking that clitics in a cluster preserve their status of autonomous syntactic elements and that, e.g. adjacent position of a clitic pronoun and a clitic particle does not add a new pronoun or a new particle to the Vocabulary. Clitic clusters conforming to criteria (a-f) are found in all 2P-languages and in some other languages. They minimally consist of two clitics; the maximum is not known, but clusters consisting of more than six clitics

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15 This option is fairly common across languages. For instance, Japanese does not allow clusters and two pospositive markers as *ga wa, *wa ga, *no wa, *wa no are excluded, but word orders with two adjacent clitic elements are possible if these elements belong to different phrases. Cf. [Tanaka=ga (1) itta (2)=no (3)= wa (4) Tookyo=e (5) da (6) ‘T. left to Tokyo’, lit. [Tanaka= Subj. (1) left-Vb. (2)= Part-Gen (3)]= Top.(4) Tokyo=to. (5)=Aux. (6).
are rare. I am providing an example from Cavineña, a Tacanan language spoken in Bolivia. Cavineña clitic particles invariably precede bound pronouns, as in (11).

(11) Cav. A-ta-wa | [=taa =yatse]  
    affect-Pass-Perf CL-EMPH =CL-1DL.Abs.  
    ‘We (me and my brother) got killed (lit. affected)’.

The first step in deciding whether second-position of clitic clusters is a real value, is checking what hosts them. Anderson (1995) and Halpern (1996) predict that 2P-languages should have a variation “clitics after the first phonological word ~ clitics after the first maximal projection”. This prediction is largely borne out. Most 2P languages, which allow for clitic placement after the first word also allow clitics/clitic cluster after the first spelled-out constituent, but there are exceptions. Old Novgorod Russian (XI-XV centuries AC) had 2P clitics/clitic clusters after the first phonological word, cf. (12a), but blocked for them after a spelled-out phrase, cf. the ill-formed (12b). The only one possible order is shown in (12c) where the reflexive clitic =ся is attached to the next phonological word after the initial NP [NP дроужина моя] ‘my army force’. If one counts constituents from clausal left edge, =ся ends up in the third position, though Anderson’s and Halpern’s theories claim that clitics just skip the initial constituent as a bad clitic host and do not change syntactic position. Note that splitting of the initial NP is not allowed either and (12d) is excluded. Finally, (12f) is ill-formed on the reason that Old Novgorod pronominal enclitics do not attach to initial proclitics like a “but”, so the combination *a=ся is out.

(12a) A [дроужина =ся изнемогла.  
And army-force- NomSg.F broke.down-Perf.3SgF=CL.Refl.  
‘And [NP my army force] broke down’.  

And army-force- NomSg.F my- NomSg.F=CL.Refl. broke.down-Perf.3SgF  
Int. ‘And [NP my army force] broke down’.

And army-force- NomSg.F my- NomSg.F broke.down-Perf.3SgF=CL.Refl.

(12d) *A =ся [дроужина моя] изнемогла.

(12e) *A = есть [дроужина моя] изнемогла.

There is a type-internal variation in 2P-languages regarding the possibility of orders (12 b-e), while (12a), i.e. clitic/clitic cluster after the first phonological word which is the only spell-out part of the first constituent, is the default option. Some languages,

16 This holds even for some languages, for which the notion of constituency has been disputed. E.g., David Nash (1984:209) who claims that Warlpiri lacks lexical projections nevertheless gives examples where 2P clitics like auxiliary =ka stand after the group Noun + Adjective. This might indicate that Nash’s claim that Warlpiri is a nonconfigurational language without constituency is wrong.
cf. Serbo-Croat, allow for orders in (12b) and also in (12d) where the clitic splits the initial phrase. This does not mean that Old Novgorod clitics are ‘prosodic’, while Serbo-Croat clitics are more ‘syntactic’. The reasons why (12b) is excluded have little to do with prosody: long initial constituents in Old Novgorod Russian invariably shift clitics/clitics to the right from clausal left edge. Following Zaliznjak (1993: 286), I call this factor of clitic shifting a ‘Barrier’; I also apply the term ‘Barrier’ to the sentence category, which triggers the Barrier effect. A closer look at Old Novgorod syntax shows that Old Novgorod Barriers are maximal projections.

• Fronted Vocatives, fronted Addresses, fronted Topicalized & Focalized constituents and fronted long initial constituents consisting of more than one accented word form act as Barriers in Old Novgorod Russian.

Similar mechanisms are attested in other 2P-languages. A formal account of Barrier theory follows below. Here I am fixing two approaches to the problem raised by examples like (12b-c). If Anderson’s and Halpern’s theory is correct, the initial phrase in (12c) is extraposed, and the Barrier (long initial NP) stands outside the syntactic domain of 2P clitics: consequently, the clitics never move out from clausal 2\(^{nd}\) position. An alternative is to admit that (12b) and (12c) are different stages of syntactic derivation and that clitics in 2P languages move and leave clausal 2\(^{nd}\) position. Our results imply that an extraposition analysis of Barriers is wrong, while a movement analysis is on the right track.

Barriers may be optional and obligatory. Long initial phrases in Old Novgorod Russian are obligatory Barriers. There are text variants with and without Barriers: (13a) is the default option, while (13b) is blocked due a Barrier effect that maps the order in the ill-formed (13b) to the well-formed variant (13c).

