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**Linguistic Inheritance, Social Difference, and the Last Two Thousand
Years of Contact Among Lowland Mayan Languages**

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Years of Contact Among Lowland Mayan Languages**

by

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Dissertation

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Dedication

To Editt, Jarom, Eli and Lucas
And to Gammy, for her good genes.

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Linguistic Inheritance, Social Difference, and the Last Two Thousand Years of Contact Among Lowland Mayan Languages

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The University of Texas at Austin, 2011

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The analysis of language contact phenomena, as with many types of linguistic analysis, starts from the similarity and difference of linguistic systems. This dissertation will examine the consequences of linguistic similarity and the social construction of difference in the ‘Lowland Mayan linguistic area’, a region spanning parts of Guatemala, Southern Mexico, Belize and Honduras, in which related languages, all belonging to the Mayan language family, have been in intensive contact with each other over at least the past two millennia. The linguistic outcomes of this contact are described in detail in the dissertation. They include contact-induced changes in the phonology, morphology, and syntax of the languages involved of a type and degree that seems to contravene otherwise robust cross-linguistic tendencies. I propose that these cross-linguistically unusual outcomes of language contact in the Maya Lowlands result, in part, from an awareness of the inherited similarities between these languages, and in part from the role that linguistic

features, but not languages as whole systems, appear to have played in the formation of community or other identities.

This dissertation investigates two complementary questions about language contact phenomena that can be ideally explored through the study of languages with a high level of inherited similarity in contact with one another. The first is how historically specific, dynamic strategies and processes of constructing and asserting group identity and difference, as well as the role that language plays in these, can condition the outcomes of language contact. The second is more language internal: what role does (formal, structural) inherited similarity play in conditioning the outcome of language contact between related languages? These two questions are connected in the following hypothesis: that inherited linguistic similarity can itself be an important resource in the construction of identity and difference in particular social settings, and that the awareness of similarity between languages (mediated, as it is, by these processes of identity construction) facilitates contact-induced changes that are unlikely, or even unavailable without that perception of sameness. This proposal carries with it a call for more research on contact between related languages *as* related languages, and not as utterly separate systems.

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Chapter 1: Similarity and Difference in Language Contact

1.1. INTRODUCTION

This dissertation examines a case of intensive language contact in the Lowland Maya region of Guatemala, Southern Mexico and Belize over an extended period of time. The larger motivation behind this is dual: 1) to understand better the long term effects of the social surround of language—ideologies of language, identity construction, shifting subjectivities etc.—on linguistic structure, and 2) to learn more about the effect that the structure of language can have on how those ideologies and identities are expressed and shaped through language. I will particularly focus on the role that (inherited) linguistic similarity plays in both of these issues.

The analysis of language contact phenomena, as with many types of linguistic analysis, starts from the similarity and difference of linguistic systems. Minimally, two distinct linguistic codes must come into contact (meaning that people must learn at least some part of both codes), and, in practice, ‘language contact’ is generally only acknowledged when one code becomes similar to another code as a result of that

interaction. For practical purposes, studies of language contact often involve maximally different languages, or, where languages with a great deal of inherited similarity are in contact, those inherited similarities are downplayed to highlight the similarities that replaced previous difference (i.e. those that stem from contact). Consequently, the role of inherited similarity in conditioning the outcomes of contact between related languages is often neglected.

This dissertation investigates two specific complementary questions about language contact phenomena that can be ideally explored through the study of languages with a high amount of inherited similarity in contact with one another. The first is how historically specific, dynamic strategies and processes of constructing and asserting group identity and difference, as well as the role that language plays in these, can condition the outcomes of language contact. The second is more language internal: what role does (formal, structural) inherited similarity play in conditioning the outcome of language contact between related languages?

These two questions are connected in the following hypothesis: that inherited linguistic similarity can itself be an important resource in the construction of identity and difference in particular situations of language contact, and that the *perception* of (awareness of and attention to) similarity between languages (mediated, as it is, by these ideologically structured processes of identity construction) facilitates contact-induced changes that are unlikely, or even unavailable without that sense of sameness. This proposal carries with it a call for more research on contact between related languages *as* related languages, and not just as independent systems.

The case in point for this proposal is the ‘Lowland Mayan linguistic area’, a region spanning parts of Guatemala, Southern Mexico, Belize and Honduras, in which related languages, all belonging to the Mayan language family, have been in intense contact with each other (as well as other languages) over at least the past two millennia. The linguistic outcomes of this contact are described in detail in the dissertation. They include contact-induced changes in the phonology, morphology, and syntax of the languages involved of a type and degree that seems to contravene otherwise robust cross-linguistic tendencies. I propose that these cross-linguistically unusual outcomes of language contact in the Maya Lowlands result in part from an awareness of the inherited similarities between these languages and in part from the role that linguistic features, but not languages as whole systems, appear to have played in the formation of community or other identities. I argue that, in addition to more widespread processes of contact-induced language change, languages with pervasive systematic similarity (which, by definition, includes genetically related languages) can involve processes of contact-induced language change that depend on that similarity and are not available without it.

The Lowland Maya region has a particularly rich and well-studied archaeological and historical record, including pre-Columbian linguistic materials, in the form of hieroglyphic texts, Colonial writings in both Spanish and Mayan languages, and excellent linguistic work on many of the Mayan languages spoken today. This richness of both historical and linguistic data covering such a large span of time provides a fertile context in which to explore how patterns of language contact changed in tandem with historical and social changes over the last two thousand years or so of Maya history. It also allows

us, in some cases, to determine with greater precision than is possible through the comparative method alone, whether a given shared innovation is the result of common inheritance or language contact.

In addition to making use of a temporally deep data set, the present study of the Lowland Maya region contributes to current work on language contact in providing a detailed account of contact between indigenous languages of the Americas before and during Colonization. In addition, it offers an excellent context in which to investigate the different processes of contact-induced language change that come in to play in cases of language contact between genetically related languages, a topic which has, with few exceptions, been seriously under-studied.

1.1.1 Overview of Dissertation

The first chapter of the dissertation introduces and discusses the importance of similarity with respect to some of the fundamental concepts that will be used in the dissertation, including that of language, and language contact. It also synthesizes some of the current research on language contact typology, including proposed universal tendencies and constraints in situations of language contact as well as the processes and mechanisms involved in language contact. The second chapter provides an overview of the Lowland Maya area from geographical, archaeological, and linguistic perspectives and provides historical background relevant to the study of language contact over the past two millennia.

Chapter 3 surveys the range and variety of language contact phenomena evident in the Lowland Mayan languages and assesses the concept of a ‘linguistic area’. Chapters 4 and 5 provide detailed studies of contact-induced changes in Lowland systems of person marking (chapter 4) and systems of aspect (chapter 5). In Chapter 4, I provide arguments for the relevance of processes of identity construction in motivating the adoption of patterns and morphological forms used for person reference. In Chapter 5, I present the analytical concept of ‘contact-induced drift’ in order to understand several parallel contact-induced changes in the systems of aspect marking in Lowland Mayan languages. I argue that these parallel changes are not the direct result of contact between these languages, but are secondary changes triggered by language contact that are parallel because the (inherited) similarities between the languages predisposed them to change along a particular route.

Chapter 6 moves from a regional perspective on changes in particular functional domains to a detailed study of the results of regional patterns of language contact on a single Mayan language, Tojol-ab’al. I present evidence that the linguistic system of Tojol-ab’al is a mixture of features from Tseltalan and Q’anjob’alan languages, so that the question of the genetic affiliation of this language is essentially not applicable. Unlike most cases of ‘mixed languages’, however, the mixture of linguistic features in Tojol-ab’al can be shown, in large part, to be the result of the gradual accretion of linguistic features shared through contact with the Maya Lowlands, a proposal that calls into question current assumptions about the limits of the effects of language contact and the nature of language mixing. Chapter 7 concludes the dissertation with a review of the data

from the Maya Lowlands and a discussion of the role that inherited linguistic similarity and the social construction of sameness and difference in the context of that inherited similarity have had on the outcomes of language contact in the linguistic systems of Lowland Mayan languages.

1.1.2 Scope of Dissertation

As with most major research projects, the topic of language contact in the Lowland Maya region' is practically infinite. This problem is compounded by my explicit interest in long term processes of change, which impels me to attend to some 2,000 years of linguistic history. Because of this, I have had to limit the scope of the dissertation in several ways. First, I have limited the scope of the project to the study of non-lexical contact phenomena. While I will occasionally make reference to specific lexical borrowings, and a detailed study of lexical borrowing would doubtless uncover interesting and important information and insights, I am more interested in typologically less common contact phenomena, which are abundant in the Lowland Mayan context. In addition, virtually all of the work that has been done to date on Lowland Mayan language contact has been done on lexical borrowings (for example, Justeson et al 1985, Wichmann and Brown, 2003, Wichmann and Hull 2009), so that the need for this kind of research is not as pressing.

Another practical limitation on the scope of the dissertation is that I will only consider cases of contact in which both the donor and the recipient languages are Mayan. This is not for lack of interest in the clearly significant contact between Mayan languages

and, for example, Mixe-Zoquean languages. From a practical perspective, however, this limitation in scope is necessary since I am already working with some fifteen Lowland languages and research on non-lexical contact phenomena requires a much closer and more detailed look at all of the languages involved than a study of lexical borrowing would. In addition, data from the fifteen or so Mayan languages that did not participate in the Lowland Mayan sphere of linguistic interaction is essential to determine what Lowland shared features are the result of common genetic inheritance, and which are the result of contact. Finally, the fact that I am evaluating approximately 2000 years of linguistic contact means that any investigation of the influence of other language families would require the careful linguistic reconstruction of earlier stages of those language families, an undertaking that would require intensive study of well over a hundred Mesoamerican languages to be reasonably complete.

While the sheer logistics of including non-Mayan languages in my data is certainly overwhelming, another reason for excluding non-Mayan languages from my study is theoretical. This research has the potential to tell us a great deal about the role that genetic relatedness plays in language contact, as well as being an ideal background for studying such tricky notions as ‘typological poise’ or ‘drift’ (see chapter 5, also Sapir 1921: 171-178; LaPolla 1994; Enfield 2003). As mentioned above, the languages studied here are all related to each other to varying degrees. Similarities between the languages, when clearly not stemming from common genetic inheritance, might be the result of contact, or might have arisen because similar pressures in their earlier linguistic systems had similar consequences. As will be discussed in chapter 5, it may, in fact, not always be

possible to distinguish such language-internal factors from language contact phenomena, and one might even ask if the distinction is in fact meaningful when dealing with closely related languages.

1.1.3 Objectives

The goals of this dissertation are both descriptive and theoretical. Many theoretically significant Lowland Mayan language contact phenomena have never before been noted or systematically described in the published literature. These phenomena include cases of direct borrowing of an array of bound and free morphemes, including person markers (see Law 2009), aspectual suffixes, numeral classifiers and verbal inflectional suffixes, as well as structural and semantic convergences resulting, through language-internal innovations, in syntactic structures and grammatical and semantic categories that are remarkably alike. The descriptive aspect of this thesis investigates which non-lexical linguistic features are the result of linguistic contact among Lowland languages (versus similarities from genetic inheritance, universal tendencies, chance), traces the extent and distribution of these shared features geographically, and, where possible, establishes the relative and absolute chronology of the various contact-induced changes. These data can then be compared and correlated with distributional data gathered by other researchers for loanwords, political structures, or even for aspects of material culture.

GOALS OF PROJECT

Descriptive

- Identify instances of non-lexical language contact phenomena involving Lowland Mayan languages (Cholan, Tseltalan, and Yucatekan, along with a few others)
- Provide a complement to the history of Mayan languages as provided exclusively through the reconstruction of common forms
- Describe the geographical patterns of linguistic influence for individual features
- Assess the ‘Lowland Mayan Linguistic Area’: what it is and how it came to be
- Glean as much detail as possible about the patterns and types of contact among various Lowland Mayan language groups, and any relative chronology of contact relations

Theoretical

- Provide a detailed case study of a situation with several non-lexical contact-related changes, including borrowing of bound morphemes, diffusion of phonological changes, and syntactic/semantic structures
- Address methodological issues that intensive linguistic contact raises
- Address theoretical and methodological issues in the study of related languages in contact

- Address the role of social context in conditioning outcomes of language contact

1.1.4 Previous Work on Language Contact in the Maya Lowlands

As mentioned above, relatively little description of language contact phenomena in the Maya Lowlands has been published. The even smaller body of work that has been done specifically on *non-lexical* contact in the Maya Lowlands, and associated areas is nonetheless well worth mentioning. The Lowland Maya area has been so named for many decades, since it is in this area that the archeological remains of the Classic Maya civilization are found. The first work to define and discuss the Lowland region as a linguistic area, and consequently describe with any detail some of the contact phenomena evident in this region, was Justeson et al.'s 1985 monograph, *The Foreign Impact on Lowland Mayan Language and Script*, which focused primarily on non-Mayan influence in the Lowland region. The authors do, however, spend a large portion of the section on language describing key features of the Lowland linguistic area and attempting to elucidate from a variety of sources the likely dates for the various types of contact evident in the languages. Two of the authors of this monograph, Campbell and Kaufman, along with Thomas Smith-Stark also published the well-known description of the larger Mesoamerican Linguistic Area, of which the Lowland area is a subset (Campbell et al 1986). Kaufman, with Sarah Thomason, also authored one of the foundational texts for the field of language contact (Thomason and Kaufman 1988), though, curiously, virtually no mention is made of contact between Mayan languages in that work.

In the 1985 work, Justeson et al identify two levels of interaction, labeling them the Lowland Mayan and Greater Lowland Mayan linguistic areas respectively, a classification followed in Kaufman's (2003) etymological dictionary. The Lowland Mayan linguistic area consists of the Yucatekan and Cholan languages. The Greater Lowland area consists of these languages as well as the Tseltalan languages, and, in some cases, various other highland languages. This classification highlights a very important fact: the contact relationship between Cholan and Yucatekan appears to have been particularly strong. However, this taxonomy becomes somewhat cumbersome for describing the dynamic and multi-directional contact phenomena of this region. Another way to describe the importance of Cholan and Yucatekan is in terms of core and periphery. However, what constitutes the core or periphery is somewhat fluid, a fact that is consistent with observations in recent research on 'linguistic areas', discussed in detail in chapter 2. Generally Choltian (aka Eastern Cholan) and Yucatekan are at the geographic and cultural core of this area, though interestingly, several changes specifically exclude these subgroups. Tseltalan, along with Tojol-ab'al, Poqom, Q'eqchi' and possibly Ixil are both geographically and linguistically peripheral. As will be discussed in the following chapter, this seems to accord with current understanding of pre-Conquest political relations, since these same groups seem to be linguistically, culturally and politically dominant in the pre-Conquest era.

Another, slightly earlier work that is also directly relevant to the topic at hand is Campbell's (1977) monograph (based on his 1972 doctoral dissertation) *Quichean Linguistic Prehistory*, which treats language contact phenomena thematically, and uses it

to propose several revisions to the (then) standard tree of genetic relations in the Mayan family. Although the focus of his work is on (highland) K'iche'an languages, at least two of these, Q'eqchi' and Poqom (now Poqomam and Poqomchi') were also peripheral participants in the Lowland Mayan sphere of linguistic interaction, so some aspects of his work are relevant to this project.

Other work that has been published on non-lexical language contact in the Maya Lowlands consists of a smattering of small articles dealing with individual features (for example, Bricker 1977, Wichmann 2006a, Hruby and Child 2004, Law et al 2006, Law 2007, Law 2009). While certainly important and useful, they are too specific to review here, though some will be cited in chapter 3. Other than this, what little has been done on language contact in the Maya Lowlands more broadly has focused almost exclusively on lexical borrowing. Most notably, Søren Wichmann, with co-authors, (Wichmann and Brown, 2003; Wichmann and Hull, 2009) has written two papers which examine loanwords in several Mayan languages and illustrate the particular prominence of Cholan languages, and specifically Cholti, as donor languages in the Maya region as a whole. In addition, Kaufman's (2003) massive etymological dictionary of Mayan languages contributes substantially to our understanding of Lowland Mayan loanwords by labeling several lexemes in his dictionary as "Lowland Mayan", or "Greater Lowland Mayan" (see Appendix A for a list of these lexemes).

Any other work on language contact in the Maya Lowlands has either dealt entirely with contact with non-Mayan languages, something I specifically will not be addressing in my research, or has only mentioned contact phenomena tangentially, as an

aside in studies of genetic reconstruction or synchronic description. Thus, a great deal of basic description remains to be done on the types and extent of language contact phenomena present in the Lowland languages.

1.1.5 Data Sources

One factor that makes the Mayan situation unique in the New World and allows for a close analysis of language contact phenomena in the Maya Lowlands is the time depth of available attested linguistic data. Published grammatical descriptions are available, admittedly of variable quality, for all of the modern Lowland Mayan languages. Some of the linguistic sources are little more than morpheme lists, are inconsistent in their transcription of such features as glottalization or vowel length, or are couched in an obscure or outdated theoretical model that effectively renders any grammatical description opaque. Where the option is available, I will favor those sources that are more complete, presented in more modern terms (i.e. more recent), have a greater amount of detail, and give full sentence examples, rather than simply providing lists of morphemes. I have also personally done linguistic fieldwork, ranging from a few days to several months, with several of the Lowland and surrounding languages, including Chorti, Chol, Tseltal and Tzotzil, Chuj, Tojol-ab'al and Ixil.

Aside from the modern linguistic data, the Mayan situation is fascinating because of the rich Colonial and pre-Columbian written sources that provide a temporal depth of linguistic data unrivaled among New World languages. Colonial era materials, dating to between about 1550 and 1800, are available for Yukatek, Cholti, Chontal, Tseltal (called

Tzendal in the source), Tojol-ab'al (called Chaneabal in the source), Q'eqchi' and Poqom, as well as several other highland languages. Additionally, the decipherment of the ancient Maya hieroglyphic script now allows access to linguistic data for at least one Lowland language going as far back as the fourth century AD. The colonial and hieroglyphic data provide a crucial comparandum, allowing us to identify areally diffused features in some cases where we might otherwise assume them to be genetically inherited innovations.

1.1.6 Borrowability and Language Contact

As mentioned previously, several of the contact-induced changes described in this dissertation are of broader theoretical import because they are cross-linguistically unusual. A great deal of attention in language contact literature has been given to the relative borrowability of linguistic features and categories. What linguistic features can be or are more, or less, likely to be borrowed? Much research on language contact has in past years been primarily interested in uncovering universal constraints on what consequences can obtain from contact among human languages (for example, Whitney 1881, Campbell 1993, Curnow 2001, Haspelmath 2004). Generally the emphasis is on developing hierarchies of borrowability, whether in the form of implicational hierarchies claiming to be absolutely predictive (Moravcsik 1979, Haugen 1950: 224), or hierarchies based on relative frequency, indicating cross-linguistic tendencies (Matras 2007: 34; Muysken 1981). These various hypotheses will be discussed in more detail in chapter 4.

While there has been a great deal of disagreement about the particulars, the general sense, for more than a century has been that, “whatever is more formal or structural in character remains in that degree free from the intrusion of foreign material” (Whitney 1881, quoted in Haugen 1950: 224). Thus lexical items are more easily transferred from language to language than grammatical morphemes, or members of clear morphological paradigms. Bound morphemes are less likely to be borrowed than free morphemes, etc.

Ideas about the borrowability of different linguistic elements have important consequences for proposals about genetic relationships. For example, in some cases the bulk of the lexicon is very similar to one language, but the pronominal system, or other morphological paradigms belong to another (for examples see Thomason and Kaufman 1988: 234; Muysken 1981, Campbell 1997, Greenburg and Ruhlen 1992). Anyone adopting the stance that pronominal forms cannot be borrowed will arrive at very different conclusions in such cases about the genetic affiliation of these languages than one who takes a more holistic stance that considers the overall amount of linguistic material from one or another language.

1.2 LINGUISTIC SIMILARITY AND SOCIAL DIFFERENCE

The processes underlying the various linguistic changes that will be described and analyzed in this dissertation hinge on the tricky notion of similarity. Not only are all of the languages involved full of systematic similarities due to their genetic relations, but, I will argue, the social meaning attached to both similarity and difference between these

languages has undergone significant changes over the two millennia or so during which the languages have been in contact.

Similarity is something that we often take for granted as a given, an inherent quality of an object in the ‘real world’. It is, after all, both observable and, in many cases, measurable. However, similarity, or for that matter difference, is a product of the mind in the sense that it is our (often automatic and unconscious) cognitive and social organization of the perceptual world that reduces reality to things that can be compared and contrasted (Merleau-Ponty 1962[1945]; C.S. Peirce 1934¹). This does not, however, mean that its effects are entirely subjective or inconsequential. It has frequently and from an early date been suggested that structural similarity between two linguistic systems will make linguistic influence ‘easier’. Some earlier proposals even went so far as to say that certain features can *only* be borrowed if the systems involved are similar (Meillet 1914: 87, Weinreich 1953: 25, and Moravcsik 1978). More recent work has focused on similarity as more of a conditioning factor, so that certain types of linguistic influence are more likely between (structural/typologically) similar languages, than between radically dissimilar languages (Campbell 1993: 92; Winford 2005, Harris and Campbell 1995, Haig 2001, Aikhenvald 2003)

In the following section, I will attempt to highlight several ways in which the social and cognitive processes of creating similarity and difference shape the

¹ For Peirce, the act of comparing is a semiotic act that starts with a *quale* (*pl. qualia*), which, as Peirce says it, “is, in itself, what it is for itself, without reference to any other.” (Peirce 1934: 6.224). This *qualia* become comparable only through actual instantiations (secondness) that are noted and linked to other experience or knowledge (thirdness) (see Peirce 1934: 1.346).

phenomenon identified by linguists as ‘language contact’. The implicit cautionary note is that the scientific ideal of arriving at an understanding of the objective reality of language contact runs the risk of missing just how much of what comes of language contact is determined by our own perception and representation of that reality.

1.2.1 Similarity and Difference in Language Contact

The language, as a whole, is a classically taken-for-granted category; one that, as we shall see, is fundamental not only to the scholarly project of language contact studies, but to the very processes of contact-induced language change discussed here. The importance of the perception and attribution of similarity and difference to elements in language has long been recognized. Not for nothing is the basic analytic tool of the linguist contrastive analysis (see Sapir 1925, 1933 on contrastive analysis and the phoneme). What contrastive analysis of phonemic systems or syntactic structures lays bare is that there are certain elements that the language speaker understands as ‘the same’ along some parameter, as opposed to those elements that are considered ‘different’ along that same parameter. It is not simply the inherent physical (acoustic, structural) properties of these elements that determine their opposition to or alignment with another element, but rather the whole web of contrasts that dialectically define and reinforce one another. As Meillet, and his famous teacher Saussure put it, language is ‘un système où tout se tient...’ (Meillet 1903: 407).

This view of language often has the (at times unfortunate) effect of creating an illusion of boundedness in language. When pressed, however, we must admit that exactly

what constitutes a specific ‘language’ is difficult to nail down. It is not language itself that holds the linguistic system together, it is the organizational, contrastive power of the human mind which infers or imposes structure on its linguistic experience. It is the way that our mind deals with language that gives language its structure, that determines what is similar and what is different. While most serious linguists are aware of the nitty-gritty difficulties in consistently and clearly defining a particular “language”, in general these problems seem peripheral to the analytical tasks in which the linguist is engaged. For the student of language contact phenomena, however, the ‘convenient fictions’ that we maintain about languages as discrete mental systems can lead us to misrepresent some of the fundamental processes through which ‘language contact phenomena’ arise.

The obstacles to precisely defining a ‘language’ are both cognitive and social. In other words, both in terms of the mental system of signs within an individual mind, and in terms of the social distribution of language(s), dividing lines are often very difficult to place clearly. We do place these lines, however, and, crucial for the arguments of this dissertation, the way that we place them can profoundly affect how language is realized and how it is changed in situations of language contact. In the following sections, I will give a brief and necessarily incomplete discussion about how languages are defined and separated at both the individual/cognitive level and the community/social level, and what implications this has for understanding language contact. The main point is that the separation of languages—the representation of linguistic codes as *same* or *different* on both individual and community levels—is much more dynamic than we often assume. Because the distinctions we draw between languages profoundly shape the processes of

language contact that result, understanding the dynamic defining of languages is arguably an essential preliminary to understanding a given situation of language contact, not, as it is often treated, an *a priori* given.

1.2.2 Language Contact and the Representation of Languages in the Individual Mind

To appreciate how subjective the boundaries between languages are, we must first look at what can be inferred about those boundaries where they seem most clearcut: in the individual mind. Recent research on multi-modality in communication has shown that even the distinction between language and non-language, both in use and in mental representation, is muddy (Kendon 1980, 1997, Schegloff 1984, and others). However, even if, *ad hoc*, we limit what counts as part of ‘a language’ to a specific modality, such as speech, we run into significant difficulty in defining where one linguistic system ends and another begins. This is particularly significant for understanding language contact. Like the sound of one hand clapping, language contact without two contrasting entities, is inconceivable. However, research in cognitive and psycholinguistics suggests that the mental separation of linguistic codes is not as static, or as discrete as is often assumed.

The first observation to make about the mental reality of language is that even a ‘monolingual’ English speaker, unless pathological, will have numerous, occasionally contradictory language systems to be drawn on according to the participant framework

(i.e. register) or the subject matter, the task at hand (genre)². If what is acceptable in one genre or register is unacceptable or ill-formed in another, and linguistic systems are truly ones in which all of the parts are mutually defining, we are forced to deal with these language varieties as, in some sense, different linguistic systems. We would hesitate, in most cases (and rightly so) to call these different registers or genres ‘different languages’. After all, the vast majority of the system is identical: so much so that unless the speaker is aware of a difference, they will use the same form in both cases. Only certain elements of the linguistic system are register or genre dependent, while others are consistent across multiple genres. In other words, because the speaker assumes a certain amount of overlap between the two systems, a distinction between the systems is only partial. ‘Contact’, because of this, can only happen in those aspects of the systems that are separate.

Register and genre show us two things about language. First, what constitutes acceptable language is contextually dependent. Second, the perception of the underlying sameness of different registers mediates the way they are used and how the systems influence one another. In the case of most English varieties, differences between registers or genres can be extremely minimal. From an interactional perspective, however, the amount of actual difference is not as important as the sphere of intelligibility, that is to say, the situations in which particular ways of talking make sense. From this viewpoint,

² While there is (with good reason) a certain amount of overlap, conceptually I understand ‘register’ to focus on who is participating in a particular speech event, while ‘genre’ is centered on what is being done with the language. It is for this reason that genre, rather than register, is commonly used in textual analysis, while register, rather than genre, is commonly used in conversation analysis (see Eckert and Rickford 2001 on register and Hanks 1987, Bakhtin 1981 on genres).

there is little difference between the way that Kannada, Marathi and Urdu are used in Kupwar, India (Gumperz and Wilson 1971) and the way that I manage different registers of English in interaction with students, colleagues, family or friends. As will be discussed later, in language (or dialect or register) contact, what ‘counts’ for constructing difference, as within languages themselves, is mediated by sociocultural factors. And what ‘counts’ as ‘same’ or ‘different’ can have real consequences for the forms of the languages involved. In Kupwar, the differences that weren’t considered important (in this case almost entirely structural) were collapsed, leading to the massive structural parallelism between these historically distinct varieties.

We will return to the social component of registers, dialects and genres shortly, but in terms of the individual, what is at issue is the question of language processing in the bilingual mind. While socially or functionally they might be equivalent, is there a difference in terms of how languages, versus registers or genres, are stored or accessed mentally? While I am not aware of cognitive or psycholinguistic research on the mental processing of registers and genres, there has been a substantial amount of research on bilinguals and cognition with sometimes conflicting results. An emerging consensus, however, seems to be that the way in which languages are stored and accessed in language processing is, in fact, highly variable. Paradis (1977; cited in Appel and Muysken 1987: 74), for example, conducted a survey of multilinguals who had suffered brain trauma resulting in aphasia. He compared over 100 cases to see how the aphasia affected ability in each language, and how recovery, if there was any, had progressed for each language. He found that in about half of the cases surveyed, recovery in one

language was accompanied by recovery in another. Of those cases where recovery occurred in more than one language, the vast majority (56 out of 67) progressed in parallel ways in each language. This suggests that in these cases, the languages were not only stored in the same area of the brain (the area that had been damaged), but they were in fact intimately interconnected so that ability in one was linked to ability in the other. On the other hand, in more than half of the cases of multilingual aphasia examined by Paradis, the loss or recovery of ability in one language seemed to have no clear relationship to loss or recovery of ability in other languages. This suggests that the way that languages are related in the brain of a multilingual can vary considerably from person to person.

Even without quantifiable data, there is reason to expect that the way languages are stored and accessed in multilingual minds will vary from individual to individual. The way that I access Spanish, a language I began to learn at 19, is very likely different from how someone who has spoken both Spanish and English since childhood will access them. Weinreich (1953), in his pioneering study of languages in contact, proposed a distinction between coordinate bilingualism, in which the two (or more) languages are independent, and compound bilingualism, in which the two languages are interdependent. The reality, of course, is not so neatly divisible. Appel and Muysken (1987: 77) made the dual observation that: “(a) completely compound and completely coordinate bilingualism are the end points of a continuum on which a bilingual individual can be rated, and (b) the language system of a bilingual may be partly more compound (e.g. the lexicon) and partly more coordinate (the grammar).” In other words, from person to person, the degree

of cognitive separation between one linguistic system and another, as well as the degree of separation between different aspects of the linguistic systems, can vary at any point in a continuum between completely separate and maximally dependent and overlapping.

Studies of code-switching and individual second language acquisition have also generated significant theories about how languages are organized in the bilingual mind, and what this cognitive representation has to do with the outcomes of language contact. Haugen (1950) and to an even greater degree, Weinreich (1953) considered the study of bilingual language use to be crucial for understanding the outcomes of language contact on the languages involved. More recently, several scholars (Myers-Scotton 1993, 1997, 2002, Poplack and Meechan 1998, Sankoff 1998, Auer 1998), have done detailed studies of bilingual code-switching to get a better idea of the kinds of processing and production overlap that can be observed in the speech of bilinguals.

Myers-Scotton (1993, 1997, 2002) for example, examined patterns of code-switching by bilinguals to develop what she termed the ‘matrix language frame model’. At the heart of this framework is the opposition between a matrix language, which contributes certain types of ‘system’ morphology to the language (the details of which are expanded in the ‘4 M model’), and an ‘embedded language’ which contributes other linguistic elements, particularly nouns. The main claim is that those types of linguistic features that are less likely to be borrowed are exactly those features, such as system morphemes, that are generally only contributed by the matrix language. Significantly, she sees these models as reflecting something about how language is represented and processed in the mind. Myers-Scotton (2002: 5) argues that, “evidence from contact

phenomena suggests to us how parts of the mental lexicon may be organized and how different types of elements may be salient and accessed at different stages in production.”

There is evidence that the same variability in bilingual language processing from speaker to speaker mentioned above is also present within a single speaker over time. Grosjean (1998, 2001), coming from a psycholinguistic perspective, presents evidence that different linguistic repertoires can be differentially activated at a given time, and that a particular linguistic repertoire can be activated to different degrees at different times. Bilinguals, according to Grosjean, can switch between different ‘modes’ of language processing both unconsciously, according to contextual cues such as linguistic input, and consciously, according to how they understand the interactional context in which they are trying to access language, including the participants involved, the task at hand, and so forth. He asserts that, “Movement along the continuum [from one language mode to another], which can happen at any given point in time depending on the factors mentioned above, is usually an unconscious behavior that takes place smoothly and effortlessly. It is probably akin to changing speech style or register based on the context and the interlocutor” (Grosjean 2001: 6). This ‘language mode’ can have a substantial impact on the measurable details of language use in bilingual experiments (response time, grammaticality judgments, etc) that are the basis of much of the psycholinguistic research on bilingual language processing in the past several decades. What this suggests is that languages can be simultaneously activated in the bi- or multilingual mind to varying degrees, and the degree of activation of a particular linguistic system will have consequences for how it influences or interacts with other activated linguistic systems.

