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Dmitry V. Gerasimov

STRUCTURE OF THE VERBAL COMPLEX
IN PARAGUAYAN GUARANÍ
IN A TYPOLOGICAL PERSPECTIVE

Dissertation summary

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Doctor of Science Viktor S. Khrakovsky

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Introduction

This dissertation aims to investigate the structure of the verb in Paraguayan Guaraní (< Tupi-Guaraní < Tupi, Paraguay) from a typological perspective. The typologically oriented approach adopted here implies, first, describing the specific features of Paraguayan Guaraní in a manner that allows for cross-linguistic comparison, and second, paying particular attention to those aspects of Paraguayan Guaraní that may have implications for our general understanding of the variation in the organization of verb complexes across languages of the world.

The primary focus of this study is the verbal system of Paraguayan Guaraní, which encompasses a range of verbal markers such as agreement, valency, aspectual and modal markers, etc., as well as their patterns of interaction. Special attention is given to relative ordering of these markers, as it plays a crucial role in the overall organization of the language's verbal system. Since criteria for wordhood in Paraguayan Guaraní still remain problematic, instead of the “verbal word” I rely on the notion of “verbal complex”. The latter is defined as comprising the verbal root, any elements morphologically bound to it (including, e.g., incorporated nominals), and all grammatical markers, regardless of the degree of morphological autonomy they exhibit. The facts of Paraguayan Guaraní grammar are treated in a typological perspective and analyzed, among other considerations, with a view to their relevance to linguistic typology.

Current relevance of this study stems from the need to supplement the empirical base of linguistic typology and expand our understanding of the structure of verbal systems by drawing on the data from languages that have not previously been the object of a typologically oriented research. Although various elements of the verb system of Paraguayan Guaraní have been covered in a number of publications, some of them on a quite modern theoretical level, these studies mainly focus on individual markers, without considering their interaction and without examining the organization of the verb system as a whole. In particular, little attention is paid to the issue of the relative order of verbal markers, despite the fact that published texts feature verb forms bearing two, three or more suffixes. Thus, even in the famous article [Tonhauser 2011] on the establishment of temporal reference in Paraguayan Guaraní, the possibility of combining two or more suffixes is only briefly mentioned in a footnote, but receives no discussion. In the

conclusion to the grammatical sketch [Estigarribia 2017], a more detailed description of the tense-aspect-modality system as well as the clarification of the free vs. bound status of verbal markers (which requires, *inter alia*, a more careful study of their positional properties) are named among the five most urgent tasks of modern Guaraní linguistics.

In addition, some aspects of Paraguayan Guaraní grammar that fall within the focus of the present study are important both for the comparative study of the Tupi languages and in a broader areal context. The relative order of verbal markers in other Tupi Guaraní languages remains virtually unstudied, but the fragmentary data presented in descriptive grammars suggest significant intragenetic variation. A comparison of verbal templates in different Tupi-Guaraní languages could greatly benefit the reconstruction of the proto-language state and the ways of diachronic development within this branch.

The scientific novelty of the study lies in the fact that it provides the first attempt at a comprehensive description of the verb system of Paraguayan Guaraní in a typological perspective. The dissertation also introduces a number of previously unreported facts of this relatively understudied language.

The primary goal of the study is to provide a typologically oriented description of the verb system of Paraguayan Guaraní. Some concurrent findings pertaining to adjacent areas of the language system are also reported.

The above-specified goal determines the following primary objectives of the study:

- to clarify the inventory of verbal markers in Paraguayan Guaraní;
- to design a structural model of the verb and the verbal complex that would account for possible morpheme orders;
- to examine the identified restrictions on the ordering of verbal markers from the perspectives of modern typological and theoretical assumptions.