(13a) Того=сЯ каю. ‘I repent all that’, ‘I am sorry for that’.
    that-gen=CL.refl repent-1Sg.

(13b) *[NP Того всего]=сЯ каю. NOT ATTESTED.
    All-gen that-gen=CL.refl. repent-1Sg

(13c) [\textbf{BARRIER} Того всего] каю=сЯ, [1151] list 151 rev. ‘I am sorry for all that’.
    All-gen that-gen repent-1Sg=CL.refl.

In some 2P-languages clusters also cliticize to initial proclitic conjunctions or complementizers. This configuration excludes splitting of the host category, but the initial proclitic conjunction/Comp head still may act as an optional Barrier. In this case we get a variation (proclitic Head) X° — CL ~ [\textbf{BARRIER} (proclitic Head) X°] — Y — CL. In 2P-languages element cliticizing to proclitic conjunctions/complementizers are largely the same elements that cliticize to maximal projections in root clauses.

\textbf{Clausal vs phrasal 2P clitics.} Anderson (1995) pursues a uniform analysis of clausal 2P-clitics and phrasal 2P-clitics. This is desirable for OT, but obviously not for syntactic typology. Clausal 2P-clitics are sentential operators capable of attaching to maximal projections; they form clusters. Many phrasal 2P clitics, e.g. 2P-determiners in DPs, are different: they take a scope over their syntactic domain, not over the whole sentence; normally they don’t form clusters. Adverbal clitics of the Romance-Balcanic type pattern with clausal 2P-clitics than with other phrasal clitics. They are located in VP or in some functional projection above the VP, but below C
Selectivity. Clausal 2P-clitics are by definition items with low selectivity in terms of Aikhenvald (2002: 47): they attach to at least two different kinds of categories taking the clause-initial position. The minimal variant — just two different syntactic categories alternating in the clause-initial position — is attested in some Verb-initial 2P-languages; a likely candidate is Lummi (Jelinek 2000).

Inductive Implications. I am defending four hypotheses on clitic particles:

- There are no 2P-languages, where clusters may consist only of clitic particles: in all 2P-languages particles clusterize with pronouns and auxiliaries.
- All 2P-languages make use of at least two different categories of clitics — clitic pronouns, clitic particles, clitic auxiliaries etc.
- If a language only allows a single clitic element, not a cluster in clausal 2nd position, this element is a discourse marker, not an argument clitic. Cf. Gothic –u ‘interrogative/alternative’, Russ. му ‘interrogative/alternative’, Japan. わ ‘topic’.
- A combination of two clitic particles may retain its status as a particle but tends to lose its status of a clitic. Cf. Old Russian a + li = ali, Old Polish i + zhe = izhe.

Such clitic-only words are generally excluded from clausal 2nd position. These statements can be set as implications $p \rightarrow q$ as is customary in typology, cf. ‘If a language is a 2P-language, then clusters always include pronouns or auxiliaries’. Inductive hypotheses of this kind do not proceed from any axiomatic assumptions and should be verified empirically.

Double forms and morphologic approach to cliticity. 2P clitic pronouns often have stressed correlates representing the same category in the same grammatical form. Such forms may be used together with clitics — cf. terms as ‘clitic doubling’ or ‘cross-referencing pronouns’ coined for this configuration (EuroClitics 1999: 665) — or form a complementary distribution with free pronouns. Free pronouns behave like phrases: they are used in contrastive or emphatic contexts and may be modified by focus/contrastive markers like ONLY. Clitics (= ‘bound’) pronouns are generally excluded from contexts involving negation, contrast and coordination of pronominal forms and cannot be modified by any discourse markers. It is intuitively clear that free and bound pronouns have different status; a number of formal theories accounting for this fact have been proposed, cf. (Cardinaletti 1999: 43) for discussion. Some authors argued that genuine clitic pronouns are not unstressed variants of free pronouns, but a different set of expressions not derivable from free pronouns on the synchronic level by any phonetic rules. In an extreme case free and bound pronouns are represented by different stems and/or have different case marking. This is characteristic for many Pama-Nyungan languages with split ergativity (Mushin & Simpson 2008: 570), cf. Warlpiri free 1st Sg. ngayi vs Warlpiri bound 1st Sg. =rna. However, the claim that real pronominal clitics are never derived from free pronouns by phonetic rules is unlikely: some word forms in a bound series may remain derivable from free pronouns, while the others are not, with no tangible difference in syntax. There are languages, where bound pronouns identified as clitics and/or cross-referencing markers on their position in a clause, show little, if any, difference in segmental structure from the corresponding free forms. Antoine Guillaume (2008: 576) reports this is the case in Cavineña. It might still be appropriate to analyze bound and free pronouns as different syntactic categories, not as reduced and full variants of one and the same category, even in such situations, but a claim that syntactic deficiency of a clitic is always be overtly marked by a morphological contrast with the corresponding free pronoun is wrong. Mushin & Simpson (2008: 590-1) conclude that Australian
languages with 2P pronominal elements mark the contrast of free vs bound pronouns using very different tools — from prosodic reduction (as in Warumungu) to choice of different stems (as in Warlpiri) — but syntax and pragmatic properties of two series of pronouns remain similar: 2P-pronouns clusterize and represent thematic elements already activated in discourse, free pronouns don’t clusterize, are not tied up to any clause-internal positions and may have different communicative status.

