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Inflectional morphology restructuring in ache – discussing grammatical change and language contact in tupí-guaraní subgroup – 1

Reestruturação de morfologia flexional em achê – discutindo mudança gramatical e contato linguístico no subgrupo – 1 da família tupí-guaraní

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Abstract: This paper deals with mechanisms of grammatical change in Ache, focusing on inflection. Ache contains restricted functional morphology when compared to most Tupí-Guaraní languages. Although erosion of inflection is attested in linear historical developments within this genetic context; the degree of inflectional erosion observed in Ache is exceptional. Ache lacks all TG prefixes, consequently, processes linked to person-number agreement, such as person hierarchy effects, are unattested. Ache enclitics for tense-aspect-mood marking (TAM) appear to be more similar to other TG languages. However, given closer examination, also for TAM considerable restructuring is revealed. Besides describing erosion and retention patterns of inflection, it is exemplified how Ache copes with the overall functional restructuring by generating innovative syntactic patterns and novel lexical items. Inspired by subclasses of inflection given in Roberts and Bresnan (2008), it becomes evident that inherent inflection (i.e. TAM) is far more stable in Ache than so-called contextual inflection (i.e. person, case); a characteristic result of contact induced grammar change. Thus, this study of inflectional restructuring contributes strong evidence for the long-standing hypothesis that Ache is a TG contact language (Dietrich, 1990; Rodrigues, 2000; Rößler, 2008).

Keywords: Morphosyntax. Inflection. Grammatical Change. Language Contact. Ache. Tupí-Guaraní.

Resumo: Este artigo lida com mudanças gramaticais em achê, focando na morfologia de flexão. Achê contém paradigmas funcionais restritos quando comparado com outras línguas tupi-guarani. Embora a erosão de flexão seja atestada como desenvolvimento histórico linear neste contexto genético; o grau de erosão de flexão observada em achê é excepcional. Achê carece de todos os prefixos de línguas TG, consequentemente, os processos ligados ao concordância, como efeitos de hierarquia de pessoa, não são encontrados. Enclíticos do achê, principalmente a marcação de tempo-aspecto-modo (TAM) parecem ser mais semelhante a outras línguas TG. No entanto, a partir de estudos mais detalhados, encontra-se também reestruturações consideráveis nos sistema de TAM. Além de descrever padrões de erosão e de retenção de flexão, mostra-se como o achê lida com re-estruturações funcionais, gerando padrões sintáticos e itens lexicais novos. Inspirado pelas subclasses de flexão dada em Roberts e Bresnan (2008), torna-se evidente que flexão *inerente* (ou seja, TAM) é mais estável em achê do que flexão *contextual* (pessoa, caso); o que constata um resultado característico de mudança gramatical induzida por contato. Assim, este estudo sobre reestruturação flexional contribui novas evidência a favor da hipótese que Ache é uma lingua TG de contato (Dietrich, 1990; Rodrigues, 2000; Rößler, 2008).

Palavras-chave: Morfossintaxe. Flexão. Mudança Gramatical. Contato Linguístico. Achê. Línguas Tupí-Guaraní.

INTRODUCTION

This paper examines grammatical change in Ache, a relatively understudied member of the Tupí-Guaraní (TG) family, when compared to closely related varieties from the Guaraní cluster[1]. Ache is a highly endangered language, fluently spoken by not more than 250 people in eastern Paraguay. TG specialists have long claimed that Ache differs with regard to typical grammar patterns within the language family, especially concerning its morphosyntax (Dietrich, 1990, 2011; Jensen, 1990, 1998; Rodrigues, 2000; Rößler, 2008).

In this paper, I focus on the restricted number of functional elements that encode inflection in order (i) to describe morphological erosion encountered in Ache when compared to more typical TG grammars and (ii) to discuss possible mechanisms underlying this morphological restructuring considering current contact linguistic theory (Bakker, 2003; Roberts; Bresnan, 2008). Crucially, it is not only loss but also retention of TG typical inflection that will be relevant for the presented argument. The analysis follows a comparative approach to morphosyntactic description. Ache data will be contrasted with multi-variational, synchronic data from the Guaraní cluster, including Paraguayan Guaraní and indigenous varieties such as Ava-Guaraní, Mbyá-Guaraní, and Paĩ-Tavỹterã/Kaiowá[2].

All language data from Ache and Guaraní varieties presented here has been collected for the purpose of this research, if not indicated otherwise for a specific data set. The comparative data on Ache dialects and Guaraní varieties have been compiled via *parallel elicitation*. The method implies the collection of not only similar, but, in fact, exactly parallel, controlled and semi-controlled data sets in order to enhance comparability and foster a reliable identification of language contact effects characteristic for Ache grammar as well as distinguish them from grammatical effects of linear historical change patterns in TG subgroup-1.

The parallel Guaraní data is suitable for comparison for three main reasons. First, the Guaraní languages are the closest geographic TG-neighbors to Ache. Second, the Guaraní varieties are close genetic relatives of Ache, all belonging to and, in fact, forming large parts of TG subgroup–1 (Rodrigues, 1985). Third, most of the Guaraní varieties are considered *conservative* TG languages. Therefore, they are taken here to delimit typical grammar and historical change patterns for this specific genetic context.

The overall type of grammatical change studied in this paper is exemplified in (1-2). Paraguayan Guaraní has several types of affixes and clitics, encoding case, agreement, relational/linking functions or tense-aspect-mood marking (morphemes in boldface). Members of the TG family and, therefore, also Guaraní are consistently considered agglutinative languages with mildly polysynthetic tendencies (Tonhauser, 2006, p. 130).

In example (2) the more isolating surface of Ache is evident: there is no agreement or relational marking. More specifically, all typical TG prefixation is absent from Ache grammar. Some affixes have lost their grammatical function and became part of Ache lexical stems via morpheme boundary reanalysis. The only functional morpheme left in (2) is the locative marker =*pe* [LOC], a postposition roughly translatable as 'in, at, within, on'. Note that in Ache, mainly the encoding of grammatical relations is almost entirely left to syntax.

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[1] Guaraní cluster refers to a conjunction of closely related Guaraní languages from TG subgroup-1, such as Paraguayan Guaraní, Mbyá-Guaraní, Avá-Guaraní/Chiripá, Nhandeva (Brasil), Paĩ–Tavỹterã/Kaiowá and Chaco Guaraní, all spoken in Paraguay, Bolivia, Northern Argentina and Southern Brazil. Guaraní cluster languages are structurally similar. However, more and more micro-variation in the lexicon and morphosyntax has been discovered throughout the here presented comparative research. Not included in the Guaraní cluster are most likely contact varieties of TG subgroup-1, such as Ache and Tapiéte/Ñandeva.

[2] Throughout the text mainly data from the first two languages will be displayed given the limitation of space. However, if not indicated otherwise, the data is taken to represent as well the functioning of parallel structures in Mbyá and Paĩ – Tavỹterã/Kaiowá. Data from all four Guaraní varieties have been considered in the course of this research.

(1) Paraguayan Guaraní

che-*jarý*-**i**		*i*-*guaiguĩ*	*eterei*=**ma**		*ha'e*	**o**-*vy'a*	**o**-*guata*-**vo**	*villa*=**re**
1SGᵦ–old woman–**DIM**		**3PS**ᵦ–old	very=**COMPL**		3SG	**3PS**ₐ–likes	**3PS**ₐ–walk–**ASP**	village=**LOC**

'My grandmother is very old and she likes to walk around the village.'

(2) Ache – Ñacunday Dialect

cho	*djary*	*djwei*	*buchã*	*go*	*wata*	*ury*	*chupa*=**pe**
1SG	grandmother	old	very	DEM	walk	happy	village=**LOC**

'My grandmother is very old and she likes to walk around the village.'