The material and methods of the study are heterogeneous, due to both the chosen objectives and the sociolinguistic specifics of the Paraguayan Guaraní. The study is based both on the field materials collected by the author and on the data from written texts. It was difficult to collect the amount of data sufficient to achieve the set objectives using field methods alone due to the organizational and economic difficulties of fieldwork in Paraguay. At the same time, reliance on corpus methods also could not yield the desired result: although a significant number of published texts are available in Paraguayan Guaraní, their total volume is inferior to that of modern corpora of better-resourced

languages, while many phenomena important for the present study have a low frequency. In addition, negative data are extremely important for this kind of study, and these obviously can not be obtained from written texts. The natural solution was to combine different types of data. Basically, the following algorithm was used: first, maximum information was extracted from the available written texts, on the basis whereof hypotheses were put forward and general outlines of the description were formulated, then the hypotheses were topically tested, and the description was refined in the course of face-to-face work with native speakers.

The texts used cover the period of the last 40 years and belong to different genres: fiction, journalism, biblical, etc. Some of the texts were taken from the multilingual corpus¹ developed at the University of New Mexico for machine translation purposes [Abdelali et al. 2006]; unfortunately, this resource is no longer available. Field data were collected during solitary expeditions to the Republic of Paraguay in 2012, 2015, 2018, and 2019. The methods employed included elicitation of sentences by translation from the intermediary language (Spanish) into Guaraní and image description; evaluation by speakers of sentences and forms constructed by the researcher; and audio recording, transcription and analysis of spontaneous texts in Paraguayan Guaraní: personal narratives, folklore texts, dialogues, etc.².

The methodological basis of the study is mainly provided by works from the functional camp of linguistic typology. At the same time, when discussing the Paraguayan Guaraní data in the light of various hypotheses regarding the architecture of universal grammar, I inevitably relied on publications in the stream of generative linguistics.

The following results are presented for the defense:

1. In addition to the extensively covered “hierarchical” system of person-number marking on the verb, Paraguayan Guaraní marginally features bipersonal agreement (which is optional and only used for the 2PL→1SG combination), which is most probably a recent innovation.

¹ <http://crl.nmsu.edu/say> (last accessed 10.09.2009)

² In the course of fieldwork, I have recorded 25 oral texts, together amounting to ca. 3.5 hours of running time; of this, about 1 hour has been deciphered and flossed with the help of native speaker collaborators. However, no examples from this oral texts have been included into the final version of this dissertation.

2. Contra [Estigarribia 2017], the relative ordering of valency prefixes in Paraguayan Guaraní is rigidly fixed and is not dependent on scope/order of operations. Apparent counterexamples can be explained as cases of lexicalization.
3. Although reflexive and antipassive in Paraguayan Guaraní are both valency-decreasing derivations, the corresponding prefixes can be combined within the same verb form (but only if the reflexive has an impersonal reading)..
4. Verbal markers that follow the root (suffixes, enclitics, and postpositional particles) are not organized in paradigmatic rows, one member whereof would preclude the appearance of others. Their relative ordering is partly rigid, partly semantically motivated, and partly shows free variation..
5. Relative ordering of verbal markers in Paraguayan Guaraní combines features of template and layered morphology.
6. Relative ordering of verbal markers in Paraguayan Guaraní manifests a number of deviations from the predictions of K. Hengeveld's Functional Grammar model [Hengeveld 1989].
7. Relative ordering of verbal markers in Paraguayan Guaraní manifests a number of deviations from the predictions of G. Cinque's cartographic approach [Cinque 1999].
8. Relative ordering of verbal markers in Paraguayan Guaraní is unlikely to reflect the chronology of their grammaticalization. Yet comparison of orderings in different Tupi-Guaraní languages is very important for reconstruction of diachronic processes within the subfamily. In particular, some cognate suffixes for which a bound suffix is traditionally reconstructed in the proto-language may instead reflect a parallel grammaticalization along the same path in sister languages.

The theoretical significance of the present study work lies in the critical verification against the material of a relatively understudied and typologically peculiar language of a number of widespread assumptions concerning the possible organization of TAM systems and the relative ordering of verbal affixes.