If a linguist gives up morphologic criteria of cliticity and does not define clitics as items, which do not share segmental structure with any corresponding full forms or weak elements, problems with identification of clitics in extinct or remote languages arise. I propose that one should turn to syntactic criteria and define clitic elements in written texts on the basis of their position and combinatorial properties: Cavineña or Warumungu 2P pronouns in this case would safely classify as syntactic clitics, though they are morphologically similar to free pronouns in these languages.

8 BARRIERS, CLITIC PARTICLES AND SPLITTING OF 2P CLUSTERS

2P-languages allow for splitting clitic clusters: clitics with a fixed slot in a cluster may in given contexts stand external to it. In some 2P languages, including several early and modern Slavic idioms, clitic 2P-particles in splitting contexts often end up in a different position than other 2P elements. Therefore some theories motivated by Slavic data challenge the existence of clitic clusters (Bošković 2002) or claim that particular kinds of 2P clitics are VP-internal elements in syntax that can be attracted to C by prosody (Migdalski 2007). Catch phrases that clusters do not exist amount to two claims: a) that rigid ordering of clitics is due to some phonetic factors, b) that clusters are not syntactic units. It is not clear beforehand whether disjoint position of 2P-clitics is a derivation failure or an outcome of a special operation applied to already generated orders. If the formation of clusters with their placement in C is taken as the default option, while orders with splitting are derived by syntactic (Zimmerling 2008) or post-syntactic (Franks 2008) operations, one may claim that particular clitics leave clausal 2P. If 2P clusters are taken to be the final stage of derivation, it is easy to claim that clitics outside the cluster do not reach C (Migdalsky 2007). I am fixing four accounts of 2P clusterization:

A) Clusters are both prosodic and syntactic units at once. Clusterization and ordering of clitics is largely triggered by prosody (Anderson 1995), (Zaliznjak 2008);

B) Clusters are both prosodic and syntactic units, but splitting of a cluster is triggered by syntax, not prosody (Zimmerling 2008);

C) Clusters are prosodic, but not syntactic units. Clitics in a cluster can be heterogeneous, some of them being true 2P-clitics, the other ones being capable of moving out of the cluster and attaching to adjacent verbal heads (Franks 2008).

D) 2P-languages, where contact ordering of clitics is not mandatory, lack clusters (Bošković 2002).

Bošković’s view (type D theory) is not tenable, since all 2P-languages allow for cluster splitting: word orders with and without splitting coexist. The revision of Anderson’s approach (type A theory) does not depend on category of 2P clitics but the choice of type B vs type C theory is motivated by the contrast of clitic particles and other 2P clitics. Franks, Migdalski and Zaliznjak agree that particles are tied up to clausal 2P more firmly than other clitics. Migdalski claims that Bulg. and OCL clitics.

17 Anderson’s theory does not tell much about splitting, but since it treats 2P cliticization as prosodic lowering, instances, where splitting leaves prosodically less weak elements in 2P and excludes prosodically weaker elements from 2P, don’t make his analysis more reliable.
question particle \( \hat{\nu} \) or OCL discourse particle \( \hat{\varepsilon} \) mark Illocutionary Force and move to 2P to satisfy this functional category, while movement of pronominal clitics to 2P has no motivation, therefore they don’t reach this position and stay in the VP, as in Modern Polish (Migdalski 2007). A simplistic account of Franks, Migdalsky and Zalizniak’s views\(^{18}\) is following:

- Slavic 2P clitic particles are ‘prosodic’ enclitics raised to clausal 2\(^{nd} \) position in order to check Force, while Slavic 2P clitic pronouns (in Zalizniak’s account — both clitic pronouns and clitic auxiliaries) are ‘syntactic’ verb-adjacent clitics.
- Clitic pronouns and auxiliaries tend to stay in the VP, since their movement to 2P lacks syntactic motivation — they don’t check any features in C.
- It is impossible to draw one and the same functional projection for all Slavic clitics, since their contact position in a cluster results from different syntactic and phonetic processes (Franks, Migdalsky).
- Clitic clustering is a surface phenomenon, the heterogeneity of Slavic clitic clusters is proved by splitting: clitic particles normally stay in 2P, while other pronominal clitics stay in the VP and don’t raise higher.

I argue that these claims are wrong and placement of clitic particles verifies that clusters are syntactic units, since all splitting contexts are predicted locally, by syntactic configuration. I also argue that splitting is triggered by the same underlying mechanism as late placement of Slavic clitics, notably, by Barrier effect.