The idea that different languages can vary in the degree to which they overlap mentally is also indirectly supported by several proposals accounting for particular types of contact-induced changes that, it is argued, occur because of a desire to reduce the ‘cognitive load’ of maintaining entirely separate linguistic codes at all levels. For example, Ross (1996, 1999), proposed a process of ‘metatypy’ to explain a case of contact between neighboring but unrelated languages Takia (Oceanic) and Waskia (Papuan, Madang Family). As speakers of Takia became increasingly fully bilingual in Waskia, their language appears to have systematically become more like Waskia in terms of its structural/typological features and semantics, but has maintained differences in actual morphological and lexical forms.

Ross proposes that this ‘metatypy’ is the result of cognitive pressures to reduce the processing load by increasing the amount of structural overlap in less salient linguistic features, coupled with a strong desire to maintain a separate linguistic identity from the language that provides the ‘metatypic model’. It is a means to ‘relieve the bilingual speaker’s mental burden by expressing meanings in parallel ways in both languages’ (Ross 1999: 22; see Silva-Corvalan 1994 for similar points about Spanish-English bilinguals). For similar cases, see Gumperz and Wilson (1971) for Kupwar, India; and Aikhenvald (1996, 2003) and Epps (2007) for the Vaupés region of the Amazon Basin. Several of these cases stand out in having a combinations of high levels of grammatical borrowing and low levels of lexical borrowing, suggesting differing levels of awareness of different kinds of linguistic elements. This awareness, it should be emphasized is not strictly a function of an object itself, but the (socially mediated)

salience of the object to an individual (see Silverstein 1981). This will be discussed in more detail in Chapter 3.

Another example of ‘contact-induced’ changes that have been argued to reduce the ‘cognitive load’ of bilingual language processing may be seen in the frequent borrowing of certain types of grammatical particles. Brody (1995) discussed the fact that in Mesoamerica, and, it seems, in all of Latin America, certain grammatical morphemes, specifically discourse particles ‘what’, ‘if’, ‘so’, ‘then’, etc. were not only borrowed, but were borrowed exceptionally frequently, a trend which seems to be much more widespread than just Latin America. Matras (1998) proposes a cognitive explanation for these borrowings using evidence from typological comparison and variation in multilingual language use. He proposes that particular kinds of discourse particles, what he calls ‘utterance modifiers’ are pragmatically salient, and therefore speakers have cognitive pressure to use the pragmatically dominant code to express them, regardless of the language they are speaking at a given moment. He argues that “the trigger behind language mixing around discourse-regulating grammatical elements is cognitive, not social, in the sense that it derives from the mental-processing functions associated with the linguistic expression, or in plain terms from its communicative-interactional function” (Matras 1998: 326).

This brings us back to the observation made above about the distinction between register and genre: from current evidence, neither the empirical forms of language varieties, nor the way in which they are managed cognitively provide a ready way to distinguish between different languages on an individual, mental level. In fact, in much of

the research mentioned above on multilingual language processing, we have seen that linguistic systems can be collapsed and kept separate in dynamic and variable ways. This creates some difficulty in trying to precisely define ‘a language’ from an individual, cognitive perspective. More importantly, it highlights the fact that a central process in ‘language contact’ is the merging and separation of different elements of linguistic systems in the bilingual mind, and that that separation and merging is extremely variable and dynamic, not only from person to person, but within a single individual’s own mind over time.

1.2.3 Language Contact and Defining Languages in Communities

Cognitive approaches to the study of language contact phenomena do not usually deny the relevance of social factors in conditioning the outcomes of language contact, but consider social factors to further constrain the set of possible outcomes predetermined by cognitive factors. As Myers-Scotton (2002: 6) put it, “I recognize that the social and psycholinguistic factors that distinguish the milieu of one type of contact from another also make a difference in outcomes. However, the milieu influences selections from a set of structural options; it does not determine the set.”

The difficulty of defining the boundaries of ‘a language’ is only compounded when we try to move beyond the individual mind to consider the social nature of language. Even just bringing in the minimal two speakers necessary for language to take place, we run into the problem of ideolectal variation. If we consider language to be primarily a semiotic system intended for communication with other individuals, the same

system, however that is defined and partitioned, should ideally be shared by both speaker and listener, sender and recipient of the linguistic code. Otherwise, in theory, communication would fail. This model of language, in which the same code is shared by both sender and recipient, is explicit in Saussure's 'talking heads' model.

In Bloomfield's famous postulates, he gives a slightly more nuanced nod to ideolectal difference with his postulate number 5 (Bloomfield 1926: 155), "That which is alike will be called *same*. That which is not same is *different*." This postulate, as Bloomfield puts it, "enables us to use these words without reference to non-linguistic shades of sound and meaning" (Bloomfield 1926: 155).³ In other words, what Bloomfield advances is a theory of significant vs. insignificant differences. As mentioned earlier, what counts as 'same' and 'different' in language is not simply a matter of physical, measurable properties, but an abstraction imposed on perceptible linguistic forms by speakers/hearers. The way in which the (acoustic/perceptual) reality is abstracted from will impact what differences can be ignored and which must be registered and attended to.

It is important to emphasize that *ignoring* certain types of linguistic difference and *paying attention* to others is not simply a convenient scholarly trick, but is, in fact, essential to how normal human beings (as opposed to linguists) understand themselves and construe others, their 'theory of mind'. We are constantly confronted with linguistic forms that are slightly different from what we might expect but, where possible, we

³ My thanks to William Hanks (pc, 2010) for this observation about Bloomfield's fifth postulate.

assume these differences to be inconsequential (see Enfield 2007 for the relevant notion of ‘tolerable friends’).

When we move beyond the bilingual mind to consider language from the perspective of a collective of language speakers, the processes of change involved in language contact become rather similar to ‘language-internal’ changes: From the speaker-centered perspective, even internal change must start with a single innovator, and then spread across social networks until it has been adopted by an entire speech community (Milroy 1987, Gladwell 2000). In the ‘social network’ model, the crucial difference between internal change and contact-induced change, then, is that the innovator comes up with the innovation independently in the former case, and gets the idea from another speech community in the latter.

Ideally, the goal of linguistic analysis is to approximate as nearly as possible the mental representation of ‘same’ and ‘different’ that a speaker of a language has. The problem, of course, is that no two speakers have exactly the same mental representation. When the language community is fairly homogenous, we might be able to approximate the idiolects of several speakers and then compare these to get a sense of how much is shared between speakers, and ignore the residue as ‘extralinguistic’, or simply unimportant. When the differences between idiolects are seen as too extreme to have confidence in any assumption of shared meaning, we consider that an individual is speaking a different language.

This is essentially the calculus behind the classic litmus test for language separateness: mutual intelligibility. However, mutual intelligibility is itself problematic,

not least of all with respect to language contact situations. First of all, mutual intelligibility isn't just a binary affair; it is a continuum. One can understand another's speech to a greater or lesser extent. In practice, when dealing with related languages, it is often very difficult to decide when a given linguistic system is sufficiently hard to understand to count as a separate language.

A more serious difficulty for defining 'a language' from a community perspective can arise in situations of widespread community bilingualism. It is easy to imagine a situation in which all speaker of language X are also fluent in language Y. In situations of community multilingualism, the languages in question are all understood by everyone; the fact that use of one code or another is no impediment to communication has nothing to do with the relative similarity of linguistic codes. If these languages are not genetically related, as is often the case in postcolonial contexts, we may assume that the languages are separate and, given Colonial history, community members will likely see it the same way. The question becomes stickier when there is a history of unity and/or when the languages involved are genetically related. For example, in China, the various dialects are politically and culturally considered variants of a single language, Chinese. A similar situation obtains in much of the Arabic speaking world, in which 'standard Arabic', while radically different from many local, colloquial versions of Arabic, is considered the same, and the only proper form, of language (Suleiman 2003: 9-10). The ideological construction of sameness in these cases (discussed in more detail below) is reinforced by the fact that, as genetically related languages, each 'dialect' or 'variety' has pervasive and systematic similarities with the others because of common inheritance.

To illustrate how the political and cultural surround can affect how the boundaries between languages are drawn, it is worthwhile to consider the origins of the concept of language implicit in the traditional scholarly conceptualization of language contact. This conceptualization is overt in the classic Neogrammarian view of languages as discrete quasi-organic bodies—'psychic organisms' (Paul 1880-cited in Ross and Durie 1996: 14), but implicit in much of the subsequent research on language contact, even today⁴. Within this 'organic' model, internal language change is something akin to genetic mutation from generation to generation, and language contact is more like a 'psychic' venereal disease.

This conceptualization of language contact can be historically and intellectually tied to a particular moment in European thought that has had repercussions, because of European expansion, throughout the world. It derives from the framing of language not only as a natural part of being human, but also as an essential criterion for belonging to a particular 'people' or 'nation'. Herder is often cited as the scholarly source of this ideal equation of *language = nation = people*, as he put it: (cited in Bauman and Briggs 2003: 169) "Only through language can people exist".... "Every nation has its own storehouse of thought rendered into signs... this is its national language: a store to which the centuries have , and that has waxed and waned like the moon, that...has experienced revolutions and transformations...the treasury of the thought of an entire people" (English translation quoted from Morton 1989: 135).

⁴ Several more recent models of language change have been crafted on an explicit analogy with biological evolution, but in which the 'organism' is not an entire language, but linguistic features. See particularly Croft (2000) and Mufwene (2008).

Not only did this nationalist ideology of *one language = one people* naturalize the relationship between communities and their languages, it also equated both people and their language with a particular bounded space. As Auer (2005: 11) noted, “Since the nation-state equated nation, language and territory, it located the standard language in geographical space—it territorialised language.” The equation of linguistic codes with specific peoples is necessary to begin thinking about language as a territorial phenomenon. The territorialization of language is necessary in order to think about adjoining borders between languages as interstitial spaces in which two languages can be said to be ‘in contact’.

Following this line of thought, it is clear that the classic way of portraying ‘language contact’, and indeed the semantic underpinning of the central metaphor of ‘contact’, depends conceptually on a very particular ideology about language that is both spatial and essentialized. When we draw a language map, such as that provided in Chapter 2 for the Mayan languages (Map 3), the map itself depends on construing language as both natural to the people of that region (implying both a mother tongue, and the default language of social discourse), and spatially distributed. Such a map also necessarily presents a simplification of matters. It does not lend itself to representing multilingualism, migrant communities, or dialect chains. The important point here is not that it fails to represent these things, but more significantly, that, according to the ideology of European nationalism, these things didn’t need to be represented because they are, in some sense, aberrant. The ‘natural’ state of affairs was for a (clearly bounded) nation to consist of one people with one language and one culture. Exceptions to this idea

were just that: exceptions. However, it is exactly these situations that are typical of most cases of ‘language contact.’

It is important to note at this point that the perception on the part of members of the recipient language community that something is coming from ‘another’ speech community is tied to the sense of unity and similarity or distance and disjuncture between ‘imagined’ speech communities. As Anderson (1983) argued for the nation-state, actual networks of interaction can be less important for defining a ‘speech community’ than the ‘imagined community’ in which speakers consider themselves to belong. Barth (1969) made this point regarding ethnic boundaries: “[...] categorical ethnic distinctions do not depend on an absence of mobility, contact and information, but do entail social processes of exclusion and incorporation whereby discrete categories are maintained *despite* changing participation and membership in the course of individual life histories”(9).

But the fact that we conceive of language as spatially distributed and isomorphic with a nation or people is more than an arbitrary demarcation of something with no inherent divisions. Dialectology research has provided evidence that awareness of a definite linguistic boundary can have a real effect on the development of dialects on either side of that boundary. In a 2005 article, Peter Auer discusses language variants around the German border where what was once a dialect continuum has given way to clear dialectal isogloss bundles coinciding neatly with the political border. He argues, contrary to popular thought, that, “it is not impeded ‘intercourse’ across the border which has led to dialect divergence and the dissolution of a former dialect continuum, but rather

the ideological construction of the border as the dividing line between two different repertoire types (which both contribute to national identity)”(Auer 2005: 25).

Returning to the issue of similarity and difference in language, what is significant about this instance of German dialect differentiation is that it is an empirically observable instance of the language of two groups becoming more distinct because of their mutual construal as different, while simultaneously becoming more similar to dialects on the same side of the border because they are construed as ‘the same’. As Auer argues, ‘It is the cognitive-mental act of construing those on the other side of the border as being different from those within one’s own social group (nation) that has an impact on language’(Auer 2005: 13).

This “construal of the other side of the border as being different” has been persuasively argued by others (Briggs and Bauman 2003, Irvine 2008, Woolard & Schieffelin 1994, etc) to be a distinctively European linguistic ideology that arose out of enlightenment era nationalism and the Herderian ideal of one *nation = one language = one people*. European nationalism is not the only case in which this kind of ideologically imposed linguistic barrier has been described. Aikhenvald (1996, 2003) and Epps (2009) have described similar circumstances in the Vaupés region of the Amazon Basin in which the widespread practice of linguistic exogamy, with accompanying widespread multilingualism has led to a kind of hyper-demarcation of languages and entrenched cultural prohibitions against borrowing of linguistic forms. Unlike the German case described by Auer, linguistic boundaries in the Vaupés are not geographically rigidly

determined, but they are no less clearly defined, and no less impactful in terms of the development of these language varieties.⁵

Given these examples of the ideological construction of boundaries, it is logical to assume that in other cultural contexts, ideologies of language may emerge which erase or deny difference, and, rather than delineating languages, emphasize similarity. Language and languages are not always culturally conceived of as clearly definable in terms of linguistic forms. In a discussion of the emergence of Chinese nationalism, Keeler (2008: 347) notes, “the Chinese *fangyan* [dialects] have become a sociolinguistic limiting case used to illustrate the ultimately political nature of perceived linguistic boundaries ... The Chinese case, it is argued, shows that what causes a perception that two linguistic varieties are ‘mere dialects’ of the same language is a shared history of allegiance to a single standard, rather than any objectively measurable degree of linguistic distance.” Keeler goes beyond this observation to argue that the construction of a national identity was central in the defining of the national language, that perception of a shared history was itself constructed in a particular historical moment. “While Benedict Anderson’s influential theory of the construction, or ‘imagination’, of nationality aims to historicize the ‘natural’ Herderian nation, Anderson still takes the existence of discrete ‘languages’ as a natural given—a ‘fatality’, even ...and sees such languages as functionally necessary in the formation of ‘nations’... In the case of early 20th century Chinese linguists, as I

⁵ The relationship between language boundaries, linguistic identity and language mixing can be quite complex. The class of ‘mixed languages’, discussed in more detail in chapter 6, for example, seem often to involve both a clear ideological awareness of difference between two codes, and a social motivation to combine those identities in a new hybrid way.

have tried to show, a national language did not predate national imaginings, but rather depended on them as its boundaries were being drawn” (Keeler 2008: 358).

The historically and even politically founded nature of linguistic boundaries, and their erasure can be seen in many other parts of the Modern world. In Arabic-speaking Middle East, linguistic and religious unity merge in the use of a standard Arabic motivated by the language of the Qur’an. Regional difference in spoken Arabic is widely recognized, and even valued by some, but more usually, vehemently denied to be anything but a degradation of ‘real’ Arabic (Suleiman 2003). In Spain, a previous sense of linguistic unity was later contradicted when a distinction between Catalán became strategically important in the Catalán Nationalist Movement (Hobsbawm 1990: 62). All of these cases serve to reinforce the dynamic nature of linguistic boundaries and their intimate relationship with historically specific political and social movements.

While clearly problematic, the concept of languages as discrete entities is so embedded in modern linguistics and anthropology that it is very difficult to talk in an academic mode about them without implicitly falling back on it. Woolard and Schieffelen (1994: 194) note that “Modern linguistic theory itself has been seen as framed and constrained by the one language/one people assumption.” In many fields of linguistic investigation, it is both convenient and productive to ignore the problems with casting languages as discrete and separable entities, essentially detached from their speakers. I mean this not only in the sense of the famous language as the infinite set of grammatical sentences that can be generated by an ‘ideal speaker-hearer’ (Chomsky 1957), but in the even more pervasive sense that allows for lists of the languages of the world, or allows

one to say that they speak three languages, or one.

For other fields of linguistic inquiry, however, including language contact, this characteristically Western ideological perspective is more seriously distorting. It effectively erases the crucial fact that language is always fragmented and variable, that language *contact* starts with individuals, not ‘languages’ and that those individuals are uniquely situated in a particular historical moment, a social context, a specific web of ideas about the people in their world and the languages they speak. In fact, many of the situations in which language contact is most evident, and has the most pervasive consequences in terms of the linguistic systems involved are cases in which the European nationalist model of language is contravened. In order to adequately investigate language contact phenomena, then, it is essential to attempt to view languages in more dynamic terms.

According to Enfield (2003: 9) “‘Language contact’ is thus not ‘a language in contact with another language’, nor is it ‘a speaker of a language in contact with a speaker of another language’. Language contact is the situation in which speakers physically encounter linguistic signifiers which are identified by those speakers as being of ‘different languages’ *and* construct signs on the basis of those signifiers’ use in the context of the ‘language’ those signifiers are understood to belong to.” Implicit in this apt definition of language contact is the highly significant act of construing similarity and difference. How language contact proceeds, and its effects, depend on how the scholar and speakers of the language themselves define and divide languages.

Uriel Weinreich, in a study that has been foundational for the field of language contact studies stated, “for the purposes of the present study, it is immaterial whether the two systems are “languages,” “dialects of the same language”, or “varieties of the same dialect”...The mechanisms of interference [i.e. processes of contact-induced change] would appear to be the same whether the contact is between Chinese and French or between two subvarieties of English used by neighboring families” (Weinreich 1953: 1). Contra Weinreich, the preceding discussion has attempted to illustrate how incredibly dynamic and historically embedded the way we construe linguistic similarity and difference can be. Linguistic difference matters, but that difference is not just an independent objective feature of the world. Variants as different as Chinese and French can interact in ways similar to subvarieties of English, but their construal by speakers as Chinese and French respectively goes a long way towards altering the types of processes that will likely be drawn upon in language contact. Without an appreciation for that dynamism of what counts as similar or different, we cannot understand the limits and processes of language contact.

1.3 METHODOLOGY

After spending several heady pages dismantling the idealization of discrete, geographically bounded languages, it is important to address the more practical realities of research on language contact, and in particular historical language contact. In fact, throughout the dissertation, I will make use of linguistic maps showing the hypothetical distribution of linguistic features and will deal with the 31 Mayan languages in this study

in a very traditional manner as separate languages. To justify this contradiction, I can only say that, like a paleontologist, I can only study the past indirectly with whatever remnants are available to me. Fossils are a poor substitute for a living, breathing beast, but in the absence of the latter, the inadequacy of the fossil can only be recognized and taken into account in the subsequent interpretation.

The type of approach that is perhaps best suited to overcoming the biases of ideological construction of linguistic similarity and difference is the quantificational ‘on the ground’ study, as pioneered by William Labov (1966, 1972, 1994, 2000) for dialect studies, or, for broader language contact phenomena, by Enfield (2003, 2005). As admirable as these approaches are, they are only really feasible for studies of current, ongoing language contact situations (though see Toulmin 2009 for an interesting, smaller scale application of these survey methods for historical reconstructions). However, even when considering ancient language change, a speaker-centered perspective encourages a healthy awareness of the limitations of the available data, and a keener vantage point to hypothesize about the processes involved in both internal and contact-induced changes. While detailed sociolinguistic surveys of variation and ethnographic studies of current language attitudes are relevant to the task at hand, the current linguistic landscape of the Maya Lowlands is so altered as to make attempts to use current variation to understand pre-Conquest language contact apparently hopeless (see chapter 2 for more details of how the linguistic geography of the region has changed over the time span covered in this dissertation).

1.3.1 The Historical/Comparative Approach

Because of these limitations, the approach best suited to use as much of the available data as possible is the historical comparative method. This method was refined and formalized in the mid 19th century by the “Neogrammarians”, building off of early pioneering work by Jacob Grimm (1822). The comparative method is a simple tool for carefully comparing linguistic types (not tokens, it is important to note) from different languages to uncover similarities. The main thrust of the Neogrammarian project, and arguably their most substantial contribution to the field in the long run, was to hone a method for identifying similarity of different kinds, including regular correspondences that may not, at first blush, seem all that similar (such as K’iche’ /j/ and Yukatek /n/).

The principle focus of most Neogrammarian scholarship was on reconstructing the linguistic history of genetically related languages. The 19th century ‘neo-grammarian’ comparative method was, in its early days, firmly aligned with the philosophy that “[E]very sound change, inasmuch as it occurs mechanically, takes place according to laws that admit no exception” (Osthoff and Brugmann 1878 - Cited in Ross and Durie 1996: 3). The comparative method provided a tool to identify regular, systematic correspondences, which were assumed, by definition, to represent a genetic relationship. However, the comparative method was also a productive way to identify irregular and unpredictable similarities between languages being compared. These irregular similarities could be attributed to chance, if infrequent enough, or to universal clines of development if widespread enough. In most cases, however, the idiosyncratic

and irregular similarities uncovered by the comparative method were (and are) attributed to language contact.

To the comparativist wishing to reconstruct the development of a language family, these contact-induced similarities are important to be aware of since they can otherwise create distracting noise that can unnecessarily muddy the developmental picture. To the language contact specialist, the comparative method provides a useful tool for identifying a broad range of contact-induced similarities.

1.3.2 Limitations of the Comparative Method

As a technique, the comparative method is simply the examination of large sets of data for regular correspondences in form, meaning, or structure. At such a general level, this technique is essential for any study of multiple languages, and is certainly invaluable for identifying language contact phenomena. However, the neogrammarians and later scholars interwove with this comparative technique a number of assumptions, such as the exceptionless nature of sound changes, and the discrete, territorialized nature of languages which are also often understood to be part of the Comparative Method, writ large. Many of these assumptions, later scholarship has discovered, are at best problematic and in many cases simply incorrect.

The neogrammarian assumption of the regularity of sound change is an important example of this. Nineteenth century language scholarship dedicated substantial effort to discovering sound change ‘laws’ (Grimm’s law, Verner’s law, and the like). The term ‘law’ here reflects a conscious positioning of sound change in the plane of other laws of

the physical world, like Newton's Laws of Motion, discovered in the previous century. The hypothesis, which neogrammarians considered utterly borne out by the laws they had uncovered, was that sound change is always regular. If a sound change applied to a language appeared to be irregular, this was either the result of incomplete analysis (as Verner's Law had shown for the exceptions to Grimm's Law (Verner 1875, translated into English in Lehmann 1967: 132-163) or the result of a different process of change, such as the borrowing of words from some language that had not undergone the sound change.

The regularity hypothesis was generally unchallenged in the popular view for the subsequent century. However, as access to larger data sets and information on more languages became available, counterexamples to the regularity hypothesis became increasingly difficult to ignore. In a 1996 review of the comparative method, Ross and Durie (1996: 13) noted that, "Comparativists find themselves moving from the quasi-Darwinian Neogrammarian paradigm which underlies the regularity hypothesis to a speaker-oriented paradigm which has a place for both regularity and irregularity." As an example of this, Durie (in that same volume, 1996) shows convincingly that even several of the venerable Germanic sound changes were, in fact, probabilistic, not exceptionless.

Another of the central assumptions of the classic Comparative Method is that regular correspondences between languages imply a genetic relationship. This is something that more recent scholarship, including the work in this dissertation, puts into question. Research in recent decades has shown that, in some cases, linguistic contact can result in thoroughly regular changes, just as internal changes, even sound changes, can be

irregular or incomplete. Such changes can include prosodic features, like initial-syllable stress placement in Baltic languages (Campbell [in Goebel 1996]: 100), or complex phonological rules, like the +/- ATR harmony patterns in several Niger-Congo languages, including Kwa, Ijoid, and western Benue-Congo languages, and apparently even some neighboring Afroasiatic and Nilo-Saharan languages (Dimmendaal 2001: 368-373). It can also more clearly involving the areal spread of particular changes in segmental phonology. Sapir (1926), for example, notes that the palatalization of /k/ to /ch/ appears to have occurred in a large group of contiguous, but not necessarily related, languages in the Pacific Northwest. The development of ‘guttural r’, generally uvular, has also been noted for several European languages (Trudgill 1974), and even the famous apparently ancient division between Indo-European *centum* and *satem* languages, has more recently been argued to be an areal phenomena, since the *satem* languages form a coherent geographical entity, while *centum* languages do not, implying another complex set of areally diffused sound changes in these Indo-European languages (Lehman 1993: 100). Campbell (1977) notes several such changes in Highland Mayan languages, including the change of /ts/ to /s/ in Q’eqchi’, Poqomchi, Poqomam (and, I would add, to a degree in Cholti), and the spread of the palatalization of /k/.

The Lowland Mayan languages that are the topic of this dissertation certainly appear to display several very clear examples of areally diffused sound changes that are entirely regular in the languages that adopted them, as is discussed in more detail in Chapter 2. These changes include the merging of *n and *ŋ, the merging of *j and *h, the loss of contrastive vowel length, the shift of *r to /y/, the merging of *q(‘) and *k(‘), and

the possible the palatalization of **k* to /ch/. If these data are accurate, then cases of intensive language contact could, in theory, be very difficult to distinguish from cases of similarity due to common inheritance.

In fact, deciding whether a given similarity between two languages is the result of common genetic inheritance or language contact⁶ is the empirical crux of this dissertation. In the preceding discussion on similarity and difference, I suggested that the difference between language-internal changes and contact-induced changes is more a product of how the innovation is construed by speakers of the language. Throughout this dissertation, I argue that the source of these innovations is crucial, not because of some inherent difference between linguistic features adopted from elsewhere and linguistic features innovated within the language, but because the fact that a form was adopted from elsewhere allows it to index its source. It is that indexical link with its historical source, the sense of unity with some ‘other’, that, I would argue, is at the heart of many types of language contact phenomena.

In defining language contact from a ‘non-metaphorical’ perspective, Enfield (2003: 19) observed that, “If [a] speaker identifies [a particular linguistic sign] as being of ‘another language’, this is a case of language contact. If he identifies the sign as being ‘my language’, he may differentiate between items which are or are not ‘something people like me would say’. Let me stress that what is meant by ‘people like me’ can

⁶ Two other possible explanations are generally cited for similarities between languages: universal tendencies and chance. These are generally less common than the other two, except for certain types of changes, and unless there is positive evidence for one or the other, I will assume that they are not likely explanations.

change from moment to moment and from situation to situation...” For language contact, as I will argue at a later point, the ‘imagined’ speech community, or language, is crucial in the dynamics of contact-induced language change. This emphasizes that language contact ties back to the individual, not just as a physically and cognitively separate entity, but, perhaps even more importantly, to the individual as a *social* self (Mead 1913).

1.3.3 Distinguishing Contact from Inheritance

Given the similar processes involved in language internal and contact-induced language change, as discussed above, distinguishing between language contact and genetic inheritance can be far from straightforward. What is being reconstructed is not simply the evolution of a ‘psychic organism’, but the history of people, how they spoke with each other and how they constructed and understood similarities and differences in the context of language. From a practical standpoint, in making this decision, I generally subscribe to C.S. Peirce’s philosophy that the lines of reasoning in support of a particular hypothesis, “should not form a chain which is no stronger than the weakest link, but a cable whose fibers may be ever so slender, provided they are sufficiently numerous and intimately connected” (Peirce [1860] 1958: 40-41). In that vein, I will make use of several different strategies to determine whether or not a linguistic form or feature in the Lowland data is the result of contact versus common genetic inheritance. None of these strategies, by themselves, would be adequate to differentiate inheritance from contact, but taken together, they constitute what I take to be substantial evidence. The more fibers of evidence that can be adduced in support of contact or inheritance, the stronger that

decision will be. Below is a representative list of the various lines of reasoning that I will use to evaluate individual shared features. More lines of evidence might conceivably arise on a case-by-case basis:

Geographical distribution:

Are the languages with feature X geographically contiguous? (i.e. compare isoglosses for individual features)

Genetic Relationship:

Do the languages with feature X form a genetic group or subgroup, or do they come from different subgroups?

Forward Reconstruction:

Does the feature agree with what would be expected for an earlier stage in linguistic development, if reconstructible from other data?

Other Reconstructible Forms:

Is there another form that is clearly reconstructible for the same function as the form under consideration?

Other Contact Phenomena:

Are there other clearly established cases of linguistic contact phenomena involving these languages?

Philological Sources:

Do early sources for the same language/language group attest a different feature than the one under consideration?

Other Reflexes:

Are there other clear reflexes of that same proto-feature in the language under consideration? If so, is either form more consistent with the documented sound changes and functional shifts of that language?

Each feature being considered can differ a great deal with respect to the exact type of evidence that bears on its identity as either a contact-related feature or a genetic inheritance. It is also important to note that while the choice between contact and inheritance is often painted as an either/or problem, genetic inheritance and language contact are not necessarily mutually exclusive but may interact to mutually reinforce or discourage a particular innovation. This is perhaps less tidy than the organizationally-oriented mind of a researcher might like, but it is potentially a very important point, and one that I explore in more detail throughout the dissertation, and particularly in chapter 5.

Chapter 2: The Maya Lowlands and Lowland Mayan Languages: Overview and History

Because of the complexity involved in tracing the interrelationship of the various languages that participated in the Lowland Mayan sphere of linguistic interaction, it is important to provide a clear picture of what we do and do not know about the history of the Maya Lowlands, particularly with respect to language. This chapter provides a brief overview of Maya history and languages and then discusses the Maya Lowlands in terms of relevant geographical/topographical and archaeological features that help define the area. It then traces the linguistic geography of the area, insofar as it can be reconstructed, and how that linguistic landscape is believed to have morphed over the past several millennia. Chapter 3 will provide an overview of the various contact-induced changes that characterize the Lowland Maya ‘linguistic area’, and discuss the concept of a language area more generally.

2.1 OVERVIEW OF MAYAN LANGUAGES

The Mayan language family consists of some 31 languages with a glottochronologically estimated time depth of around 4000 years (Kaufman 1976). Differences between Mayan languages can be as marked and pervasive as are the differences between Russian and English, and range all the way from that extreme to the subtle nuances of regional dialects, registers, and ideolects. There has been some debate about whether particular variants should be considered separate languages, or dialects of the same language, though, as discussed in the introduction, this tells us more about the politically and socially mediated nature of linguistic difference than it does about the difference between the variants themselves.

Our understanding of the developmental history of the language family has changed wildly over the past 150 or so years (see the discussion in Chapter 6 for more on this), but since the foundational work of Terrence Kaufman in the 1960s and 1970s, there has been basic agreement about many of the details of development. Kaufman's model of the Mayan language family has four primary branches, the Wastekan Branch, composed only of Wastek and the now defunct language Chicomuseltec, the Yukatekan Branch (composed of Yukatek, Mopan, Itzaj and Lakantun) and what he terms the Western Branch and the Eastern Branch. The Western branch includes the Q'anjob'alan and 'Greater Tseltalan' or 'Cholan-Tseltalan' subgroups. The Eastern branch includes the Mamean and K'iche'an subgroups. See figure 1 below for further details of this model.