For decades, TG specialists have identified Ache as part of a restricted group of TG languages that display irregular grammatical features. Other exceptional languages are Kokama/Kokamilla, Omagwa, Nheengatu, Xetá or Sirionó/Yuki (Cabral, 1995; Cruz, 2011; Dietrich, 1990; Jensen, 1990, 1998; Michael, 2014; Rodrigues, 2000; Vallejos Yopán, 2010). Data from those languages has often been left aside in reconstruction work on proto-Tupí-Guaraní (PTG) to avoid cluttering an otherwise rather homogenous picture of TG morphosyntax. The Ache grammatical patterns, as pointed out by Aryon Rodrigues (2000, p. 07), "require special explanations." Ache has consistently been identified as a TG language affected by outside influence or language contact:

> A few languages in the family show alternations significant enough to justify the hypothesis that they are spoken by people who were originally non-Tupí (Rodrigues 1985, p. 42-43). I do not consider myself qualified to discuss changes in such languages as Guayaki [Ache], Sirionó and Cocama, because I am not familiar with the outside influences that affected them [Jensen 1998, p. 577 and note 3].

> Guayaki [Ache] and Cocama may be members of the Tupi-Guarani language family, but these languages are to such an extent mixed up with features atypical of Tupi-Guarani languages that they must haven been taken over by people who were originally speakers of languages belonging to other language stocks, or they must have been extensively influenced by such speakers. [Dietrich 1990, p. 115].

Starting from such more general claims of TG specialists, I will delimit the debate to a more specific hypothesis of Ache language genesis. I assume an emergence scenario in which high numbers of non-native (non-TG) speakers acquired the TG lexicon and grammar in an incomplete fashion. I further assume that the most likely target language of this second language acquisition process was a (or more than one) historical variety of Guaraní, given (i) their geographic as well as genetic proximity and (ii) the wide distribution of Guaraní throughout the relevant region in pre-colonial times (Melià, 1995; Rodrigues, 2000). In fact, Guaraní is the predominant language up until today. Since 1992 it is one of two national languages of Paraguay. I suggest, that Ache solidified at some point before colonization as the native language of a specific, small and delimited speaker group (see footnote 5).

Crucially, modern contact linguistic theory assumes that incomplete acquisition of a target language by, to a large extent, adult second language learners is in no way confined to the emergence of classical pidgins or creoles (Holm, 2000, 2008; Mufwene, 2008).

Given the current state of research on Ache, no clear conclusion can be drawn about the exact type of language contact that shaped it. It is difficult to identify non-TG languages that may have been involved in the emergence scenario as relevant substrates. Many languages of the region have disappeared long before comprehensive documentation.

These aspects of the hypothesized contact scenario must be left to further research[3]. The debate presented here will limit itself to the observation of grammatical aspects and a comparison of Ache to Guaraní languages that are – by hypothesis – synchronic descendants of the main lexical and grammatical source involved in Ache genesis. I suggest that this comparison may provide us with strong evidence for confirming the status of Ache as a TG contact language.

This paper is structured as follows: First, I briefly discuss some theoretical assumptions underlying my work on grammatical change, language contact and inflectional restructuring. Second, as little has been published on the Ache language and latest accounts date back to the 1980s, some basic facts on the speaker group and their history are provided. Third, I introduce the relative morphological poverty of the Ache grammar and describe specific sets of inflectional morphology. Details regarding the continuity and discontinuity in tense-aspect-mood (TAM) morphology, differential object case marking (DOM) and verbal agreement will be provided. Furthermore, inflectional morphology retention, reinterpretation and erosion are debated in the light of current research on diachronic grammatical change and language contact (Roberts; Bresnan, 2008). And finally, I summarize the current findings and point to future research on the Ache language and aspects of language contact within the TG family.

GRAMMATICAL CHANGE AND LANGUAGE CONTACT

Theory based predictions on grammatical modifications resulting from language contact focused for a long time on Indo-European data. Only very few indigenous languages have been taken up in contact linguistic research (see Epps, 2009; Muysken, 2008, p. 211-226; Seifart, 2012; for relevant discussion). Recently, theorists have pointed to the fact that processes of language contact occurred '*throughout [all of] human history*' and thus anywhere in the world (Muysken, 2008, p. 189).

Regarding the effect of contact on language systems, it is assumed across frameworks that "…the process of creating a new language (…) involves cross-language compromise and, therefore, tends to eliminate unshared hard-to-learn features, such as inflectional morphology and complex syntactic structures" (Thomason, 1997, p. 76). The restructuring of functional morphology – the core of discussion in this paper – proved to be one central impact of language contact phenomena, especially in the case of pidginisation and creolisation. Muysken (2008, p. 188) suggests that*: "In fact the restructuring of the functional category system of a language may be taken as criterial for the process of creolisation."*

However, given the current state of research, clear distinctions between pidgins, creoles, vernaculars and other commonly assumed contact language types remain hard to establish for South American indigenous languages. Therefore, an exact classification of Ache is beyond the scope of this paper and must be left for future research. The more general term *contact language* (CL) will be sufficient here in order to refer to exceptional TG varieties such as Ache.

According to most contact linguistic theory, it is assumed that grammatical change triggered by language contact arises due to reliance on linguistic universals, convergence of elements of source and substrate features, as well as due to relexification. The degree to which each of these processes implements grammatical innovation in a given CL depends on extra-linguistic factors, that is, historical and sociolinguistic circumstances acting out during CL genesis (Muysken, 2008, p. 190).

For a better understanding of contact phenomena within the TG language family, it is relevant that grammatical change triggered by language contact must be seen as cognizant of the typological nature of the involved source language(s), as suggested in Roberts and Bresnan (2008, p. 271).

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[3]   Some suggestions have been made by anthropologist Branislava Susnik (1960, 1961) on possible contact between TG-speakers and members of Gê groups that may have led to Ache language genesis.

Furthermore, inflectional restructuring often builds on asymmetries at least partly found in linear historical change of the respective source languages. What seems to set language contact phenomena apart from linear linguistic transmission is more often the degree of grammatical restructuring rather than its overall type of grammatical change.

In what follows, it will become conspicuously clear that Ache grammar diverges from better-known TG systems exactly along the expected lines given in contact linguistic theory. Ache lacks, for instance, the complex agreement marking system for S-split cross-referencing in intransitive and person hierarchy marking (1>2>3 or 1/2>3) in transitive contexts. However, it is not just any type of TG inflectional morphology that eroded completely in Ache.

A possible explanation may be provided in Roberts and Bresnan (2008). The authors not only give evidence for the existence of inflectional morphology in CLs but also discuss more detailed *"patterns in retention of inflectional morphology across contact languages that experienced processes of structural reduction in their genesis"* (Roberts; Bresnan, 2008, p. 271).

This paper focuses on the comparative description of morphosyntactic data sets related to inflectional morphology erosion and restructuring in Ache when compared to the better-studied Guarani language cluster. Historical, that is language external factors, which may have triggered Ache grammatical change, are noted when possible. However, a thorough study of those factors must be left to further, differently designed research on the Ache language and speaker group (see Michael, 2014).

THE ACHE LANGUAGE OF EASTERN PARAGUAY

Before arriving at language data, some background information on language and speech community are in order. The Ache language is currently spoken by close to 250 fluent speakers and 1800 semi speakers in Eastern Paraguay (estimates by ALSP 2013)[4]. Six Ache communities are located in the departments of Canindeyú, Alto Parana, Caaguasú and Caazapá. Four varieties have survived: the Northern Ache, Ñacunday Ache (Southern), Yvytyruzu, and Ache Ua dialects. The latter dialect is virtually extinct, as there are only 5 speakers left, all around 80 years of age.

The map (Figure 1) shows the locations of the six main communities (dots) and indicates (grey areas) the original homeland of the Ache nomadic subgroups up until the first half of the twentieth century. For the next approximately 20 years, the Ache people were systematically forced into either settlement or slave labor, leading to drastic cultural change.

Today, the Ache have almost completely abandoned their traditional hunter-gatherer lifestyle and switched to small-scale farming. Younger Ache seem especially prone to language loss. The central reason is that around 90% of Paraguay's Atlantic forest have literally disappeared in the second half of the 20th century and with it Ache forest life – the main domain of language use.

We have very little historical information on the Ache language up until consistent contact between the Ache people and Paraguayan society in the first half of the 20th century. Some rare pieces of earlier information on the Ache group, found in 18th century Jesuit publications, are therefore all the more exciting[5]. Apparently, the grammatical differences

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[4] ADOP/ALSP is a language documentation project on Ache within the DoBeS Program (Dokumentation bedrohter Sprachen). Its corpus and data collections can be accessed at: www.mpi.nl/dobes/ache (Rößler; Hauck; Thompson, 2010).