9 A TYPOLOGY OF BARRIERS IN 2P-LANGUAGES

Barriers are syntactic categories that have effect on the position of a single clitic/cluster. With single clitics, there are two options — either a Barrier shifts the clitic \( n \) steps from the host category in a given direction or changes its orientation towards the clitic host. The latter option is exemplified by object clitics in European Portuguese. Complementizers like Port. \( \hat{\text{que}} \) act as Barriers and map configurations with enclisis into configurations with proclisis. The examples in fig. 6 are from (EuroClitics 1999: 641), but the interpretation is my own:

<table>
<thead>
<tr>
<th>(Table 6) Barrier and object clitics in European Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clauses without a Barrier</strong></td>
</tr>
<tr>
<td>Base order, enclisis ([V — \text{CL}_{\text{OBJ}}])</td>
</tr>
<tr>
<td>O Jos( ) (1) ofereceu=( o ) (2) ontem.</td>
</tr>
<tr>
<td>Joseph (1) gave=( it ) (2) yesterday (3)</td>
</tr>
<tr>
<td>A Maria (1), O Jos( ) (2) ofereceu=( o ) (3) ontem.</td>
</tr>
<tr>
<td>to Mary (1) Joseph (2) gave=( it ) (3) yesterday</td>
</tr>
</tbody>
</table>

\( ^{18} \)These authors have little in common as their views on Slavic clausal architecture regards, but give a very similar account of cluster splitting. In Migdalski’s system clitics raise from VP to C/2P. Zalizniak’s (non-minimalist) system is its mirror image: Zalizniak’s weak clitics move from 2P to VP. Cf. (Zimmerling 2008) and (Zimmerling 2009) for an analysis of formal issues.
In 2P languages Barriers cannot change the orientation of clitics, since 2P clitics are generally excluded from clausal left edge due to a parameter called Tobler-Mussafia’s law. If one takes into account clusters, there are two options:

- Barriers can be ‘blind’ or ‘indiscriminating’: in this case they move the whole clitic cluster \( n \) steps to the right.
- Barriers can be ‘selective’, sensitive to a particular category of clitics: in this case, splitting of a cluster takes place.

Other typological dimensions of Barriers pertaining to 2P-languages, languages with VP-internal clitics of the Romance type are the distinctions of:

- Obligatory vs optional Barriers.
- Grammaticalized vs communicative Barriers.
- Cumulative (two or more Barriers count as a single Barrier) vs undoing Barriers (the second Barrier blocks the effect of the first one).

Grammaticalized Barriers are particular lexical heads taking effect on the position of all or some clitics; Communicative Barriers are phrases with a particular communicative status. Both Grammaticalized and Communicative Barriers may be obligatory or optional, blind or selective. E.g., preposed initial topics in Old Novgorod Russian are obligatory & communicative & blind; this combination of features implies that they invariably shift all clitic clusters to the right from 2P and don’t split them. On the contrary, Grammaticalized Barriers may well be selective & optional: this is characteristic of Macedonian negation \( ne \), which is a Barrier for reflexive clitics cf. (14a-b).

(14a) Mac. \( ne(1)=se=\text{RefI}(2) \) bespokojet! \( \Rightarrow \) (14b) \( \Delta \text{Barrier}[Ne](1) \) bespokojet(2)=se(3)
‘Don’t disturb me’, lit. ‘No-Neg. (1) = Cl.refl. disturb-Imp2Sg (2)’

Note that Macedonian negation \( ne \) is not a Barrier for auxiliary clitics, cf. (15).

(15) Mac. Ti(1) ne(2)=si(3)=mu(4) spomo\( \ddot{O} \)l(5)
    lit. ‘You-2Sg (1) not-Neg (2) CL-Aux2Sg (3), to.him-DatSgM (4) help-Perf.3Sg.M.’
    ‘You didn’t help him’.

Bulgarian negation \( ne \) is a selective Barrier too. It is not a Barrier for auxiliary clitics like \( cu \) in (16), but a Barrier for the question particle \( li \); it maps the ill-formed order (17a) into the well-formed order (17b). Note that in the absence of selective Barriers \( li \) precedes \( cu \) in a cluster.

(16) Bulg. Детето(1) \( \Delta \text{Barrier}[ne](2)=cu(3)=x0(4) \) виждал (5) днес?
    Child (1) not (2) CL-Aux2Sg (3) him-AccSgM (4) saw-2Sg (5), today
    ‘The child, have you seen it today?’

(17a) Bulg. *не=\( li(1)=cu(2) \) ходил там \( \Rightarrow \) (17b) \( \Delta \text{Barrier}[ne](1) \) __=cu(1)=\( li(2) \) ходил там?
    ‘Haven’t you walked there?’
Old Novgorod Russian data is explained in the same way. A clitic, which most frequently stands outside the cluster, is the reflexive pronoun ся (also spelled се). In (18) the initial wh-word is a Communicative Barrier for ся, but not for the 1Sg. auxiliary clitic есмь. Note that in the absence of selective Barriers ся precedes есмь. The main difference with (17a-b) is that Old Novgorod Russian, unlike Bulgarian, does not allow inverting clitics: the order [^{nym}\_i X°] = есмь=ся is banned, so ся has to attach to the next syntactic head [^{nym}\_i X°] __ есмь Y°.=ся.

(18) \[ \text{Modifier}_{i \_i X°} = \text{есмь}_{i \_i X°} \] \[ \text{поради=сё, тако и живу} \] (Birch Bark letter 354).

which=Cl.Aux1Sg. || arrange-Perf.1Sg.M=Cl.Refl, so and live-Pres.1Sg ‘I live exactly as I arranged it’.

Sporadically, the same mechanism moves clitic particles, e.g. question marker ли (similar to the genetically identical Bulg. ли) out of 2P clusters.