The practical significance of the present study lies in the creation of a descriptive fragment of modern Paraguayan Guaraní grammar, which can be used for preparation of a typologically oriented theoretical grammar and practical manuals for the study of Paraguayan Guaraní. As part of my dissertation research, I have analyzed and glossed a significant amount of texts, the results of which work can in the future be used in publishing an anthology of glossed texts, creating an annotated corpus, or in other linguistic applications related to Paraguayan Guaraní. The data presented in the dissertation are of use to linguists working with Tupi Guaraní languages or studying TAM and verbal morphology in a typological perspective.

Approbation of the work. The findings of the study were presented in talks at the following conferences and seminars: Seminar "Verb categories and sentence structure" (St. Petersburg, Institute for Linguistic Studies, conducted by V. S. Khrakovsky, 2004, 2008; 2010; 2015); annual conferences of the Linguistic Society of St. Petersburg (St. Petersburg State University, 2004, 2006); the 4th Typological School: International School of Linguistic Typology and Anthropology" (Yerevan/Tsakhkadzor, Armenia, 2005); the 3rd, 4th, 5th, and 7th Conferences on Typology and Grammar for Young Scholars (St. Petersburg, Institute for Linguistic Studies, 2006, 2007, 2008, 2010); Seminar on linguistic typology (Paris, France, INALCO, cr. Donabedian, 2007); 13th International Morphology Meeting (Vienna, Austria, University of Vienna, 2008); Chronos: 9th International Conference on tense, aspect, and modality (Paris, France, University of Paris-7 and the University of Chicago Center in Paris, 2009); Workshop on the typology of aspect (St. Petersburg, Institute for Linguistic Studies, 2010); 9th Biennial meeting of the Association for Linguistic Typology" (Hong Kong, 2011); Workshop on the typology of perfect (St. Petersburg, Institute for Linguistic Studies, 2013); Conference "Grammatical categories in the world's languages: Hierarchy and interaction" (St. Petersburg, Institute for Linguistic Studies, 2016); Workshop on the typology of the semantic zone of future and prospective (St. Petersburg, Institute for Linguistic Studies, 2016); 6th Conference "Typology of Morphosyntactic Parameters" (Moscow, Moscow State Pedagogical University and Institute of Linguistics, 2016); 49th, 50th and 52nd Annual meetings of Societas Linguistica Europea (Naples, Italy, 2016; Zurich, Switzerland, 2017; Leipzig, Germany, 2019); Semantics of Under-Represented Languages of the Americas 11 (Mexico City, Mexico (online), 2020).

Nine papers have been published on the topic of the dissertation, including four in journals recommended by the Higher School of Economics. All publications are single-authored; my personal contribution is 100%.

Publications in the journals included in the list of high-level journals, recommended by HSE, as well as indexed by Scopus:

1. Gerasimov D. V. O refaktivnom pokazatele *-je(v)y* v paragvajskom Guaraní [On the repetitive marker *-je(v)y* in Paraguayan Guaraní] // *Acta Linguistica Petropolitana. Transactions of the Institute for Linguistic Studies*, Vol. IV, No. 2, 2008. Pp. 58–65.
2. Gerasimov D. V. Vido-vremennaja sistema paragvajskogo Guaraní: sfera dejstvija i porjadok pokazatelej [Tense-aspect system of Paraguayan Guaraní: Affix ordering and scope] // *Voprosy jazykoznanija*, 2010, No. 4. Pp. 36–54.
3. Gerasimov D. V. Delo ob universal'noj ierarxii funkcional'nyx vershin: Guaraní protiv Chinkve [The case for universal hierarchy of functional heads: Guaraní vs. Cinque] // *Acta Linguistica Petropolitana. Transactions of the Institute for Linguistic Studies*, Vol. VI, No. 3, 2010. Pp. 46–51.
4. Gerasimov D. V. Refaktiv v paragvajskom Guaraní: semantika i grammatikalizacija [Repetitive in Paraguayan Guaraní: semantics and the grammaticalization path] // *Acta Linguistica Petropolitana. Transactions of the Institute for Linguistic Studies*, Vol. VII, No. 3, 2011. Pp. 489–516.