[5] This publication is a summary of reports from Jesuits missionaries from the 17th and 18th century, that was published in 1873–1874 by Padre Lozano. Anthropologists attest that: "During that time, various groups of Ache (called 'Guayagui') were reported to live in the forests west of the Paraná River between the Guaira falls on the north and the dense strip of Jesuit missions in the south near Encarnación. They were first contacted along the Acaray River by Padre Jose de Insuarralde in the 1630s and 1640s. Some Ache bands *still* lived in the headwaters of Acaray River when they were contacted in 1972–1973; thus these groups had inhabited the same general area for at least 350 years. Descriptions from the 1600s differ little from those in the twentieth century" (Hill; Hurtado, 1996, p. 45). Thus, the existence of the Ache people and their particular language is registered since the 17th century by Jesuit missionaries, who were often times trained grammarians and thus very much aware of the linguistic landscape surrounding them. Given this type of historical information, I assume that it was not during colonization that the Ache language emerged as distinctive member of the TG language family.

between Ache and Guaraní discussed here already attracted the attention of the Spanish chroniclers. Early on Jesuits notice phenomena that current linguists refer to as inflectional morphology erosion within the Ache grammar system:

> [The Ache] language although different from Guarani, and which is spoken with a certain tone, as if they were singing, can be easily understood by the Guaranien natives. (…) Almost everyone thinks that this is a nation originating from some fugitive group of the Guarani, and this is based on the fact that their language is a corruption of Guaraní, differing only in that it lacks the initial prefixes used in that language [Lozano 1874, p. 415-421, translated in Hill; Hurtado 1996, p. 45-47].
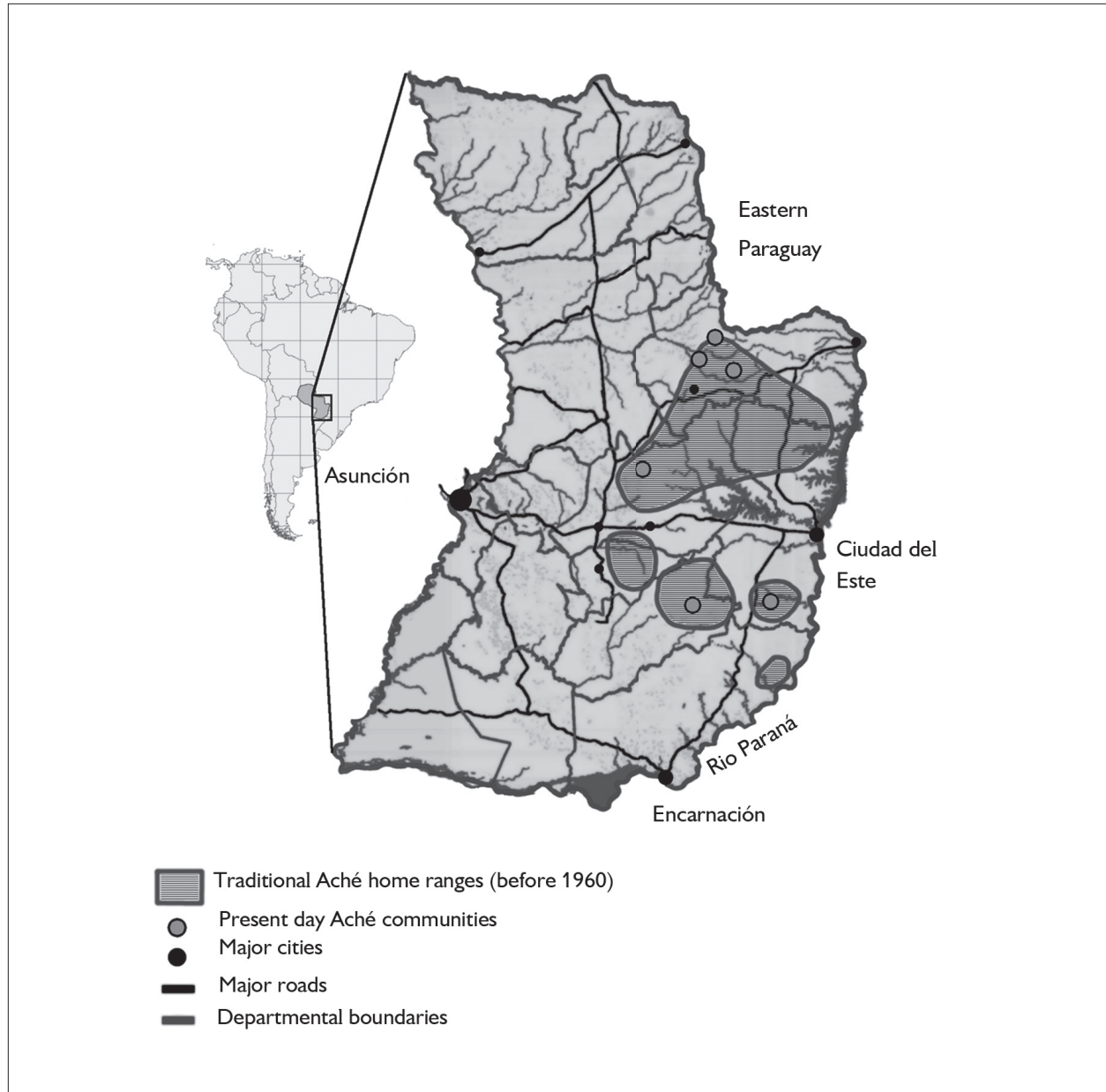

Figure 1. Ache Communities in Eastern Paraguay (ADOP/ALSP, A. Madroño 2013).

The expression *corruption* of Guaraní, cited by Lozano, resembles classical colonial references to new emerging contact varieties of large-scale colonial languages throughout many parts of the New World. These early accounts indicate the existence of the Ache language as early as the 17th century (see footnote 5). However, they give no evidence for sustained contact between the Jesuit missions and Ache nomadic groups. These shreds of information from Jesuit sources provide an incomplete picture of Ache language history. More extensive research on these and similar colonial documents may substantially enrich our understanding of synchronic linguistic data.

RELATIVE MORPHOLOGICAL POVERTY OF ACHE

In general, Ache is characterized by the intense loss of functional dependent morphology when compared to typical TG morphosyntactic patterns. Guaraní contains a wide range of prefixes, suffixes, and clitics while Ache grammar retains only a restricted subset of those functional elements. Not only the number of markers but also allomorphic variation is diminished. As mentioned earlier, Ache is the only TG language that lacks left periphery marking of lexical stems altogether. Ache grammar retains around 20 functional formatives, suffixes and postpositional clitics, listed in the table 1 below. The elements signal functions such as tense-aspect-mood, negation, locatives, focus, differential object marking and interrogatives.

While in Guaraní especially the verbal domain is morphologically quite complex, verbal inflection is largely eroded within the Ache grammar system. No person-number agreement, relational/linking prefixes, or valency markers; reflexive, passives, reciprocals or causative prefixes, can be attested in Ache.

Also, nominalization patterns described for TG and Guaraní lack virtually any functionally productive reflex in Ache. The only category-indicating device attested is =*gi* [DET]; for now best described as a determiner which is not clearly derivable from TG material. Ache simple lexical items, in their majority disyllabic forms cognate to Guaraní vocabulary, are usually introduced into syntax without any category specific morphology (see Dietrich, 2015 on the Ache lexicon). An in-depth discussion of all these markers is beyond the intended scope of this paper. In the following sections, continuities and discontinuities in tense-aspect-mood, differential object case marking and person-number agreement are discussed in more detail.

Table 1. Functional Markers of Ache – Instances of Morphological Erosion.