(19) а оу королева=еси мужа||слышалъ=ли в томъ чётном кресте?

And from king’s = CL.2SgAux man // hear=CL.Q about that worthy cross ‘Haven’t you heard about that worthy cross from the king’s man?’.

In a vast majority of cases 2P clitics that leave the cluster end up in a contact post- or preposition to a verbal form as прочел in (20). Bulgarian future particle уе is a selective Barrier for the question particle ли, but not for other particles.

(20) Bulg. Книгата (1) | aux-[b \_i \_i FUT]\_b = прочел (5)=ли (6) до утре?

Book-the (1)| Barrier \_b [FUT] (2)=AUX-2Sg (3)=AccFSg (4)|| read-Prf (5)=CL.Q. (6) tomorrow ‘Will you read the book tomorrow?’

Slavic configurations with and without splitting are shown in a generalized form in (21) and (22). I am tagging the position of 2P clusters as CliticP. When all clitics take contact position in Old Novgorod Russian and Modern Bulgarian, clitic particles precede pronominal auxiliary clitics (21), but selective Barriers move clitics particles and other clitics out of the cluster (22):

(21) XP/X° — [CliticP [Particles a° b° c° ..n°] [Pronouns + Auxiliaries o° p° q° ...z°]]

(22) [^{nym}\_i X°] — [CliticP [Particles a° \_i c° ..n°] [Pronouns + Auxiliaries o° \_i q° ...z°]] — Y° — b’/q’

Examples like (19-20) rendered in a more general form in (21-22) falsify Migdalski’s, Franks’s and Zalizniak’s accounts. All these accounts, different as they are, are ‘cartographic’ and explain the contrast of Slavic 2P-particles vs other 2P- clitics in terms of feature strength: the structure of 2P where clitic particles stand in the left edge of the cluster, is assumed to reflect some underlying hierarchy of clitic categories. But if the contrast of tentatively ‘strong’ C-oriented particles and tentatively ‘weak’ VP-internal clitic pronouns/auxiliaries (cf. Migdalski, Zalizniak) or ‘phonetic’ 2P clitic particles vs ‘syntactic’ verb-adjacent clitic pronouns (cf. Franks) is due to feature strength, then well-formedness of (19) and (20) and other
configurations, where ‘weak’ clitics override ‘strong’ clitics, is a severe violation. I conclude that a cartographic approach to the structure of 2P cannot be wholly reconciled with splitting. A valid alternative to it is Barrier theory: in the version proposed here it accounts both for late placement of all 2P-clitics (blind Barrier effect) and for splitting (selective Barrier effect). A cartographic approach may be adjusted either to 2P-clusters or to split configurations, but not to both. On the contrary, Barrier theory offers an uncontroversial account of both configurations if one assumes that 2P-clusters are syntactic units and all kinds of Barrier rules operate on previously generated clusters, see (v) and (vi) below. This price may be considered high for a syntactic theory, but any alternative decreases its predictable force.

(v) In 2P languages 2P clitics have to form one syntactic projection (Clitic Phrase) in order to raise and take C.
(vi) All kind of Barrier rules operate on already generated clusters.

There is one more reason for accepting Barrier theory. Barrier rules generate split orders where clitics left outside 2P take an adjacent position to verbal heads. This VP-internal position of disjoint clitics is always secondary in a diachronic perspective. For instance, reflexive marker *ся developed in Old Russian from a free 2P clitic to a verbal affix (Zalizniak 1993: 292). The evolution of sentential clitics conforms to the Principle of Domain Shrinking: VP-internal clitics originate from C-oriented clitics, but not vice versa. Romance word order systems with object clitics in VP originated from Indo-European word order systems with 2P clitics, though the intermediate stages are poorly documented by vernacular Latin and Old Romance languages, cf. (Wanner 1996). Modern Greek system with VP-internal object clitics originated from systems with 2P clitics, too: the intermediate stage is documented by some late koine texts, cf. (Kissilier 2008). Everywhere, where the transition is documented, one can establish that orders with clusters are from the beginning discourse-neutral, while split orders are discourse-marked, though on a later stage the latter option can be grammaticalized. All this contributes to recognizing 2P-clusterization as base order and disjoint placement of 2P-clitics as derived orders triggered by Barrier rules.

**SUMMARY TO SECTIONS 7-8**

- There are no grounds to expel particles from 2P clusters, if they have a fixed slot in a cluster.
- Clusterization of 2P particles with 2P pronouns and other 2P clitics is a diagnostic feature of all 2P languages.
- It is possible to postulate one functional projection for all 2P elements in clitic clusters, be it Clitic Phrase or something else.
- It is necessary to go beyond the templates of clitics in a cluster and analyze syntactic mechanisms that trigger late placement of clitics and splitting of clusters (=Barrier rules).