Other publications:

5. Gerasimov D. V. Predicative possession in Paraguayan Guaraní: Against the zero copula hypothesis // E. A. Lyutikova, A. V. Zimmerling, M. B. Konoshenko (eds.). *Tipologija Morfosyntaksicheskix Parametrov [Typology of Morphosyntactic Parameters]*. Issue 3. Moscow: MPSU, 2016. Pp. 96–112.
6. Gerasimov D. V. Sistema pokazatelej aktantnoj derivacii v paragvajskom Guaraní [The system of valency alternation markers in Paraguayan Guaraní] // D. Gerasimov, S. Dmitrenko, N. Zaika (eds.). *Sbornik statej k 85-letiju V. S.*

Khrakovskogo [A collection of papers presented to Dr. Viktor Khrakovsky on his 85th birthday]. Moscow: YaSK, 2019. Pp. 79–97.

7. Gerasimov D. V. Vzaimodejstvie grammem glagola v paragvajskom Guarani [Interaction of verbal grams in Paraguayan Guarani] // A. Malchukov, V. Khrakovsky (eds). *Ierarxija i vzaimodejstvie grammaticheskix kategorij glagola* [Hierarchy and interaction of verbal grammatical categories]. Saint Petersburg: ILIRAN, 2020. Pp. 120–152.
8. Gerasimov D. V. Interaction of verbal categories in Paraguayan Guarani // V. S. Xrakovskij, A. L. Malchukov (eds.). *Hierarchy and interaction of verbal categories across languages*. München: LINCOM. 2021. Pp. 94–116.
9. Gerasimov D. V. Pokazatel' prioritiva *-ra'ẽ* v paragvajskom Guarani: K tipologii taksisa v monopredikacii [Prioritive marker *-ra'ẽ* in Paraguayan Guarani: Towards the typology of relative tense in monopredication] // D. Gerasimov, S. Dmitrenko, N. Zaika, S. Say (eds.). *Opuscula linguistica Magistro sapientissimo dedicata. Sbornik statej k 90-letiju V. S. Khrakovskogo* [A collection of papers presented to Dr. Viktor Khrakovsky on his 90th birthday]. Saint Petersburg: Institute for Linguistic Studies, 2022. Pp. 36–46.

Structure and scope of the work: The dissertation numbers 301 pages of typewritten text and consists of an Introduction, 2 Chapters, a Conclusion and three Appendices, namely a set of tables summarizing the structure of the verbal complex in Paraguayan Guarani, a list of abbreviations, a list of texts cited, and a bibliography (656 titles, including 606 in languages other than Russian).

Chapter 1 provides general information about Paraguayan Guarani and Tupi-Guarani languages in general, account of the current sociolinguistic situation and the historical processes that have produced it, and an overview of the history of the study of Paraguayan Guarani. Chapter 1 also contains a brief sketch of phonology and grammar. Most of this chapter summarizes/overviews existing work, but the grammar sketch clarifies and supplements the description of Paraguayan Guarani in several aspects on the basis of my own research: thus, discussion of the parts of speech system presents a novel analysis of the possessive predication that does not posit a null copula; in transitive

conjugation, a bipersonal form for 2PL→1SG is reported for the first time; description of ditransitive clauses, valency alternations, etc. is refined.

Chapter 2 is devoted to establishing the relative order of verb markers in Paraguayan Guaraní. On the basis of textual data and field materials, a morphological model of the verb is constructed. Then its most complex and interesting part, the zone after the root containing most of the TAM markers, is compared with the schemes previously proposed in the literature specifically for Paraguayan Guaraní and also examined for consistency with various existing theories of affix ordering in general.