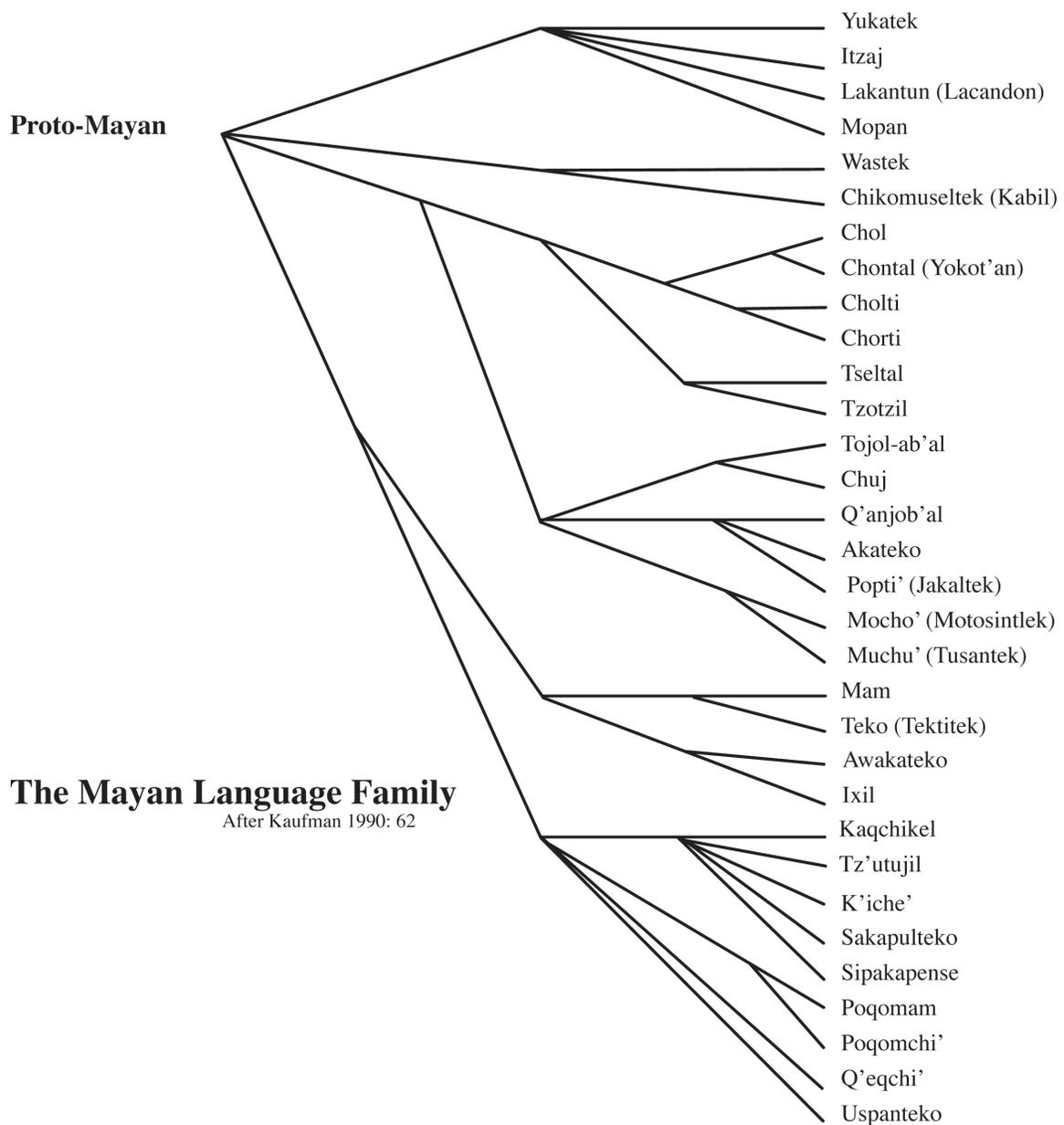


Figure 1. The Mayan Family Tree, According to Kaufman (1990: 62)

The most divergent assessment of the historical development since Kaufman's work has been Robertson's (1992 - reproduced in Figure 2, below). This model, in fact,

differs only slightly from Kaufman's view. The biggest difference between the two models is Robertson's placement of the Wastekan languages, which he includes in the Cholan-Tzeltalan subgroup. While the question of the place of Wastek is both fascinating and relevant to the history of Lowland languages, the data available are unfortunately insufficient at this point to adequately explore the question, so it will not be dealt with in this dissertation. For an overview of the debate, and arguments in support of Robertson's placement of Wastekan (Kaufman's arguments and evidence have never been published) see Robertson and Houston (In Press). Another significant difference has to do with Robertson and Kaufman's respective placement of Tojol-ab'al. Kaufman places this language in the Q'anjob'alan subgroup, while Robertson argues that it belongs in the Cholan-Tzeltalan subgroup. This disagreement is fueled by complex patterns of similarity and difference with each subgroup that have clearly involved significant contact-induced change. The place of Tojol-ab'al in the Mayan language family will be discussed in more detail in chapter 6.

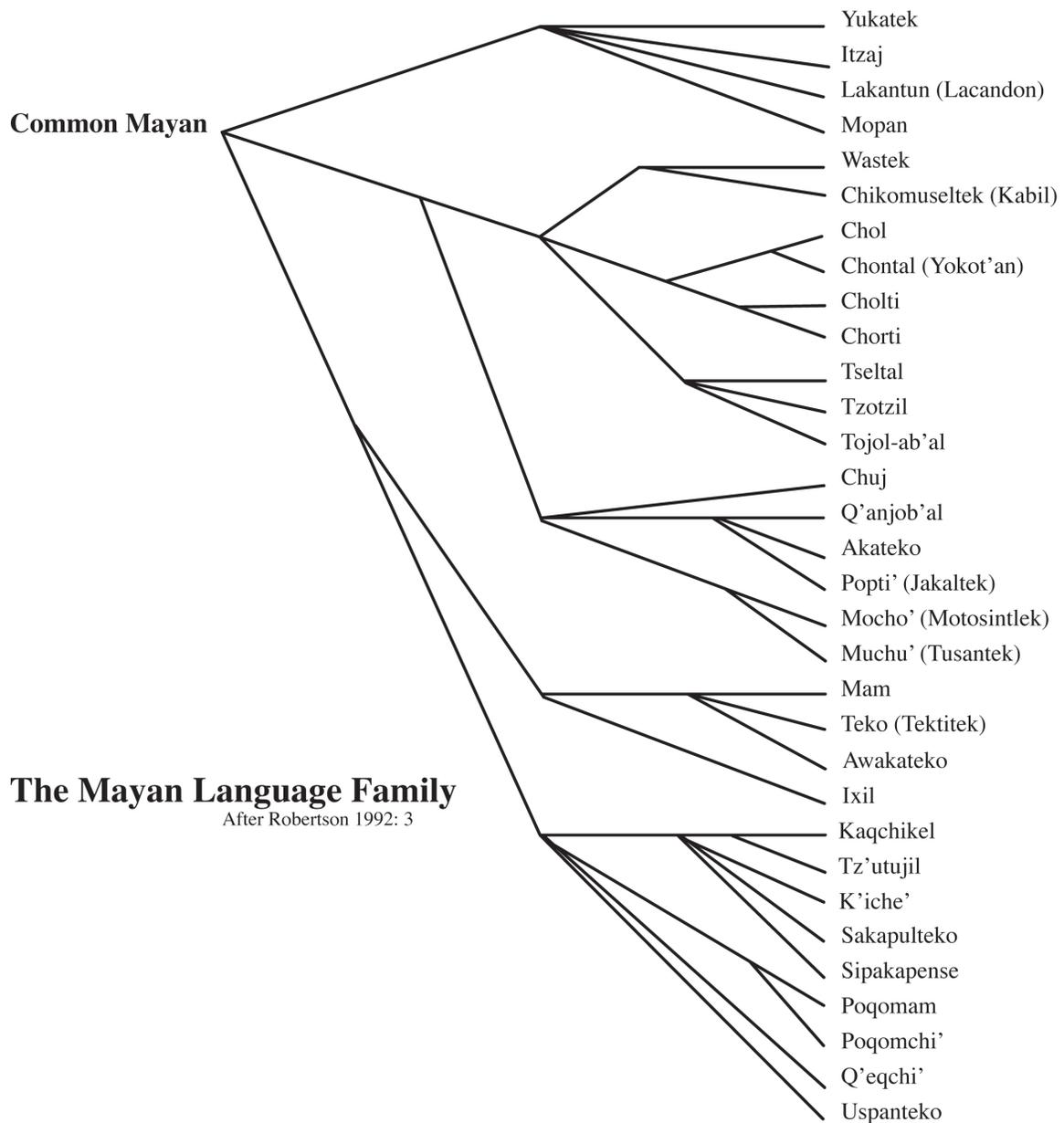


Figure 2. The Mayan Family Tree, According to Robertson (1992: 3)

Mayan languages vary quite a bit structurally, but several typological features that are common in Mayan languages are worth noting. All Mayan languages are head-

marking, morphologically synthetic, mildly agglutinating, and have fairly flexible word order. Most Mayan languages (an exception appears to be Chorti) have a basic verb-initial order, with the preferred order in most languages being either VOS or VSO, though many other word orders are possible for different pragmatic, semantic, and discourse organizing purposes. Most Mayan languages are predominantly morphologically and syntactically ergative, though, as will be mentioned below, several languages display a nominative-accusative pattern of person marking in certain aspects (incompletive), certain syntactic contexts (dependent clauses), or certain persons (first and second person). Several Mayan languages also have systems of numeral classifiers that may be quite developed (Berlin 1968), and make various grammatical distinctions based on transitivity, animacy and definiteness.

2.2 OVERVIEW OF MAYA HISTORY

The extensive archaeological and historical work that has been done on the Maya region provides an important backdrop for interpreting the linguistic data that will be discussed in subsequent chapters. The earliest evidence of human occupation in the Maya region is in the form of Clovis and Folsom style spearheads in the Maya Highlands from paleo-Indians of more than 10,000 years ago (Coe 1960, Demarest 2004: 54). Scattered evidence of early archaic hunters and gatherers in the Maya region has also been found. Agriculture and a more sedentary lifestyle appear to have developed 4000 or so years ago, along with the use of ceramic technology attested archaeologically along the Pacific coast from around 2000 BC (Clark and Blake 1989). The appearance of these features is

generally taken as the beginning of the Early Preclassic. From that point, there is evidence of increasing social complexity, including the development of larger scale architecture and art (Clark 1994).

By the Late Preclassic (around 400 BC, although that date seems increasingly questionable), archaeologists find evidence in the Lowland region of large-scale ceremonial complexes and monuments. Large pyramids and other structures from this time period can be seen at Highland sites like Kaminaljuyú, and along the southern coast at sites like Izapa. Perhaps the most substantial site from the time period is the behemoth El Mirador, located in the Mirador basin of the Petén, Guatemala. El Mirador and its satellite sites seem almost entirely devoid of hieroglyphic texts, but have truly massive architecture, ornate stucco masks and other monumental sculptural features. The earliest hieroglyphic writing, while unreadable, also dates to this time period (around 300 BC) from the smaller site of San Bartolo.

Many of the massive Preclassic sites of the Mirador basin seem to have been largely abandoned by the end of the Preclassic, while others, particularly Tikal, continued to thrive and expand. The transition from Preclassic to Classic in the Maya Lowlands has become more and more blurred over the years. The fall of the major centers of the Mirador basin certainly seems to be relevant to the transition from Preclassic to Classic. In terms of changes in material culture, however, the use of the long count and inscribed monumental stelae seem to be the salient innovations at the beginning of the Classic period. It is not at all clear that the transition from Preclassic to Classic implies anything major in terms of political, social and religious institutions.

Perhaps because of the increase in the practice of inscribing texts on durable stone monuments, the earliest readable hieroglyphic inscriptions, and therefore the earliest linguistic sources, date to approximately the 3rd century AD. In political terms, the Lowland landscape was dominated by regional rulers and sub-rulers known as *K'uhul Ajaw* who apparently commissioned and are the subject matter of many of the hieroglyphic inscriptions and sculptural programs at Classic sites. These 'holy lords' orchestrated political maneuverings and warfare, feasted, and performed numerous rituals, all of which are commemorated in these texts.

In the Early Classic, the kingdom of Tikal was dominant, with numerous subordinate kingdoms and allies, including an intimate association with the central Mexican superpower Teotihuacan (Stuart 1998). By the early Late Classic, the balance seems to have shifted to Tikal's rival, Calakmul (Martin and Grube 2008). However, throughout the Classic period, there was never a single, centralized political structure. Relationships between sites were clearly fluid and networks of alliances were forged, broken and reshaped throughout the written history of the area.

While it was once thought that Classic Maya sites were largely empty ceremonial centers (Thompson 1950), more recent archaeological surveys have found that the area surrounding major sites like Tikal was in fact densely populated at this time, with as many as 700 people per square kilometer in some places (Turner 1976). This density of the population is important to keep in mind while evaluating the history of language contact in the region.

In terms of sculpture, proliferation of hieroglyphic texts, and sheer population, the Late Classic period (from around AD 550-850) was the highpoint of the Classic Maya civilization. Around the 9th century AD, we see a reduction in population and in the sculptural output in the Maya Lowlands. Over the course of about a century, many of the polities that had dominated the political scene for hundreds of years were abandoned to the jungle. Previously vibrant political and social structures of the Southern Lowlands appear to have disintegrated. The population and architectural and artistic productive force gathered in the north, in the Puuc mountains, briefly, and then around the important Post-Classic site of Chichen-Itzá, and later the famous Mayapan.

Mayapan is known both archaeologically and historically, since when Spanish chroniclers arrived on the heels of the Conquistadores in the 16th century, Mayapan was still within living memory for the older Maya. The Spaniards, however, had arrived in a sort of power vacuum. The Southern Lowlands had remained scattered, apparently since the collapse of so many sites during 9th and 10th centuries, and the Northern Lowlands had recently splintered after the collapse of Mayapan in around 1441 AD (Roys 1962).

The Colonial experience in the Maya region was typical of many parts of Latin America. Through the policy of *reducción*, Maya from outlying villages were forcibly congregated in planned settlements, which they often abandoned. Longer range resettlements are also recorded in Colonial records, such as the relocation of the Manché Chol from the northern Peten to what is present day Alta Verapaz.

In Colonial times, until independence from Spain in the first half of the 19th century, the Maya region was under two different Spanish administrative jurisdictions,

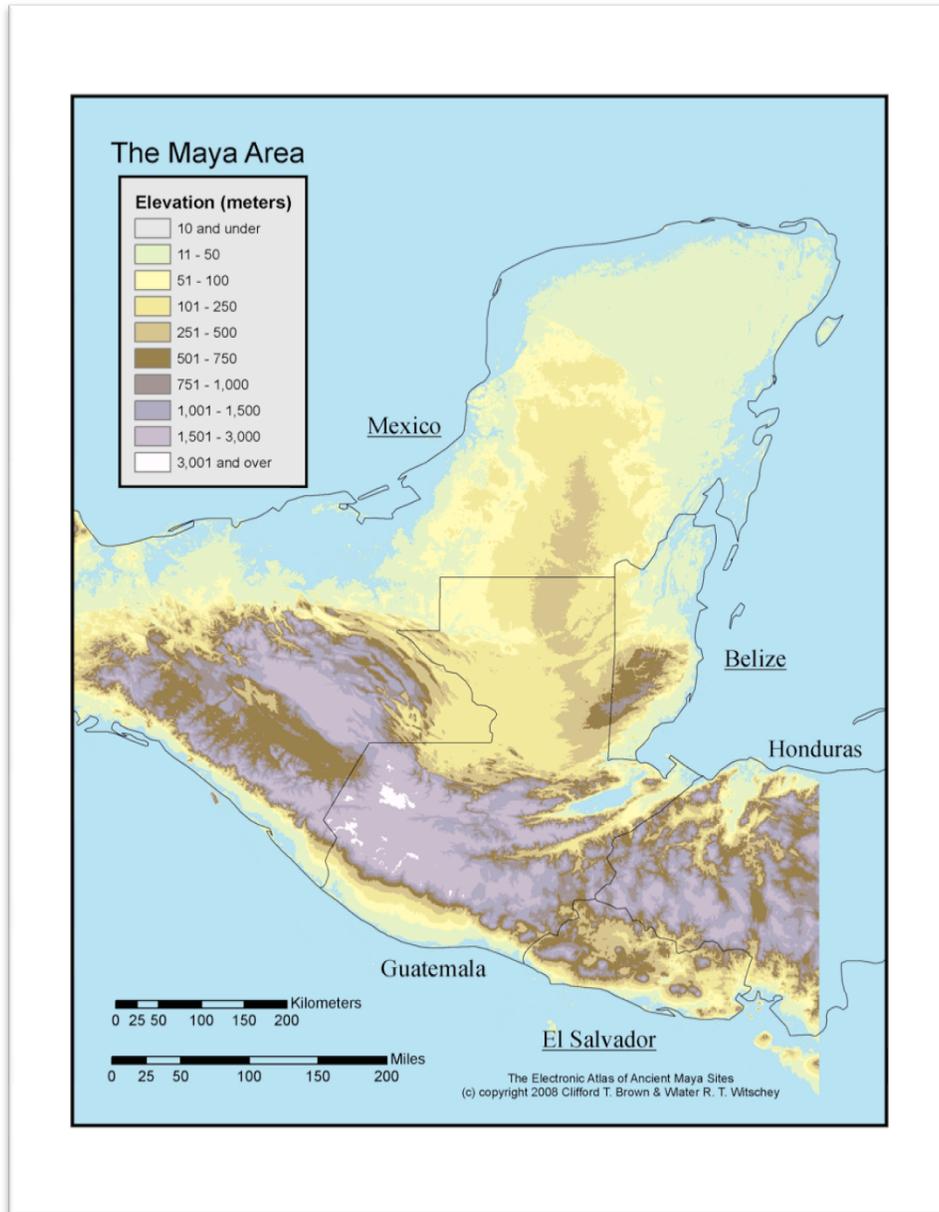
the *Capitanía General de Guatemala*, also known as the *Reino de Guatemala*, which included much of present-day Chiapas (Mexico), Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica (Wortman 1982), and the *Capitanía General de Yucatán*, which included the modern-day Mexican states of Yucatan, Quintana Roo, Campeche and Tabasco, as well as portions of the Peten and Belize (Fariss 1984). After the wars of independence, Chiapas and Yucatan remained with Mexico, and El Salvador and Honduras separated from Guatemala (Nicaragua and Costa Rica had separated some time earlier).

2.3 DEFINING THE MAYA LOWLANDS

2.3.1 The Geography of the Maya Lowlands

As with so many objects of study, the perspective that one takes with respect to the Maya Lowlands largely determines the shape and geographical extent of that region. As the name implies, the Maya Lowlands were defined initially from a geological and topographical perspective. The majority of the Lowland region is composed of a limestone shelf that is surrounded to the north, and most of the north-eastern and north-western limits by the waters of the Gulf of Mexico and the Caribbean Sea in the Atlantic Ocean. This provides a clearly delimited and uncontestable northern boundary for the region. The southern boundary, however, is less clear. In topographical terms, this has been placed at the 1000 meter contour, essentially at the northern base of the range of mountains that runs along the southern edge of Guatemala (Hammond and Ashmore 1981: 20; see also Sanders 1973, Coe 1966, McKillop 2004: 29-31).

This is useful to define portions of the southern limits of the region, but its utility is frustrated by the fact that the Maya Mountains of southern Belize are an elevated point that is not located conveniently on an edge of the low elevation region. It is also complicated by the fact that the low-lying alluvial Tabasco plains do not end with a rise in elevation, but rather the low elevation coast continues all the way around the Gulf of Mexico into Florida. See map 1, below for a more detailed picture of the elevation differences in the Maya region.



Map 1. Elevation in the Maya region (Brown and Witschey 2008).

2.3.2 Material Culture and the Maya Lowlands

Using the topography of the region to define the Maya Lowlands, if we want this area to be any sort of culturally coherent region, is not sufficient. In fact, the remains of

'Lowland' Classic Maya civilization do not conform to these topographical boundaries. Major sites, like Toniná, in Chiapas, are located well within what would topographically count as highlands. This brings us to another common perspective from which the referent of 'Maya Lowlands' is defined, that of the material archaeological remains, specifically the archaeological indicators of the Classic Maya civilization.

The extent of the Classic Maya civilization, and consequently the extent of the Lowland Maya region, defined archaeologically, is determined by a combination of traits including the use of the corbelled vault in architecture, particular types of polychrome ceramics, stone stelae (Thompson 1966: 22), iconographic conventions (Thompson 1950: 16, 27, fig. 1), the use of Maya hieroglyphic writing and, importantly for our purposes, apparently the use of the prestige language that was written with that script (Houston et al. 2000), as well. The fact that a single language was used in written texts over the entire Lowland region is significant. However, as will be discussed below, the relationship between the written form and the spoken languages of the region is not clear. In fact, as will be discussed in chapter 3, a comparison of language contact phenomena with the language of the hieroglyphs suggests that much, if not most of the contact-induced changes evident in modern Lowland languages did not affect the language of the hieroglyphs. This suggests that the written language was not the source of the massive areal diffusion, though its spoken, vernacular form, Choltil, clearly was a major player in the Lowland sphere of linguistic interaction.

2.3.3 Language and the Maya Lowlands

Another important perspective often taken to define the Lowland Maya region, particularly for our purposes, is a linguistic one. The Lowland Mayan languages are the languages generally associated with the region in which the remains of Classic Maya civilization are found. The term ‘Lowland Mayan Languages’ generally includes the Cholan and Yucatekan languages, and, occasionally, the Tseltalan languages, in spite of the fact that the Tseltalan languages are primarily spoken primarily in regions above the 1000 meter line that topographically defines the Highlands.

The Lowland languages, however, are not defined exclusively by whether or not the modern speakers of those languages live in areas that have ruins of Classic Maya sites. In fact, there is language-internal motivation to group the Lowland languages together. This argument was made initially by Justeson et al (1983, 1985), based primarily on lexical borrowings. They argued that linguistic evidence shows both a Lowland language area consisting of the Yucatekan and Cholan languages, and a ‘Greater Lowland’ linguistic area, which included Tseltalan, as well as Yucatekan and Cholan. According to Justeson et al, to label these as ‘language areas’ “means that these languages share diffused phonological, grammatical, and lexical features that distinguish them from other Mayan languages and that are not the direct legacy of common ancestry” (Justeson et al 1985: 9). In Chapter 3, I will present the linguistic evidence for these different areal groups. The precise distinction proposed by Justeson et al between the Lowland and Greater Lowland areas seems overly simplified, but the more general implication of their distinction, that not all languages in the region participated in the

linguistic sphere of interaction to the same degree, remains a highly significant contribution to understanding the dynamics of language in the Maya Lowlands.

2.4 LINGUISTIC GEOGRAPHY OF THE MAYA LOWLANDS, PAST AND PRESENT

Since the scope of this dissertation spans an extended period of time, it is important to keep in mind what we do and do not know about the linguistic geography of the Maya Lowlands at various points in time. The geographical relationships among different language communities obviously have implications for the patterns of language contact that can be expected. For prehistoric times, linguistic patterns of language contact are the main source of evidence for the geographic distribution of Mayan languages, and how they differentiated over time. It is perhaps unsurprising, given the paucity of data, that scholarly disagreement about the linguistic geography of the Maya Lowlands encompasses the whole trajectory of linguistic history in the region, from the earliest intrusions of Mayan speaking peoples from the Mayan homeland (attributed to places as diverse as Soloma, in the Cuchumatanes (Kaufman 1976), Chalchuapa in the South-eastern highlands (Josserand 1975), or even the gulf coast near the modern-day Huasteca (Manrique Castañeda 1989). Even with the rich ethnohistorical sources available from the Spanish Colonial period, a great deal about the linguistic geography of the Lowlands on the eve of the Spanish Conquest is also open to debate. In what follows I will try to summarize the array of distinct views concerning the linguistic geography in the Lowlands and how it changed over time.

2.4.1 The Preclassic Period (2200 BC-200 AD)

Many scholars, following Kaufman (1976, 1980), argue that the first Mayan-speaking group to enter the Maya Lowlands would have been the Huastec, who passed through that region on their way north and west to the Huasteca. However, this is by no means universally accepted (cf. Campbell 1988: 209, Robertson 1992: 213-217, Robertson and Houston In Press). Regardless, even if this was in fact the case, their presence would have been transitory enough to have little permanent impact on the linguistic layout of the region. The next Mayan-speaking group to enter the Lowlands, according to general consensus, was the ancestors of the Yucatekans. Unlike the Huastecans, they would become a permanent and important group throughout the recorded history and reconstructable prehistory of the Lowland region. In spite of general agreement about the relative timing of the migration of the Yucatekans to this region, there is a great deal of disagreement about the geographical extent of their occupation, and how that geographic range changed over time.

Kaufman (1976: 107) argues that the Yucatekans left the Cuchumatanes prior to 1000 BC and traveled downriver, along the Usumacinta, and then continued north and east into the Yucatan Peninsula, going as far north, at least, as Dzibilchaltun. From this point on, Kaufman appears to assume the same basic geographical extent for Yucatekan, roughly the region of the modern-day Mexican states of Yucatan, Campeche, and Quintana Roo, together known as the Northern Lowlands.

Josserand, (1975) however, sees the Yucatekan colonization of the Lowlands as larger in area and later in time. She argues not only that the earlier Xe and Mamom style

ceramics (circa 700-400 BC) are material correlates to Yukatekan speakers, but also relates Yukatekans to the much later and more pervasive Late Preclassic Chicanel (Josserand 1975: 505), which was in use from about 300 BC to about AD 100. This is significant because archaeologically, Chicanel is spread throughout the Lowlands, and Chicanel ceramics are correlated with the use of the large monumental architecture and burial practices that form the basis for Classic Maya culture. If Yukatekans are responsible for this archaeological culture, they must have been speaking Yukatekan throughout the Lowlands by about 300 BC, and continuing almost up to the Classic period.

It is perhaps significant that the earliest Maya hieroglyphic texts, unfortunately unreadable at the current state of the art, date to this same time period. The fact that the later Classic period inscriptions, which are readable, are written in a Cholan language might be seen as evidence against the placement of Yukatekans in the Late Preclassic.

Kaufman correlates both Chicanel ceramics, and the earlier Mamom style, with a contemporaneous incursion of Cholan-Tseltalan speakers, moving down into the Lowlands from the Mayan homeland along the Usumacinta River. By 100 BC, Kaufman maintains, the Cholan-Tseltalan “occupied most of the Southern Maya Lowlands, including the Copan region” (Kaufman 1976: 108).

More recently, the south-eastern extent of the Cholan-Tseltalan speaking region in the Late Preclassic has been questioned in light of an abrupt shift in archaeological remains in the Copan valley at around AD 100 (Sharer and Traxler 2006). Until that time, the architectural style and layout of structures in sites of the region are identical to those

found further east in Honduras and generally associated with Lencan peoples. Around AD 100, there seems to have been an intrusion of Maya people (defined by architectural and other material cultural similarities with sites in both highland Guatemala (Kaminaljuyú) and in the Maya Lowlands). According to Sharer and Traxler (2006), then, the Maya region would not have extended as far east as the Copan valley until the first century AD, at least 200 years after Kaufman's estimate.

2.4.2 The Classic Period (AD 200-900)

Generally, however, there is agreement that by the beginning of the Classic period, around AD 200, the Lowland Mayan region, with essentially its present boundaries, consisted of Yukatekan speakers to the north, and Cholan speakers to the south, with perhaps a small Tseltalan presence in the west. The exact extent of each of these linguistic groups, however, has been the subject of some debate. The Classic period provides the first linguistic data in the form of readable hieroglyphic texts (as mentioned earlier, texts in this region from as early as 300 BC have been discovered, but are not yet deciphered). However, the glyphic data do not provide an unambiguous statement of the linguistic geography of this region, since they show at best what language people were writing in, and not what language was necessarily spoken in a particular area.

Nevertheless, glyphic data has been mustered to support different hypotheses about the geographical extent of spoken vernaculars in the Lowlands at this time. The debates concerning linguistic geography in the Classic period include the north/south border between Yukatekan and Cholan, and the east/west border between the dialects/languages

of the Cholan family. In addition, at least some claims have been made based on glyphic evidence concerning the geographical extent of Tseltalan in the western part of the Lowlands.

Regarding the relative geographical extent of Yukatekan vs. Cholan, opinions range markedly. As mentioned previously, Josserand (1975) suggested that up until approximately AD 100, the entire Lowland region was inhabited by Yukatekan speakers. Under her model, around the beginning of the Classic period, a massive intrusion of Cholan speakers came into the Lowlands and gradually and peacefully replaced Yukatekans in the Southern Lowlands. This would be something of a middle-ground hypothesis, putting the extent of the Cholan language at the beginning of the Classic period approximately where it was at the Spanish Conquest. Fox and Justeson (1982) in a widely cited but unpublished manuscript argue that during the Classic period, Yukatekan remained dominant throughout most of the Mayan Lowlands, including sites as far south as “Tikal, Uaxactun, Piedras Negras, Bonampak, Seibal, Machaquila, Naranjo and Caracol.” (Lacadena and Wichmann 2002: 289).

Unfortunately, I have not been able to acquire this unpublished manuscript to evaluate the data they present. However, glyphic data has also been used much more recently to make an almost opposite claim: that during the Classic period, the Yukatekan speakers inhabited only a small corner on the northern extreme of the Yucatan Peninsula, and that the rest was Cholan (Lacadena and Wichmann 2002). Because even the inscriptions from these northern sites are written in the same Cholan language used throughout the Lowlands, they provide only indirect evidence of a Yukatekan presence in

the form of distinctive naming patterns (titles preceding personal names rather than the reverse) and ‘misspellings’ showing Yucatekan ‘interference’ in phonology or morphology.

While the glyphic inscriptions show a Cholan language in use throughout the entire Lowland region from at least AD 300, apparently until the time of the Spanish Conquest, there is debate both about what Cholan language is represented in texts, and, as we saw in the discussion about Yucatekan, what language was actually spoken in these regions. Since there is Colonial documentation showing that Cholan languages were spoken at least across the breadth of the Southern Lowlands at the time of the Spanish Conquest, it seems reasonable to expect that these languages were spoken in the same region during the Classic period as well. The main area of debate, then, concerning the Cholan languages is when they began to differentiate, and where the boundaries would have been between the distinct dialects/languages. One view (Mora-Marín 2005) is that the language of the inscriptions was an early stage of proto-Cholan. This is motivated, at least in part, by glottochronological calculations which place the breakup of proto-Cholan at AD 600 (Kaufman and Norman 1984). Another view (Houston et al 2000, Law et al 2009) is that the language of the inscriptions is Choltian (aka Eastern Cholan), a descendent of proto-Cholan. Lacadena and Wichmann (2002) provide perhaps the most robust statement of linguistic boundaries during the Classic period, again using glyphic data. Following Houston et al (2000), they see the glyphic language as being Eastern Cholan, and a prestige language. They also suggest that scribes who spoke Western Cholan natively would have left, if unconsciously, recognizable traces of their native

language when writing Eastern Cholan. They highlight several features which, they argue, represent a type of linguistic interference from the L1, and which divide the Lowland region roughly in half, with the Usumacinta sites in the western region.

Hruby and Child (2004), also assuming a Choltian affiliation for the hieroglyphic script, make more specific hypotheses concerning the location and influence of the Western Cholan language Chontal. They trace the spread of a positional intransitive suffix *-wan* from its earliest attestations, around AD 645 in Tortuguero and Palenque, to the west. They make the case that this suffix is a Chontal form, and its spread is evidence of Chontal speakers in the Usumacinta drainage area influencing neighbors as early as the beginning of the Late Classic period.

Wichmann (2006b), citing the same data used in his 2002 paper with Lacadena, but assuming Mora-Marin's proto-Cholan affiliation for the script, notes that these differences only become salient in the Late Classic (~AD 600-900) and uses this to argue that the differences are reflecting the real-time gradual breakup of proto-Cholan into Eastern Cholan (aka Choltian) and Western Cholan. This in turn accords with Kaufman's (1976) glottochronological estimates for the breakup of proto-Cholan.

A final area of minor disagreement is the extent of Tseltalan speakers in the Lowland Maya region during the Classic period. Tseltal and Tzotzil speakers today live in areas that were part of the Classic Maya political sphere, such as Toniná. Lacadena and Wichmann (2006b) and others (Ayala 1995: 236-254) have noted distinctive Tseltalan influence in the glyphic record for Toniná. However, similarly suggestive features were identified by Lacadena and Wichmann (2002) for areas generally considered to be Ch'ol:

Tila, Joloniél, and Pomoná. While rather tenuous and minor, the contention is that the boundary between Tzeltalan and Cholan during the Classic period was further to the north and east than it was at the time of the Conquest.

2.4.3 The Post-Classic Period (AD 900-1521)

At the close of the Classic Period, and the transition into the Post-Classic, the number of glyphic texts, as well as the number of people in the Lowlands, drops off dramatically (Culbert and Rice 1990). We also move into an era for which we have more direct evidence of linguistic geography in the form of oral histories and first-hand accounts recorded at the time of the Spanish conquest. Historical records from this time give accounts of several major migrations of peoples that occurred in the centuries just prior to the arrival of the Spaniards. However, there are several difficulties with the sources of data for the Post-Classic, which have generated a great deal of conflicting interpretation.