–*a*	AG (participle)	=*pa*	PERF (TAM)
=*ba*	INT (interrogative)	=*pe*	LOC (case)
=*bu*	COND (TAM)	=*pe*	DOM (case)
=*dji*/=*ri*	LOC (case)	=*py*/=*by*	PA (participle)
=*ga*	FOC (contrastive focus)	=*rã*	FUT (TAM)
=*gi*	DET (determiner)	=*re*	PAS (TAM)
=*llã*	NEG (negation)	=*rõ*	FOC (focus)
=*ku*	INT (interrogative)	–*ty*/–*dy*	HAB (TAM)
=*ma*	COMPL (TAM)	–*wã*	FIN (TAM)
–*mi*	DIM (TAM)	=*we*$_1$	PAS (TAM)
=*na*	IMP (TAM)	–*we*$_2$	WE (functionally empty)

TENSE-ASPECT-MOOD MARKING IN ACHE

In Guaraní, tense-aspect-mood (TAM) are expressed via suffixes or enclitics, and a number of temporal adverbs. Distinct morphemes are employed in the verbal and nominal domains. The data in examples (3-6) features the nominal future oriented modal –*rã* [FUT$_N$] and the nominal past marker –*kue* [PAS$_N$]. It is rather uncontroversial for all four Guaraní varieties that these markers are never used to mark TAM directly on verbal stems (see Thomas, 2012, 2014 for a relevant analysis of Mbyá data).

(3) Paraguayan Guaraní

*che-r-embireko-**rã***

1SG$_A$–R–wife–**FUT$_N$**

'my future wife/my fiancé'

(4) Paraguayan Guaraní

*che-r-embireko-**kue***

1SG$_A$–R–wife–**PAS$_N$**

'my ex–wife'

(5) Paraguayan Guaraní

*che-r-oga-**rã***

1SG$_A$–R–house–**FUT$_N$**

'my future house'

(6) Paraguayan Guaraní

*che-r-oga-**kue***

1SG$_A$–R–house–**PAS$_N$**

'my ex–house'

Furthermore Guaraní contains the past time adverb *kuri*; alongside aspect markers, such as –*ta* [PROS$_V$] or =*ma* [COMPL] (Dietrich, 2011; Thomas, 2012b, 2014; Tonhauser, 2006). With exception of =*ma* [COMPL], these elements are restricted to the verbal domain in all four languages out of the Guaraní cluster (7-10). TAM markers –*rã* [FUT$_N$] or –*kue* [PAS$_N$] are never found directly attached to verbal roots, as illustrated in (7/9).

(7) Paraguayan Guaraní

che   ro-h-echa-kue***

1SG   ½$_A$–R–see–**PAS$_N$**

[intended: 'I saw you.']

(8) Paraguayan Guaraní

*(che)   ro-h-echa   **kuri***

1SG   ½$_A$–R–see   **ADV**$_{(SIMPLE PAST)}$

'I saw you.'

(9) Paraguayan Guaraní

che   ro-h-echa-rã***

1SG   ½SG–R–see–**FUT$_N$**

[intended: 'I will see you.']

(10) Paraguayan Guaraní

*(che)   ro-h-echa-**ta***

1SG   ½SG–R–see–**PROS$_V$**

'I will see you'

It is not the goal of this paper to debate the exact classification and analysis of these elements in Guaraní, but rather to observe continuities and discontinuities of these structures within Ache grammar. In Ache cognates of the upper nominal TAM markers –*rã* and –*kue* are clearly retained, while the verbal marker –*ta* [PROS$_V$] or adverbials such as *kuri* are not[6]. The cognates of Guaraní nominal TAM are applied in Ache to nominal (11), stative intransitive (12), active

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[6]   The –*ta* [PROS$_V$] morpheme is used by younger Ache, often semi speakers of their language; it is recognized by Ache speakers as a
    recent borrowing from Guaraní.

intransitive (13) as well as transitive predicates (14). Hence, they are no longer restricted to a specific lexical category. Additionally, in Ache the past marker =*we₁* is phonologically equal to the morpheme –*we₂*; which is historically derivable from the Guaraní nominalizer –*va'e* [NLZ], exemplified in (17)[7].

(11) Ache – Ñacunday Dialect

*krey=**we₁***

sun=**PAS**

'There was sun/there was light.'

(12) Ache – Ñacunday Dialect

*gogi   puku=**rã***

DEM   tall=**FUT**

'This one will be tall.'

(13) Ache – Northern Dialect

*cho   wata=**we₁**=**ma***

1SG   walk=**PAS**=**COMPL**

'I was already walking/ I had already walked.'

(14) Ache – Northern Dialect

*Cho   prawo-**we₂**=**rã**   cho   tey=pe*

1SG   love–**WE**=**FUT**   1SG   son=DOM

'I will love my son.'

In addition, (15) shows that these elements may occur independently on verbal predication and on nouns in argument function. Hence, no temporal agreement is required between predicates and their arguments[8].

(15) Ache – Northern Dialect

*Carlos   wechã=**we**=**ma**   idja   breko=**rã***

NPR   see=**PAS**=**COMPL**   3SG   wife=**FUT**

'Carlos saw (past) his fiancé (future wife).'

To complete the comparison, example (16) attests one more time that in Guaraní –*rã* [FUT$_N$] renders a construction ungrammatical when directly attached to a verbal stem. Instead, a structure like in (17) is used in Guaraní languages. The morpheme –*rã* [FUT$_N$] must co-occur with –*va'e/–va* [NLZ]; the nominalizer restricted to relative clauses (see footnote 7). It is yet unclear, whether or not –*va'e/–va* [NLZ] retains its grammatical function in matrix structures (see Thomas, 2014, for a preliminary analysis of equivalent Mbyá data).

(16) Paraguayan Guaraní

Carlos   o-japo-rã**   h-oga-rã*

NPR   3PS$_A$–make–**FUT$_N$**   R–house–FUT$_N$

'Carlos will build a future-house.'

(17) Paraguayan Guaraní

*Carlos   o-japo-**va'e-rã**   h-oga-rã*

NPR   3PS$_A$–make–NLZ–**FUT$_N$**   R–house–FUT$_N$

'Carlos will build a future-house.'

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[7]   This detail is not further discussed here, but it is important to show that not all markers with the phonologically shape of –*we* are past temporal marking devices in Ache. The enclitic historically related to the nominalizer in relative constructions is glossed as WE, as it is for now analyzed as empty in function, a support morpheme; it should be subject to future research. The hypothesis is that both items from Guaraní: *va'e* [NLZ] and –*kwe* [PAS$_N$] turned into –*we*. In cases were they are expected to co-occur, one is eliminated by a phonological rule; that is –*we₂*+*we₁* is banned.

[8]   This is true for both Ache and languages from the Guaraní cluster.

As mentioned above, future time reference on Guaraní verbs is frequently expressed via the verbal aspectual enclitic =*ta* [PROS$_V$] yielding a prospective interpretation.

(18) Paraguayan Guaraní

Carlos   *o-japo=**ta***   *h-oga-rã*

NPR   3PSA–make=**PROS$_V$**   R–house–FUT$_N$

'Carlos will build a future–house'.

Given this TAM data, one can conclude that Ache enclitics such as =*rã* and =*we$_1$* retained their original future or past interpretation, but their category dependency has been altered as result of grammatical change.

In Guaraní the elements –*rã* and –*kue*, although limited to a specific lexical category, are more flexible when it comes to the syntactic function of the TAM marked nouns. They can occur in both argument and predicative function, as shown in the following data from Ava-Guaraní:

(19) Ava-Guaraní

*che-r-oga-**rã***

1SG$_B$–R–house–**FUT$_N$**

(a) 'my future house'. (non-predicative)

(b) 'I will have / own a house'. (predicative)

(20) Ava-Guaraní

*che-r-embireko-**rã***

1SG$_B$–R–wife–**FUT$_N$**

(a) 'my future wife'. (non-predicative)

(b) 'I will have a wife / get married.' (predicative)

As pointed out earlier, Ache does not contain functionally active cognates of most TG derivational markers, especially when it comes to root nominalization. Mostly bare lexical stems are inserted into their syntactic slots. Here, I entertain the hypothesis that the latter feature of Guaraní grammar, namely the occurrence of nominal temporal markers within de-verbal nominal predication, may have facilitated reanalysis in the Ache TAM marking system. In a scenario of this kind, it was first and foremost the syntactic context of these morphemes that was 'extended' to all available predication types. The loss of lexical category constraints on TAM morphology is, thus, a side effect of morphosyntactic reanalysis in the realm of nominalization patterns.