This sequence of presentation dictates specific overall organization of the text. The dissertation doesn't have a single section devoted to the traditional literature review. Instead, relevant provisions of existing publications are discussed in different places in the text, as is necessary for the main narrative. The primary literature on Paraguayan Guaraní is reviewed in detail in Chapter 1 (1.1.5. "History of Study"). An overview of the most fundamental works on the problem of affix ordering, from which we springboard in setting the problem in Chapter 2, is offered in Section 2.2, before the verb complex template for Paraguayan Guaraní is itself introduced. The few publications in which the problem of suffix ordering in Paraguayan Guaraní has been previously discussed are summarized in Section 2.4, where the model I have constructed in the previous section is compared with their results. Finally, a number of theoretical and typological works on affix ordering are discussed in more detail throughout Section 2.5, where my findings are consistently compared with the predictions of each of them. This way of organizing the dissertation text is unorthodox, but in this particular case it seems to work well and be convenient for the reader.

Chapter 1 "A sketch of Paraguayan Guaraní" provides general information about Paraguayan Guaraní and Tupi-Guaraní languages in general (§1.1), as well as a brief description of sound system (§1.2) and grammar (§1.3).

Sections 1.1–1.2 are primarily of a summary character. In §§1.1.1–1.1.3 I present general information on the language, its genetic affiliation, social and dialectal stratification, and the current socio-linguistic situation. Almost half of the section is occupied by a historical sketch (§1.1.4), intended to explain the genesis of the unique socio-linguistic situation in Paraguay that, in its turn, raises a number of methodological

problems in the study of a language functioning in the context of mass bilingualism. §1.1.5 briefly summarizes the history of the study of Paraguayan Guaraní and closely related languages, from missionary grammars of XVI–XVIIth centuries to the present day.

The next section summarizes existing literature, including recent works from the turn of the 2020s, on the sound system of Paraguayan Guaraní, covering such topics as phoneme inventory (§1.2.1), accentuation and intonation (§1.2.2), nasal harmony (§1.2.3), and other morphological phenomena (§1.2.4). §1.2.5 describes modern orthography, which (with some deviations concerning joint vs. separate spelling) is used for presentation of the vast majority of the Paraguayan Guaraní examples in the subsequent text of the dissertation.

The grammar sketch begins with discussion of the place that Paraguayan Guaraní occupies on the continuum between isolation, agglutination, and fusion (§1.3.1). I then proceed to describe the parts of speech system (§1.3.2); while I generally adopt the classification by [Nordhoff 2004], who treats nouns and inactive verbs as semantic classes within a single part of speech ("substantive"), for reasons of reader convenience the dissertation text continues to use more traditional labels. Morphosyntax of possessive predication is extremely important for solving the question of the inventory of word classes. I argue against the previously proposed analysis that posits a phonologically unrealized copula in such constructions. In §1.3.3 and §1.3.4 I consider person-number marking in intransitive and transitive clauses, respectively. In the former, Paraguayan Guaraní manifests split intransitivity; possible underlying factors behind the split remain an open question. For the latter, I describe optional expression of both participants in the 2PL→1SG person-number combination with separate prefixes:

- (1) *Peẽ pe-che-renói-pa?*
BY 2PL.A-1SG-call-Q
'Did you call me?'

To the best of my knowledge, The above-illustrated prefix combination *pe-che-* has not been mentioned in the literature prior to my publications [Gerasimov 2020; 2021]. Presumably, it represents an innovation arising from reinterpretation of the 2PL pronoun

peẽ into a prefix. Subsection 1.3.5 deals with case marking of core arguments with verbs of different valency classes. §1.3.6 describes the system of relational marking (sometimes also called "inverse"), which lies at the junction of morphosyntax and morphonology. §1.3.7 briefly describes ditransitive constructions whose morphosyntax can be seen (with some reservations) as manifesting a typologically uncommon split: case marking follows secundative alignment (the Recipient is patterned with the Patient), while verbal agreement follows indirective alignment (the Theme is identified with the Patient). Exactly the opposite situation appear more common cross-linguistically. The subsection proposes some functional motivation for the emergence of the distribution observed in Paraguayan Guaraní. The system of valency markers is discussed in §1.3.8 (some novel observations in this regard are also presented below, in §2.3.2). There are five productive valency derivations in Paraguayan Guaraní: causative from transitive and causative from intransitive predicates, reflexive, reciprocal, and antipassive. In addition, there is sociative causative, but it has lost its productivity in modern language. §1.3.9 deals with noun incorporation, a phenomenon which is losing its productivity in the modern language and which is relatively well described. The claim by [Velázquez-Castillo 1995] about the possibility of subject incorporation is challenged. The chapter concludes with §1.3.10, which briefly summarizes the data on the order of constituents. The word order in Paraguayan Guaraní is generally free, with a mixture of VO- and OV-characteristics, reflecting the change in branching order throughout the history of the language.