First of all, these sources do not often discuss what language the migrating groups spoke. In several cases it is clear that there is no one-to-one or even many-to-one correlation between particular groups that are mentioned and the language that they spoke. In addition, it is not always clear if they refer to the migration of a few dozen elites, or of a massive group of people. Finally, the Spaniards, and perhaps even the Maya themselves, were not particularly careful or consistent in distinguishing between languages. Language does not appear to have been a particularly important marker of political, ethnic or cultural affiliation (see chapter 4 for a discussion of this). Thus just

because two groups are *reported* to have spoken ‘the same language’, we can not always be confident that the languages were, in fact, the same. In addition, widespread multilingualism appears to have made it difficult for Spaniards to determine who spoke what language. Thus the Spaniards might claim that two groups spoke the same language, when, from other sources, we know that the groups in question clearly spoke, for example, Yucatekan and Cholan languages respectively, or spoke obviously very different Cholan or Yucatekan languages.

2.4.3.1 The Mopan

The generally uncontroversial part of Yucatekan linguistic history in the Post-Classic is that there were at least three major southward migrations: the Mopan, the Itzá (Itzaj), and the Lacandon (Lakantun), though whether or not these migrations happened in the Post-Classic has been debated. Perhaps the least controversial of these is the Mopan, though this is likely because they are the group about which we know the least. Based on the fact that Mopan is the most divergent of the Yucatekan languages, Mopan speakers are generally believed to have migrated south to their present position first. The mention of the location mo’pan (mo-o-pa-na) in Late Classic hieroglyphic texts in Naj Tunich cave, fairly near to where the remaining Mopan live today could be taken as evidence of cultural (and linguistic) continuity from Classic to Colonial times, suggesting that they migrated during the Classic period, though MacLeod and Stone (1995: 169) are careful to note that the Yucatekan-speaking people could have simply adopted the name whenever they moved into the region. Following Justeson and Fox’s model for the

distribution of Yukatekan, the region in question would already have been Yukatekan, so that no migration would need to be postulated.

There is also some disagreement concerning the geographical extent of speakers of Mopan. The group called the Mopan at the time of the Spanish conquest was found in a fairly restricted geographic region north of the Golfo Dulce and south and east of Lake Petén Itzá. Jones (1998: 19-22), however, argues that both the group designated as the Mopan, and another group with a reputation for violence and idolatry called the Chinamitas, spoke Mopan. If this is true, the extent of the Mopan language in the Post-Classic more than doubles.

2.4.3.2 The Itzaj

The Itzaj are perhaps the most studied of the Yukatekan groups during the Post-Classic and the Spanish Conquest, in large part because they hold the lamentable distinction of being the last autonomous New World kingdom to be conquered by the Europeans, an event which took place in 1697. The dominant view of the history of the Itzaj has them migrating to the Petén less than a century before the arrival of the Spaniards. According to passages in the Books of Chilam Balam, as well as oral histories from Itzaj elite recorded by Fray Bartolomé de Fuensalida (Rice and Rice 2005: 142), the Itzaj ruled at Chichén Itzá, established at the very end of the Classic Period, and later as part of the famous ‘League of Mayapan’, until betrayal forced them to flee into the Petén in the mid fifteenth century (AD 1441, according to Roys 1962: 78-81). If this is true, one would expect either that the people around Chichén Itzá at the time of the Spanish

Conquest would have been speaking Itzaj, or that the Itzaj language was not a separate language by the time of the Spanish Conquest (since one hundred years hardly seems sufficient to produce such divergence), implying a particularly rapid rate of change from that point until the language was thoroughly documented in the 1990's by Andrew Hofling (Hofling 1991, 1997, 2000).

While not questioning the Itzaj connection to Chichén Itzá, Boot (1995) has proposed a different account of the Itzaj, namely that their homeland, as early as the Late Classic, was in the Lake Petén Itzá region, and that they migrated north in the Terminal Classic to establish Chichén Itzá, all the while maintaining ties to the Petén. The evidence for this is primarily glyphic, and includes the title of Itzaj rulers, *Kan Ek'*, found on Seibal Stelae 10 and 11, as well as on Yaxchilán Stela 10 and the phrase *K'uhul Itzá Ajaw* 'Holy Itzá Lord' on a stela from Motul de San Jose. Rice and Rice (2005: 143) note that this account is useful for explaining the patterns of particular architectural forms and ceramics in the Petexbatun-Pasión region during the Terminal Classic.

2.4.3.3 The Kejache

There are two more groups mentioned frequently in the Petén during the Post-Classic and the Conquest era, the Lacandon and the Kejache. The Kejache are generally held to have spoken Yucatekan proper, though no solid evidence exists to specify that over other Yucatekan languages. The name of the group is clearly Yucatekan, *keej-ach-e'* 'many deer', and has been connected with the Nahuatl referent for the region of the Petén where they lived, Mazatlan 'place of the deer'. Scholes and Roys (1948: 344-345), noting

similarities in descriptions of clothing, argued that the Kejache in fact spoke (Yukatekan) Lacandon Maya, and that the group known from the 19th century on as the Lacandon were a remnant of the Kejache that had migrated south during or after the Spanish Conquest. Jones (1998: 22) also argues that the Kejache did not speak Yukatek. He notes a high number of shared names between the Kejache and the Itzaj, and uses this evidence to suggest that “The Itzas and Kejaches may have had a common origin, having split at some point prior to the sixteenth century.”

2.4.3.4 The Lacandon

The Lacandon are a good example of the confusion that a name can produce. It is now clear that the group currently known as the Lacandon, and living in the region of the *Selva Lacandona* on the border between Guatemala and Chiapas, Mexico, are in fact fairly recent arrivals. They first show up in the historical record in the 19th century, when they were ‘discovered’ by the many loggers and chicleros who began to explore the ‘uninhabited’ jungles of the Petén (Palka 2005: 187). These were almost certainly residual Maya who had escaped into the jungles from the oppression of the Spanish Conquerors and would not have been a linguistic presence in this region prior to the Spanish Conquest.

A people named the Lacandon, however, are mentioned frequently in the Colonial sources since they vigorously resisted Spanish domination. Eventually, however, they would be relocated, ‘reduced’ and, finally, entirely obliterated (De Vos 1988). While it has been argued that at least some of the Colonial people called Lacandon spoke

Yukatekan (Boremanse 1974), A more widely supported position is that this group spoke a language referred to as Echolchi (Escobar 1841). We are fortunate to have in the ethnohistorical record several words and phrases in the language of the Lacandon, which make it clear that at the time of the Spanish Conquest, the group called the Lacandon spoke a Cholan language (Gates 1920: 59, Hellmuth 1970: 423), and these were not part of the same group of people discovered in the Lacandon jungle in the 19th century. De Vos (1988: 159-163), and Robertson et al (2010) present additional evidence that the language of this earlier group of ‘lacandonés’ was specifically a dialect of the Eastern Cholan language Cholti.

2.4.3.5 Cholan

The Lacandon provide a useful transition to a discussion of the Cholan branch during the Post-Classic. They clearly spoke a Cholan language, as did several other groups including the Chontal of Acalán and Tabasco, the Palencano Chol, the Manché, the Apay, and the Toquegua. The question for which several different answers have been proposed is, which Cholan language did these groups speak?

In the first part of the 20th century, a common view (Thompson 1938: 590, Scholes and Roys 1948: 17) was that at the time of the Spanish Conquest, the Cholan languages were still minor dialects of a single language, and had not yet differentiated sufficiently to be considered separate languages. This contrasts sharply with most current views which place the breakup of proto-Cholan at around AD 600 (Kaufman 1976) or even earlier (Houston et al. 2000). The unitary hypothesis of Cholan at the time of the

conquest was inspired in large part by statements such as this, made in 1533: “From the Ulua River to the River of Copilco-Zacualco it is all one language, and they all trade with one another and consider themselves to be the same.” (cited in Scholes and Roys 1948: 17). While this idea is remarkably persistent, direct linguistic data that are available from the 16th and 17th Century for Chontal (Scholes and Roys 1948, Smailus 1975), and Cholti (Morán 1695) manifest two languages that are significantly different, making the unitary Cholan hypothesis rather difficult to maintain.

Another hypothesis, inspired by the same indiscriminate use of Chol to describe a variety of languages, is that the groups referred to as speaking ‘Chol’ spoke a language ancestral to modern Chol, which is spoken today primarily in the Chiapas municipios of Tila, Tumbalá, Palenque, Salto de Agua and Sabanilla. The political groups at the time of conquest identified in colonial sources with ‘Chol’ include the Lacandon, the Manché, the Acalá (not to be confused with the Acalan, who spoke Chontal), the Apay, and the Toquegua. Robertson et al (2010) present arguments and evidence that Lacandon, Manché, Acalá, Apay, and Toquegua all likely spoke dialects of Cholti. The last two (Apay and Toquegua) appear to correlate with Modern Chorti (Feldman 1998), though there is some debate whether Cholti and Chorti would have been separate languages at the time of the Spanish Conquest (see Robertson 1998, Wichmann 2002, Robertson 2004).

2.4.3.6 *The Putuun*

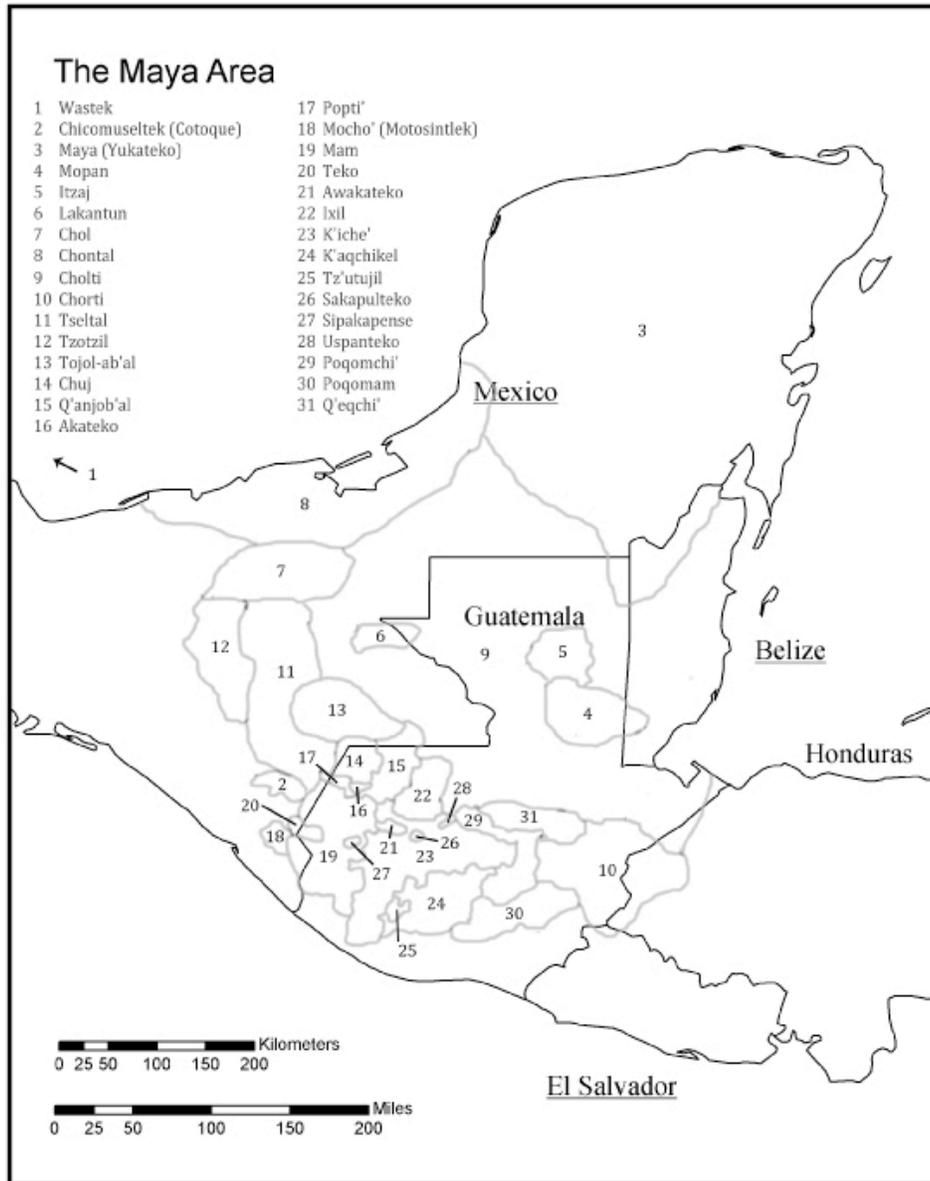
As the discussion of the Lacandon has shown, whether or not a particular group spoke a Cholan language is often open to debate. Thompson (1970) presented another controversial but influential hypothesis concerning the distribution of the Cholan language Chontal in his important study of Maya history and religion. He suggested that a powerful merchant-centered society, known as the Putuun, were in fact Chontal Maya speakers. He argued further that the Putuun were spread during the Post-Classic from the Coast of Veracruz, where Chontal is spoken today, around the coast of the Yucatan peninsula, including the significant trading and religious center on the island of Cozumel, and that there was even a Chontal post in Nito, Guatemala, not far from the Uluu River, on the eastern side of the Yucatan Peninsula (Thompson 1970: 7). More importantly, he argued that the Itzaj, who took control of Chichén Itzá at the end of the Classic period, and who have already been discussed as speakers of a Yucatekan language, were, in fact, Chontal speakers (Thompson 1945: 12, 1970: 10), who arrived at Chichén Itzá via Cozumel. He makes the further claim that the Cholan-speaking Lacandon (not to be confused with the post-Conquest intrusive Yucatekan speakers of the same name) were, in fact, Chontal-speaking Putuun (Thompson 1970: 27-32). Needless to say, this scenario would greatly change the linguistic geography from the end of the Classic period on.⁷ Though Thompson doesn't say as much, one would have to assume, then, that the people known as the Itzaj in Conquest era sources are either not truly related to the Itzaj of Chichén Itzá, and that their oral histories were fabrications, or that the 'Chontal-putuun'

⁷ See Adams (1973: 156-158) for a response to this theory on archaeological grounds. See also Justeson et al (1985: 68-69).

Itzaj at some point during the Post-Classic shifted from their native Chontal to Yucatekan.

2.4.3.7 Tojol-ab'al, Coxoh and Chaneabal

Two more related questions relevant to this work center around the location of speakers of Tojol-ab'al around the time of the Spanish conquest. Key to this question is the related question of the identity of a group referred to from early on in the conquest of Chiapas, the Coxoh. The main proposals are that the Coxoh language, which was apparently spoken in Chiapas in the vicinity of Trinitaria and Comitán, west of the Tseltal and Tzotzil regions, was either an early Colonial name for the Tojol-ab'al (G. Lenkersdorf 1986), who are also referred to in later Colonial sources as Chaneabal, or else a dialectal variant of Tseltal (Campbell and Gardner 1988). This question is taken up in detail in chapter 6.



Map 2. Map of Mayan Region with estimated language boundaries around the time of the Spanish Conquest. Based in part on maps by England (1994), Richards (2003), Robertson et al (2010) and Brown and Witschey (2008).

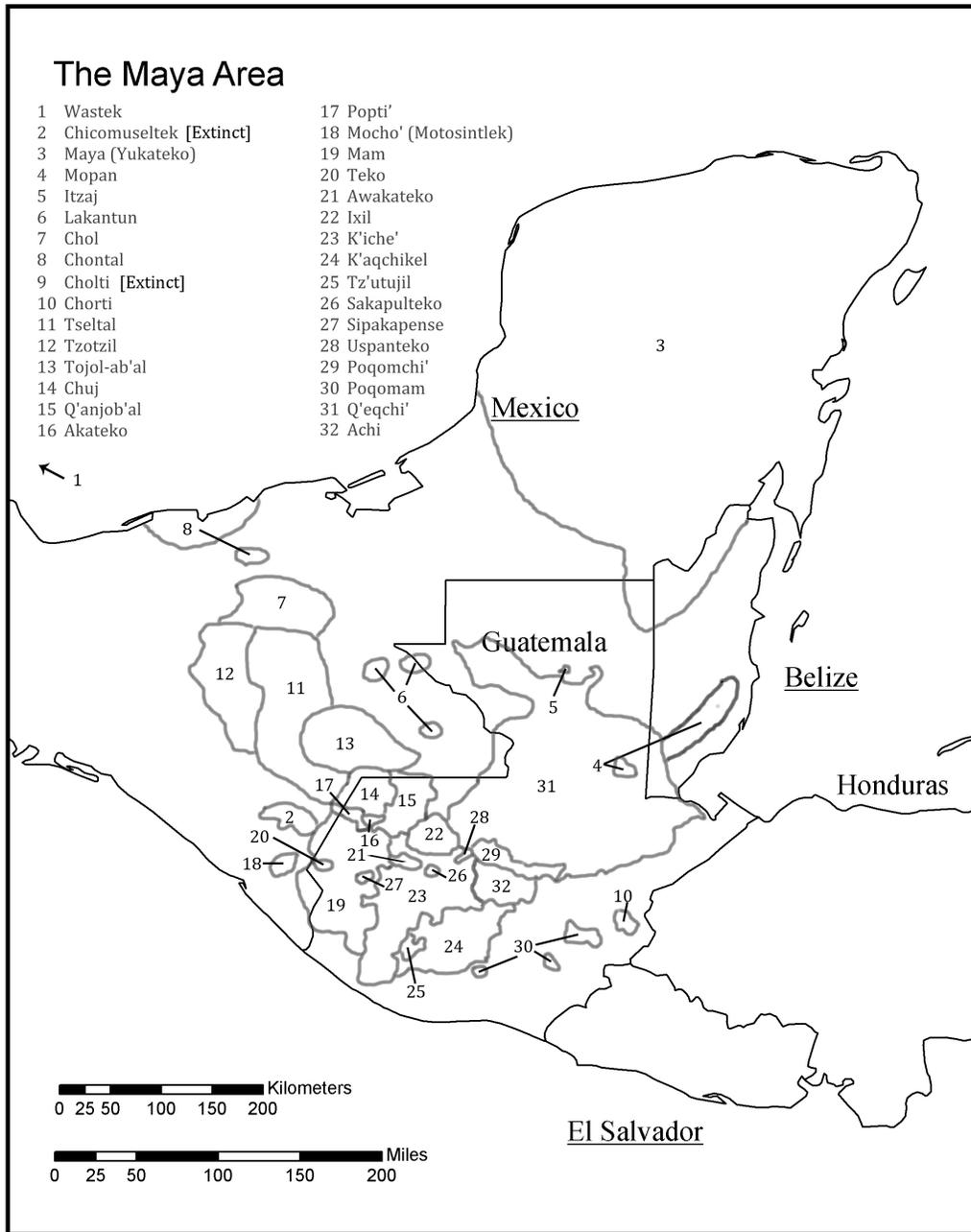
2.4.4 Differences in Current Linguistic Geography

This brief survey of research on the linguistic geography of the Maya Lowlands is only large enough to give a glimpse of the chaotic tangle of complex theories about the dynamics of Mayan languages over time. It should, however, illustrate clearly the ambiguity of many of the sources of data available for studying pre-Conquest linguistic geography. While earlier scholarship focused more on the (often misleading) first-hand accounts of the Spanish chroniclers, more recent work has drawn lines of evidence from examination of linguistic and archaeological data. This derives from the changing access to data over time, since only recently has adequate documentation of modern Mayan languages, decipherment of Mayan hieroglyphs, and wider dissemination of colonial manuscripts provided researchers with these new venues of data, allowing the formulation of more detailed hypotheses, and often leading scholars to question what had previously seemed to be uncontroversial assumptions about linguistic geography in the Maya Lowlands.

The seemingly constant movement of people and languages prior to the Spanish conquest is certainly no more dynamic than the situation during the Colonial period and afterwards. The question that this raises in the study of long-term language contact is how different the current state of affairs is from the contact situation in the past. Clearly the intrusion of Spanish has altered the linguistic geography of the region, since many Mayan-speaking communities are now geographically adjacent to monolingual Spanish-

speaking communities and knowledge of Spanish is common in Mayan-speaking communities, particularly among men and in more urban settings.

Unsurprisingly, one of the most glaring differences between the present and ancient linguistic geographies is that several Mayan languages have receded dramatically in their geographical extent. Itzaj, for example is now spoken by a few dozen older adults in the community of San José, on the shore of Lake Petén Itzá in the Petén (Hofling 2000: xi). Mopan, while not as endangered, has also receded in Guatemala, while the population in Belize appears to have expanded. Chontal is no longer spoken along the Western coast of Campeche as it likely was when the Paxbolon-Maldonado papers were written in the 16th century, and it is rapidly giving way to Spanish in the state of Tabasco. Chorti, now spoken only in Jocotán and Camotán in Chiquimula, Guatemala, is also geographically much more restricted than it was even a century ago, when speakers ranged as far as the Copan Valley in Honduras, and even portions of present-day El Salvador (Metz 2006). Perhaps the most striking difference is the complete extermination of Cholti and, in more recent years, the rapid expansion of Q'eqchi' speaking communities into many of the sparsely populated regions of the Maya Lowlands that once were home to speakers of Cholti.



Map 3. Map of Modern Maya Languages. Based on maps by Brown and Witschey (2008), Richards (2003) and England (1994).

While this large scale difference between the current and past linguistic geography of the Lowlands reflects a tragic and problematic history, it also serves to underscore the dangers of extrapolating current conditions into the past. At the same time, we are faced with clear continuities. In the following chapter, I will discuss what comparative linguistic data, coupled with Colonial and pre-Columbian texts can tell us about the patterns of linguistic interaction between these languages.

Chapter 3: Lowland Language Contact Phenomena and Linguistic Areas

3.1 INTRODUCTION

The patterns of language contact in the Maya Lowlands, or, more accurately, the linguistic imprint left on the languages in the region because of language contact, provides fertile ground in which to cultivate clearer conceptions of the logical limits and social motives of language contact. Before attempting a more in-depth description and analysis of specific instances of contact-induced language change in the Maya Lowlands, it is important to define and justify the notion of the “Lowland Mayan linguistic area”. The purpose of this chapter is to take a closer look at what is meant by the Lowland Mayan linguistic area, that is, the areally shared linguistic features that make this region stand out in terms of language contact, and to point out some of the limitations and problems with the concept of a linguistic area more generally.

To adequately discuss what is meant when we talk of ‘Lowland Mayan Languages’, or the ‘Maya Lowlands’, we must consider non-linguistic criteria (material culture, topography) that help define the area, as well as linguistic evidence (i.e.

isoglosses) of the shape and limits of this area. As we will see, under all definitional criteria, the borders of this region defy precise delimitation, a problem akin to that faced by anthropologists in the 1980s and beyond, attempting to deal with the imagined and real boundaries of ‘cultures’ and ‘communities’ (Clifford 1988, Gupta and Ferguson 1992, Anderson 1983, etc.). Like the famous ‘culture’ concept, the very notion of ‘linguistic area’ has been critiqued as at best a convenient fiction, and at worst an analytical smoke screen (Campbell 2006, Matras et al. 2006).

This chapter is divided into two main sections, The first section presents the major linguistic isoglosses that define the Lowland Mayan linguistic area and points out their relevance to current discussions in the field of language contact. The second section discusses the theoretical concept of a ‘language area’ and how the Lowland Maya area relates to it.

3.2 LEXICAL BORROWING

Even in the face of the various uncertainties surrounding the linguistic geography of the Maya Lowlands over the past two thousand years, it is clear that two subgroups of the Mayan family, Cholan and Yukatekan, were central players in this field of interaction for much of that time. Debate has revolved more around the exact nature of the relationships among these languages during that time, not whether or not those relationships existed.

Patterns of lexical borrowing involving Cholan and Yukatekan, while not the focus of this thesis, nicely illustrate the fact that speakers of these languages participated

in a healthy amount of linguistic exchange. In addition, specific loanwords themselves have been used, following venerable philological tradition (Renfrew 1987, Anthony 2007), to flesh out something of the social and historical context of language contact. Mayan language contact research to date has particularly emphasized lexical borrowings. This is due not only to disagreements about the possibility of other types of borrowings but also because of the availability and relative ease of comparison of wordlists, as opposed to grammatical systems.

In the following section, I will summarize the available data on lexical borrowings in the Lowlands and some of the conclusions that have been drawn from these data about the linguistic and social history of the region. The main sources on this include the landmark monograph by Justeson, Norman, Campbell and Kaufman (1985), *The Foreign Impact on Lowland Mayan Language and Script*, as well as two shorter articles by Wichmann and Brown (2003) and Wichmann and Hull (2009). Another important resource for information about lexical diffusion in the Lowlands is Kaufman's (2003) etymological dictionary, since many of the entries in this dictionary have been labeled by Kaufman as Lowland Mayan or Greater Lowland Mayan lexical items. Among these three sources, there are 90 exclusively Lowland (that is, unique to Cholan and Yukatekan languages) terms that have been identified, as well as another hundred terms that are also shared by Tseltalan or Q'anjob'alan languages (whether because of inheritance or borrowing) along with numerous borrowings from either Cholan or Yukatekan in other surrounding languages, particularly Q'eqchi'. The full compiled list

of Lowland and Greater Lowland Mayan lexical items can be seen in the appendix to this dissertation.

Justeson et al. (1985: 9, 12), note that for both the ‘Lowland Mayan’ (Cholan and Yucatekan) and the Greater Lowland (Cholan, Tseltalan and Yucatekan) language areas, one of the defining criteria is the fact that they “share exclusively a large body of vocabulary.” In the context of a group of related languages, the sharing of a large body of vocabulary may seem trivial, but the important point, particularly in the case of Cholan and Yucatekan, is that these groups do not form a subgroup but nevertheless share a number of lexical items that other languages, even ones more closely related than Cholan and Yucatekan, do not have.

In addition, some lexemes that are more widely attested in Mayan languages can be confidently established as loanwords based on the presence of distinguishing phonological changes that only applied to one or the other of the subgroups of Mayan. Justeson et al (1985) make use of these loanwords to craft proposed absolute dates for different phases of linguistic interaction, arriving at conclusions that “are effectively identical to [Kaufman’s] glottochronological estimates, and are based on totally independent evidence” (Justeson et al 1985: 13—i.e. “glottochronological dating does not enter any stage of the argumentation by which we [they] establish the absolute dates”).

Wichmann and Brown (2003), and Wichmann and Hull (2009) follow up on Justeson et al’s initial work on lexical borrowing in the Lowland Mayan language area with in-depth studies on specific (non-Lowland) languages. Of particular interest here are their conclusions about Ixil and Q’eqchi’. Wichmann and Brown (2003: 64) identify two

main sources of loanwords in Ixil: Q'anjob'alan, accounting for approximately 60% of the loanwords, and Cholan, accounting for approximately 40%. They note that the semantic domains of loanwords pattern rather differently, with loanwords from Q'anjob'al involving more 'intimate' terms, including body parts, kinship terms, and household items, while loanwords in Ixil from Cholan involve what they call "high culture" terms.

Both Wichmann and Brown (2003) and Wichmann and Hull (2009) also present rather interesting data regarding loanwords in Q'eqchi', finding an even more significant lexical influence from Cholan than that found in Ixil. Wichmann and Brown (2003: 67) argue that approximately 80% of 134 loanwords identified in Q'eqchi' can be attributed to either Cholan (70%) or Yukatekan (10%). Wichmann and Hull (2009) bolster this claim with an additional 15 probable Lowland loans. Interestingly, Wichmann and Brown (2003: 69) were able to identify 59 of the Cholan loanwords in Q'eqchi' as coming specifically from the Eastern Cholan language Cholti, a fact made even more remarkable by the scarce data available for this extinct language in the first place (Morán 1695, Robertson et al, 2010)

Wichmann and Hull (2009) go on to make several important observations about the quantities and types of words being borrowed into Q'eqchi'. They find, in the first place, that the overall percentage of loanwords, while high, is not exceptionally so: 15.1% of the corpus used was identified as loanwords, 10.6% of these from Spanish, and 4.1% from Cholan or Yukatekan.

For Q'eqchi' as a whole, they observe that the grammatical class of loanwords from Spanish, versus loanwords from Mayan languages, is significantly different. They find that “in absolute figures, Lowland Mayan languages have supplied 21...verbs and 8 adjectives or participles, where Spanish has not supplied a single verb and just one adjective.” (Wichmann and Hull 2009: 10). Fully half of the lexemes borrowed from Lowland languages are verbs, in spite of the fact that verbs are crosslinguistically much less likely to be borrowed (Matras 2009) and, when borrowed from other Mayan languages, the strategy used (following Wichmann and Wohlgemuth 2005: 12) is direct insertion, in which the borrowed root is used in the recipient language as a verb with no overt derivational accommodation. This is an important point which I will discuss in further detail in the Chapter 4, concerning the linguistic and social motivations for the unusual patterns of language contact phenomena found in the Maya region.

3.3 NON-LEXICAL FEATURES OF LOWLAND MAYAN LANGUAGES

While the patterns of lexical borrowing in the Mayan Lowlands have received the greatest amount of attention in the literature, perhaps the most striking feature of the Lowland Maya contact zone is the high degree of non-lexical language contact phenomena. This includes phonological borrowings, the diffusion of specific sound changes, direct borrowing of various bound morphemes, and a great deal of convergence or borrowing of syntactic patterns and morphosyntactic structures. Some of these features have been noted in other works, but these contact-induced changes have generated surprisingly little discussion among Mayanists or language contact scholars. In the

following section, I will summarize the most salient shared features, as well as the evidence that they are, in fact, similarities due to contact rather than common inheritance. Because of the methodological problems inherent in distinguishing these two sources of similarity in genetically related languages, issues of theory and methodology will be returned to throughout the section, as particular candidates for language contact phenomena are considered.

3.3.1 Phonological

Phonology is an excellent starting point for considering the impact of language contact on non-lexical aspects of the languages in question. Phonological language contact phenomena are treated with an almost schizophrenic polarity in studies of language contact. They are the feature par excellence for talking about linguistic areas, and it has been observed that languages in contact often converge in their phonemic inventories, and that phonemic features seem to easily spread, or ‘diffuse’, through language communities, just as ink diffuses through water, ultimately affecting a geographically expansive group of genetically unrelated languages. For example, phonemic tone is has been frequently commented on for its wide areal distribution in Asia (Matisoff 2001), and to a lesser degree, Africa (Heine and Nurse 2000) and even Mesoamerica (Campbell et al 1986: 544). Clicks are almost exclusively found in a geographically (but not genetically) defined groups of languages in South Africa, and it has been noted that even retroflex consonants in India (Emeneau 1956), and uvulars in the Pacific northwest (Boas 1911), while common in other parts of the world, are

especially frequent in particular geographic regions, suggesting areal diffusion. On the other hand, phonemic contrasts are by definition systematic. Their identity depends on their relationship to other members of that system. This categorizes them as ‘structural’, or ‘grammatical’, and therefore in a different realm from the solitary and readily separable desiderata of the lexicon. In his hierarchy of borrowability, for example, Whitney (1881) placed sounds as the least likely linguistic feature to be borrowed.

One way out of this apparent schizophrenia is to consider that sound change can proliferate in contact situations in different ways, and that it is the processes that are relatively more or less likely to occur, not the outcomes (though the outcomes may, in many cases, be observably different as well).⁸ We can highlight two such contrasting processes involving contact here: interference and lexically mediated sound change. One often cited source of contact-induced sound change is L1 interference in situations of language shift (Thomason and Kaufman 1988, Weinreich 1953). In such a situation, second language learners’ imperfect approximation of a sound in the L2 is replicated by other speakers of the language, until that sound is adopted throughout the speech community. This has been documented in, for example, several world dialects of English, such as Indian English, or Chinese English (Trudgill 2006).

Another process through which changes to the phonemic inventory are said to occur has as its prerequisite the borrowing of a substantial number of loanwords. A novel phoneme or phonemic contrast may enter the language at first only in words that are

⁸ See Labov 1981 for a discussion of different processes of sound change not induced by contact.

borrowed from another language, but the presence of that contrast, even in a limited set of terms, is enough to force speakers to maintain the phonemic distinction in their mental repertoire, and it can spread in innovative ways to others words in the language that are not borrowed from the source language. Just such a scenario has been argued for the voiced/voiceless contrast in fricatives and affricates in English, through numerous French loanwords adopted with these novel sounds and phonemic distinctions.

It seems likely that these two possibilities, while they help to explain the ambivalent treatment of sound in borrowability studies, are far from sufficient to understand the variety of processes and contexts in which the phonemes of a language change as a result of contact with other phonemic systems. In the follow section, I present several contact-induced sound changes in the Maya Lowlands, which can potentially shed light on the Lowland Mayan language area, and what sorts of processes might reasonably be supposed to have given rise to those phonological changes.