**10 CLUSTERIZATION TEMPLATES AND THE PLACEMENT OF 2P PARTICLES**

19 McConvell’s (1996) attempt to prove the opposite for a group of Ngumpin languages from Pama-Nyungan family is controversial: examples provided by this author indicate that VP-internal orders in Ngumpin languages might be discourse-marked, contrary to McConvell’s hypothesis.
I argued above that clausal 2P clitics have type-specific features in the class of 2P languages: they clusterize in a rigid order and form CliticPs in order to raise to C; split configurations result from syntactic operations (Barrier rules) applied to CliticPs, not to isolated clitics. There are no grounds to deny clusters the status of syntactic units or to expel clitic particles from 2P-clusters, since Barrier rules may take effect on all kinds of clitics and attract them to verbal heads or other lexical heads standing lower than C and located n steps to the right from clausal 2P. The placement of all clitic particles before all other 2P elements — a feature that provoked a ‘cartographic’ description of Slavic 2P in (Migdalski 2008), (Franks 2008) and (Zalizniak 2008) — is not the only one possible option even in the Slavic area. One can classify 2P languages according to the placement of particles. I am aware of five options:

- All fixed clitic particles are grouped in the left edge of the cluster. This option is typical for languages, where clitic particles are older than other 2P clitics, cf. Old Novgorod Russian.
- Clitic particles take both the left and the right edge of the cluster. This option is typical for languages, which have added new layers of clitics, cf. Modern Slovene.
- Deictic clitics take a central position in a cluster. This option is rare. It is found in languages, where clitic-like pronouns lack some properties of standard clitics, cf. Old Norse (Zimmerling 2002).
- Pure weight principle: light 2P clitics precede heavy 2P clitics, both particles and other clitics may be light or heavy. Cf. Cebuano, Central Philippine (Billings & Konopasky 2002).
- Mixed weight principle: heavy and light 2P clitics take different slots, but all 2P particles get a uniform treatment. This option might indicate that 2P particles have been inserted into an already existing string of other 2P clitics, cf. Tagalog, Central Philippine.

Pure weight principle: Cebuano

Cebuano (Cebwano) and Tagalog are two closely related Central Philippine languages that have different clusterization principles (Billings & Konopasky 2002). In Cebuano disyllabic forms may be used as clitics and clusterize even if a one-syllable counterpart exists: such heavy clitics, however, are cluster-final. Monosyllabic clitic particles invariably precede disyllabic clitic pronouns. If all clitics are monosyllabic, their syntactic category is decisive. Thus, the number-of-syllables principle (prosodic ‘weight’) has a priority over categorical ordering.

a) The monosyllabic Object pronouns: ku, mu, or ta.

b) The monosyllabic Subject pronoun 2Sg. Ka.

c) A specific set (of mostly monosyllabic) particles, cf. na ‘already’.

d) The monosyllabic Subject pronoun 2Sg. Ka

e) The other particles.

f) The monosyllabic pronouns aside from Ka.

g) The disyllabic pronouns.

If all clitics are monosyllabic and represent different categories, some fluctuations are attested: in (23a) the subject particle ka precedes the group consisting of discourse marker na ‘already’ and a question marker ba, in (23b) it is stands after it.

(23a) qadtu [CliticP [ka][Particles na ba]] ? ~ (22b) qadtu [CliticP [Particles na ba] ka]?
Mixed weight principle: Tagalog

The ordering of clitic clusters in Tagalog conforms to two principles (vii) and (viii):

(vii) The monosyllabic clitic must be initial in the cluster:

   b. Nakita [CliticP mo ako] “You saw me”.
   c. Nakita [CliticP ka nila] “They saw you”.

(vi) Regardless of its syllabic weight, any particle appears after any one-syllable clitic pronoun and before any two-syllable pronoun in the same cluster: disyllabic particle yata in (25c) takes the same slot as monosyllabic particles na and ba in (25a-b).

   Be.seen 1Sg.DO already 3Sg.Sub.
   b. Nakita [CliticP ka [Particle ba] nila?] “Did they see you?”.
   Be.seen 2Sg.Sub. Question 3Pl.DO
   c. Nakita [CliticP mo [Particle yata] ako] “Perhaps you saw me”.
   Be.seen 2Sg.DO perhaps 1Sg.Sub.

Tagalog allows sequences of two disyllabic clitics; however, in this case some variation is attested, cf. (26a-b):

(26a) Nakita niya ako ~ (26b) Nakita ako niya “He/She saw me”.
   Be.seen 3Sg.DO 1Sg.Sub. be.seen 1Sg.Sub. 3Sg.DO

Billings & Konopasky comment upon that the two-syllable object pronouns like those in (26a) ~ (26b) are only ‘optionally clitics’. They add that disyllabic subject forms can be clefted or topicalized, appearing clause-initially and treat such forms as non-clitics. I would suggest an alternative description: it is unlikely that pronouns capable of clusterizing with unequivocal clitics are the same syntactic elements that can be clefted or topicalized. My proposal is that Tagalog disyllabic forms are actually homonymic pairs of the type {non-clitic ~ 2P clitic}.

2P particles in the left edge of the cluster: Old Novgorod Russian

Old Novgorod Russian conforms to a categorical principle of ordering, though prosody also has impact in ordering different clitic layers.

- All 2P particles before all 2P pronouns, all 2P pronouns before 2P auxiliaries

The most amazing fact about Old Novgorod Russian ordering is that it is diachronically transparent, but only within each categorical segment of the template, not across their boundaries: e.g. dative clitics (slot 6) stand before accusative clitics (slot 7), since they represent an earlier layer of cliticization, and the evidential marker ti (slot 4) stands before the optative/conditional marker by (slot 5) on the same reason,
but the assumption that by (slot 5) stands before dative clitics (slot 6) because it might be older, is wrong.