One more aspect of grammatical change within the TAM system of Ache is associated to the question of how the language copes with the lack of a wider range of TG specific TAM markers and temporal adverbs.

Languages out of the Guaraní cluster exhibit the cross-linguistically rare phenomenon of TAM stacking mainly in nominal structures (Nordlinger; Sadler, 2004; Tonhauser, 2006, 2007). The term temporal morpheme *stacking* refers to a scoped sequence of several tense-aspect-mood markers attached to a single root. This is a way to encode morphologically complex temporal notions, like in English expressions such as 'future ex-husband' or 'former future president'. However, the following examples show that TAM stacking is highly restricted in Guaraní. The contrast between (21) and (22) demonstrates that only one stacking order of the two nominal TAM markers is possible in Guaraní, namely the [FUT$_N$+PAS$_N$] order which yields a counterfactual interpretation. The opposite order [PAS$_N$+FUT$_N$] renders the example ungrammatical.

(21) Paraguayan Guaraní

che-r-embireko=rã=gue

1SG_B–R–wife=FUT_N=PAS_N

'my ex-future wife/ex-fiancé'

(22) Paraguayan Guaraní

che-r-embireko*=**kue=rã**

1SG_B–R–wife=PAS_N=FUT_N

[ungrammatical]

In Ache, combinability, that is stacking possibilities of these morphemes seem altered, adding a new aspect to restructuring patterns of inflectional morphology. The data in (23) exemplifies the combination of [FUT+PAS] in Ache, yielding an anteriority reading. A counterfactual interpretation is achieved via the (non-nasalized) element *rawe*; for now best analyzed as temporal adverbial, and not as in Guaraní (21) via TAM stacking.

(23) Ache – Ñacunday Dialect

awegi   djuka=rã=we   begi=pe.

DEM   kill=FUT=PAS   dog=DOM

'This one first kills the dog.'

(24) Ache – Ñacunday Dialect

*awegi   djuka   **rawe**   begi=pe.*

DEM   kill   ADV_{COUNTERFACTUAL}   dog=DOM

'This one almost killed the dog.'

After after adding the =*ma* [COMPL] marker in Ache, the greater liberty of TAM stacking becomes even more evident, especially in the realm of verbal (but also nominal) predication. In (25) the combination of [COMPL+FUT] combined with the verbal stem *djuka* 'to kill' generates the reading 'continues to kill'. In (26) the order [PAS+COMPL+FUT] yields the interpretation 'almost stopped killing'. Beyond the fact that in Guaraní cognate markers are restricted to the nominal context, similar morpheme combinations are unattested in descriptions regarding the Guaraní cluster (Dooley, 2006; Gregores; Suárez, 1967).

(25) Ache – Ñacunday Dialect

*awegi   djuka=**ma**=**rã**   begi=pe.*

DEM   kill=COMPL=FUT   dog=DOM

'This one (is continuing to) kill the dog.'

(26) Ache – Ñacunday Dialect

*awegi   djuka=**we**=**ma**=**rã**   begi=pe.*

DEM   kill=PAS=COMPL=FUT   dog=DOM

'This one almost stopped killing the dog.'

To conclude this section, I assume that Ache TAM markers are best analyzed as enclitics, given their positional flexibility and complex combinability. Different from what has been shown for Guaraní, Ache TAM markers are unrestricted for predicate types and lexical categories. Later in this article TAM marking and its restructuring in Ache is debated in the light of current language contact research. But before, key aspects of inflectional restructuring in the realm of differential object case marking as well as person-number agreement are described.

DIFFERENTIAL OBJECT MARKING IN ACHE

The second type of morphology relevant here is the marking of case. Guaraní has been described in some previous accounts as a Differential Object Marking language, the relevant marker being postposition =*pe* and its allomorphic variants (Bossong, 1985a, b; Shain; Tonhauser, 2010; Shain, 2008). The same marker =*pe* is found beyond transitive

contexts in spatio-temporal adjuncts and as DAT marker on indirect objects, a feature that Guaraní shares with a large number of DO-marking languages (Aissen, 2003, for a prominent theoretical approach).

For most parts, I follow the analysis presented in previous work on Paraguayan Guaraní and assume its overall accuracy also for indigenous Guarani varieties, such as Ava, Mbyá and Paĩ–Tavỹterã/Kaiowá. All those languages contain the =*pe* marker (or a phonological variant) with DOM function. It is not the purpose of this section to present an in-depth analysis of DOM in Guaraní languages. Rather, the focus lies on the description of language change found within Ache grammar. Therefore, only some aspects of DOM in Guaraní will be presented.

The postposition =*pe* [DOM] is used to mark direct objects in simple transitive constructions that are high in prominence. The features feeding into prominence levels of object noun phrases are, according to classical DOM theory, animacy and definiteness/specificity (Aissen, 2003).

Shain; Tonhauser (2010) show that topicality plays an additional role in the Guaraní DOM system. Crucially, also person and number features of argument pronouns prove highly relevant for DO-marking.

In fact, person-number features determine a central allomorphic variation of =*pe* in Guaraní, which turns into =*ve* when attached to 1st and 2nd person pronouns. The default marker =*pe* marks all 3rd person arguments, including personal pronouns, proper names [NPR] and other animate, specific/definite direct object noun phrases. As noted in most Guaraní descriptions, a third allomorph is found in this group. The selection of the marker =*me* [DOM] is determined by nasal features of the concatenated lexical root. Both =*pe* [DOM$_{3PS}$] and =*ve* [DOM$_{1/2PS}$] engage in this allomorphic alternation. The nasal variant of DOM co-occurs, for instance, with 2nd person plural pronoun *pẽe* 'you$_{PL}$' in Ava data (29). The parallel functioning of the phonologically determined allomorphy is considered strong evidence to include 1st and 2nd personal pronouns into the set of productively DO-marked direct objects of Guaraní.

(27) Ava-Guaraní

Kalo	*che*=*ve*	*riae*	*che-jou*
NPR	1SG+**DOM**	always	1SG$_B$–find

'Carlos always finds me.'

(28) Ava-Guaraní

Kalo	*nde*=*ve*	*riae*	*nde-jou.*
NPR	2SG+**DOM**	always	2SG$_B$–find

'Carlos always finds you.'

(29) Ava-Guaraní

Kalo	*pẽe*=*me*	*riae*	*pende-jou.*
NPR	2PL+**DOM**	always	2PL$_B$–find

'Carlos always finds you(PL).'

(30) Ava-Guaraní

Kalo	*o-jou*	*riae*	*ichu*=*pe*
NPR	3SG$_A$–find	always	DEM+**DOM**

'Carlos always finds him/her.'

Examples (31-33) show non-pronominal internal arguments, demonstrating that animacy is, in fact, the central feature triggering DOM in Guaraní. Argument-NPs low on the animacy scale are rarely marked for DOM (Aissen, 2003). Inanimate internal arguments remain obligatorily unmarked.

(31) Ava-Guaraní

Kalo	*o-jou*	*riae*	*jagua*=Ø/=*pe.*
NPR	3SG$_A$–find	always	dog–**DOM**/+**DOM**

'Carlos always finds a/the dog.'

(32) Ava-Guaraní

Kalo	*o-jou*	*riae*	*peteĩ*	*tembiapo=Ø/*=pe*.
NPR	3SG$_A$–find	always	one	work**–DOM/*+DOM**

'Carlos always finds work.'

(33) Ava-Guaraní

Kalo	*o-jou*	*riae*	*oy=Ø/*=pe*.
NPR	3SG$_A$–find	always	house **–DOM/*+DOM**

'Carlos always finds a house.'

In (31) *jagua* 'dog' is an animate direct object NP; therefore, it may be marked for DOM in case its reading is specific. However, in the case of non-specific animate objects, NPs remain unmarked. In (32) *tempiapo* 'work' is an inanimate direct object and, therefore, overt DO-marking is blocked. The same is true for (33) *oy* 'house.' The postposition =*pe* on these NPs renders a spatio-temporal reading, such as 'at work' or 'in the house', which are unintended in the given context. So far, the multi-variational Guaraní data confirms animacy and specificity as central factors for DO-marking in Guaraní languages, lending support to all central claims from Shain; Tonhauser (2010). Additionally, the upcoming data from Freitas (2011) illustrates that local internal arguments can go unmarked for object case for speakers of Ava-Guaraní. This possibility is, however, restricted to the preverbal position of direct objects, as exemplified in (34) and (35), the VO order must trigger DOM and generates pragmatically highly marked readings. The 3rd person pronominal in (36) can never remain unmarked.