The centerpiece of the thesis is Chapter 2, "Toward a template model of the verb in Paraguayan Guaraní". Introductory methodological remarks (§2.1) are followed by an overview of the problems of relative ordering of verbal markers (§2.2), with special attention to various types of variable ordering. Phonologically, morphologically, semantically, and pragmatically motivated variation in the ordering of morphemes as well as arbitrary variation are distinguished and illustrated. Section 2.3 directly addresses the ordering of elements in the verb complex of Paraguayan Guaraní. A model is constructed, based, on the one hand, on the data of published texts and, on the other hand, on the findings of my fieldwork. Thus, biblical example (2) allows us to hypothesize about the relative order of prefixes of reflexive, antipassive and causative, while example (3), obtained through elicitation, proves that the relative order of suffixes of priorative and comparative/continuative demonstrates semantically motivated variability:

- (2) *O-ime ára o-je-poro-juka haguã,*
 3A-be time 3A-REFL-AP-kill PURP
ha ára o-ñe-poro-mo-nguera haguã,..
 and time 3A-REFL-AP-CAUS-get.well PURP
 ‘There is a time to kill and a time to heal’. [Eccl. 3:3]

- (3) a. *O-purahéi-ve-raẽ.*
 3A-sing-CMPR-PRIOR
 ‘First he sang some more’.
- b. *O-purahéi-raẽ-ve.*
 3A-sing-PRIOR-CMPR
 ‘He was the first to sing’.

Given the complexity of the data, construction of template is divided into several subsections. In §2.3.1 I discuss preverbal particles and in §2.3.2, prefixes. Five prefixal slots can be distinguished in the Paraguayan Guaraní verb, of which three can be simultaneously filled (see example (2) above). The grammemes of imperative, optative, person/number of subject and object, as well as valency derivations (with the exception of causative from transitive verbs) have prefixal exponents. Despite a relatively simple arrangement of this zone, the allocation of specific markers into ordered slots faces some technical difficulties. My data show conclusively that prefixal markers of Paraguayan Guaraní follow a strictly defined sequence, contrary to the claim by [Estigarribia 2017] that the relative ordering of prefixes is scope-driven. This subsection also provides some novel data concerning interaction of different valency markers, in particular, the previously unreported possibility of combining reflexive and antipassive within the same word form.

In §2.3.3 the root zone of the verbal word receives its separate consideration. The order of incorporated nominal and adverbial elements relative to the root (preposition and postposition, respectively) is discussed.

Most verbal markers in Paraguayan Guaraní occupy positions after the root. §§2.3.4-2.3.8 are devoted to this zone. §2.3.4 presents the results of the frequency counts of various combinations of markers in the text of T. Sarratea's novella "Kalaíto Pombéro" (KP; ca.19500 word tokens). These textual data generally fit into a strict version of the grammar of orders: it seems possible to arrange the suffixes and particles under consideration in such a sequence that within one word form the more "left" indicators will precede the more "right" ones; combinations with a reverse order occur, but they are few and far between and generally allow for an alternative account.