From even a summary comparison of vocabulary in Lowland languages, it is apparent that Lowland languages have particularly convergent phonemic inventories. The immediate question is how much of this similarity is due to language contact, and how much of it derives from the fact that these languages are also all genetically related. Below, I will consider several phonological changes in Lowland languages that seem likely to be the result of language contact. These include the merging of the nasal phonemes */n/ and */ŋ/, and the velar and back velar stops */k/ and */q/, the shift of */r/ to /y/, the loss of distinctive vowel length, the merging of velar and glottal fricatives */j/ and */h/, the innovation of the phoneme */p'/(contrasting with /b'/) and /p/), and the

palatalization of */k/ to /ch/ in certain contexts. Each of these changes has its own geographical distribution, which I will summarize below.⁹

3.3.1.1 pM */r/ to /y/ (merged with pM */y/)

Justeson et al. (1985: 12) note that one sound change which appears to have spread, at least to some degree, through language contact, is the shift of pM */r/ to /y/. This sound change is evident in much more than the region generally included in the Lowland Mayan sphere of interaction, including most of the Q'anjob'alan languages as well as the Wastekan and Yukatekan subgroups of the Mayan language family. In fact, using the logic of choosing the most frequent reflex as the proto-form, one might reconstruct */y/ for proto-Mayan, rather than */r/. The primary justification for reconstructing *r is that a change from /r/ to /y/ is more natural than a change from /y/ to /r/.

If we follow this position, the distribution of /y/ reflexes of pM */r/ is rather puzzling for two main reasons. As Justeson et al (1985) note, Mocho' (and its dialectal variant Muchu'), belonging to the Q'anjob'alan branch of Mayan—has a different reflex of pM */r/ than the other Q'anjob'alan languages, namely /ch/. Justeson et al argue that this is evidence that this sound change (*r>y) “occurred within the Kanjobalan subgroup

⁹ The standard orthography for Mayan languages, used in this dissertation, largely follows the IPA, with the following exceptions: <x> represents a voiceless alveopalatal fricative (IPA /ɧ/), <j> represents a voiceless velar fricative (IPA /x/), <y> represents a palatal glide (IPA /j/), and <ch> represents a voiceless alveopalatal affricate (IPA /tʃ/). Vowel length is indicated with a doubled vowel (<aa>, <ii>, etc), rather than a colon (i.e. IPA /a:/, /i:/, etc).

after it had undergone substantial internal diversification” (Justeson et al 1985: 12) In other words, they take this as evidence that the sound change diffused areally after the various Q’anjob’alan languages had begun to diversify. It is tempting to attribute this anomaly to language contact from the Mamean languages adjacent to Mocho’, since this language is separated from other Q’anjob’alan languages by Teko and Mam, and since the reflex of pM */r/ in Mamean languages is /t/ (and in some cases /ch/).

While these facts are likely evidence of language contact between Motosintlekan and Mamean languages, they do not counter the claim that the *r to /y/ change was spread through contact. Proto-Mayan also must have had the phoneme */y/. Therefore, the change of pM */r/ to /y/ also resulted in the merging of pM */r/ and */y/. If proto-Q’anjob’alan had undergone this change before beginning to diversify, there would have been no way for Mocho’ and Muchu’ to later distinguish between forms derived from one proto- source or the other. But only reflexes of */r/ changed to /ch/ in Motosintlekan. Reflexes of pM */y remained /y/ (examples: pM */kar ‘fish’, Mocho’ *kach*, Muchu’ *kach*; pM */ye’ ‘to give’ Mocho’ *ye’ b’a*’; pM */tzuy ‘to fasten’, Muchu’ *tzuy* [Kaufman 2003]).

Thus we remain with the unavoidable conclusion that the sound change spread areally among the Q’anjob’alan languages after the diversification of that group. But what of the three other branches of Mayan that underwent this change? Both Wastek and Chicomuseltek have */y/ as a reflex of pM */r/, as do all of the Yukatekan and Cholan-Tseltalan languages. According to Kaufman’s model of the diversification and movement of Mayan languages (Kaufman 1976), Wastek would have been in the Huasteca, far removed from any other Mayan languages, and Yukatekan would also have been a

separate language before Q'anjob'alan and Cholan-Tzeltalan separated. For the moment, we will leave aside the question of Wastekan. However, even though all of the languages attested in both the Cholan-Tzeltalan and Yukatekan languages universally changed */r/ to /y/, we must suppose, given the Q'anjob'alan data, that minimally one of these linguistic subgroups underwent the change as a result of linguistic contact with the other one. There is no language-internal motive to specify a particular direction of borrowing.

Subgroups	Languages	CM */r/ Correspondences
K'ICHE'AN	K'iche'	r
	K'aqchikel	r
	Tz'utujil	r
	Sakapulteko	r
	Sipakapense	r
	Poqomchi'	r
	Poqomam	r
	Q'eqchi'	r
MAMEAN	Mam	t
	Teko	t
	Ixil	t
	Awakateko	t
Q'ANJOB'ALAN	Q'anjob'al	y
	Akateko (Kanjobal de Acatan)	y
	Popti' (Jakaltek)	y
	Mocho' (Motosintlek)	ch
	Muchu' (Tusantek)	ch
	Chuj	y
	Tojol-ab'al	y
TSELTALAN	Tseltal	y
	Tzotzil	y
CHOLAN	Chol	y
	Chontal	y
	Classical Cholti	y
	Cholti	y
	Chorti	y
YUKATEKAN	Maya (Yukatek)	y
	Mopan	y
	Itzaj	y
	Lakantun	y
WASTEKAN	Wastek	y
	Chicomuseltek (Cotoque)	y

Table 1. Regular Correspondences with Common Mayan *r.

3.3.1.2 CM *ŋ to /n/ (merged with CM */n/)

Another sound change that seems to have been diffused areally among Lowland and Western Mayan languages is the merging of the Common Mayan velar nasal *ŋ with the alveolar nasal /n/. At first blush, this change seems to follow the lines of genetic grouping nicely. In all of the Mamean and K'iche'an languages (and, curiously, Wastekan) the CM *ŋ fricativized and devoiced in the voiceless velar fricative /j/, merging with Common Mayan *j. In Yukatekan and in Cholan-Tzeltalan, the reflex of CM *ŋ is consistently /n/ (merged with CM *n). However, as with the case of CM *r, mentioned above, the picture found in the Q'anjob'alan subgroup is more complex. Several languages of the Q'anjob'alan subgroup preserve the CM velar nasal *ŋ as a distinct phoneme, including Chuj, Mocho'/Muchu' and Popti'. Its loss in Q'anjob'al proper and Akatek, and, if it is Q'anjob'alan, in Tojol-ab'al, suggests that this is a recent innovation in the subgroup that can be explained as either an independent development or as the result of contact with the Lowland languages. The fact that proto-Q'anjob'alan must be reconstructed as maintaining pM *ŋ means that we cannot date the merger of pM *ŋ and *n to proto-Western Mayan. Thus, the available data provide evidence that the fact that Yukatekan and Cholan share this sound change cannot be due to common inheritance. While the shift of a velar nasal to an alveolar nasal is a common enough sound change to consider interpreting this shared innovation to be the result of coincidental independent developments, the fact that all of the languages that underwent this merger form are geographically contiguous suggests that this change may be the result of contact.

Subgroups	Languages	CM */ŋ/ Correspondences
K'ICHE'AN	K'iche'	j
	K'aqchikel	j
	Tz'utujil	j
	Sakapulteko	j
	Sipakapense	j
	Poqomchi'	j
	Poqomam	j
	Q'eqchi'	h
MAMEAN	Mam	j
	Teko	j
	Ixil	j
	Awakateko	j
Q'ANJOB'ALAN	Q'anjob'al	n
	Akateko (Kanjobal de Acatan)	n
	Popti' (Jakaltek)	ŋ
	Mocho' (Motosintlek)	ŋ
	Muchu' (Tusantek)	ŋ
	Chuj	ŋ
	Tojol-ab'al	n
TSELTALAN	Tseltal	n
	Tzotzil	n
CHOLAN	Chol	n
	Chontal	n
	Classical Cholti	n
	Cholti	n
	Chorti	n
YUKATEKAN	Maya (Yukatek)	n
	Mopan	n
	Itzaj	n
	Lakantun	n
WASTEKAN	Wastek	j, w, Ø
	Chicomuseltek (Cotoque)	?

Table 2. Regular Correspondences with Common Mayan *ŋ.

3.3.1.3 Loss of vowel length

The case of contrastive vowel length in Mayan languages is a prime example of how language contact can at times generate results that look deceptively like typical cases of language-internal sound change. With two salient exceptions, the languages group straightforwardly along genetic branches of the family with respect to whether or not they have preserved or lost the Common Mayan distinction between long and short vowels. Both Mamean and K'iche'an languages maintain the distinction, with the caveat that in Kaqchikel, and some dialects of K'iche', the actual distinction has become one of tense vs. lax vowels, rather than a matter of vowel length. All of the Yucatekan languages also maintain vowel length, as does Wastek. The languages that have lost this distinction are all within the Q'anjob'alan and Cholan-Tseltalan languages, which under Kaufman's model together comprise a distinct genetic group, the Western Branch of Mayan. The fly in the otherwise unsullied ointment is the fact that two languages in this group, Mocho' and Classic Choltian, both retain vowel length.

In the case of Mocho', it is possible that its geographic proximity to other languages, like Teko (and possibly Chicomuseltek), that retained the distinction helped encourage it to maintain contrastive vowel length. Perhaps even more significant is the fact that Mocho' occupies a position particularly distant geographically from the Cholan-Tseltalan languages, and indeed is not currently spoken in areas that are geographically adjacent to any of the languages that lost the distinction. This fact supports the proposal that the logic behind which languages underwent the change is tied up with their geographical distribution. In other words, the loss of distinctive vowel length was a sound

change that was areally diffused, rather than a shared innovation that took place before the breakup of proto-Western Mayan.

The second Western Mayan language that maintains contrastive vowel length, the language of Maya hieroglyphs, provides a valuable window into the possible chronology of this sound change. The fact that a Cholan language preserves vowel length suggests not only that proto-Western Mayan must have had contrastive vowel length, but that proto-Cholan-Tzeltalan and proto-Cholan must have maintained the distinction as well. In fact, while it is conceivable that the loss of contrastive vowel length affected other languages before affecting Classic Choltian, the hieroglyphic data provide insight on the loss of this distinction. Changes in spelling patterns toward the end of the Classic period suggest that by the end of the Late Classic, this distinction was only inconsistently recorded in the script. The fact that scribes became increasingly unsure whether or not a particular word had a long or a short vowel suggests that these scribes no longer maintained that distinction in their speech (Houston and Stuart 1999, Stuart 2005). Thus, for Classic Choltian, and its descendants Cholti and Chorti, we can say that contrastive vowel length was lost by some time in the last half of the Classic period.

In fact, the hieroglyphic data confirm something that is, albeit slightly more subtly, apparent from comparison of the modern Cholan and Tzeltalan languages as well. Reconstructing contrastive vowel length for both proto-Cholan-Tzeltalan and for proto-Cholan explains details of language that would otherwise be difficult or impossible to explain. First of all, at least one sound change that distinguishes Cholan languages from Tzeltalan languages depends on vowel length, and cannot have taken place until proto-

Cholan had already separated from Cholan-Tseltalan. This change is the raising of the long vowels */oo/ and */ee/ to */uu/ and */ii/ (>/u/ and /i/) respectively, which did not apply to short vowels.

Another linguistic detail that begs the reconstruction of contrastive vowel length to proto-Cholan is the so-called sixth-vowel in Chol. While long vowels and short vowels merged in Chol in both high and mid positions, the low vowels */a/ and */aa/ did not merge entirely. Instead, the reflexes of */aa/ became a short /a/, and reflexes of short */a/ relaxed to a lax high mid vowel /ä/ (IPA /ɨ/). This change is somewhat inconsistent, but it is regular enough to be confident that the distribution depends on the maintenance of distinctive vowel length in proto-Cholan, at least for the low vowels, in spite of the fact that this distinction was lost in the other Cholan languages.

Subgroups	Languages	Maintains pM Vowel Length?	Notes
K'ICHE'AN	K'iche'	yes*	*Chichicastenango has tense/lax distinction instead of length *distinction has become tense/lax instead; not merger
	K'aqchikel	yes*	
	Tz'utujil	yes	
	Sakapulteko	yes	
	Sipakapense	yes	
	Poqomchi'	yes	
	Poqomam	yes	
	Q'eqchi'	yes	
MAMEAN	Mam	yes	
	Teko	yes	
	Ixil	yes	
	Awakateko	yes	
Q'ANJOB'ALAN	Q'anjob'al	no	*contrast exists in Akateko, but is a recent innovation, not pM retention *contrast in San Andres dialect, not pM
	Akateko (Kanjobal de Acatan)	no*	
	Popti' (Jakaltek)	no*	
	Mocho' (Motosintlek)	yes	
	Chuj	no	
TSELTALAN	Tojol-ab'al	no	
	Tseltal	no	
CHOLAN	Tzotzil	no	
	Chol	no	
	Chontal	no	
	Classical Cholti	yes	
	Cholti	N/A	
YUKATEKAN	Chorti	no	
	Maya (Yukatek)	yes	
	Mopan	yes	
	Itzaj	yes	
WASTEKAN	Lakantun	yes	
	Wastek	yes	
	Chicomuseltek (Cotoque)	N/A	

Table 3. Maintenance or Loss of Common Mayan Phonemic Vowel Length.

3.3.1.4 Merging of CM *j and *h

It is clear that proto-Mayan maintained a phonemic distinction between a voiceless velar fricative *j and a glottal fricative *h. However, in the majority of Mayan languages spoken today, this distinction no longer exists. There are two general reasons for this. In some languages, the glottal fricative was simply weakened to the point of no longer being pronounced (or in some cases became realized as vowel length). Thus while a phonemic distinction between /h/ and /j/ is not maintained in these languages, the reflexes of forms with these phonemes remain distinct. Several K'iche'an languages, and all of the Mamean languages except, reportedly, the Chajul dialect of Ixil, have undergone this change, as has Wastekan.

Another phonemic development which led to the loss of a /h/ /j/ distinction was to merge the two phonemes. This path of development is particularly interesting in terms of its distribution. As with the other sound changes mentioned above, this innovation is shared by several Cholan-Tseltalan languages, Yukatekan, and several Q'anjob'alan languages.

In Q'anjob'alan, this is clearly not an inherited innovation, since both Chuj and Popti' maintain the distinction. That this is an areally shared sound change in both Cholan and Tseltalan as well is demonstrated by the fact that some modern dialects of Tseltal (Bachajon, Yajalon, Sitalá) and Tzotzil (Huixtán, Chamula) retain the distinction (Kaufman 1972: 27-28). And even in dialects that no longer have the sound contrast, such as Tzotzil of Zinacantán, we see diverse sound correspondences, so that the loss of /h/ has

not resulted from the merging of /h/ with /j/ in all contexts (see Haviland 1988: 84, in Laughlin 1988).

Colonial evidence for Yukatek (from the Calepino Motul, as well as San Buenaventura's (1684) grammar), as with De Ara's work for Tzendal (1571), also suggests that loss of the /h/ /j/ distinction was areally spread after the breakup of proto-Yukatekan. While reflexes of some preconsonantal /h/ in Yukatek changed to a high tone in proto-Yukatekan, /h/ was maintained in other contexts, and contrasted with /j/. In all of the modern Yukatekan languages, no phonetic distinction is made, though Ola Orié and Bricker (2000) make the case that in Modern Yukatek, phonological variation suggests that phonetic [h] expresses two different phonemes, reflexes of */h/ and */j/ respectively (see Hofling 2000: 15 for a similar claim about Itzaj).

All of the modern Cholan languages have merged /h/ and /j/, and the distinction is not made in Colonial Cholti (though this does not conclusively establish that the distinction did not exist—no orthographic distinction was made between glottalized and non-glottalized consonants either, in spite of the fact that this distinction clearly was present in the language). This would suggest that the distinction was lost in proto-Cholan. However, Grube (2004) has shown persuasively that a regular orthographic distinction between /h/ and /j/ is made in the corpus of hieroglyphic texts, and that the distinction begins to be blurred in Late and Terminal Classic inscriptions. If the language of the hieroglyphs is written in an Eastern Cholan (Choltian) language (Houston et al 2000, Law et al 2009), then we must accept that this merger has spread areally even among these closely related languages.

Subgroups	Languages	pM *h, *j Correspondences	Notes
K'ICHE'AN	K'iche'	Ø, /j/	Some dialects preserve /h/ word-finally
	K'aqchikel	Ø, /j/	
	Tz'utujil	Ø, /j/	
	Sakapulteko	Ø, /j/	
	Sipakapense	Ø, /j/	
	Poqomchi'	/h/, /j/	
	Poqomam	/h/, /j/	
MAMEAN	Q'eqchi'	/h/, /j/	Except Palin dialect, which merges /h/ and /j/ ¹⁰
	Mam	Ø, /j/	
	Teko	Ø, /j/	
	Ixil	Ø, /j/	
Q'ANJOB'ALAN	Awakateko	Ø, /j/	/h/ remains in Chajul dialect (Ayres 1991: 2).
	Q'anjob'al	/j/, /j/	
	Akateko (Kanjobal de Acatan)	/j/, /j/	
	Popti' (Jakaltek)	/h/, /j/	
	Mocho'	/j/, /j/	
	Chuj	/h/, /j/	
TSELTALAN	Tojol-ab'al	/j/, /j/	Not merged in Bachajon, Yajalon, or Sitalá dialects, or in Colonial Tzendal. Not merged in Huixtan or Chamula dialects.
	Tseltal	/j/, /j/	
	Tzotzil	/j/, /j/	
CHOLAN	Chol	/j/, /j/	
	Chontal	/j/, /j/	
	Classical Cholti	/h/, /j/	
	Cholti	/j/, /j/	
	Chorti	/j/, /j/	
YUKATEKAN	Colonial Yukatek	/h/ ~ high tone, /j/	pM VhC corresponds to VVC in Itzaj See Bergqvist (2008: 65)
	Maya (Yukatek)	/h/ ~ high tone, /h/	
	Mopan	/j/, /j/	
	Itzaj	/h/ ~ VV, /h/	
	Lakantun	/j/ ~ high tone, /j/	
WASTEKAN	Wastek	/j/ ~ /'/, /j/	
	Chicomuseltek	?	

Table 4. Regular Correspondences with Proto-Mayan glottal *h and velar *j.

¹⁰ Malchic Nicolás et al. (2000: 49).

Considering the large area that seems to have been covered by the **h/*j* merger, this sound change is remarkable in how shallow it is. It cannot be reconstructed even for proto-Yukatekan. The epigraphic evidence suggests that it was underway by the Terminal Classic in the language of the hieroglyphs. Given the shallow time depth in other language families, it would not be unreasonable to assume that it started with that language and gradually spread out from there.

3.3.1.5 Fronting of CM *q(ʼ)

The fronting of Common Mayan **q(ʼ)* to */k(ʼ)/* seems to be somewhat deeper than the **h/*j* merger. It occurred in all of the Cholan-Tzeltalan languages and all of the Yukatekan languages and is evident in both Wastekan languages. It also happened in Tojol-abʼal, whose linguistic affiliation is problematic, as will be discussed in chapter 6, and in Chuj, which can be fairly confidently placed in Qʼanjobʼalan. The loss of this distinction also seems to be underway in Akateko and Qʼanjobʼal. In these languages, the unglottalized consonants have merged, while the distinction is maintained for the glottalized counterpart (although, in word-final position this has merged with */j/*). Note that there are also likely areal pressures to retain the velar/back velar distinction coming from contact with Mamean and Kʼicheʼan languages, in the Huehuetenango sphere of linguistic interaction, so that both retention and loss of this feature should be understood in terms of the areal dynamics of the region.

The fact that the fronting of q(ʼ) cannot be reconstructed back to proto-Qʼanjobʼalan means that it cannot have been present in proto Western Mayan either. Its presence in both Cholan-Tzeltalan and Yukatekan, then, must be attributed to contact. This state of affairs is confirmed by another line of evidence, which will be developed in more detail in the next section, namely that in the Cholan-Tzeltalan languages, in many cases, the reflexes of pM *q(ʼ) did not merge with reflexes of pM *k(ʼ), but first *k(ʼ) shifted to /ch(ʼ)/. This reinforces the fact that the fronting of *q could not have happened when proto-Western Mayan was a single language, and therefore that the shared similarity between Yukatekan and Cholan-Tzeltalan is an areal phenomenon.

Subgroups	Languages	pM *q', *q Correspondences	Notes
K'ICHE'AN	K'iche'	/q'/, /q/	*In San Marcos and San Andrés (Patal Majzul et al 2000:30)
	K'aqchikel	/q'/, /q/ ~ /j/*	
	Tz'utujil	/q'/, /q/	
	Sakapulteko	/q'/, /q/	
	Sipakapense	/q'/, /q/	
	Poqomchi'	/q'/, /q/	
	Poqomam	/q'/, /q/	
Q'eqchi'	/q'/, /q/		
MAMEAN	Mam	/q'*/, /q/	*Merging in some contexts with /j/ in Northern dialects (Pérez et al 2000: 43)
	Teko	/q'/, /q/	
	Ixil	/q'/, /q/ ~ /j/	
	Awakateko	/q'/, /q/	
Q'ANJOB'ALAN	Q'anjob'al	/q'/, /q/ ~ /j/	pM *q is merged with /k/ in Akateko word initially, but merged with /j/ elsewhere (Zavala 1992: 9)
	Akateko (Kanjobal de Acatan)	/q'~/ /k'/, /k~/ /j'/?	
	Popti' (Jakaltek)	/q'/, /j/	
	Mocho' (Motosintlek)	/q'/, /q/	
	Chuj	/k'/, /k/	
	Tojol-ab'al	/k'/, /k/	
TSELTALAN	Tseltal	/k'/, /k/	
	Tzotzil	/k'/, /k/	
	Chol	/k'/, /k/	
CHOLAN	Chontal	/k'/, /k/	
	Classical Cholti	/k'/, /k/	
	Cholti	/k'/, /k/	
	Chorti	/k'/, /k/	
	Chol	/k'/, /k/	
YUKATEKAN	Maya (Yukatek)	/k'/, /k/	
	Mopan	/k'/, /k/	
	Itzaj	/k'/, /k/	
	Lakantun	/k'/, /k/	
WASTEKAN	Wastek	/k'/, /k/	
	Chicomuseltek (Cotoque)	/k'/, /k/	

Table 5. Regular Correspondences to Common Mayan *q' and *q.

3.3.1.6 Innovation of /p'/ phoneme

Of the areally diffused sound changes discussed here, the one that has been discussed in the greatest detail as an areal change is the introduction of a new phoneme /p'/. A bilabial ejective [p'] is quite common in Mayan languages, but is generally an allophonic variant of the bilabial implosive /b'/. In several Mayan languages, this variation developed into a phonemic contrast, with various degrees of robustness in different languages. This was noted and discussed by Campbell (1977), Justeson et al (1985: 12), Kaufman and Norman (1984: 85), Campbell (1996), and most recently and thoroughly by Wichmann (2006).

Three facts help identify this innovation as areally spread. First, Cholan-Tzeltalan and Yukatekan languages share the innovation even though these languages do not form a genetic subgroup. Second, the K'iche'an language Poqomam and two dialects of Poqomchi' (Malchic Nicolás et al 2000: 39) also have this innovative phoneme, undoubtedly through contact with Lowland languages. And finally, the Cholan language Cholti does not have this phoneme, though there is evidence that the very closely related language Cholti did have it. This last is particularly interesting because it suggests a very recent date for the spread of this innovation. The amount of separation between Cholti and Chorti is minimal enough that they were likely mutually intelligible at the time of the Spanish Conquest.

Subgroups	Languages	/p'/ phoneme?	Notes
K'ICHE'AN	K'iche'	no	Only in Beleju and San Cristobal Verapaz dialects. /b'/ elsewhere (Malchic Nicolas et al 2000: 39)
	K'aqchikel	no	
	Tz'utujil	no	
	Sakapulteko	no	
	Sipakapense	no	
	Poqomchi'	yes	
	Poqomam	yes	
	Q'eqchi'	no	
MAMEAN	Mam	no	
	Teko	no	
	Ixil	no	
	Awakateko	no	
Q'ANJOB'ALAN	Q'anjob'al	no	
	Akateko (Kanjobal de Acatan)	no	
	Popti' (Jakaltek)	no	
	Mocho' (Motosintlek)	no	
	Chuj	no	
	Tojol-ab'al	no	
TSELTALAN	Tseltal	yes	
	Tzotzil	yes	
CHOLAN	Chol	yes	[p']is common in Chorti, but it is an allophone of /b'/, not contrastive
	Chontal	yes	
	Classical Cholti	no?	
	Cholti	yes	
	Chorti	no	
YUKATEKAN	Maya (Yukatek)	yes	
	Mopan	yes	
	Itzaj	yes	
	Lakantun	yes	
WASTEKAN	Wastek	no?	
	Chicomuseltek (Cotoque)	no?	

Table 6. Languages with Innovative /p'/ Phoneme.

3.3.2 SYNTACTIC, SEMANTIC, AND MORPHOLOGICAL FEATURES

In addition to the aforementioned similarities in the phonological systems of languages within the Lowland sphere of interaction, there are several striking morpho-syntactic and semantic similarities that bear mentioning. Each of these features displays the same variety of geographic distributions as seen in the system of sound contrasts. Many of the innovations here center around the function and distribution of person markers, and in the system of aspectual contrasts. These areas will be explored in more detail in chapters 4 and 5.

3.3.2.1 Matter/Pattern distinction

In the preceding discussion, it became clear that talking about contact-induced sound change requires a more fine-grained model than simply the ‘diffusion’ of a phoneme by analogy with the spreading out of molecules or waves. This is equally true when we consider contact-induced changes in the morphology of a language. In addition to understanding the processes through which morphological features are adopted in contact situations, and intimately tied to those processes, is the question of exactly what is being adopted. Even in the case of loanwords, linguistic elements are rarely employed in the recipient language in exactly the way that they are employed in the source language. Lexical forms are borrowed without their meaning (as with place names such as Massachusetts, or personal names, like Daniel), meanings are borrowed without the forms of the source language (i.e. calques, such as skyscraper:rascacielos), or languages

adopt syntactic or semantic categories, such as the subcategorization frames of particular lexical items (as with *yo gusto eso* for ‘I like that’ in some U.S. versions of Spanish—Winford 2003: 98), or the functional polysemy of an equivalent term in the source language (see Enfield 2003, for a detailed study of this in Southeast Asia).

In many cases of non-lexical contact-induced change, the same variation is evident in exactly what is ‘borrowed’. Languages can borrow forms, meanings, or syntactic or grammatical relations without the accompanying phonological or semantic material. And phonetic forms themselves, when borrowed directly, are often imported with a slightly altered, or comparatively partial functionality from the source language. Matras and Sakel (2007b) have proposed a basic distinction between the borrowing of ‘matter’, which involves “the direct replication of morphemes and phonological shapes from a source language” (Matras and Sakel 2007b: 829), and the borrowing of ‘patterns’, in which the phonological forms of morphemes are not adopted from the source language, but instead, “it is the patterns of distribution, of grammatical and semantic meaning, and of formal-syntactic arrangement at various levels (discourse, clause, phrase, or word) that are modeled on an external source” (*ibid*: 829-830).

The distinction between ‘matter’ and ‘pattern’ borrowing proposed by Matras and Sakel is by no means new. The fact that languages can be radically altered through contact in ways that do not involve any overt phonological forms is pervasive enough to demand notice from any serious student of language contact. In the literature on language contact, this distinction has been dealt with in terms of direct (matter) vs. indirect (pattern) borrowing, borrowing (matter) vs. calqueing (pattern—in a rather broader sense

than the typical notion of a calque as essentially a type of lexical borrowing), or, as Weinreich (1953: 1) states it, between borrowing (matter) and interference (pattern). Weinreich goes on to make the important observation that borrowing of linguistic matter almost always also involves the importation of linguistic patterns of various kinds, though pattern borrowing (interference, in Weinreich's terms), by definition, precludes the importation of the relevant phonological forms of the source language.

As we shall see, this is important to keep in mind, since the borrowing of linguistic matter, in the Lowland Mayan case, seems, in some instances, to have been only the visible tip of an enormous, complex iceberg of borrowed patterns. Borrowed matter and borrowed patterns are not necessarily separable, and even in cases in which they do seem to involve separate phases of contact, the possibility of complex interrelationships should not be ignored. We will return to this point as we discuss specific morphological, syntactic, and semantic matter and pattern borrowings in the following section. In order to more fully capture the interrelationships between different borrowed forms and patterns, the follow sections will be organized by functional domains, each of which displays fascinating contact-induced changes in both linguistic matter and linguistic pattern. The areas that will be considered here are aspect, person marking, quantification, and focus.

3.3.2.2 Aspect

Mayan languages manage temporal reference with a variety of aspectual auxiliary particles and inflectional affixes, as well as temporal lexical and adverbial expressions

(see England 2003 for a discussion of aspect in a Mayan language). Here I will focus on contact-induced changes in the auxiliary and inflectional aspect markers in Lowland Mayan languages. Inflectional aspectual affixes are of two kinds: preverbal prefixes or clitics and post verbal suffixes or clitics (the most appropriate analysis of clitic vs. affix for a particular form may depend on the specific language in which it is attested, even when forms are cognate in several languages). Auxiliary aspect particles are pre-verbal and vary from language to language as to whether they are inflected for person (auxiliary predicates) or not (auxiliary particles). There are four core aspects that are marked on the verb that are relevant here: completive, incompletive, perfect and potential. Some languages also have something like a proximate aspect. Aspectual auxiliaries vary widely from language to language, with some languages using a fairly limited set of markers while other have as many as a dozen and include such categories as inceptives, terminatives and progressives or duratives.

Contact induced changes have had a particularly marked effect on the incompletive aspect, though smaller scale linguistic interaction is evident in the progressive, completive, and potential. Because this chapter is concerned primarily with larger-scale interactions that characterize the Lowland language area, I will focus here on the incompletive aspect. The evolution of the incompletive aspect will be discussed in detail in chapter 5, as will the smaller-scale linguistic borrowings, including borrowing of aspectual clitics and suffixes.

3.3.2.2.1 Pattern Borrowing in Aspect

One of the distinctive features of several Lowland Mayan languages is the split patterning of person markers along aspectual lines.¹¹ In the completive aspect, these languages follow the Common Mayan ergative-absolutive pattern for person marking, in which subjects of transitive verbs are referenced on the verb with an ‘ergative’ person marker (referred to in literature on Mayan languages as the ‘set A’ person marker, while objects of transitive verbs and subjects of intransitive verbs, are referenced with an absolutive marker (also known as ‘set B’). In the incompletive aspect (or other slightly different aspectual contexts, as will be described below) a nominative-accusative pattern of person marking obtains. The crucial context for seeing this difference is in the patterning of person markers on intransitive verbs. In ergative-absolutive contexts, intransitive verbs take the absolutive, or ‘set B’ marker, while in nominative-accusative contexts, intransitive verbs take the ‘ergative’, or ‘set A’ marker. Thus the logic dictating the pattern of use is split. This split ergative patterning is not unique to Lowland languages.¹² However, the specific contexts in which the split occurs, in other words the contexts in which a nominative accusative pattern is used, vary greatly according to the region or subgroup.

¹¹ There is a fair amount of published work on ergativity, and split ergativity in Mayan languages. Perhaps the broadest and most foundational is Dayley’s (1983) ‘Voice and Ergativity in Mayan languages’. Other works on ergativity and split ergativity in Mayan languages include Larsen and Norman (1979), Norman and Campbell (1978), Bricker (1981), England (1983), Quizar and Knowles (1988), Kaufman (1990), Law et al (2006), Mateo Toledo (2008), and others.

¹² Indeed, a hypothesis concerning ergative languages is that they are all split in some way (Silverstein 1976a, Dixon 1979), though as noted by England (pc, 2011), K’iche’, and other language of the K’iche’an subgroup seem to contradict this.