(34) Ava-Guaraní (Freitas, 2011:36)

Ha'i	*che*	*koãy*	*che-r-echa*.
woman	1SG	already	1SG$_A$–R–see

'The woman already saw me.'

(35) Ava-Guaraní (Freitas, 2011:36)

Ha'i	*nde*	*koãy*	*nde-r-echa*.
woman	2SG	already	2SG$_B$–R–see

'The woman already saw you.'

(36) Ava-Guaraní (Freitas, 2011:36)

Ha'i	*koãy*	*o-h-echa*	*ichu=pe*.
woman	already	3SG$_A$–R–see	DEM**+DOM**

'The woman already saw him.'

Further studies on the interaction of pragmatic marking, word order, person hierarchy and DOM are needed in order to better understand this data. For now, it is important that the main cut-off point for DOM in Guaraní can be identified at inanimate/non-specific direct objects. Inanimate NPs that co-occur with the postposition =*pe* are necessarily read as locative adjuncts.

Now, turning to the Ache data, examples (37-39) show that DO-marking is clearly retained, although it lacks all allomorphic variation. Both person-number and nasal features leave the element's phonological form unaltered. The =*pe* marker is used on all types of differential objects; namely on 1st, 2nd and 3rd person pronouns, demonstratives, proper names or bare noun phrases.

(37) Ache – Ñacunday Dialect

Awegi	*mechã=ma*	*cho=pe*.
DEM	see=COMPL	pron.1SG**+DOM**

'The woman sees/saw me.'

(38) Ache – Ñacunday Dialect

*Kudjã   mechã=ma   idja=**pe**.*

DEM   see=COMPL   3SG+**DOM**

'The woman sees/saw him/her/herself'[9]

(39) Ache – Ñacunday Dialect

*Kudjã   mechã=ma   idja   ime=**pe**.*

DEM   see=COMPL   3SG   husband+**DOM**

'The woman sees/saw her husband.'

Note that object case marking is highly preferred, if not obligatory, on pronominal arguments in Ache (37-38). The next examples in (40)-(42) demonstrate the most relevant cut-off point for overt DOM in Ache. Like in Guaraní, whenever the postposition =*pe* is added to an inanimate noun phrase, the NP is no longer interpreted as the direct object, but rather as a spatio-temporal adjunct.

(40) Ache – Northern Dialect

*Achĩpurangi   bro=ma   djamo=**pe***

NPR   kill/fight=COMPL   jaguar+**DOM**

'Achĩpurangi killed the jaguar.'

(41) Ache - Northern Dialect

Chachugi*   eru=ma   nokõ=pe***

NPR   bring=COMPL   basket+**DOM**

[ungrammatical for direct object reading: Chachugi brings the basket.']

[possible reading: 'Chachugi brings (sth) within the basket.']

(42) Ache – Northern Dialect

Chachugi   eru=ma   nokõ.

NPR   bring=COMPL   basket

'Chachugi brings a basket.'

Summing up to this point; I assume that the requirements for differential object case marking in Ache are triggered by animacy and specificity as main features of direct object NPs. Furthermore, DOM interacts with word order and pragmatic constraints. Crucial for the current debate is that the loss of both person-number marking and nasality spreading leaves only one single phonological exponent of DOM in Ache. Pronominal arguments in Ache are preferably DO-marked; the same is true for 3rd person arguments expressed via demonstratives or the pronominal item *idja* 'him/himself'. The Ache data suggests that the erosion of allomorphic variation of =*pe* results in the change of grammatical function of the single DOM morpheme.

Table 2. Partial Erosion of DOM – Loss of Allomorphy.

Grammar Feature	Guaraní cluster	Ache
Differential Object Case Marking (DOM)	=*ve* [local DOM] =*pe* [non–local DOM] =*me* [nasal variant of DOM]	=*pe* [DOM]

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[9]   The Ache pronoun *idja* [3PS] is not easily traceable to Guaraní or TG data; its counterpart is *ha'e* [pron.3SG] in Guaraní. *Idja* conveys both pronominal (he) and co–referential (himself) reading.

PERSON-NUMBER AGREEMENT AND TRANSITIVE STRUCTURES

Ache is the only TG language that lacks all agreement morphemes signaling the TG S-split alignment system in intransitive and person hierarchy in transitive predicates. TG literature indicates that these features are relatively stable within the language family. Consequently, they are reconstructed as part of the Proto-Tupí-Guaraní (PTG) grammar (Dietrich, 1990, 2009; Jensen, 1990, 1998; see also Rose, 2015; for a debate). Examples (43-46) demonstrate the well-known transitive patterns for Paraguayan Guaraní. All four languages belonging to the Guaraní cluster display the exact same system with some minor phonological variation. The Guaraní verb *h–echa* 'R–see' agrees with the subject or object argument, depending on which argument is higher on the person hierarchy (1>2>3). Subject agreement is marked via the A-marker paradigm (43-44), while direct object agreement is signaled with via B-prefixes (45-46).

(43) Paraguayan Guaraní

(che)	*a-h-echa*	*ichu=pe*
1SG	$1SG_A$–R–see	DEM+DOM

'I see him.'

(44) Paraguayan Guaraní

(nde)	*re-h-echa*	*ichu=pe*
2SG	$2SG_A$–R–see	DEM+DOM

'You see him.'

(45) Paraguayan Guaraní

ha'e	*che=ve*	*che-r-echa*
3SG	1SG+DOM	$1SG_B$–R–see

'He sees me$_{TOPIC}$.'

(46) Paraguayan Guaraní

ha'e	*nde=ve*	*nde-r-echa*
3SG	2SG+DOM	$2SG_B$–R–see

'He sees you$_{TOPIC}$.'

For Guaraní, if the subject is 1st person and the object 2nd person, a portmanteau prefix applies (see table 3). Furthermore, the argument agreeing with the verb is likely to be dropped in pragmatically unmarked contexts. The overt realization of argument NPs generates pragmatically marked readings in Guaraní.

As pointed out earlier, Ache is the only language within TG subgroup–1 showing no agreement marking whatsoever (47-49). In Ache, subject and object constituents are expressed via free, nouns, demonstratives or

Table 3. Erosion of Person–Number Agreement Morphology in Ache.

Grammar Feature	Guaraní–cluster	Ache
Free Pronouns	1SG: *che*; 2SG: *nde*; 3SG: *ha'e*; 1PL.IN: *ñande*; 1PL.EX: *ore*; 2PL: pende/*pãe*	1SG: *cho*; 2SG: *de/dje*; 3SG: *idja*; 1PL.IN: *nande/nadje*; 1PL.EX: *ore/ure*; 2PL: *pende/pendje*
A–agreement	1SG: *a*–; 2SG: *re*–, 3SG: *o*–; 1PL.IN: *ja*–; 1PL.EX: *ro*–; 2PL: *pe*–	
B–agreement	1SG: *che*–; 2SG: *nde*–; 3SG: *h–/i*–, 1PL.IN: *ñande–/ñane*–; 1PL.EX: *ore*–; 2PL: *pende/pene*	
Portmanteau markers	½ SG: *ro*–; ½ PL *po*–	
R–markers	*t*–/ *h*–/*r*–	

pronouns. The only bound morpheme in this data is the differential object marker =*pe* [DOM]. Table 3 summarizes the so far noted restructuring in the realm of agreement for Ache.

(47) Ache – Northern Dialect

cho	*wechã*	*awe-gi=pe*
1SG	see	DEM–DET+DOM

'I see him/this one.'

(48) Ache – Northern Dialect

cho	*wechã*	*nde=pe*
1SG	see	2SG+DOM

'I see you.'

(49) Ache – Northern Dialect

idja	*wechã*	*cho=pe*
3SG	see	1SG+DOM

'He sees me.'