Of importance for the structure of the verb in Paraguayan Guaraní is the dichotomy of stressed and unstressed suffixes, noted in §1.2.2. It is generally assumed that the stress-bearing suffixes are placed before the second component of the negative circumfix and the unstressed suffixes after it, but my data show that this correspondence is not strict, because the stress-bearing modal suffix *-che* (potential under negation) is always placed after the negative marker:

- (4) *Che-rehe ne-re-ñe-mbo-hory-i-ché-ne,* *Anselma Peralta,..*
 1SG-across NEG-2SG.A-CAUS-joyful-NEG-NEG.POT-POT A. P.
 ‘At me you won’t be able to laugh, Anselma Peralta,..’[KP, 5:27]

The order of markers preceding negation is discussed in §2.3.5. It seems possible to distinguish at least 20 stress-bearing markers arranged in 17 suffixal slots. There is not always enough data to unambiguously assign a specific marker to a particular order, all such dubious cases are discussed separately in the text. §2.3.6 establishes relative ordering of the 12 unstressed markers following *-che*. In §2.3.7, I discuss several rare and understudied markers that are difficult to unambiguously assign to one of the zones identified above and are not yet accounted for in the proposed model.

In §2.3.8 I discuss free particles (and defective auxiliary verbs) that carry their own stress and follow the verb. In total, I distinguish five orders for such elements, the first two being occupied by markers of durative and retrospective shift, whose placement relative to each other is apparently free.

The resulting model of morpheme ordering is summarized below in Tables 1–6 (Appendix No.1 in the dissertation).

This model is then compared to earlier-made generalizations about the order of verbal markers in Paraguayan Guaraní [Gregores & Suárez 1967; Liuzzi 1987; Velázquez-Castillo 2004] (§2.4). Reviewing the claims of these works, I show that my results, some gaps notwithstanding, substantially clarify and complement our knowledge in this area.

Throughout Section 2.5, the model I have constructed is discussed in the light of various theories of affix order proposed in the literature. In §2.5.1, the Paraguayan Guaraní data are considered relative to the well-known opposition of template vs. layered morphology; I show that the verb structure in Paraguayan Guaraní combines features of both systems. Subsection 2.5.2 deals with the extent to which the order of affixes in Guaraní is determined by scope relations; It is shown that this principle explains some permutations of suffixes, but turns out to be irrelevant in many other cases. In §2.5.3 the Guaraní data are examined in terms of the layered model formulated by K. Hengeveld within the framework of S. K. Dik's Functional Grammar [Hengeveld 1989]. The ordering of verbal markers in Paraguayan Guaraní mostly corresponds to the predictions of this model, but also manifests some notable divergences from them. In §2.5.4 the same data are examined in the light of G. Cinque's syntactically oriented cartographic approach [Cinque 1999]; my findings show a number of discrepancies with the predictions of this model as well. Subsection 2.5.5. is devoted to a discussion of the diachronic motivation of affix ordering in terms of grammaticalization theory; the Paraguayan Guaraní data are compared with those of the closely related Tapiete language, in which some cognate suffixes occupy different positions in the verb. In §2.5.6, a separate comparison is made between the model built in this chapter and the predictions of a recent alternative approach [Dąbkowski 2021; 2022], which relates the variability in the ordering of suffixes in Paraguayan Guaraní to their prosodic independence. Despite very different emphases, the conclusions of these work are generally compatible with mine. Since the impact of morphological factors (conventionalized ordering of affixes) in Paraguayan Guaraní cannot be denied, the question arises whether prosodic independence is at all required as an organizing principle of suffixation. In my opinion, the final answer to the question about the

correlation between the influence of morphological, phonological, and semantic factors on the ordering of verbal markers in Paraguayan Guaraní requires further research.

The Conclusion briefly summarizes the findings of the dissertation.

Table 1. Overall structure of the verbal complex in Paraguayan Guaraní

Prepositive particles	Prefixes	Radical part (head root + incorporated elements)	Suffixes	Postpositive particles
cf. §§2.3.1–2.3.2, Table 2		cf. §2.3.3	cf. §§2.3.4–2.3.7, Tables II-3, II-4, II-5.	см. §2.3.8, Табл. II-6
<i>tove</i> <i>hi'ã</i> optative <i>ani</i> prohibitive	5 slots optative imperative negation agreement valency	(N) (V) V (Adv)	> 30 slots Causative from transitives TAM attenuative intensive negation	<i>(h)ína</i> durative <i>kuri</i> past <i>ndaje</i> ,... reportative <i>ra'e / raka'e</i> admirative <i>hikuái</i> plural subject