The pattern of aspectual based split ergativity is distinctive enough, and clearly patterned geographically, so that there can be no doubt that its current distribution is the result of language contact. One question that might reasonably be posed is what exactly is being shared through contact. As will be discussed below, there is a particular *-VI* suffix that is a characteristic feature of most of the languages that have aspect-based split ergativity. However, it is not the suffix itself that indicates incompletive aspect, but rather a bundle of features, including the use of ‘set A’ person marking and, in some languages, a (preverbal) incompletive aspectual clitic. Indeed, at some level, what has been borrowed is a discourse structure, something as much pragmatic and syntactic as it is semantic or morphological.

In addition to clearly borrowed patterns involved in this contact feature, there seem to be two specific morphemes that on the face of it might seem to be instances of ‘matter’ borrowing. Kaufman (1990: 86) distinguishes two different types of split ergative patterns in Mayan languages, ‘split ergativity’ and ‘shifted ergativity’ according to whether the intransitive verb form used in nominative-accusative patterned contexts is derived historically from a nominalized form, or from a ‘finite’ form. What Kaufman’s terminological distinction seems to be addressing is a very clear and clearly important correlation involving the emergence of split ergativity in two different areally diffused patterns, one centered in the Lowland languages, and one radiating in the highlands in the languages around Huehuetenango. The split ergative patterns found in these two different regions differ both with respect to the etymological derivation of the verb form used and with respect to the conditioning contexts. In the Lowland Mayan languages, the context is

primarily aspect: specifically incompletive aspect triggers a nominative-accusative pattern. In the languages of the ‘Huehuetenango sphere’ (Kaufman 1990: 86), which includes Mamean languages and most of the Q’anjob’alan languages, the primary context for the split is in clauses that are not marked for aspect, including various types of dependent clauses and clauses with certain fronted adverbial phrases. With one salient exception (Poqom), the K’iche’an branch of Mayan appears to consistently follow an ergative-absolutive pattern.

What is important with respect to pattern borrowing in the incompletive is Kaufman’s observation that many Mayan languages—but, as it turns out, only Lowland Mayan ones—use a verb form in incompletive contexts that is historically derived from a nominalization. There are two morphemes, one used for intransitive verb roots and derived intransitive verbs (*-*VI*), and the other used for positional roots (*-*tahl*). It is worth noting that while the *-VI* suffixes are all cognate and reflexes of a likely proto-Mayan infinitival or nominalizing suffix (and therefore are forms shared throughout the Mayan language family, albeit with different functions), the positional suffix *-*tahl* is found only in Lowland Mayan languages. In fact, it is one of the 5 linguistic features that Justeston et al (1985) list as defining the Lowland Mayan language area.

Table 7, below, summarizes the contexts in which intransitive verbs take ergative prefixes in Mayan languages: While this general overview of split ergativity is useful, several details complicate matters slightly, and, as will be discussed in Chapter 5, have important implications for understanding the history of split ergativity in Mayan languages.

Language	Incompletive Aspect	Potential Aspect	Progressive Aspect	Aspectless Clauses	From Nominalization?
Q'eqchi'	-	-	-	-	-
Poqomchi'	-	X	X	-	no
Poqomam	-	X	X	-	no
K'iche'	-	-	-	-	-
Achi	-	-	-	-	-
Sipakapense	-	-	-	-	-
Sakapulteko	-	-	-	-	-
Tz'utujil	-	-	-	-	-
Kaqchikel	-	-	-	-	-
Uspanteko	-	-	-	-	-
Mam	-	-	-	X	no
Teko	-	-	-	X	no
Awakateko	-	-	-	X	no
Ixil	X	-	-	X	no
Popti'	-	-	-	X	no
Akateko	-	-	-	X	no
Q'anjob'al	-	-	-	X	no
Mocho' ¹³	-	-	-	-	no
Chuj	-	-	-	X	no
Tojol-ab'al	-	-	-	X	no
Tzotzil	-	-	-	-	-
Tseltal	-	-	-	-	-
Chol	X	X	X	X	yes
Chontal	X	X	X	X	yes
Chorti ¹⁴	X	X	X	-	no
Cholti	-	-	X	X	yes
Yukatek	X	-	X	X	yes
Lakantun	X	-	X	X	yes
Mopan	X	-	X	X	yes
Itzaj	X	-	X	X	yes
Wastek	-	-	-	-	-
Chicomuseltek	-	-	-	-	-

Table 7. Contexts of Ergative Split in Mayan Languages.

¹³ Mocho' has split ergativity, but it is person-based, with third person following an ergative pattern and non-third person following an accusative pattern (Larsen and Norman 1979: 353). Interestingly, Yasugi (2005: 82-84) reports that Classical Yukatek has vestiges of a similar person-based split in adverbial focus constructions. This fact is potentially highly significant in terms of the history of the development of such splits in Mayan languages.

¹⁴ In fact, Ch'orti' is not split ergative in the classical sense, but has a third pronoun set used specifically for incomplete intransitive subjects. This set is derived from set A pronouns historically.

Table 7 shows that the Yucatekan and the Cholan languages Chol, Chontal, and Chorti, as well as, to a lesser degree, Ixil all follow a nominative-accusative pattern in the incompletive aspect. In addition the K'iche'an languages Poqomchi' and Poqomam (here referred to jointly as Poqom, when a statement applies to both equally) appear to partially follow this pattern, since they have a split ergative pattern in the progressive and potential aspects.

By another criterion, however, the form of the verb in split ergative context, things are slightly different. Both Ixil and Chorti use a form that is not historically derived from a nominalization. There is no evidence of split ergativity in the language of the hieroglyphs, and in the Colonial language Cholti the split appears to be limited to the progressive, though the progressive is possibly somewhat expanded in function from the typical progressive (Law et al 2006). In addition, in Ixil, the contexts for the split go beyond aspect to include many of the contexts typical of the Huehuetenango sphere, namely in aspectless clauses and after certain fronted adverbs (Garcia 2009).

Also, when compared to the patterns found in Yucatekan and Cholan languages, Ixil and Poqom stand out as being considerably more restricted in terms of aspects that follow a nominative-accusative pattern of person marking. In Yucatekan and Cholan, the conditioning contexts might be described as non-completive, since several different non-completive aspects, in addition to the incompletive, trigger a split pattern. In Ixil, however, only contexts which use the general incompletive *ni(k)* lead to a nominative-accusative pattern. In Poqom, the context is even more restrictive, since the split only

occurs in the progressive and the potential. In the incompletive, the ergative-absolutive pattern found in the rest of the K'iche'an family is conserved.

It is also interesting to note that, in certain limited contexts, a split ergative pattern can be found, even in completive contexts, in Ch'ol (Vázquez Álvarez 2010) and in Chontal (Quizar and Knowles 1988: 89), when it is in a complement clause to specific verbs of perception. It is very likely that split ergativity in the Lowland languages developed out of a context of dependent clauses in the progressive (Robertson 1980, Bricker 1981, Law et al 2006). This, coupled with the above-mentioned fact that the split is still triggered in some dependent clauses in Chol and Chontal, suggests that the dependent clause is historically prior to the development of split ergativity in other contexts, and a parsimonious reconstruction of the development of affairs would be to reconstruct split ergativity in a limited subset of dependent clauses in proto-Mayan; this would have been expanded to all aspectless (primarily dependent) clauses in the Huehuetenango area, and would have been extended to aspect-defined contexts in the Lowlands through the progressive.

3.3.2.3 Person Marking

The systems of person marking, mentioned in the previous section, are a particularly important and interesting place to see patterns of linguistic interaction in the Lowlands. The historical development of the patterns presented here will be discussed in chapter 4. All Mayan languages have at least two sets of person markers: ergative (or “set A”) and absolutive (or “set B”). The comparative evidence suggests that in proto-Mayan,

both sets of person markers distinguished first, second and third person, singular and plural by means of suppletive forms. The set A markers also generally have a prevocalic set of allomorphs the forms of which are not predictable based on regular phonological rules.

The ergative person markers are either inflectional prefixes or proclitics (in fact, the best analysis in this regard may depend on the specific language under consideration). The absolutive markers are either postclitics or preverbal enclitics, generally leaning on preverbal aspectual particles. This variation will be discussed in more detail below.

3.3.2.3.1 Pattern Borrowing in Person Markers

Several structural features of the system of person marking in Lowland Mayan languages have changed from the proto-Mayan system, but in remarkably parallel ways. As with the ergative split, it is not always clear whether we are dealing with the borrowing of actual linguistic matter, or whether the apparent material similarities are due to converging clines of development—contact-induced grammaticalization (Heine and Kuteva 2003). This issue will be taken up in more detail in chapter 4.

The main pattern-level borrowing, or shared features having to do with person marking are both morphosyntactic and semantic. They include the restructuring of the logic for expressing number in person, and introduction of a new distinction - exclusive and inclusive, in the category of first person plural, as well as the extension of a post-verbal placement for the set B ‘absolutive’ person markers.

The placement of the absolutive clitic in proto-Mayan has been the subject of some debate (Bricker 1977, Robertson 1980), however, Mayan languages generally take one of three different tacks: they consistently place the absolutive clitic in pre-verbal position, they consistently place it in post-verbal position, or they place it in preverbal position when there is an overt preverbal aspect particle, and put it in postverbal position otherwise (i.e., non-verbal predicates, perfects, imperatives). Significantly, the languages that consistently place the absolutive clitic in post-verbal position are all clearly participants in the Lowland Mayan sphere of interaction—Yukatekan, Cholan, Tseltal—and the Mamean language Ixil, which seems to have also been a peripheral participant in this Lowland sphere of interaction.

Another significant contact-induced innovation involved the restructuring of the representational logic for the expression of plurality in both ergative and absolutive markers. Specifically, the innovation was to go from a morphologically opaque suppletive form for the plural in each of the persons to an analytically transparent system in which the same form is used for both singular and plural in each person, and a separate (postclitic) morpheme indicates plurality. This innovation, however, appears to have been adopted in two waves, each affecting a different set of languages. Thus, use of the third person singular plus a plural postclitic to indicate third person plural is a strategy that was adopted by Cholan, Tseltalan, Yukatekan, Q'anjob'alan, and Q'eqchi'. The extension of that same pattern (singular form + plural postclitic) to first and second person, however, applied to a much smaller set: Tseltalan, Yukatekan, Chol and Chontal.

This extension to first and second person correlates very tidily with another significant contact-induced innovation in linguistic pattern, the introduction of a new opposition in first person plural between exclusive (we, not you) and inclusive (we, including you). All of the languages that extended the singular+plural postclitic structure to first and second person also developed an inclusive/exclusive distinction.¹⁵ While the connection between these two innovations is not necessarily obvious, a look at the strategy by which the inclusive/exclusive distinction is made in all of these languages helps clarify the connection: in all cases, the inc/excl distinction is made through the use of different plural postclitics. In other words, the exact forms used to express the distinction between exclusive and inclusive ‘we’ depend on the availability of the postverbal number clitic slot that was created in these languages by the innovation of an analytically transparent system for indicating number in person reference. The distribution of these various restructurings in the system of person marking are summarized in table 8, below.

¹⁵ Mam, of course, is an exception to this in that the inclusive/exclusive distinction is indicated with postclitic, but number is not. In other ways, the Mam postclitics are clearly different from the Lowland plural markers discussed here. For more details, see chapter 4.

	Erg3sg...pl	Erg1/2sg...pl	Incl/Excl	1pl→1sg
Tzotzil	✓	✓	✓	✓
Tseltal	✓	✓	✓	✓
Tojol-ab'al	✓	✓	✓	✓
Chol	✓	✓	✓	✓
Chontal	✓	✓	✓	✓
Cholti	✓			
Chorti	✓			
Classic	✓			
Choltian				
Yukatek	✓	✓	✓	
Mopan	✓	✓	✓	
Itzaj	✓	✓	✓	
Lakantun	✓	✓	✓	
Akatek	✓	✓	✓	
Q'eqchi'	✓			
Mam			✓	

Table 8. Summary of distribution of innovations in plural person marking.

3.3.2.3.2 *Matter Borrowing in Person Markers*

As the above discussion demonstrates, the restructuring of the patterning of ergative and absolutive person markers in Lowland Mayan languages was significant, with respect to both morphosyntactic placement and paradigmatic oppositions in person and number. Interestingly, significant contact-induced changes can also be seen in the specific forms of the person markers, to such a degree that it is clear that, in some cases, actual linguistic matter, in addition to patterns, must have been transferred through contact (see Law 2009). This is particularly remarkable in light of statements concerning the extreme difficulty, or even impossibility of borrowing person markers in general, and the difficulty of borrowing both inflectional affixes and clitics (Matras 2009, Sheveroshkin 1989: 6, Nichols and Peterson 1996: 337, 1998: 610; Dixon 1997: 22;

Greenberg and Ruhlen 1992: 97; Haugen 1950; Whitney 1881; Moravcsik 1978, Muysken 1981, and Matras 2007, 2009; and others).

As will be discussed in more detail in chapter 4, it is also an excellent context in which to see both the difficulties in distinguishing matter and pattern borrowing, and the complexity introduced by the historical relatedness of the languages. It brings to the foreground issues of parallel contact-induced development, in the vein of Heine and Kuteva's (2003, 2005) notion of contact-induced grammaticalization. In general terms, there are two different and mutually excluding patterns of borrowing of person markers in the Lowlands: one involved Yukatekan and Choltian (Cholti, Chorti, and, to a lesser degree, the language of the hieroglyphs); the other involved Tseltalan, Tojol-ab'al, Chol and Chontal. The details of the forms borrowed will be discussed in more detail in Chapter 4.

3.3.2.4 Quantification

In the above section on person marking, it was briefly mentioned that part of the contact-induced restructuring of person marking included the development of different strategies for indicating plurality, specifically, the development of a set of plural postclitics. Tojol-ab'al, Tseltal and Tzotzil all share similar forms for these postclitics, as will be discussed in more detail in chapter 6. Chol, Chontal and Yukatekan, the other languages that fully employed this new strategy of person and plurality marking use non-cognate forms for first and second person plural, so that what was spread, as noted earlier, was a linguistic pattern. It was also noted in an earlier section that the third person

plural form had a very different, and much larger geographical distribution than the innovation of the same pattern in first and second person. At this point, it is worth mentioning a further detail of this innovation that is much more restricted geographically, and seems to correlate (though imperfectly) with another important innovation in quantification involving the system of numeral classifiers. That detail is the form of the third person plural postclitic.

In Cholan and Yukatekan languages only, the form of the third person postclitic has been modified slightly from the Common Mayan form *-eb'*, to *-oob'* (*-ob'* in languages without contrastive vowel length). Given its distribution, this is clearly a contact-induced change, the direct borrowing of linguistic matter, and could be argued to be one of relatively few contact-induced changes that include all and only the Yukatekan and Cholan languages, quintessentially the languages of the Lowland Mayan Language Area.

Interestingly, another feature unique to these languages involves the function of this specific morpheme. In Common Mayan, as reflected in numerous Mayan languages, the ancestral form is **-eb'*. In descendant Mayan languages, reflexes of this form perform what can be considered three slightly different functions. First, it functions as a sort of general postclitic for numbers greater than 1, second, it is used as a plural marker that attaches to nouns (optionally, and generally restricted to either animates or humans) and third, it indicates plurality for third person ergative and absolutive. Note that the third function is general in Mayan languages for third person absolutive, but it is restricted to

the subset of Mayan languages who replaced the Common Mayan third person plural in the ergative.

Of particular interest in the present case is that in all of the languages which today have *-o(o)b'* rather than *-eb'*, the function of general number postclitic is no longer filled by a reflex of *-eb'*. Instead, in these languages, the generic number function is filled by a numeral classifier, specifically *-p'ej(l)* or, as will be discussed later, *-te'*. This fact leads us to the other element for quantification in Lowland languages that seems to have been impacted through contact, numeral classifiers.

3.3.2.4.1 Numeral Classifiers

A salient feature of most Lowland Mayan languages is their abundant use of numeral classifiers. A fair amount of work has been done on the structure and semantics of numeral classifiers in Lowland Mayan languages, including works on Tseltal (Berlin 1968) Chontal (Keller 1955), Chol (Arcos López 2009), and Yukatek (Briceño Chel 1993). Numeral classifiers are not the only type of nominal classification attested in Mayan languages (Several Q'anjob'alan and Mamean languages, for example, have a developed system of noun classifiers) nor is the same definition of numeral classifiers used in each of the studies of this phenomena.

An important distinction that is not always made in studies of quantification in Mayan languages is the distinction between numeral classifiers and mensuratives or

measure words.¹⁶ Numeral classifiers are agreement morphemes whose use is determined by some semantic characteristic of the noun root being quantified. Mensuratives, on the other hand, “denote the type of arrangement of the figure in units or containers that are necessary for mathematical operations” (Zavala 2000: 13). While in some Mayan languages, it is not clear if there is morphosyntactic distinction between mensuratives and numeral classifiers, but only a semantic one (Tseltal and Tzotzil, for example), close examination of the morpho-syntactic properties of mensuratives in various Mayan languages has revealed that they often display contrasting, if overlapping, patterns of use. In Akateko, for example, numeral classifiers (a three-item closed class in this language) and mensuratives can co-occur, demonstrating that they belong to different paradigms. Arcos López (2009: 59-61) argues that, in Chol, numeral classifiers modify nouns while mensuratives are the nucleus of a noun phrase with a number.¹⁷ The proof of this is that mensuratives can be modified themselves, while classifiers cannot. Thus you can get statements such as:

¹⁶ Zavala (2000), in addition to numeral classifiers and mensuratives identifies two further types of classifiers in Akateko: noun classifiers, which are an areal features shared by certain Highland languages, and sortal classifiers. Sortal classifiers are positional forms that classify according to shape. While, to my knowledge, these have not been described for other Mayan languages, it is likely that they exist. However, in Akatek, they are an optional class and do not seem to be obviously related to the phenomenon of numeral classifiers under discussion here. The topic merits further investigation.

¹⁷ Arcos López (2009) also notes that there are some mensuratives that cooccur with (and follow) the generic numeral classifier *-p'ej*, making it simple to distinguish them from numeral classifiers. Here we will focus on the mensuratives that do not cooccur with numeral classifiers and are therefore more difficult to distinguish from them.

Chol (Arcos López 2009: 61)

- (1) *añ-∅* *jun-mujts* *kolem-∅=bä* *alä* *si'*
EXIST-B3 uno-MENS:manojos grande-EST-B3=REL pequeño leña
'Un manajo que es grande de leña chica.'

In which both the mensurative (*-mujts* 'manajo') and the measured noun (*si'* 'leña) are modified with semantically contrary modifiers.

One thing worth noting here is that outside of the context of modified mensuratives, there are no morphological or syntactic criteria to clearly distinguish between mensuratives and numeral classifiers except for the semantics. This overlap has led some analysts to lump both together. And indeed in some languages, such as Tseltal (Berlin 1968, Polian 2004) there seems to be no reason, aside from semantics, to distinguish most measure words from numeral classifiers. However, I will argue that mensuratives and numeral classifiers have very different histories in Mayan languages, particularly as they relate to language contact.

3.3.2.4.1.1 Pattern Borrowing in Numeral Classifiers

There are two different features of numeral classifiers that seem to have been shared through contact among Lowland languages, and which pattern slightly differently. The first has to do with the presence or absence and the overall size of the set of numeral classifiers. The second involves the use of 'generic' numeral classifiers, particularly as it relates to the generic plural number suffix mentioned earlier.

As Kaufman (1990: 96) observed, numeral classifiers are unlikely to have been present in proto-Mayan. Kaufman's evidence for this is the fact that they are only found in Yukatekan, Cholan-Tzeltalan, and, in a very restricted manifestation, in Greater Q'anjob'alan and Poqom (Santos Nicolás 1998: 177); everywhere else that has them, they aren't obligatory.

The salience of numeral classifiers in Cholan-Tzeltalan and Yukatekan derives from the fact that all of these languages have a large, and somewhat open class of numeral classifiers. Exact figures are difficult to determine. Previous studies have identified several dozen to several hundred numeral classifiers. For example, Keller (1955) identifies 78 numeral classifiers in Chontal, Bergqvist (2008: 77-79) numbers numeral classifiers in Northern Lakantun at around 90, and Tozzer (1921: 290-292) gives 80 for Colonial Yukatek. In his famous monograph on Tzeltal numeral classifiers, Berlin (1968) identifies more than five hundred numeral classifiers.

In all of these studies, no distinction is made between numeral classifiers and mensuratives, so that the numbers are somewhat harder to interpret. Arcos Lopez (2009), on the other hand, does distinguish between numeral classifiers and measure words in Chol, and identifies 42 measure words and 140 numeral classifiers, demonstrating that even removing measure words from the count, the set of numeral classifiers is rather large. This contrasts sharply with the size of the set of numeral classifiers found in the only other Mayan languages with obligatory numeral classifiers, the Q'anjob'alan languages, which have three numeral classifiers, one for humans, one for non-human animates, and the generic number suffix for all others.

Clearly both the use of a system of numeral classifiers and the development of such a large set of classifiers is an areally defined phenomenon particular to the Lowland and Greater Lowland spheres of linguistic interaction. It is important to point out, however, that other Mayan languages have two similar features: a highly developed set of mensuratives, which immediately follow numerals, and the use of a single generic number suffix of the form *-Vb* (*-iib*, *-ab*, or *-eb*), used on numbers greater than one when a mensurative is not used. It is likely that these common features are the source from which the Lowland pattern of classification arose (see Kaufman 1990: 97). In Q'anjob'alan languages, this suffix, *-eb*' seems to be the base for the numeral classifier system, used for inanimates. In Tojol-ab'al, this *-eb*' suffix is always used, even with measure words and a set of some 20 'numeral classifiers', possibly mensuratives (Furbee-Losee 1976: 118). In Tseltal and Tzotzil, *-eb*' or *-ib*' is still used productively for words that don't otherwise have a numeral classifiers (Haviland 1981: 165, Polian 2004: 140).

Interestingly, another areally spread Lowland innovation relates to this generic number suffix *-eb*'. In only the Cholan and Yucatekan languages, the reflex of the Common Mayan *-Vb*' has been almost entirely lost. Only a few vestiges remain in derived forms, for the most part only with the number 'two' in temporal expressions of days in the future and days in the past. The loss of this form may well be connected with the innovation and expansion of the numeral classifier system in these languages, though, as mentioned earlier, it was not lost in Tseltal and Tzotzil, which clearly have a very well developed system of numeral classifiers. It is also clearly related to the borrowing of specific linguistic forms for numeral classifiers from one language into another.

3.3.2.4.1.2 Matter Borrowing

In table 9, below, is a list of several of the most common numeral classifiers that are shared between Yukatekan and some or all of the Cholan-Tzeltalan languages. Three of them (*-tuhl*, *-wohl*, and *-koht*) are shared by all or most of the Cholan-Tzeltalan languages and the Yukatekan languages. Two others are more limited, but have particularly intriguing distributions and functions.

Borrowed forms

Numeral Classifiers

<i>-p'ej(l)</i>	generic count (round things in tse, tzo) [chl, chn, yuk, lak, mop, itz]
<i>-te'</i>	generic count (wood in chn) [yuk*, cht]
<i>-tz'ih</i>	long slender objects [yuk, chl, chn, cht]
<i>-tuhl</i>	animates (people and animals) [tze, tzo, chn, cht, yuk, mop, lak]
<i>-koht</i>	quadruped, animal [tze, tzo, yuk, toj, chl]
<i>-wohl</i>	rounded things [tze, tzo, yuk, chn, chl]
<i>-num</i>	'times' [chn, yuk]

Mensuratives

<i>-sap</i>	'armlengths' [chn, yuk]
<i>-xet'</i>	pieces (torn off) [tze, tzo, yuk, chn, toj]
<i>-mek'</i>	'armfuls' [yuk, chn, chl]

Table 9. Lowland Shared Numeral Classifiers

The first thing to note is that in Tzeltal and Tzotzil, the generic numeral classifier is *-eb'*, *-ib'*, while other numeral classifiers serve to classify the noun being counted and

must agree with that noun in certain ways. A look at the generic numeral classifier in Cholan and Yucatekan languages displays an interesting pattern: first of all, as noted earlier, Cholan and Yucatekan languages all have lost the productive use of **-Vb* as a generic number suffix. Chol, Chontal and Yucatekan all use an innovative suffix *-p'ej(l)* as the generic numeral classifier, a form that was clearly shared through contact.

The Eastern Cholan languages Cholti and Chorti, as well as the language of the hieroglyphs have another innovative form, *-te*, for the generic numeral classifier. It seems likely that this form replaced an earlier form (such as **-p'ej*), since Chontal still has *-te* as a numeral classifier, but with its original function as a classifier of wooden things (from *te* 'tree, wood'). This is further evidence of the close affiliation between the language of hieroglyphic inscriptions and the Eastern Cholan languages. Another interesting fact is that *-te* is also attested in Colonial Yucatek, not as a generic numeral classifier, but as a numeral classifier for a motley assortment of things (days, months, years, distances, seeds, cacao, eggs, and squash [Barrera Vasquez 1980: 782]), many of which are in semantic domains with a high level of loanwords from Cholan languages or associated with Lowland Mayan civilization. This suggests that the *-te* numeral classifier in Colonial Yucatek was in fact a borrowing from the language of Maya hieroglyphs.

3.3.2.5 Word Order

In an important paper on correlates of ergativity in Mayan grammar, Larsen and Norman (1979: 356) note that “In the languages of the Kanjobalan, Mamean and

Quichean subgroups, ergative nominals may not as a rule be questioned, relativized or focused, while absolutive nominals can be.” While they do not comment on the languages that do not follow this pattern, in the context of this study, their statement alone gives reason to suspect that the lack of this feature is yet another characteristic of the Lowland Language area.

The so-called agent focus is an important part of the grammar of many Mayan languages. As Larsen and Norman note, its use follows an ergative patterning, only applying in cases of fronting or focus (including negation, *wh*- questions, and relativization) involving nominal arguments normally referenced on the verb with an ergative person marker, that is, agents of transitive sentences. The following example illustrates the agent focus construction in Q’anjob’al:

Q’anjob’al (Mateo Toledo 2008: 76)

- (2) *A* *naq* *ch’- ϕ -eche-n* *xim*,
 FOC CL INC-A3S-measure-AF CL
 a *naq* *ch- ϕ -chah-on* *ϕ -tojol* *xim*.
 FOC CL INC-A3S-receive-AF A3S-price CL
 ‘He was the one who was measuring the corn, he was the one who was
 receiving the corn’s payment.’

In this example, the pronoun *naq*, the noun classifier for male humans, has been moved to the front of each clause, immediately following the focus particle *a*. The finite verb phrases that follow, while semantically transitive, have been derived with the suffix *-(o)n*, and the verb is only marked with one person marker, a third person absolutive. In Q’anjob’alan, K’iche’an and Mamean languages, agents cannot be fronted for focus,

questioning, or relativization without undergoing this or the antipassive voice alteration and formal valency reduction.

In Yukatekan, Cholan and Tseltalan languages (and Tojol-ab'al), on the other hand, voice alteration is not obligatory. This is shown in the following examples from Lakantun and and Tseltal:

Lakantun (Bergqvist 2008: 68)

- (3) *ʔa-in-naʔ-oʔ* (t)u-kän-aj-∅ *seʔm*
 DET-1SG.A-mother-TD.DIST COM-3SG.A-pick.up-CP-3SG.B cough
 'My mother, she got a cough'

Tseltal (Polian 2004: 170)

- (4) *ch'o la s-we' te waj=e*
 mouse COM.T A3-eat(B3) DET tortilla=TOP
 'It was the mice that ate the tortillas.'

At least two different morphemes are involved in antipassive or agent focus constructions in Mayan languages, one a *-Vw* suffix, and one a *-Vn* (as shown in the Q'anjob'al example). In some Mayan languages, the *-Vn* suffix is used for the agent focus construction, while the *-Vw* is using for the antipassive. However, in other languages, the use of one or the other is determined by the phonological shape of the root (CVC or non-CVC), or other criteria, and not all Mayan languages retain reflexes of both suffixes. Lowland languages still retain reflexes of these suffixes, though they are clearly no longer used for this particular function. What is important for our purposes is simply to note that what has diffused through contact in the Lowland area is not actual morphemes, i.e. linguistic matter, but syntactic patterns, specifically, the ability to front the agent of an active transitive sentence without altering the valence of the main verb.

Interestingly, there is evidence that this areally shared syntactic change post-dates the Classic civilization, since several instances of the agent focus construction are attested in the hieroglyphic corpus (see Lacadena 2002 for more information), and there are no known instances of a focused agent in the hieroglyphs without the focus antipassive.



Figure 3. Example of Agent Focus Antipassive in Hieroglyphs. Copan Stela 6, Drawing by Barbara Fash.

Copan Stela 6 (my transcription and translation)

- (5) *Haa' tzak-w-iyy-Ø waxak-lahuun u-baah chaan, ochk'in-kaloomte'*
FOC conjure-AP-comp-B3 eight-ten A3-self snake west-ruler
'He (is the one who)conjures (the deity) 18 are the images of the snake. He is the
Ochk'in Kaloomte'.'

Thus, in spite of its adoption by all modern Cholan, Tseltalan, and Yukatekan languages, this innovation (the loss of the marked agent focus antipassive) cannot be reconstructed for proto-Cholan-Tseltalan, or even, most likely, for proto-Cholan.

3.4 LINGUISTIC AREAS

While the preceding discussion has clearly shown that the Maya Lowlands has seen a tremendous amount of contact-induced language change, the coherence of the region as a linguistic area remains to be discussed directly. The notion of a 'language area' is often credited to Trubetskoy (1928), though Campbell (2006), in his review of the concept, highlights similar notions going back to the early 1800s. In his original work, in German, Trubetskoy used the term *sprachbund* to refer to a group of geographically proximate languages with similarities not due to genetic relation. Boas (1911, 1920) and his student Sapir (1921), with conflicting opinions on the matter, expanded discussion of areal language phenomena in an attempt to understand the geographical distribution of certain linguistic features in Native American languages of the Pacific Northwest. The concept achieved real prominence in the field, however, with the publication of Emeneau's (1956) paper in the journal *Language* on India as a Linguistic Area, in which he cited numerous features shared by Indo-Aryan, Dravidian and Munda languages, including retroflex consonants, syntactic structure involving non-finite verb forms,

gerunds, a particular type of morphological reduplication, and classifier systems. For these genetically unrelated language groups in India, Emeneau argued, “the end result of borrowings is that the languages of the two families, Indo-Aryan and Dravidian, seem in many respects more akin to one another than Indo-Aryan does to the other Indo-European languages” (Emeneau 1956: 16).

In addition to the Indian Linguistic Area, numerous other areas have been proposed. Perhaps the best-known of these are the Balkan Linguistic Area (Joseph 1992) and the Mesoamerican Linguistic Area (Campbell, Kaufman and Smith-Stark 1986), to which the Maya area belongs. As noted at the beginning of this chapter, the Maya Lowlands have also been proposed as a linguistic area (Justeson et al 1985). An attempt to identify ‘linguistic areas’, however, leads us rather quickly to several problems with the concept. So much so, that an entire edited volume (Matras et al 2006) has been published on the issues raised by the concept. The Lowland Maya area can help demonstrate many of these issues.

3.4.1 Difficulties in Defining a Linguistic Area

If we understand a linguistic area to be a group of (geographically proximate) languages that share certain features because of contact, one difficulty that arises in deciding whether a given case counts as a linguistic area or not is determining how many shared features it takes to consider a region to be a linguistic area (see Masica 1976). Campbell et al. (1986) give four solid features, plus a further nine possible ones to define the Mesoamerican Linguistic Area. Joseph (1992) gives a list of 9 features for the Balkan

linguistic area. Many scholars have proposed that, at minimum, a single shared feature could constitute a linguistic area. This debate has led Campbell (1985: 29) to propose that the question should not be whether or not a group of languages constitute a linguistic area, but rather how weak or strong that area is, i.e., groups of languages which share numerous features are stronger ‘linguistic areas’ than groups of languages that share few features.