Although research on the effects of inflectional erosion in syntax has just begun, two main questions will be briefly addressed:

• Do person features play any role in Ache syntax?
• Does Ache allow for argument drop, even though agreement marking is lost?

Guaraní, a language rich in agreement marking, was often claimed to display oscillating canonical word orders in transitive clauses, allowing for both SVO and SOV (Gregores; Suárez, 1967). Some more recent studies suggest that these alternations seem to be systematically linked to animacy and other instances of object prominence. Tonhauser and Colijn (2010) showed that VO is the unmarked internal order of transitive VPs, occurring in 94% of structures with 3rd person arguments (within the researcher's specific language corpus). This hints to SVO as the basic, unmarked transitive word order in Paraguayan Guaraní. Additionally SO is considered the most frequent order relation between subjects and objects within transitive clauses. Colijn (2007, p. 34-35) shows that OV order with 3rd person non-pronominal objects is restricted to elements high up in animacy scale, namely NPs referring to humans, animals and also body parts. Hence, SOV seems to be a derived transitive word order.

Finally, it has also been noted that 1st and 2nd person objects frequently occur in preverbal position (Dietrich, 2009, p. 9). This observation is further motivated in Freitas (2011). The author claims that there is object displacement due to person feature sensitivity displayed at least in Ava-Guaraní syntax. Since this has been confirmed also for other Guaraní varieties (50-51), I propose that animacy, specificity, topicality alongside 1st and 2nd person features may trigger a more marked SOV transitive word order in all members of the Guaraní cluster. Of course, it is clear for Guaraní that these 1st and 2nd person direct objects (51) – in addition to being displaced to preverbal position – are also frequently dropped in unmarked pragmatic contexts. Hence, speaker judgments related to direct object positioning must be solicited explicitly in order to encounter these patterns.

(50) Paraguayan Guaraní

Che	***a**-h-echa*	*vaká*	*morotĩ.*
1SG	**1SG$_A$**–R–see	cow	white

'I see/saw a white cow.'

(51) Paraguayan Guaraní

Vaká	*morotĩ*	*che=ve*	***che**-r-echa.*
cow	white	1SG+DOM	**1SG$_B$**–R–see

'The white cow saw me.'

Comparing Ache data, a lack of sensitivity for person features acting out in word order patterns is to be expected, given the complete loss of person-number agreement in its grammatical system. And indeed, word order seems more fixed in Ache than in all four Guaraní varieties. The preverbal position is reserved for the transitive subject or [+DOM] direct objects with topic function. In the Ache data, there is no specific evidence for an OV order preference of 1st and 2nd person internal arguments. Third person arguments seem to behave exactly like 1st and 2nd person arguments. Therefore, Ache word order retains some of its interaction with the DOM system and information structure, but person-number features seem irrelevant for object placement as exemplified by the upcoming Ache – Ñacunday dialect data in (52-55).

(52) Ache – Ñacunday Dialect

Awegi   mechã=ma   cho*=Ø/=pe.

DEM   see–COMPL   1SG*–DOM/+DOM

'He sees me.'

(53) Ache – Ñacunay Dialect

Awegi   cho*=Ø/=pe   mechã=ma

DEM   1SG*–DOM/+DOM   see–COMPL

'He sees me_{TOPIC}.'

(54) Ache – Ñacunday Dialect

Cho   mechã=ma   awegi[?]=Ø/=pe

1SG   see=COMPL   DEM[?]–DOM/+DOM

'I see him/this one.'

(55) Ache – Ñacunday Dialect

Cho   awegi*=Ø/=pe   mechã=ma

1SG   DEM*–DOM/+DOM   see=COMPL

'I see him/this one_{TOPIC}.'

With respect to the second syntactic effect, Guaraní languages display both subject and direct object drop. Crucially, pro-drop options are not only restricted to arguments that agree with the finite verb. Discourse topics can also be dropped. In the case of arguments that enter verbal agreement, the overt realization of the relevant NP is, as pointed out already, the pragmatically marked option. An initial study of Ache and Guaraní pro-drop systems further revealed that in specific discourse contexts, exemplified here by question-answer-pairs, Guaraní prefers subject drop even in cases where the direct object agrees with the transitive verb (*?57b versus 57c). The dropped subject is the discourse topic previously introduced in the corresponding question (56).

(56) Paraguayan Guaraní – Question

Pe   kuña=pa   o-h-echa   nde=ve?

DEM   woman=INT   3PS_A–to–see   2SG=DOM

'Did this woman see you?'

(57) Paraguayan Guaraní – Answer

(a   * Pe   kuña   che-r-echa   che=ve

      DEM   woman   1SG_B–to–see   1SG+DOM.

      Positive answer, reading: Yes, she did (see me).

(b)   *? Pe kuña che-r-echa _____.

(c)   _____ che-r-echa che=ve.

(d)   *?Che=ve che-r-echa pe kuña.

The example in (57a) illustrates that an answer to the question in (56) that retains all three clause-constituents (S, V, O) seems odd in Paraguayan Guaraní. The construction in (57d), with the object NP fronted and the subject given post-verbally, seems to be a correct answer to a different question, but is clearly not acceptable for the interrogative context tested in (56/57). What seems clear is that person hierarchy does not exclusively guide argument-drop options in Guaraní. Also, topics introduced in discourse (or speakers' knowledge) may be omitted, as pointed out in Freitas; Rößler (2013)[10].

The data in (58-59) show parallel examples for Ache. Despite being an agreement-less language, Ache does not lose all pro-drop options. Unlike Guaraní, Ache shows no pro-drop in the context of free transitive clauses. Linked to that, an overt realization of argument NPs in Ache does not automatically trigger pragmatically marked readings. Consequently, an answer containing S, V and O is possible in Ache (example 59a). However, within a discourse context, Ache generally prefers the drop direct objects if introduced in previous discourse, although with one exception. First person pronominal objects tend to be overtly realized, creating a context in which subjects may, in turn, be dropped (*59b versus 59c). The latter fact clearly distinguishes argument omission options in Ache from those observed in Guaraní.
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(58) Ache – Northern Dialect – Question

Kudjã=mba   mei=we   nde=pe?
woman=INT   see–PAS   2SG+DOM.
'Did the woman see you?'

(59) Ache – Northern Dialect – Answer

(a)   *Kudjã   mei=we   cho=pe.*
       woman   see=PAS   1SG+DOM
       Positive answer, reading: 'Yes, she did (see me).'

(b)   *Kudjã mei=we _____.*

(c)   ____ *mei=we cho=pe.*

Summarizing the observations related to transitive syntax, it is shown that the lack of agreement morphology has limited impact on Ache syntax. Guaraní languages, as well as Ache varieties, display SVO in basic transitive structures, while SOV is most likely a derived word order. In Ache, however, the immediately preverbal argument slot is mostly reserved for the subject and only [+DOM] direct objects with topic reading may occur in this position. Ache object placement into OV order interacts with information structure, but, different from the Guaraní pattern, shows no specific sensitivity to person features. Only in Ache pro-drop data 1st and 2nd person objects receive at least some exceptional treatment, as they are unlikely to be dropped. More detailed studies on comparative syntax of Guaraní and Ache are needed. In the upcoming section, all morphological changes encountered within the Ache grammar are discussed in the light of contact linguistic theory and its predictions regarding inflectional morphology erosion, retention and restructuring.

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[10] Cf. FREITAS, Maria Luisa; RÖßLER, Eva-Maria. On null-arguments in Ache and Guaraní. CONFERENCE ON INDIGENOUS LANGUAGES OF LATIN AMERICA, 6. **Talk presented…** Austin: Austin University, 2013.

INFLECTIONAL EROSION AND RETENTION

Contact scenarios involving an adoption of large parts of the lexicon and grammar by a group of non-native speakers – the here assumed scenario for Ache language genesis – have not proven to produce typologically identical languages. Nevertheless, linguists have compiled at least some common features regarding morphosyntax (Holm, 2008; Roberts; Bresnan, 2008; Thomason; Kaufman, 1991). Overall shared characteristics seem to be the lack of inflectional morphology, a tendency towards analytic rather than synthetic structures, and the employment of word order constraints instead of bound formatives to encode grammatical relations. The Ache language shows a stronger tendency towards exactly those features than most other, more 'regular' TG languages, here exemplified by data from the Guaraní cluster.