Table 2. Verbal prefixes

-5	-4	-3	-2	-1	0
<i>t(a)</i> - optative <i>nda-/ndo-/...</i> negation	<i>a-/re-/...</i> pers/num (A-participant)	<i>che-/nde-/...</i> pers/num (P-participant)	<i>-poro-</i> antipassive	<i>-mbo-/mo-</i> causative from intransitives	R
	<i>e-/pe-</i> imperative	<i>-je-/ñe-</i> reflexive			
<i>je-/ñe-</i> nominalizer		<i>-jo-/ño-</i> reciprocal			

Table 3. Overall structure of the suffixal zone

0	1–17	18	19	20–31...
R	stress-bearing suffixes	<i>-i</i> 2nd component of the negative circumfix	<i>-che</i> negative potential	unstressed suffixes / enclitics

Table 4. Suffixes: before negation³

Slots	Markers	Markers with position still unclear	
0	R		
1	<i>-uka</i> CAUS		
2–4	<i>-pa</i> ₁ TOT <i>-se</i> DES <i>-rei</i> ₁ FRUSTR	<i>-pota</i> IMMPROSP <i>-mo'ã</i> ₁ NEG.PROSP	<i>-jepe</i> CONC <i>-kue</i> SIM.PST <i>-ite</i> AUG ₁ <i>-rei</i> AUG ₂
5	<i>-i</i> DIM ₁		
6	<i>-mi</i> DIM ₂		
7	<i>-joa</i> COLL		
8–10	<i>-je(v)y</i> RE <i>-ramo</i> ₁ IMPPAST / <i>-raẽ</i> PRIOR <i>-ve</i> CMPR		
11	<i>-ỹ</i> CAR		
12 (=18)	<i>-i</i> NEG		

Table 5. Suffixes: after negation

Slots	Markers	Markers with position still unclear	
18	<i>-i</i> NEG		
19	<i>-che</i> NEG.POT	<i>-jepi</i> USIT <i>-ti</i> CNTV <i>-mo</i> CNTRF	
20	<i>-ta</i> PROSP		
21	<i>-vo</i> SIM / <i>-ramo</i> ₂ COND / etc.		
22–23	<i>-ma</i> IAM <i>-nte</i> RESTR		
24	<i>-va</i> REL / <i>-va'ekue</i> DPAST / <i>-va'erã</i> DEB		
25	<i>-ne</i> POT / <i>-mo'ã</i> ₂ IRR	<i>-mi</i> ₂ HAB	
26	<i>-pa</i> Q / <i>-je</i> REP / <i>-ha</i> COMP		
27 (=31)	<i>-(i)ko</i> EMPH		

Table 6. Postpositive verbal particles

	I	II	III	IV	V
V	<i>(h)ina</i> durative	<i>kuri</i> past	<i>je'e, jeko, ndaje,</i> reportative	<i>ra'e</i> <i>raka'e</i> indirect evidentiality	<i>hikuái</i> plural subject

Abbreviations

1, 2, 3 – 1st, 2nd, 3rd person; A – active series prefix; AP – antipassive; AUG – augmentative; CAUS – causative; CMPR – comparative/continuative; CNTRF –

³ This table and the one following it do not cover the morphemes discussed in §2.3.7 of the dissertation.

counterfactual; CNTV – continuative; COLL – collective action; COMP – complementizer; CONC – concessive; COND – conditional; DEB – debitive; DES – desiderative; DIM – diminutive; DPAST – distant past; EMPH – emphatic; FRUSTR – frustrative; HAB – habitual; IAM – iamitive; IMPAST – immediate past; IMMPROSP – immediate prospective; IRR – irrealis; NEG – negation; PL – plural; POT – potential; PRIOR – prioritive; PROSP – prospective; PURP – purpose; Q – interrogative; REF – (semel-)repetitive; REFL – reflexive; REL – relativizer; REP – reportative; RESTR – restrictive; SG – singular; SIM – simultaneity; TOT – totalitative (completive); USIT – usitative.

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