However you look at it, it seems that the identification and quantification of shared features is also an important aspect of defining a linguistic area. In the preceding section, I surveyed several features which seem to suggest that the Lowland Mayan languages not only constitute a linguistic area, but a very strong one at that. However, an attempt to quantify the ‘strength’ of the area runs into problems. For example, several of the shared features are logically connected, a fact that will be examined in more detail in subsequent chapters. Are we to count the development of aspect-based split-ergativity as a single feature, or do we separate it according to its use in the progressive and the incomplete, and the morphological forms used in the incomplete, all of which have different distributions? The same issue arises with person markers: if there have been some nine actual forms of person markers shared by contact between Cholan and Yukatekan, do we speak of nine shared features, or just one? Do the interrelated innovations of plural person markers and an inclusive/exclusive distinction in some Cholan-Tzeltalan languages count as one feature, or two, or four, since we are talking about parallel innovations of two new first person morphemes indicating both

inclusive/exclusive and plurality? Should these be lumped in with the similar innovations in second and third person?

Another obvious issue when defining a linguistic area, and perhaps the most discussed in the literature, is the fact that isoglosses for individual features do not generally bundle in (analytically) satisfying ways. Koptejevskaja-Tamm (2001, 2006), for example, notes that the Balkan linguistic area does not have the precise boundaries that are implied by the idea of an ‘area’, but each individual feature has a distinct distribution, reflecting, apparently, a distinct history. These observations have led her to speak of a Circum-Baltic ‘Contact Superimposition Zone’, rather than a coherent linguistic area. This superimposition of numerous semi-independent contact-induced changes can be seen clearly in the distribution of features relevant to the Maya Lowlands. Just taking sound changes, it is impossible to draw a clear boundary for the area unless we arbitrarily choose a single sound change as definitional: the change of pM */r/ to /y/ included a huge swathe of non-Lowland languages, including all of the Q’anjob’alan languages except for Mocho’, and oddly enough, Wastek. The change of pM */ŋ/ to /n/ is nearly as broad, but didn’t effect Chuj and Popti’.

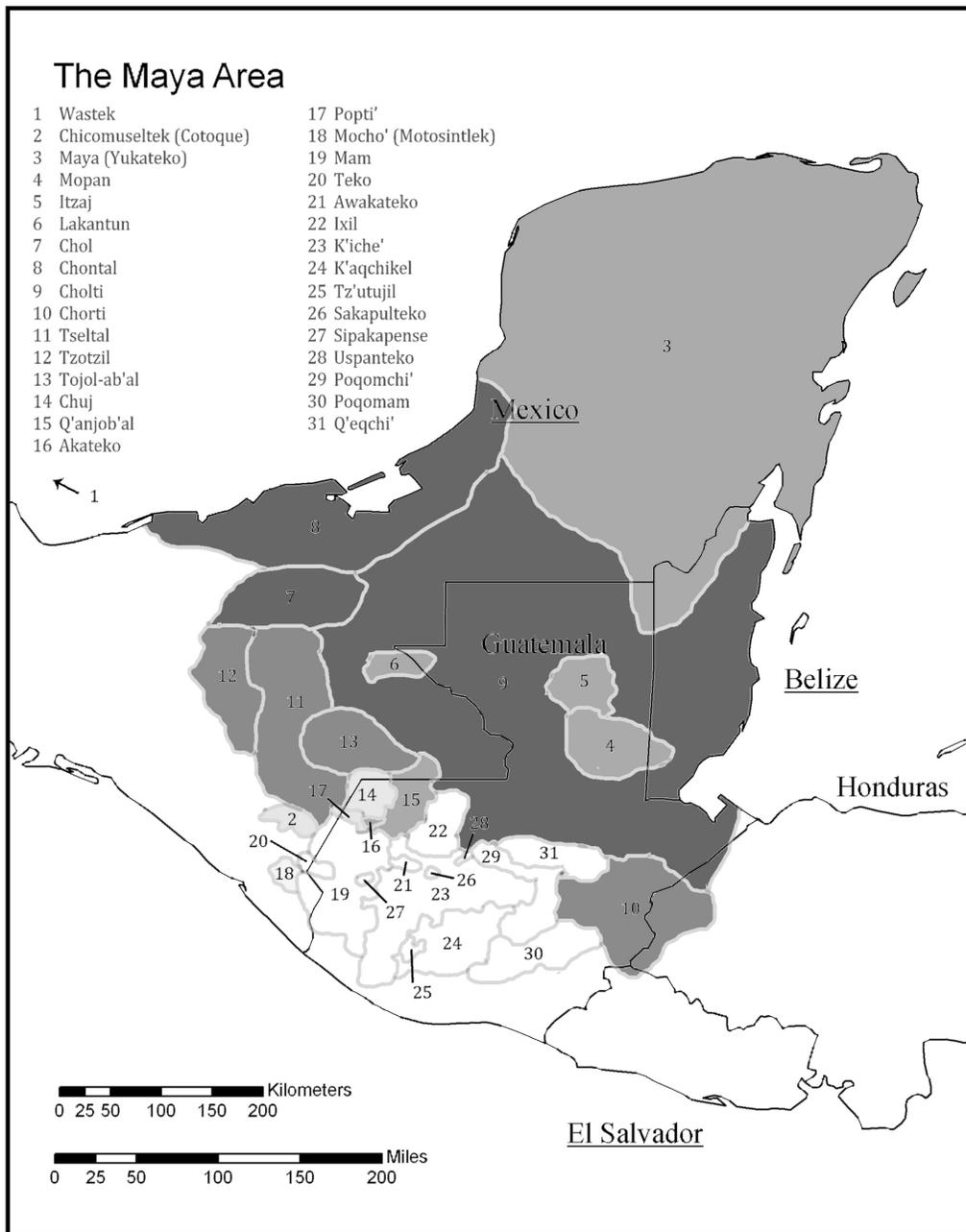
One proposed method for working around the apparent indeterminacy of linguistic areas is to rank participating languages according to how many of the identified areal features are found in each language. Languages with more of the relevant features would be ‘core’ languages, languages with fewer would be ‘peripheral’ languages. Van der Auwera (1998), following work by Masica (1976), applies this strategy to the Balkan and Mesoamerican areas, deriving what he calls ‘isopleth maps’, which visually illustrate

the relative ranking of each language, as well as their geographic relationships. If we apply this heuristic to Lowland languages with respect to the six sound changes mentioned above, for example, we get the following ranking:

Number of Lowland Sound Changes in Each Language

- 6 - Chol
- 6- Chontal
- 6- Colonial Cholti
- 5 - Tojol-ab'al
- 5 - Tseltal
- 5 - Tzotzil
- 5- Chorti
- 4 - Q'anjob'al
- 4 - Akateko
- 4- Yukatek
- 4- Mopan
- 4- Itzaj
- 4- Lakantun
- 2 - Wastek
- 2 - Popti'
- 2 - Chuj
- 1 - Mocho'
- 1 - Poqom

Predictably, we find that Chol, Chontal and Cholti are at the top of the list, since all three have all six features. However, Yukatekan languages, with 4 of the sound changes, rank just as highly as Q'anjob'al and Akateko. Looking at this geographically, we do see a general geographic 'center' to the linguistic interaction, but one that includes essentially the 'Cholan' belt of the Petén and Izabal, Guatemala, northern Chiapas and Tabasco Mexico.



Map 4. Isopleth Map of Lowland Sound Changes. Lighter gray = fewer lowland sound changes, darker gray = more lowlands sound changes.

However, even if, as with the above method, we try to define the area from some core region, we run in to problems. What is generally understood to be the linguistic ‘core’ of the Lowland languages are Cholan and Yucatekan languages, but, as the above map shows, with respect to sound changes, Yucatekan is no more central than Q’anjob’al and Akateko. The loss of contrastive vowel length, which affected most of the Q’anjob’alan languages, except Mocho’, did not affect the Yucatekan languages, nor did it affect the language of the hieroglyphs, often cited as one of the impetuses for the areal features of the region (among others, including trade, religious, artistic and political influence that are similarly connected with Classic Maya civilization). A similar distribution obtains for the merger of /j/ and /h/, excluding both Yucatekan and the language of the hieroglyphs. If we take just the members of the Cholan subgroup to be the definitional ‘core’ of the Lowland Mayan linguistic area, we also run into problems. Not only would any innovations that are shared by only these languages be impossible to distinguish from shared inheritance, but not all of the areal sound changes include all of the Cholan languages. The innovation of the bilabial ejective phoneme /p’/, for example, which spread areally to Yucatekan and Cholan languages, as well as Tseltalan, seems to be absent in Chorti, but is present in dialects of Poqomchi’ and Poqomam.

3.4.2 ‘Linguistic Area’ Conceptual Problems

But beyond acknowledging problems in the actual practical task of identifying a ‘linguistic area’, a more fundamental question remains: what exactly are we identifying? Is there something about linguistic areas that makes them different from other contact situations? Does identifying the Maya Lowlands as a linguistic area tell us something about the Maya Lowlands? Among the numerous ideas about how linguistic areas come about, one that has been particularly prominent is the ‘prestige language’ or ‘lingua franca’ model. Just as with the practical task of identifying and defining a linguistic area, at a conceptual level, identifying a single process or cause of ‘linguistic areas’ will prove fruitless, not because the processes themselves are not significant for contact-induced language change, but because the causes of ‘linguistic areas’ are as diverse as the social and linguistic histories of the areas in question. A consideration of the Lowland Maya linguistic area with respect to the prestige language model of the emergence of a linguistic area helps exemplify this:

The idea behind the ‘prestige language’ model is that a language area arises because multiple languages are all heavily influenced by a single widely spoken prestige or trade language. In the case of the Maya Lowlands, we have just such a language in the language of hieroglyphic texts, a Cholan language, most likely from the ‘Eastern’ or ‘Choltian’ branch of the Cholan subgroup, and which, by its distribution in the form of hieroglyphic texts, was clearly the prestige language of the Classic Maya elite for the duration of the Classic, and into the Postclassic (Houston et al 2000). However, while this might seem an obvious candidate for the source of the Lowland Mayan linguistic area

(Law 2009), several striking areally diffused changes do not apply to the Choltian branch (the inclusive/exclusive distinction, for example, and the spread of the new phoneme /p'/, which did not apply to Chorti). In addition, several of the changes which were adopted more generally later on are not apparent in the language of hieroglyphic inscriptions (the obligatory use of numeral classifiers, the loss of the agent focus construction, loss of phonemic vowel length and the merging of /h/ and /j/). If anything, it was a language that post-dates the language of the inscriptions, rather than the language of the inscriptions itself that was particularly influential in the region. This raises important questions about chronology and the relationship between the written language and the spoken languages of the time. Should we conclude from these data that the linguistic interactions that resulted in these areally shared features post-dated the Classic period, or that the lack of so many innovative, contact-induced changes in the glyphic language indicates a difference between the written and oral form of the language managed by the dominant group in the region?

Regardless of the role of the written language in patterns of language contact, it is clear that it, or any other single source of influence, could not have been the only source or motivation for the contact-induced changes in Lowland Mayan languages. As this discussion has shown, upon closer investigation, it seems clear that what we recognize as a 'linguistic area' is not a unitary phenomenon, but is simply the flattened synchronic evidence of a much more dynamic history of language contact. It is a flag that something has happened that might be worth studying. Further study of language areas inevitably explodes the flat unity of the region to reveal the deeply fragmented history underlying it.

As Thomason (2001: 102) observes, “ the way a linguistic area arises is through contact-induced changes that occur over a long period of time and spread widely through the region – but always from language to language in a series of events, not in some single mystical area-wide process that affects many languages at once.” In demystifying the Lowland Mayan language area, we open it up for an investigation of the historical and linguistic processes that led to its patina of similarity. The following chapters will take this challenge to specific aspects of the Lowland language contact history, and, as suggested above, help to fragment some of the apparent linguistic unity of the region.

Chapter 4: Contact Effects in Person Marking

4.1 INTRODUCTION

In this chapter we will investigate in greater detail several contact-induced changes related to marking person and number agreement on verbs in the Lowland Mayan languages that were mentioned briefly in Chapter 3. These include the innovation of plural suffixes for marking number on the verb, the related innovation of an inclusive/exclusive distinction, made by the use of particular plural suffixes; the shift of the first person plural in several languages to be a number-neutral marker of first person, the suffixation of set B person markers in all contexts, and the direct replication of several actual phonological forms between different sets of languages¹⁸.

We will start with a survey of contact effects on person marking cross-linguistically, followed by a survey of person marking across the Mayan language family, to appreciate better the similarities and differences in the Lowland Mayan languages. We will then discuss each of the above-mentioned areally spread innovations in turn and conclude with a discussion of some of the social factors that might have given rise to the

¹⁸ Portions of this chapter, in an earlier form, were published in Law 2009.

cross-linguistically remarkable series of changes, and what the replication of patterns of person marking from one language to another actually represents in terms of social organization and personal interaction.

4.1.1 Overview of Contact effects in person marking

As mentioned in Chapter 1, there have been many hypotheses advanced over the years in support of the general idea that certain types of linguistic features are more or less likely to be borrowed. The extreme position that certain types of features simply can not be borrowed has only been voiced rather rarely in the literature (cf. Sheveroshkin 1986: 6). However, many scholars have argued that certain linguistic features are very unlikely to be borrowed (Nichols and Peterson 1996: 337, 1998: 610; Dixon 1997: 22; Greenberg and Ruhlen 1992: 97; and others). Several scholars have developed hierarchies of ‘borrowability’ for various linguistic features, expressed both in terms of frequency (i.e. x is less commonly borrowed than y) and as implicational hierarchies (i.e. the borrowing of x implies the borrowing of y, but not the reverse). Attempts to rank linguistic categories from easiest to borrow to most difficult, starting with D. W. Whitney’s (1881) proposal (cited in Haugen 1950: 224) that “nouns are most easily borrowed, then the various other parts of speech, then suffixes, then inflections, then sounds”, consistently place pronouns, or the category that would include pronouns, among the least likely to be borrowed (more recently, see Moravcsik 1978, Muysken 1981, and Matras 2007). Such rankings beg the question of how it is that the system of

person marking in Mayan languages seems to have been so thoroughly altered through contact.

Not all scholars agree, however, that the borrowing of pronouns is so unlikely. Wallace (1983), for example, suggests that the apparent lack of pronominal borrowing might be the result of an Indo-European research bias, since in Indonesia, pronominal borrowing not only occurs, but actually appears to be quite common. Campbell (1994: 4) also asserts that the “diffusion of pronouns...is not so unusual as one might think”. And Thomason and Everett (2005: 1) argue that, “pronoun borrowing is nowhere near as rare as one would suppose from reading the literature”.¹⁹

For the most part, assertions of the relative borrowability of features have depended on the ‘general sense’ that a particular scholar had of the relative rarity or frequency of certain types of borrowing (a salient exception to this is Matras and Sakel 2007a). Such imprecision, and the ensuing disagreement about what is more or less likely to be borrowed, favors the pursuit of a more qualitative question: under what circumstances (both social and structural) are particular types of linguistic features actually borrowed? In this study I will consider two cases of pronoun borrowing from the Mayan language family and attempt to illuminate social and linguistic factors that might have facilitated their borrowing. These cases compare in interesting ways with other reports of extensive borrowing of pronouns, most notably Wallace’s (1983) description of parts of Southeast Asia. The similarities and differences between these accounts provide

¹⁹ As an example a bit closer to home, Thomason and Kaufman (1988) describe in detail the fact that several personal pronouns, including the third person plural forms *they*, *them*, *their* were borrowed into Old English from Old Norse.

some clue as to the multiplicity of factors that interact to facilitate the borrowing of pronouns. They also provide a great context for investigating the role of linguistic similarity and the construction of social similarity and difference in patterns of language contact.

4.1.2 Types of Pronouns and Pronoun borrowing

Before describing the data on pronouns for Mayan languages, it seems important to be more precise about exactly what we mean by ‘pronouns’. As Matras (2007) points out, the literature on pronoun borrowing often ignores the fact that ‘pronouns’ in fact span a wide range of forms and functions. Jake (1994), using Myers-Scotton’s (1993) framework, makes this point in her discussion of code-switching phenomena involving pronouns. She argues that the various discourse-emphatic pronouns, non-thematic pronouns, indefinite pronouns, and personal pronouns, all distinct functions in and of themselves, can also be categorized along with other morphemes as either ‘content’ or ‘system’ morphemes (roughly morphemes that give or receive thematic roles versus those that do not, Jake 1994: 276). Jake uses these distinctions to refine statements on code switching around pronouns. The important point here, however, is that languages often differ dramatically in how these categories interact. Even when we are specifically comparing the borrowing of personal pronouns across languages, we may be looking at a set of content morphemes in one language (as is the case, for example, in Indonesia) and a set of system morphemes in the other (as is the case in the Maya Lowlands).

Jake's distinction between content and system morphemes is roughly similar, with respect to pronouns, to the distinction that Muysken (1981) makes between 'free pronouns' and 'clitic pronouns'. Muysken argues that clitic pronouns are less likely to be borrowed than free pronouns. Matras (2007) also highlights several important distinctions in functional categories of pronouns. He notes that the Indonesian pronouns described by Wallace (1983) are remarkably lexicalized and structurally much like other terms of address. He also notes that different categories of pronouns, including anaphoric, reflexive, reciprocal, interrogative, and indefinite pronouns must all have different motivations for borrowing, are borrowed with different frequencies, and may involve very different processes of incorporation. Any comprehensive statement regarding the borrowing of pronouns must distinguish these various types of pronouns. The pronouns that will be discussed below from Mayan languages are all personal pronouns, which would qualify as system morphemes according to Jake. They are certainly clitic pronouns, rather than free pronouns. These refinements make the case of pronominal borrowing among the Maya that much more striking, since whenever a distinction has been made in hierarchies of borrowability these particular types of pronouns are always less likely to be borrowed than any others.

4.1.3 Broader Debates Involving Pronoun Borrowing

The borrowing of pronouns has figured prominently in two larger debates in the past few decades, both involving questions of 'deep' genetic relationships: Greenberg's proposed 'Amerind' macro-family, and Dixon's work on Australian languages and his

model of linguistic ‘punctuated equilibrium’. Both Greenberg and Dixon held the position, as expressed by Greenberg and Ruhlen (1992: 97) that “pronominal affixes are among the most stable elements in languages: they are almost never borrowed.” Such stability would, as Dixon noted, make pronouns among the “surest indicators of genetic relationship” (Dixon 1997: 22). Similarities in pronominal systems could, under this assumption, be taken as compelling evidence of genetic relationships, even for time depths at which the standard comparative method can no longer apply.

Skeptics of using pronouns for determining genetic affiliation argue that pronouns often resemble each other due to universal tendencies (Campbell 1994, 1997; Meillet 1958), as well as language contact. The only quantitative test of the claim that certain sounds are statistically more likely to be used for pronouns than others, Nichols and Peterson (1996), found that the distribution of certain sounds was skewed geographically, and they therefore concluded that the common occurrence of certain sounds for pronouns is best explained as resulting from either widespread contact or inheritance, rather than universal tendencies. If this is true, the relative stability of pronouns would certainly carry significant implications for proposals concerning linguistic history deep in the past.

The question of pronominal borrowing is not solely relevant to proponents of macro-families like Amerind or Nostratic, however. Any statements of a general nature concerning how and why pronouns can be borrowed provide important information about the motivations and constraints on linguistic borrowing more generally. While the data I will present suggest that pronominal borrowing was not uncommon in the Maya Lowlands, it does not, in fact, constitute a refutation of the general proposal that

pronouns are unlikely to be borrowed. Like many alleged counter-examples to linguistic universals, such nonconforming cases often serve to reinforce or refine various aspects of the original proposal, rather than nullifying it entirely. In this spirit, I will examine several cases of linguistic contact among various Lowland Mayan languages that affected most or all of the pronominal paradigm in these languages. In examining the linguistic and social context, several factors surface that likely influenced the ease with which pronominal patterns and forms were shared in this region.

4.2 PERSON MARKING IN MAYAN LANGUAGES

The system of person marking in Mayan languages is relatively simple, compared to some languages, though there is some diversity in the forms involved as well as the semantic contrasts codified in the paradigms of person marking. All Mayan languages have at least two different paradigms of person markers which, in most contexts, pattern ergatively, that is to say one set is used to reference the agent (or ergator) of transitive verbs (the Ergative or Set A) and another references the patient of transitive verbs and the subject of intransitive verbs (the Absolutive or Set B). As with many ergative languages, the ergative set also marks nouns to reference a possessor. As mentioned in Chapter 3, several languages have also developed nominative-accusative patterns (split ergativity) in different parts of the grammar (i.e. the incompletive aspect, subordinate clauses, 1st and 2nd person); the details of these ‘splits’ in the otherwise ergative pattern of person marking will be discussed in more detail in Chapter 5.

The historical development of the pronominal systems of Mayan languages has been remarkably well studied, particularly compared to other indigenous language families of America. This is due in large part to the historical-comparative work of John Robertson (1977, 1980, 1982, 1983, 1985, 1987, 1992, etc.). Robertson's reconstruction of Common Mayan pronouns (Robertson 1992: 53) contrasts in some ways with the other influential reconstruction of this paradigm, presented by Kaufman and Norman (1984: 91), as can be seen below in table 10.

Set A (/_C)	1	2	3	1pl	2pl	3pl
CM (JSR)	* <i>nu-</i>	* <i>a-</i>	* <i>ru-</i>	* <i>qa-</i>	* <i>e-</i>	* <i>ki-</i>
pM (K&N)	* <i>nu-</i>	* <i>aa-</i>	* <i>u-</i>	* <i>qa-</i>	* <i>ee-</i>	* <i>ki-</i>

Set A (/_V)	1	2	3	1pl	2pl	3pl
CM (JSR)	* <i>w-</i>	* <i>aw-</i>	* <i>r-</i>	* <i>q-</i>	* <i>er-</i>	* <i>k-</i>
pM (K&N)	* <i>w-</i>	* <i>aaw-</i>	* <i>r-</i>	* <i>q-</i>	* <i>eer-</i>	* <i>k-</i>

Set B	1	2	3	1pl	2pl	3pl
CM (JSR)	* <i>-in</i>	* <i>-at</i>	* \emptyset	* <i>-o'η</i>	* <i>-ex</i>	* <i>-eb</i>
pM (K&N)	* <i>-iin</i>	* <i>-at</i>	* \emptyset	* <i>-o'η</i>	* <i>-ix/*-ex</i>	* <i>-eb</i>

Table 10. Ergative (set A) and Absolutive (set B) pronouns in Common Mayan following Robertson (1992: 53) and Kaufman and Norman (1984: 53)

The differences between these two reconstructions are relatively minor, which I take as a good indication of the reliability of the reconstructions. The main differences are for the ergative third person singular (**u* by Kaufman and Norman versus **ru* by Robertson), and vowel length in the second person ergative pronouns and in the first person absolutive. Both reconstructions affirm that proto-Mayan can be confidently assumed to have marked singular and plural with suppletive forms for all three persons in

both the ergative set of pronouns and the absolutive set. This is an important fact to keep in mind, as several of the changes diffused in the Lowlands involve a restructuring of this form for marking the plural. Proto-Mayan, as well as most of the descendant languages, also had two allomorphs of each ergative person marker, one prevocalic and one preconsonantal.

Both sets of pronouns (ergative and absolutive) have changed in a variety of different ways in the different families. The most radically innovative language in terms of person markers is Wastek, a language that has been geographically distant from all other Mayan languages for a very long time; by some calculations, ever since proto-Mayan first began to differentiate more than four millennia ago (Kaufman 1976). In Wastek, the ergative and absolutive pronouns are supplemented by a third set of portmanteau pronouns “which indicate both subject and object of transitive verbs when the object is non-third person, and both the possessor and possessed in stative constructions when the possessed object is non-third person” (Edmonson 1988: 115).

Another radical innovation in the system of person marking can be seen in Mam, a member of the Mamean branch, in which only first person and non-first person are distinguished with reflexes of the Common Mayan pronouns, and third person is distinguished from non-third person by means of an innovative postclitic (see table 11).²⁰

Perhaps the most conservative pronominal systems are found in several languages of the K’iche’an branch, including Tz’utujil and Sipakapense (see table 11, below),

²⁰ A similar suffix is used to make a formal distinction between exclusive and inclusive in the first person plural (England 1983: 56), though, based on data from other dialects of Mam, the two clitics do not appear to have a common origin (England 1990: 229, 233).

though other members of this branch (specifically K'iche' and Sakapulteko), as well as the Mamean language Awakateko, have developed a distinction between formal and informal reference for the second person, no doubt an areal feature (Robertson 1987). The conservative systems of Tz'utujil and Sipakapense, as well as the innovative system of Mam are shown below in table 11.

Set A (/ _C)	1	2	3	1pl	2pl	3pl
CM (JSR)	* <i>nu-</i>	* <i>a-</i>	* <i>ru-</i>	* <i>qa-</i>	* <i>e-</i>	* <i>ki-</i>
pM (K&N)	* <i>nu-</i>	* <i>aa-</i>	* <i>u-</i>	* <i>qa-</i>	* <i>ee-</i>	* <i>ki-</i>
Tz'utujil²¹	<i>nu-</i>	<i>a-</i>	<i>ru-</i>	<i>qa-</i>	<i>e-</i>	<i>ki-</i>
Sipakapense²²	<i>n-</i>	<i>a-</i>	<i>r-</i>	<i>q-</i>	<i>i-</i>	<i>k-</i>
Mam²³	<i>n-...-a²⁴</i>	<i>t²⁵-...-</i> <i>a</i>	<i>t-</i>	<i>q-</i> (incl)	<i>q-...-</i> <i>a</i> (excl)	<i>ky-...-a</i> <i>ky-</i>

Set A (/ _V)	1	2	3	1pl	2pl	3pl
CM (JSR)	* <i>w-</i>	* <i>aw-</i>	* <i>r-</i>	* <i>q-</i>	* <i>er-</i>	* <i>k-</i>
pM (K&N)	* <i>w-</i>	* <i>aaw-</i>	* <i>r-</i>	* <i>q-</i>	* <i>eer-</i>	* <i>k-</i>
Tz'utujil	<i>w-</i>	<i>aw-</i>	<i>r-</i>	<i>q-</i>	<i>ew-</i>	<i>k-</i>
Sipakapense	<i>w-</i>	<i>aw-</i>	<i>r-</i>	<i>q-</i>	<i>iw-</i>	<i>k-</i>
Mam	<i>w-...-a</i>	<i>t-...-a</i>	<i>r-</i>	<i>q-</i> (incl)	<i>q-...-a</i> (excl)	<i>ky-...-a</i> <i>ky-</i>

Set B	1	2	3	1pl	2pl	3pl
CM (JSR)	* <i>-in</i>	* <i>-at</i>	* \emptyset	* <i>-o'η</i>	* <i>-ex</i>	* <i>-eb</i>
pM (K&N)	* <i>-iin</i>	* <i>-at</i>	* \emptyset	* <i>-o'η</i>	* <i>-ix/*-ex</i>	* <i>-eb</i>
Tz'utujil	<i>in-</i>	<i>at-</i>	\emptyset -	<i>oj-</i>	<i>ix-</i>	<i>e'-</i>
Sipakapense	<i>in-</i>	<i>at-</i>	\emptyset -	<i>oj-</i>	<i>ix-</i>	<i>e'-</i>
Mam	<i>chin-...-a</i>	\emptyset -...-a	\emptyset -	<i>qo-</i> (incl)	<i>qo-...-a</i> (excl)	<i>chi-...-a</i> <i>chi-</i>

Table 11. Conservative and Innovative Pronominal Systems in Mayan.

²¹ Tz'utujil data from García Ixmata (1997: 197)

²² Sipakapense data from CLS (2005: 73)

²³ Mam data from England (1983: 56)

²⁴ This suffix is *-ya* after vowels (England 1983: 56).

²⁵ Common Mayan **r* becomes /*t*/ in Mamean.

As these examples show, there is a fair degree of diversity in the pronominal systems found in the various Mayan languages, though enough shared similarity remains to allow fairly confident reconstructions of common forms.

4.2.1 Third Person Suppletive to Transparent Plural Forms

In the proto-Mayan system of person marking, the plural forms of each person were suppletive—each plural marker was a monomorphemic portmanteau formally unrelated to its singular counterpart. Several Mayan languages innovated, in some cases only in the third person, in others in all three persons, by replacing the suppletive plural form of the ergative person markers with a bimorphemic pattern of expression in which one marker was used to indicate person, regardless of number, and another morpheme, a postclitic, was used to indicate plurality. We will first consider the scope of this change in the third person, before considering this and related changes in first and second person.

The contrast between these two different patterns for marking plurality can be seen in the third person plural forms of the various languages of the K'iche'an subgroup of Mayan. Most of the K'iche'an languages maintain the proto-Mayan suppletive plural form **ki-* in the ergative third person plural. Q'eqchi', however, displays the innovative pattern of using the third person prefix (*x-* before consonants, *r-* before vowels) regardless of number, and using a plural suffix, based on the form of the third person plural set B marker, to indicate plurality. Notice that, unlike the third person set B marker, however, the plural morpheme in the set A is always suffixed. This detail will be

discussed below, and seems to be further evidence that this is an areally diffused pattern from the Maya Lowlands.

Feature	A3s	A3s.pv	A3pl	A3pl.pv	B3pl
K'iche'	<i>u-</i>	<i>r- ~ ur- ~ ru-</i>	<i>ki-</i>	<i>k-</i>	<i>e'e'/eb'</i>
K'aqchikel	<i>ru- ~ u-</i>	<i>r-</i>	<i>ki-</i>	<i>k-</i>	<i>e'- ~ e-</i>
Tz'utujil	<i>ruu- ~ ru-</i>	<i>r-</i>	<i>kee- ~ ki-</i>	<i>k-</i>	<i>ee- ~ e- ~ e'-</i>
Sakapulteko	<i>ri-</i>	<i>r-</i>	<i>ki-</i>	<i>k-</i>	<i>e- ~ e'</i>
Sipakapense	<i>r-</i>	<i>r-</i>	<i>k-</i>	<i>k-</i>	<i>e- ~ e'- ~ i- ~ i'</i>
Poqomchi'	<i>ri- ~ ir- ~ r-</i>	<i>r-</i>	<i>ki-</i>	<i>k-</i>	<i>i-eeb'</i> <i>i' ~ Ø-...taqee' / -</i>
Poqomam	<i>ri- ~ i-</i>	<i>r- ~ Ø-</i>	<i>ki-</i>	<i>k-</i>	<i>ee' ~-Ø taqee'</i>
Q'eqchi'	<i>x-</i>	<i>r-</i>	<i>x-...-eb</i>	<i>r-...-eb</i>	<i>e'-</i>

Table 12. Third Person Singular and Plural in K'iche'an.

The Mamean subgroup of Mayan has also been largely conservative with respect to the marking of plurality with person, though, as mentioned above, Mam has changed the system of person marking radically from proto-Mayan in other respects. In the third person plural, we see, however, two interesting deviant patterns. First, Awakateko, while preserving a reflex of proto-Mayan **ki-* in *ky-* and *chi-*, also makes use of a suffix in the plural with the form *-e'*, clearly derived from the proto-Mayan set B third person plural marker, making it similar to the pattern noted in Q'eqchi'. The motivation, however, seems different. In the Awakateko case, the suffix serves to distinguish the third person plural from the innovative 2nd person plural polite form, *ky-...u'* and *chi-...-u'*. We cannot discount the possibility that the specific form elected to make the plural distinction was chosen by analogy with such forms in, for example, Q'anjob'al, but there is clearly a different motivation, so an explanation involving language contact seems needlessly complex.

Another interesting pattern can be seen in Ixil, which, as will be mentioned below and in Chapter 5, has clearly taken part in the Lowland Mayan linguistic sphere of interaction. Ixil uses the same form for both singular and plural in the third person. Unlike the other languages involved in this innovation, no plural postclitic is used, but it is worth noting that the form used in plural contexts in set B (the source of the plural form used in other languages) is also unmarked for plural, the same as the third person singular in set B. In effect then, number has been neutralized as a distinctive feature in the Ixil system of person marking in the third person (the distinction, and reflexes of the proto-Mayan forms are maintained in first and second person).