(Table 7) *Clusterization Template in Old Novgorod Russian*

<table>
<thead>
<tr>
<th>Particles</th>
<th>Argument clitics</th>
<th>Present tense auxiliaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Affirm</td>
<td>Quest</td>
<td>Cause</td>
</tr>
<tr>
<td>же</td>
<td>Лі</td>
<td>Бдо</td>
</tr>
</tbody>
</table>

- The order of clitics within each part of the cluster directly reflects the order of their cliticization. (Zimmerling 2008: 70)

Optative particle бы is a recent Slavic innovation; it stands at the right edge of the particle string. Evidential particle ми is older and could be Balto-Slavic. This form is younger than modal and question particles же, ли, бо inherited from the Proto-Indo-European: all these forms stand in the left edge of the particle string.

Two layers of Old Novgorod Russian cliticization are:

- (i) XP….. ClDat ] → XP….. ClDat ] ClAcc ]
- (ii) XP….. ClDat + ClAcc ] → XP….. ClDat + ClAcc ] ClAux]

**Clitic particles in both edge positions: Slovene**

Modern Slovene is a 2P language with two different slots for clitic auxiliaries: Old (Common Slavic) BE-auxiliaries stand before 2P clitic pronouns, new (late Slovene) BE-auxiliaries stand after then.

(Table 8) *Clusterization template in Slovene*

<table>
<thead>
<tr>
<th>Particles I</th>
<th>Present tense BE-auxiliaries</th>
<th>Clitic pronouns: Refl &gt; Dat&gt; Acc</th>
<th>Present tense form of BE-auxiliary 3Sg je, future tense formes of BE-auxiliaries</th>
<th>Particles II</th>
</tr>
</thead>
<tbody>
<tr>
<td>pa, bi</td>
<td>sem, si, sme, ste, so, sva, sta</td>
<td>Refl: se</td>
<td>si</td>
<td>Dat: Mi, ti, mu, joj, nam, vam, jim</td>
</tr>
</tbody>
</table>

The positions of particles are ‘marginalized’. Pa (likely a recent borrowing from Romance languages into Slovene) and bi (the latest from Common Slavic clitics) stand at the left edge, while Q (one of the earliest Common Slavic clitics) stands at
the right edge. This shows that the positions of Slovene clitic particles no longer reflect the relative chronology of their cliticization. Slovene 2P template is very instructive in that respect that different 2P clitic particles and different 2P auxiliaries take different slots, if they have different phonetic features and/or derivational history from non-clitic words to clitics: we have seen a similar distribution of Cebuano 2P pronouns.

Deictic clitics take a central slot in a cluster

Old Norse and Middle Norwegian are two related Scandinavian languages, where deictic particles take a central slot in groups similar or identical to 2P clusters. Old Norse (Old West Scandinavian) is documented by Old Icelandic and Old Norwegian texts of XIII-XV centuries: Old Icelandic and Old Norwegian are V2/V1 languages (or variants of the same idiom) with Narrative Inversion and V1 main declaratives. Clitics and clitic groups occur either in 2P (in V1 declaratives) or in clausal 3rd position immediately after V2 (in V2 clauses). Old Icelandic/Old Norwegian has a rule of clusterization, where particles nđ“now”/ z<“then” take the central slot: clitic pronouns stand to the left of nđ“now”/ z<“then”, unstressed adverbials and verbal particles stand to the right of nđ“now”/ z<“then”. This ordering holds invariably in the texts of the so called folk style, while a relative ordering of any two sentence categories X, Y in the same texts can be inverted (X, Y ⇒ Y, X) if they are represented by stressed word forms (Zimmerling 2002:350-3). In these circumstances rigid ordering of pronouns and particles in 2P/3P may be regarded as sufficient proof for these forms were syntactic clitics (Zimmerling 2002: 367-375).

(27) Ferr=3Sg.Pres.| pat=NOM (1) nú (2) allt (3) svá sem Þrándr lagði til (Far 96).
Lit. "Goes | it (1) now (2) all (3) so as Þrándr arranged"
tied up to 2P/3P is relatively new — they have not got any special graphic shape different from corresponding free pronouns and adverbs.

Middle Norwegian (ca. 1600). Middle Dano-Norwegian (ca. 1475-1700) is one the Middle Mainland Scandinavian idioms: morphologically it is similar to Middle Danish and Middle Swedish. Like Old Icelandic, it is a V2/V1 language with clitic groups in 2P/3P. Clusterization follows the same pattern \([\text{Clitic}_P X \ [\text{particles } nu/da] Y]\), with deictic particles *nu/da* in the central slot: these two particles are genetically identical to Old Icelandic deictic particles *nú/på* Y. Elements that clusterize to the right from *nu/da* are negation *ikke*, modal particle *vel*, postverbs and prepositions: the latter two categories are placed in a rigid order, therefore I tentatively list them with the same clitic group.