Roberts and Bresnan (2008) studied around 30 contact languages with their respective, typologically diverse source languages. The authors found that the typological characteristics of possible source languages play a decisive role in grammatical change as result of language contact. For instance, contact languages never show richer inventories of inflectional morphology than their lexical source. However, inflectional morpheme reduction is in most cases far from complete. Inflection emerges in CLs via (i) innovation, (ii) borrowing from other languages in contact/substrates or (iii) through inheritance from the lexical source language.

The transfer of inflectional morphology from the source to a contact variety is often accompanied by some change in meaning or form. Roberts and Bresnan (2008) identify the following schematic results of morphological transfer. First, markers may be found in complete fashion within CLs (*full retention*). Second, in a process called *partial retention,* functional elements retain some formal features and alter others. In the third case called *partial lexicalization*, a morpheme may maintain its phonological form, but remains contrastive only as an empty word class marker. Fourth, in *lexicalization* the morpheme is re-segmented as a non-contrastive part of the stem or another morpheme through morpheme-boundary reanalysis. The last case results in loss of all semantic content or grammatical function. Finally, morphemes can be subject to *complete loss* (or full erosion)*.*

In the Ache data presented, we find instances of most of these grammatical change patterns: the Ache tense-aspect system is *partially retained*, as the originally nominal future oriented modal and nominal past marker from Guaraní preserve their temporal readings, although applied to a wider range of lexical categories and syntactic functions in Ache. Also, their stacking options are altered when compared to Guaraní tense stacking patterns. Another example for *partial retention* is exemplified in the analysis of Ache DOM data. The DOM marker shows reduced allomorphic variation while extending the applicability of the remaining single form =*pe*. Additionally, *partial* and *complete lexicalization* can be found in Ache. TG valency marking – although not in focus in this paper – is an example of *partial lexicalization*. Guaraní causative morphemes are lexicalized in Ache lexical stems, resulting in word class reanalysis[11]. *Complete lexicalization* is attested within inflectional paradigms. We find residues of the Guaraní third person possessive marker *i*– as part of Ache lexical stems in *ipo* 'hand' [Guaraní: *po* 'hand'], *ime* 'husband' [Guaraní: *mena* 'husband'] and *ichy* 'mother of a newborn' [Guaraní: *sy* 'mother']. Clearly, no specific grammatical function is left for this item derived from TG agreement

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[11] The (intransitive) causative marker *mbo*– from Guaraní is lexicalized in Ache (appearing for instance in the transitive verb *baku* 'to cook (something)', a lexical item clearly distinct from *aku* 'to be hot'. The morpheme cannot be considered a productive functional marker of Ache since it appears only in very few lexical items. The *b*–element serves simply as a consonantal onset of the stem satisfying the minimal word requirements found in Ache (Rößler, 2008).

marking. Finally, while we do find *full loss* of the vast part of TG agreement prefixes, virtually no example of *full retention* of inflectional morphology can be readily attested in Ache.

More insights from Roberts and Bresnan's (2008) work are relevant for the discussion of Ache grammar. Despite idiosyncratic patterns influencing inflectional morphology erosion and retention, the authors identify specific tendencies, observable in most of the 30 CL grammars studied. The main observation is that inflectional retention seems to be *asymmetric*. Some types of inflectional categories are more likely to be preserved than others. Morphemes encoding so–called *contextual inflection* (i.e. case marking, agreement) are more likely to fall out of CL grammars than *inherent inflection* (tense-aspect-mood). This tendency can be explained, as *inherent inflection* exhibits greater semantic relevance to stems than *contextual inflection*. *Contextual inflection* signals grammatical relations between constituents, which may easily be replaced in contact grammars via an increase of syntactic constraints on, for instance, word order. Of course, morphological retention is somewhat gradient; some inflection of both categories may be retained in some CLs.

Again, this reflects quite faithfully what we find in the Ache grammar. Given the specific TG genetic context, the inflectional categories debated in Roberts and Bresnan (2008) have to be adapted. TG nouns allow for tense-aspect inflection in predicative and non-predicative function. Thus, we find true nominal TAM, to be grouped into the class of *inherent* morphology. Since grammatical gender is irrelevant for almost all TG languages, it is not addressed here. For the verbal/predicative context, relational/linking morphemes need to be added to the category of *contextual inflection*. Therefore, when adapted to TG typical morphological facts, Roberts and Bresnan's scheme looks as in table 4. The categories from Guaraní and TG languages marked in bold face are (roughly) the ones retained in the Ache grammar system, all others have been lost during the – here hypothesized – Ache language genesis.

At this point two observations should be uncontroversial: First, Ache lost far more formatives belonging to the *contextual* than to the *inherent* type of inflection, a common feature for contact induced language change according to Roberts and Bresnan (2008). These elements are encoded predominantly via prefixation in TG grammars, precisely the type of morphology that fell out or shows no functional productivity in Ache grammar. Case marking is the only category from contextual morphology partially retained in the Ache language. Its only morphological reflex is the DO-marking system. *Inherent inflection* is clearly more stable throughout CLs in general. These elements are mostly marked with suffixes or enclitics in the TG context. I show that Ache retains these morphemes to a wider extent. However, TAM marking (but also negation) is adopted from the Guaraní nominal context, only aspect may have been transferred partially from the TG verbal domain. Thus, all in all, the application of those formatives displays several types of reanalysis.

Table 4. Inflectional Morphology Erosion from Guaraní and Ache (adapted from Roberts; Bresnan, 2008).

Morphology Type	Affix type	Verb in TG	Noun in TG
Inherent	TG suffixes and enclitics	Tense–**Aspect–Mood**, Negation	**Tense–Aspect–Mood**; **Negation** Definiteness
Contextual	TG prefixes	Person–Number Agreement Relational–Linking	Nominal Agreement; Relational–Linking; **Case**

FINAL REMARKS

My research on grammatical change in Ache shows that many tendencies of alternations observed in the language – such as morphological erosion – can also be found in *linear historical* developments within the wider TG language family. Proto-Tupí-Guaraní was, for instance, reconstructed with four sets of agreement prefixes; one paradigm has been lost within the entire subgroup–1 (Jensen, 1990, 1998). The tendency of inflectional erosion is, in itself, not an exclusive feature of the Ache grammar.

Rather unique is, however, the degree of erosion or restructuring of inflectional morphology in Ache. The language has shown to be able to cope with the lack of functional elements, especially in the domain of TG prefixation, by providing specific syntactic structures, alongside innovations within the lexicon.

When it comes to suffixation, the Ache morphological surface initially appears more similar to the Guaraní patterns. Inspired by the subclasses of inflection discussed in Roberts and Bresnan (2008); I observed that markers related to *inherent inflection* (i.e. tense-aspect-mood) are more stable within the Ache grammar than *contextual inflectional morphology* (i.e. agreement, case). Despite this, even for *inherent morphology* it is impossible to confirm any incontrovertible example of *full retention*. The TG inflectional markers preserved in Ache show shifts in combinability, directionality, and *stacking* constraints, in addition to innovative syntactic applicability, alternations in phonological exponents or some novel semantic effects. The given observations are taken here as strong evidence favoring the initially proposed contact hypothesis for Ache without identifying, for now, an exact contact linguistic type (Rodrigues, 2000; Dietrich, 1990; Rößler, 2008). More detailed studies of grammatical aspects of Ache may, in future, provide important insights regarding specific effects of language contact on morphosyntactic subsystems within the TG genetic context.

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ABBREVIATIONS

1,2,3 = person features; ½ = portmanteau agreement; X_A = subject agreement; AG = agent; ASP = aspect; X_B = object agreement; COMPL = completive (aspect); COND = conditional; DEM = demonstrative; DET = determiner; DIM = diminuitive; EX= exclusive; FIN = finality (aspect); FOC = focus; FUT = future time reference; HAB = habitual (aspect); IN = inclusive; INT = interrogative; LOC = locative; NEG = negation; NLZ = nominalizer; NPR = personal name; PA = patient; PAS = past time reference; PERF = perfective (aspect); PL = plural; PS = person; R = relational marker; SG = singular.

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