(Table 10) 2P/3P clitic template in Middle Norwegian

<table>
<thead>
<tr>
<th>Pronominal clitics</th>
<th>Deictic markers</th>
<th>Operator clitics (?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Reflexive</td>
<td>Object</td>
</tr>
<tr>
<td></td>
<td><em>nu/da</em></td>
<td></td>
</tr>
<tr>
<td>Negation <em>ikke</em></td>
<td>Modal particle</td>
<td>Postverbs</td>
</tr>
<tr>
<td></td>
<td><em>vel</em></td>
<td>Prepositions</td>
</tr>
</tbody>
</table>

If one examines Middle Norwegian examples (28)-(32), they look almost identical to Old Icelandic. If one, on the contrary, examines them in the perspective of present-day Midland Scandinavian, their word order (and lexicon) look modern and the similarity with modern Norwegian, Danish or Swedish sentences rather prevents from than helps recognizing clusters of prosodically weak elements in the postverbal position, since not all of these elements would lack stress in modern Norwegian, Danish or Swedish, if used in the same environment (I am grateful to Anders Holmberg and to Sten Vikner for their professional intuition and for the criticism of my initial claim).

(28) þi giorde |=*de=sig* strax ferdig at drage fra Byen (PCl 99).
Lit. 'therefore made |=they=themselves| at once ready to go out of the town’.

(29) oc lade |=*sig=ikke* myrde inde i Husit (PCl 10).
Lit. 'and let |=oneself=not| kill inside the house’.

(30) ginge |=*de=da=ind=paa* det store skib som… (PCl 92).
Lit. 'went |=they=than=inside=on| the large ship that…’

(31) Oc meente |=*jeg=mig=nu* hos hannem at vFre fri for saadan sag (PCl 27).
Lit. ‘and considered |=I=myself=now| by him to-be free from such matters’.

(32) oc befand |=*han=sig=da* | megit suag at være (PCl 17).
Lit. 'and found |=he=himself=then| very weak to be’

Actually we don’t know whether initial verbs in (28-32) had heavy stress or not; neither we know in detail how prosodic deficiency of the italicized short words was manifested. What we know for certain is that all italicized words are thematic, given and discourse-activated elements that do not bring about new information. We also know that they clusterize in a rigid order, but only in a given sentence-internal
position, 2P/3P, and only with this discourse status, but not in other positions and not when they have other discourse and communicative status. Finally, we know that some of these elements, as e.g. the reflexive pronoun sig in (29) do not belong syntactically to the main clausal verb they attach to phonetically — they are complements of infinite verbal heads like myrde 'to kill'. Elements like sig in (29) move out of VP, cross the governing verbal head and raise to a position resembling SpecIP, where they join to other short function words like particle da or negation ikke: lade° [\text{[ClinicP=\text{sig}=ikke]} [\text{VP myrde° [t] inde i Husit}]. All these are properties of syntactic clitics in 2P languages, so a syntactic prediction is that elements like sig or ikke in (29) form a CliticP and are raised to SpecIP. A prediction from prosodic typology is that if the group =sig =ikke is a clitic cluster it forms one phonological word with its host, irrespective of the fact whether the stress falls on the host category (a usual option for prosodic systems without deaccenting) or on ikke as the rightmost clitic in the group (the option for systems with deaccenting, like Old Russian). I am concluding with a theoretic proposal (ix):

(ix) Clusterization of thematic function words is a feature of syntactic clitics. If such elements must clusterize in a rigid order in sentence-internal positions, but may take different positions or invert when they have different communicative status, the language has clitic clusters.

It is plausible that clustered syntactic clitics are on the way of becoming phonetic clitics as well and the clusters of syntactic clitics tend to form one phonological word with their hosts, but it is difficult to establish when this change takes place basing solely on constituent order.

CONCLUSIONS

I outlined an approach to particle typology where particles are treated as syntactically deficient function words — non-projecting discourse markers. Particles may be, but not necessarily are prosodically deficient. Clitic particles pattern with pronominal and auxiliary clitics: in a class of world’s languages defined as 2P-languages a group of clitic particles and other clitics get a fixed position in a clause and form so called clusters arranged in a rigid order, each clitic taking its own slot in the cluster. In 2P-languages clitic clusters generally include particles, but cannot consist only of particles. The placement of particles within 2P clusters may depend on their trivial (number-of-syllables) as well as non-trivial features (order of cliticization). I argued that clitic clusters are syntactic units: 2P clitics form a functional projection CliticP in order to raise. 2P clusters generally attach to initial XP/X°, but can move in 2P languages. Late placement of 2P clusters and splitting of clusters are triggered by Barrier rules: Barrier rules apply on the level of CliticPs and often put 2P clitics to verb-adjacent positions. Contact position of 2P particles with other 2P clitics represent base word order, while cluster splitting represent context-bound derived orders.

An intrinsic feature of all discourse markers is that they are sentential operators on the LF level. A salient characteristic of 2P particles that they share with other 2P clitic categories is that they are thematic and discourse activated elements. Clusterization and cluster splitting are syntactic phenomena, but prosody also plays some role in clitic ordering. Clitics representing the same syntactic categories may have different phonetic features. In 2P languages different clitic particles, different auxiliary clitics and different clitic pronouns often take different slots in 2P clusters which is due to
the fact that cliticization of forms from a particular word class or inflectional paradigm does not forego simultaneously.

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