Feature	A3s	A3s/_V	A3p	A3p/_V	B3p
Mam	<i>t-</i>	<i>t-</i>	<i>ky-</i>	<i>ky-</i>	<i>chi-</i>
Teko	<i>t</i> ²⁶	<i>t-</i>	<i>ky- ~ k</i> ²⁷	<i>ky-</i>	<i>e'</i>
Ixil	<i>i-</i>	<i>t-</i>	<i>i-</i>	<i>t-</i>	\emptyset
Awakatek	\emptyset -...- <i>ii'</i> ²⁸	<i>t</i> -...- <i>ii'</i>	<i>chi</i> -...- <i>e'</i>	<i>ky</i> -...- <i>e'</i>	<i>chi</i> -...- <i>e'</i>

Table 13. Third Person Singular and Plural in Mamean

In all of the other subgroups of the Mayan family, this innovation has been entirely adopted in the third person. This can be seen clearly in the Q'anjob'alan subgroup, where what was formerly a marker of third person singular (*s-* or *y-*) is used in both singular and plural contexts and plurality is indicated with a plural marker *-eb'*, cognate with the same form used above in Q'eqchi', historically the third person plural

²⁶ There are numerous allomorphs of this morpheme in Teko: *xh-* ~ *s-/_ch*, *ch'*; *x-/_tx*, *tx'*; *s-/t*, *t'*, *tz*, *tz'* (Pérez Vail 2007: 75).

²⁷ *ky-* before *ch*, *ch'*, *tz*, *tz'*; *k-* before *s*, *x*, *sh*, *tx*, *tx'*

²⁸ There are numerous allomorphs of this morpheme in Awakatek: *xh/_ch,ch'*; *s/_tz*, *tz'*; *x/_tx*, *tx'* (CLA 2001: 51)

absolutive marker.²⁹ Note that, in this respect, Tojol-ab'al is very much consistent with the Q'anjob'alan languages. This will be discussed in more detail in chapter 6.

	A3s	A3s/_V	A3p	A3p/_V	B3pl
Q'anjob'al	s-	y-	s- ~ Ø-... heb'	y-... heb'	-Ø...heb'
Akateko	s-	y-	s-... eb'	y-... eb'	-Ø... eb'
Popti'	s-... naj	y-... naj	s-... heb' naj ³⁰	y-... heb naj	-Ø... heb naj
Chuj	s-	y-	s-... heb	y-...heb	-heb
Mocho'	x-	ch-	x-...(q)e'	ch-...(q)e'	-(q)e'
Tojol-ab'al	s-	y-	s-...-e'	y-...-e'	-e'

Table 14. Third Person Singular and Plural in Q'anjob'alan

4.2.1.1 Plural *-(o)ob*

In the Yukatekan and Cholan languages, plurality in the third person is expressed with the same pattern mentioned above, but within this group of languages, the similarity is even more pronounced, since they all use the same plural suffix, once again derived from the proto-Mayan plural *-eb'*, but this time a mutated form *-oob*. This sound change */e/* to */oo/* is not part of any regular sound change in any of the languages involved. The fact that all of these languages have the exact same idiosyncratic form should be taken as evidence of the replication of actual linguistic matter (a clitic) and not simply the replication of a pattern. This will be discussed again below.

²⁹ Mateo Toledo (2008: 48-50) analyzes the *-eb* form in Q'anjob'al as a full argument of the verb and a pronoun, rather than an agreement marker. It may well be that this analysis holds for other Mayan languages as well. Further research is needed, but this could potentially clarify and substantially refine our understanding of the contact-induced changes involving plurality in the third person.

³⁰ *heb' naj* is +human, *hej naj* for nonhuman: (Craig 1977: 100).

	A3s	A3s/_V	A3p	A3p/_V	B3p
Chol	<i>i-</i>	<i>y-</i>	<i>i-...(-ob)</i> ³¹	<i>y-...(-ob)</i>	<i>-ob</i>
Chontal	<i>u-</i>	<i>uy-</i>	<i>u-...-jo'~-o'~-ob</i>	<i>uy-...-jo'~-o'~-ob</i>	<i>-∅-jo'~-o'~-ob</i>
Classic					
Choltian	<i>u-</i>	<i>y-</i>	<i>u-...(-oob)</i>	<i>y-...(-oob)</i>	<i>∅(-ob)</i>
Cholti	<i>u-</i>	<i>uy-</i> ³²	<i>u-...(-ob)</i>	<i>uy-...(-ob)</i>	<i>∅(-ob)</i>
Chorti	<i>u-</i>	<i>uy-</i>	<i>u-...(-ob)</i>	<i>uy-...(-ob)</i>	<i>∅(-ob)</i>
Maya					
(Yukatek)	<i>u-</i>	<i>uy- ~ y-</i>	<i>u-...-o'ob</i>	<i>uy-...-o'ob</i>	<i>-o'ob</i>
Mopan	<i>u-</i>	<i>uy-</i>	<i>u-...-oo'</i>	<i>uy-...-oo'</i>	<i>-oo'</i>
Itzaj	<i>u-</i>	<i>uy- ~ y-</i>	<i>u-...-oo'</i>	<i>uy-...-oo'</i>	<i>-o'ob</i>
Southern					
Lakantun	<i>u-</i>	<i>uy- ~ y-</i>	<i>u-...-oob</i>	<i>uy-...-oob</i>	<i>-oob</i>
Northern					
Lakantun	<i>u-</i>	<i>uy- ~ y-</i>	<i>u-...-o'</i>	<i>uy-...-o'</i>	<i>-o' ~ -ij-o'</i>

Table 15. Third Person Singular and Plural in Cholan and Yukatekan.

Tseltal and Tzotzil, close relatives to the Cholan subgroup of languages, also manifest the innovative *erg...plural marker* pattern in third person; however, rather than a reflex of proto-Mayan *-e'*, these languages have innovated by expanding the plural marker of imperatives and adjectives, *-ik*, to be the marker of plurality in the third person as well. Interestingly, both Tseltal and Tzotzil have a somewhat unproductive and archaic plural suffix *-ab* which is likely cognate with *-oob* in Yukatekan and Cholan. We can speculate that the extension of *-ik* to the third person plural displaced *-ab* from that function, so that at some prior stage of development, Tseltalan looked somewhat more like Cholan.

	A3s	A3s/_V	A3p	A3p/_V	B3p
Tseltal	<i>s-</i>	<i>y-</i>	<i>s-...-ik</i>	<i>y-...-ik</i>	<i>-ik</i>
Tzotzil	<i>s- (~x- /_x,ch)</i>	<i>y-</i>	<i>s-...-ik</i>	<i>y-...-ik</i>	<i>-ik / -∅-...-ik</i>

Table 16. Third Person Singular and Plural in Tseltalan.

³¹ *-ob* is only used with human referents

³² Cholti also has one attested example of *y-*, clearly unproductive (Roberston et al 2010)

4.2.2 Second Person

In Yukatekan, Tseltalan and in part of the Cholan subgroup of Mayan, the innovation described above for marking the third person plural was extended to first and second person, though in several different ways. Interestingly, the Lowland languages that didn't participate in this extension of the analytic third person plural are of a branch considered in other respects to be the most influential in the region (Wichmann and Brown 2003), the eastern Cholan languages Cholti and Chorti.

In the Yukatekan languages, as well as in Tojol-ab'al (see table 17, below), the second person followed the model established in the third person of using the set B plural person marker suffix to indicate plurality with the set A prefix that was historically only used to mark singular (see Robertson 1983, for a more detailed discussion of this change in Yukatekan).

	A2s	A2p	A2s.pv	A2p.pv	B2p
Maya					
(Yukatek)	<i>a-</i>	<i>a-...-e'ex</i>	<i>aw-</i>	<i>aw-...-e'ex</i>	<i>-e'ex</i>
Mopan	<i>a-</i>	<i>a-...-e'ex</i>	<i>aw-</i>	<i>aw-...-e'ex</i>	<i>-e'ex</i>
Itzaj	<i>a-</i>	<i>a-...-e'ex</i>	<i>aw-</i>	<i>aw-...-e'ex</i>	<i>-e'ex</i>
Northern					
Lakantun	<i>a-</i>	<i>a-...-eex</i>	<i>aw-</i>	<i>aw-...-eex</i>	<i>-eex</i>
Southern					
Lakantun	<i>a-</i>	<i>a-...-ex</i>	<i>aw-</i>	<i>aw-...-ex</i>	<i>-ex</i>
Tojol-ab'al	<i>a-</i>	<i>a-...-ex</i>	<i>aw-</i>	<i>aw-...-ex</i>	<i>-ex</i>

Table 17. Second Person in Yukatekan and Tojol-ab'al.

The fact that this is found in Tojol-ab'al makes it seem likely that Tseltal and Tzotzil, and perhaps even Chol and Chontal might have gone through this change first,

before innovating in their own different ways. Whatever the path of development, Tseltal and Tzotzil today both use the plural form *-ik* as the suffix for second person (table 18, below). As will be discussed in Chapter 6, this *-ik* plural suffix is a reflex of what can be reconstructed for proto-Mayan as a plural imperative suffix **-eq*, thus the association with second person is explicable in these terms, especially since, in Tseltal and Tzotzil (along with Tojol-ab'al, as will be discussed in chapter 6) the imperative verb form for intransitives, including *-ik* in the plural, has expanded to be the form used for second person in the optative/irrealis paradigm. In Tseltal and Tzotzil, *-ik* has expanded even more in function, as noted above, and has replaced **-eb* (or possible **-ab*) as the third person plural marker as well, so that the suffix used to indicate plurality is the same for both second and third persons in Tseltal and Tzotzil.

	A2s	A2p	A2s/_V	A2p/_V	B2p
Tseltal	<i>a-</i>	<i>a-...-ik</i>	<i>aw-</i>	<i>aw-...-ik</i>	<i>-ex</i>
Tzotzil	<i>a-</i>	<i>a-...-ik</i>	<i>av-</i>	<i>av-...-ik</i>	<i>-oxuk / -a-...-ik</i>
Chol	<i>a-</i>	<i>a-...la ~ la'-</i>	<i>aw-</i>	<i>aw-...-la ~ la'w-</i>	<i>-etyla</i>
Chontal	<i>a-</i>	<i>a-...-la</i>	<i>aw-</i>	<i>aw-...-la</i>	<i>-etla</i>
Classic					
Choltian	<i>a-</i>	<i>*i-³³</i>	<i>aw-</i>	<i>*iw-</i>	<i>*-ex, *-ox</i>
Cholti	<i>a-</i>	<i>i-</i>	<i>aw-</i>	<i>iw-</i>	<i>-ox</i>
Chorti	<i>a- /set C= i-</i>	<i>i- /set C= ix-</i>	<i>aw-</i>	<i>iw-</i>	<i>-ox</i>

Table 18. Second Person in Cholan-Tseltalan.

As shown in table 18, above, in Chol and Chontal, the only Cholan languages to extend the *erg...plural postclitic* pattern beyond the third person, the alignment of second person is in a different direction: whereas in Tseltal and Tzotzil, the second

³³ Classic Choltian forms with an *asterisk are hypothetical reconstructed forms that are not actually attested in the glyphic corpus.

person takes the same form as the third person, in Chol and Chontal, it takes the same form as the first person, with the plural clitic *la*. While similar in spirit to the innovation described above for Tseltalan and Yukatekan, formally this is quite different. *La* is not exclusively post-verbal, but rather can occupy one of two positions, immediately following the verb (or possessed noun) or immediately preceding the ergative marker.

Chol (Vázquez Álvarez 2002: 76)

- (1) *tyi la-aw-il-ä-ø*
 PERFV PL- A2-ver-SUF-B3
 ‘Ustedes lo vieron’
- (2) *tyi aw-il-ä-ø=la*
 PERFV A2-ver-SUF-B3=PL
 ‘Ustedes lo vieron’

In addition, Chol and Chontal differ from Tseltal, Tojol-ab’al, and the Yukatekan languages in that this morphologically transparent pattern has extended to the form of the absolutive (set B) person marker as well. Rather than preserving a reflex of proto-Mayan *-ex*, Chol and Chontal use the (historically) singular form of the second person absolutive *-et*, and then apply the same pattern used with the second person ergative markers, attaching the clitic *la*, in this case, only immediately following the verb.

Chol (Vázquez Álvarez 2002: 78)

- (3) *tyi y-il-ä-y-ety-la*
 PERFV A3-ver-SUF-EPN-B2-PL
 ‘Él los vio a ustedes’

Tzotzil does something similar in contexts that call for its ‘alternate set B’ markers, the preverbal allomorphs of set B that occur in, particularly, the incompletive aspect. In these contexts, rather than use the (morphologically rather opaque) absolutive

form *-oxuk*, which is likely related to **-ex*, it uses the second person singular form *-a-* (from **-at-*) and, in the plural, adds the same plural marker used with ergative markers, *-ik*.

4.2.3 First person

By far the most dramatic developments in the system of person marking in Lowland languages happened in the first person. These include the development of an inclusive/exclusive distinction in first person plural (and in some languages a three way dual/inclusive/exclusive distinction) and the replacement, in some languages, of the old first person singular with the first person plural in both ergative and absolutive paradigms.

4.2.3.1 Inclusive/Exclusive Distinction

An inspection of the various markers in the first person makes it readily apparent that Yukatekan, Chol, Chontal, Tojol-ab'al, Tseltal and Tzotzil all took part in another areally spread innovation, this time not only in the form in which plurality is expressed, but also in the semantic distinctions formalized in the paradigm of person markers. Each of these languages has developed a distinction between the inclusive 'we' (the speaker, addressee, and others) and the exclusive 'we' (the speaker and others, but not the addressee).

	Tojol-ab'al	Tseltal	Tzotzil
A1s	<i>j-</i>	<i>j</i> ³⁴	<i>j-</i>
A1s/_V	<i>k-</i>	<i>k-</i>	<i>k-</i>
A1p-Incl	<i>j-...-tik</i>	<i>j-...-tik</i>	<i>j-...-otik</i>
A1p-Incl/_V	<i>k-...-tik</i>	<i>k-...-tik</i>	<i>k-...-otik</i>
A1p-Excl	<i>j-...-tikon</i>	<i>j-...-tikon/-kotik</i>	<i>j-...-otikotik</i>
A1p-Excl/_V	<i>k-...-tikon</i>	<i>k-...-tik</i>	<i>k-...-otikotik</i>
B1s	<i>-on</i>	<i>-on</i>	<i>-on / -i-</i>
B1p-Incl	<i>-otik</i>	<i>-otik</i> <i>-otikon, -</i>	<i>-otik / -i-...-otik</i>
B1p-Excl	<i>-otikon</i>	<i>onkotik</i>	<i>-otikotik / -i-...-(o)tikotik</i>
B1p-Dual	none	none	none

Table 19. First Person Singular and Plural in Tojol-ab'al, Tseltal and Tzotzil.

	Chol	Chontal
A1s	<i>k- ~ j- (/ _k)</i>	<i>kä-</i>
A1s/_V	<i>k-</i>	<i>k-</i>
A1p-Incl	<i>k-...-la ~ lak- (k-->j/_k)</i>	<i>kä-...-la</i>
A1p-Incl/_V	<i>k-...-la ~ lak-</i>	<i>k-...-la</i>
A1p-Excl	<i>k-...-loñ ~ k-...-lojoñ ~ lonk- (k-->j/_k)</i>	<i>kä-... t'oko'</i>
A1p-Excl/_V	<i>k-...-loñ ~ k-...-lojoñ ~ lonk-</i>	<i>k-... t'oko'</i>
B1s	<i>-oñ</i>	<i>-on</i>
B1p-Incl	<i>-oñla</i>	<i>-onla</i>
B1p-Excl	<i>-oñloñ ~ -oñlojoñ</i>	<i>-on t'oko'</i>

Table 20. First Person Singular and Plural in Chol and Chontal.

	Maya (Yukatek)	Mopan	Itzaj	Northern Lakantun	Southern Lakantun
A1s	<i>in-</i>	<i>in-</i>	<i>in-</i>	<i>in-</i>	<i>in-</i>
A1s/_V	<i>inw- ~ w-</i>	<i>inw-</i>	<i>inw-</i>	<i>inw-</i>	<i>inw-</i>
A1p-Incl	<i>k-...-e'ex</i>	<i>ti-...-e'ex</i>	<i>ki-...-e'ex</i>	<i>äk-...-ex</i>	<i>äk-...-ex</i>
A1p-Incl/_V	<i>k-...-e'ex</i>	<i>tiw-...-e'ex</i>	<i>kiw-...-e'ex</i>	<i>äjk-...-eex</i>	<i>äkk-...-ex</i>
A1p-Excl	<i>k-</i>	<i>ti-</i>	<i>ki-</i>	<i>in-...-o'</i>	<i>in-...-oob'</i>
A1p-Excl/_V	<i>k-</i>	<i>tiw-</i>	<i>kiw-</i>	<i>inw-...-o'</i>	<i>inw-...-oob'</i>
A1p-Dual	none	none	none	<i>äk-</i>	<i>äk-</i>
B1s	<i>-en</i>	<i>-(e)en</i>	<i>-(e)en</i>	<i>-en</i>	<i>-en</i>
B1p-Incl	<i>-o'on-e'ex</i>	<i>-o'on-e'ex</i>	<i>-o'on-e'ex</i>	<i>-o'on-eex</i>	<i>-o'on-ex</i>
B1p-Excl	<i>-o'on</i>	<i>-o'on</i>	<i>-o'on</i>	<i>-en-o'</i>	<i>-en-oob</i>
B1p-Dual	none	none	none	<i>-oon</i>	<i>-o'n</i>

Table 21. First Person Singular and Plural in Yukatekan.

³⁴ Steibels 2006: 502, Polian nd.: 129. See Maurer Avalos and Guzman Jimenez 2001.

Mayan languages are certainly not a unique example of the areal diffusion of this distinction. As mentioned earlier, the ‘pattern’ types of contact phenomena discussed here are particularly common cross-linguistically. The inclusive/exclusive distinction, for example, has been frequently cited as an areal phenomenon in situations as diverse as western North America (Jacobsen 1980) and portions of Australia (Cysouw 2005: 163). Given the apparent ease with which the inclusive/exclusive distinction seems to be transmitted areally, it is perhaps not surprising that this diffused innovation is, in the Mayan case, much more widespread than just those languages generally considered part of a Lowland Mayan linguistic area (though perhaps not as widespread as the third person plural marking innovation discussed earlier). Other Mayan languages that have developed the distinction between inclusive and exclusive first person plural include the Mamean languages Mam and Teko and the Q’anjob’alan languages Q’anjob’al, Akateko and Chuj. Data for these languages is given in table 22 below.

	Mam	Teko	Awakateko
A1s	<i>n-...-(y)a</i>	<i>n-</i>	<i>n-</i> ³⁵
A1s/_V	<i>w-...-(y)a</i>	<i>w-</i>	<i>w-</i>
A1p-Incl	<i>q-</i>	<i>q- ~ j-</i> ³⁶	<i>qa-</i>
A1p-Incl/_V	<i>q-</i>	<i>q-</i>	<i>q-</i>
A1p-Excl	<i>q-...-(y)a</i>	<i>q- ~ j- ...-a</i>	none
A1p-Excl/_V	<i>q-...-(y)a</i>	<i>q-...-a</i>	none
B1s	<i>chin-...-(y)a</i>	<i>in</i>	<i>n- ~ chin-</i>
B1p-Incl	<i>qo-</i>	<i>qo-, o, o'</i>	<i>u- ~ qa-</i>
B1p-Excl	<i>qo-...-(y)a</i>	<i>qo-, o, o'...-a</i> ³⁷	none

Table 22. Mamean Languages and Exclusive/Inclusive.

Especially in the case of Mam, there is a real question as to whether this parallel innovation was the result of contact, or is better understood as something like Sapir's 'drift' (see Chapter 5 for more discussion).³⁸ Solely based on the fact that Akateko geographically separates Mam from the other languages that share this innovation, one might suppose that Mam borrowed the distinction from Akateko. Although Mam does not appear to have adopted the leveling strategy mentioned above, it has restructured its pronominal system in a remarkable and innovative way, in which postverbal clitics are prominent, as noted earlier (See England 1983: 56-63). If this direction of diffusion is correct, it would imply that Mam has innovated this inclusive/exclusive distinction fairly

³⁵ Awakatek data from CLA (2001: 50)

³⁶ Allomorph *j-/_{k, k', q, q'}*

³⁷ In Pérez Vail (2007: 285), this form is given as *-na*, however, N. England (p.c., 2010) argues that this is a misanalysis derived from the fact that word final *-n* of verb stems (with directionals) is lost and only reappears when followed by the exclusive marker.

³⁸ Popti' (Jakalteq) seems to have an incipient inclusive/exclusive distinction that is not yet fully grammaticalized. Though not directly relevant here, it provides an interesting insight into the diachronic development of this distinction. See Craig (1977: 100) and Ross Montejo et al (2000: 66) for these data.

recently. At least the innovation in Mam and Teko must have taken place after the separation of Awakatek and Ixil, since neither of these languages has the distinction.

	Q'anjob'al	Akateko	Popti'	Chuj³⁹
A1s	<i>hin-</i>	<i>in-... an</i>	<i>(h)in-</i>	<i>hin-</i>
A1s/_V	<i>w-</i>	<i>w-... an</i>	<i>w-</i>	<i>w-</i>
A1p-Incl	<i>ko-... heq (only some dialects)</i>	<i>ku-... wex</i>	<i>ku- ~ ko-</i>	<i>ko-...-hek</i>
A1p-Incl/_V	<i>j-... heq (only some dialects)</i>	<i>k-... wex</i>	<i>j-⁴⁰</i>	<i>k-...-hek</i>
A1p-Excl	<i>ko-... hon(on)</i>	<i>ku-... on</i>	<i>none⁴¹</i>	<i>ko-...-hoŋ</i>
A1p-Excl/_V	<i>j-... hon(on)</i>	<i>k-... on</i>	<i>none</i>	<i>k-...-hoŋ</i>
A1p-Dual	<i>ko-</i>	<i>ku-</i>	<i>none</i>	<i>ko-</i>
B1s	<i>-in</i>	<i>in-...an</i>	<i>-(h)in</i>	<i>hin- ~ -in</i>
B1p-Incl	<i>-on...heq (only some dialects)</i>	<i>on-/ku-...wex</i>	<i>-(h)oŋ</i>	<i>hoŋ- ... -hek</i>
B1p-Excl	<i>-on...hon(on)</i>	<i>on-/ku-... on</i>	<i>none</i>	<i>hoŋ- ... -hoŋ</i>
B1p-Dual	<i>-on⁴²</i>	<i>on-/ku-</i>	<i>none</i>	<i>hoŋ- ~ -oŋ</i>

Table 23. Q'anjob'alan and Inclusive/Exclusive/Dual.

4.2.3.2 Dual

Interestingly, both Lakantun and the Q'anjob'alan languages Akateko, Q'anjob'al and Chuj distinguish not only inclusive and exclusive but dual as well. Although the regions in which these languages are currently spoken are relatively close, the Lacandon are known to have arrived in their current location only within the last two hundred years or so, and there is no historical or archaeological evidence of extensive contact between the Lakantun and the Q'anjob'alan languages. It therefore seems unlikely that contact is

³⁹ See Maxwell (1982: 137-140) for more details.

⁴⁰ Note that Craig (1977: 109) has *y-* for this, but it must be a mistake, since she has *j-ibanh* 'on top of us' on page 110 of the same source.

⁴¹ Though note the use of Popti' *-an*, mentioned in Craig (1977: 278).

⁴² The unmarked form in dialects without a dual/exclusive/inclusive distinction (including Ixcoy and Soloma, see Raymundo González 2000: 55).

the explanation for these similarities, though as yet information on the two groups is insufficient to rule it out.

A more likely explanation might be found in the forms used to express the inclusive/exclusive distinction in the twelve Mayan languages that have it. We can lump these languages into three general groups, languages that have the archaic first person plural as an inclusive marker, those that have the archaic first plural as an exclusive marker, and those that have an additional suffix/clitic for both inclusive and exclusive.

<u>*qa- inclusive no postclitic</u>	<u>*qa- exclusive no postclitic</u>	<u>both incl & excl w/ suffix</u>
Mam	Yukatek	Tojol-ab'al
Teko	Mopan	Tseltal
	Itzaj	Tzotzil
		Chol
		Chontal
		Q'anjob'al
		Chuj
		Akateko
		Lakantun

Table 24. Functions of the Unmarked First Person Plural.

The only languages in which the archaic first person plural has become a marker of the inclusive 'we' are Mam and Teko, yet another way in which the inclusive/exclusive distinction in these languages differs from the inclusive/exclusive of the Lowland and Q'anjob'alan languages.

More significant, with respect to the dual, is the fact that all of the Yukatekan languages except for Lakantun use the archaic first person plural as the marker of the exclusive 'we'. The rest of the languages with the inclusive-exclusive distinction all use the first person plural plus a specialized suffix to make the distinction between inclusive

and exclusive. Interestingly, in all of these languages, the unmarked reflex of the archaic first person plural **qa-* is still present in the language, but with one of two different functions: either it has become essentially unmarked for number, so that without postclitics, it is interpreted as the first person singular, or it has come to indicate the dual. The languages that fall into each of these two groups are listed below.

<u>Languages with both incl & excl marked</u>	<u>function of unmarked <i>*qa-</i></u>
Tojol-ab'al	first person singular
Tseltal	first person singular
Tzotzil	first person singular
Chol	first person singular
Chontal	first person singular
Q'anjob'al	Dual ⁴³
Chuj	Dual ⁴⁴
Akateko	Dual
Lakantun	Dual ⁴⁵

Table 25. Function of Unmarked **qa-* in Several Mayan Languages

Considering the forms used for each category, it is easy to imagine how the meaning of 'dual' would have become associated with the first person plural prefix without any suffixes: Once both exclusive and inclusive become marked, using the old unmarked form would imply that neither an exclusive meaning, nor, strictly speaking, an inclusive meaning were intended. What is more, if one intended to use the inclusive form to talk about the speaker and the (singular) addressee, the readily analyzable form of the inclusive would preclude this meaning since the inclusive suffix is built off of

⁴³ According to Raymundo González (2000: 55), only the Q'anjob'al dialects of Barillas and Santa Eulalia, as well as Akateko have a 'dual' category in first person plural.

⁴⁴ Data from Maxwell (1982: 137).

⁴⁵ See Bergqvist (2008: 93) for more details.

morphemes specific to the second person plural (*-eq* and *-ex*), so that the morphological meaning of that inclusive form is likely to be taken specifically as ‘you (pl.) and me’.

If this motivation for the development is accurate, there is no need to assume contact between Lakantun and Q’anjob’alan to explain the parallel development, since the grammatical paradigm that these languages shared as a result of larger scale changes laid the ground for this further development (see chapter 5 for a similar argument about aspectual suffixes in Yukatekan and Cholan, to which I apply the term ‘contact-induced drift’).

If this is the case, however, why is it that none of the other languages with overt markers for both inclusive and exclusive have developed a number category ‘dual’? The answer to this lies in what these languages have done with the archaic first person plural marker. In the languages with a dual distinction, the reflex of the archaic first person plural still existed as a first person plural marker. In Tseltal, Tzotzil, Tojol-ab’al, Chol and Chontal, however, this development was rendered impossible by another areally shared innovation by which the reflex of **qa-*, by itself, came to indicate the first person singular in these language. This change will be discussed in detail in the next section.

4.2.3.3 *1pl* → *1sg*

As mentioned in the previous section, one very striking development that is immediately evident upon consideration of the relevant data is that the proto-Mayan first person plural **q(a)-* was extended to the first person singular in Chol, Chontal, Tseltal, Tzotzil and Tojol-ab’al, and new suffixes were innovated in each language to explicitly

mark number in the first person. Since this did not happen in Cholti or Chorti, it must have been an areally diffused innovation.

Set A (/__C)	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
Cholti	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>ka-</i>	—	<i>i-</i>	<i>u...(-ob)</i>
Chol	<i>k-</i> (~j/_k)	<i>a-</i>	<i>i-</i>	<i>k...-la</i>	<i>k...-loñ</i>	<i>a...-la</i>	<i>i...(-ob)</i>
Chontal	<i>kä-</i>	<i>a-</i>	<i>u-</i>	<i>kä...-la</i>	<i>kä...-t'oko'</i>	<i>a...-la</i>	<i>u...-o'</i>
Tzotzil	<i>j-</i>	<i>a-</i>	<i>s-</i>	<i>j...-otik</i>	<i>j...-otikotik</i>	<i>a...-ik</i>	<i>s...-ik</i>
Tseltal	<i>j-</i>	<i>a-</i>	<i>s-</i>	<i>j...-tik</i>	<i>j...-yotik</i>	<i>a...-ik</i>	<i>s...-ik</i>
Tojol-ab'al	<i>j-</i>	<i>a-</i>	<i>s-</i>	<i>j...-tik</i>	<i>j...-tikon</i>	<i>a...-ex</i>	<i>s...-e'</i>

Set A (/__V)	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
Cholti	<i>inw-, w-</i>	<i>aw-</i>	<i>uy-, y-</i>	<i>kaw-</i>	—	<i>iw-</i>	<i>uy...(-ob)</i>
Chol	<i>k-</i>	<i>aw-</i>	<i>y-</i>	<i>k...-la</i>	<i>k...-loñ</i>	<i>aw...-la</i>	<i>y...(-ob)</i>
Chontal	<i>k-</i>	<i>aw-</i>	<i>uy-</i>	<i>k...-la</i>	<i>k...-</i> <i>t'oko'</i>	<i>aw...-la</i>	<i>uy...-o'</i>
Tzotzil	<i>k-</i>	<i>av-</i>	<i>y-</i>	<i>k...-</i> <i>otik</i>	<i>k...-</i> <i>otikotik</i>	<i>av...-ik</i>	<i>y...-ik</i>
Tseltal	<i>k-</i>	<i>aw-</i>	<i>y-</i>	<i>k...-tik</i>	<i>k...-yotik</i>	<i>aw...-ik</i>	<i>y...-ik</i>
Tojol-ab'al	<i>k-</i>	<i>aw-</i>	<i>y-</i>	<i>k...-tik</i>	<i>k...-</i> <i>tikon</i>	<i>aw...-</i> <i>ex</i>	<i>y...-e'</i>

Table 26. Ergative (set A) pronouns in Cholan and Tseltalan Languages: Preconsonantal and Prevocalic sets.

Similar analogical restructuring due to language contact can be seen elsewhere in the world, for example in the extension from the form of the 3rd person to the 2nd person in some European languages, such as German and Italian, as well as in several dialects of Romani (Elšik and Matras 2003: 135), and, even more similar, in the extension of the 2nd person plural to the 2nd person singular in English and Welsh. Such instances are perhaps best interpreted as cases of pattern borrowing even when, as in the Mayan languages under investigation here, the form used to fill the pattern is identical across languages

because each language shares the same reflex of a common ancestor. This same extension of the first person plural to the first person singular also occurred with the absolutive pronouns, as shown in table 27, below:

Set B	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
Cholti	<i>-en</i>	<i>-et</i>	<i>-∅</i>	<i>-on</i>	—	<i>-ox</i>	<i>-∅(-ob)</i>
Chol	<i>-oñ</i>	<i>-ety</i>	<i>-∅</i>	<i>-oñla</i>	<i>-oñloñ</i>	<i>-etyla</i>	<i>-∅(-ob)</i>
Chontal	<i>-on</i>	<i>-et</i>	<i>-∅</i>	<i>-onla</i>	<i>-on t'oko'</i>	<i>-etla</i>	<i>-o'</i>
Tzotzil	<i>-on /</i>	<i>-ot /</i>	<i>-∅</i>	<i>-otik /</i>	<i>-otik /</i>	<i>-oxuk /</i>	<i>-ik</i>
	<i>-i-</i>	<i>-a-</i>		<i>-i-...-otik</i>	<i>-i-...-otikotik</i>	<i>-a-...-ik</i>	
Tseltal	<i>-on</i>	<i>-at</i>	<i>-∅</i>	<i>-otik</i>	<i>-yotik</i>	<i>-ex</i>	<i>-ik</i>
Tojol-ab'al	<i>-on</i>	<i>-a</i>	<i>-∅</i>	<i>-otik</i>	<i>-otikon</i>	<i>-ex</i>	<i>-e'</i>

Table 27. Absolutive (set B) pronouns in Cholan and Tseltalan

There is a further detail of this areally shared change that is relevant to our discussion of language contact in these languages: the allomorphy of the first person pronoun. Chontal has the normal reflex of proto-Mayan, with *k-* before vowels and *kä-* before consonants. In Chol, the variant *kä-* is lost and *k-* is used before both consonants and vowels, unless the consonant is the voiceless velar stop /k/, in which case the prefix dissimilates to a voiceless velar fricative *j-*. In modern Tseltal, Tzotzil, and Tojol-ab'al, *j-* is used universally before consonants and *k-* before vowels. Robertson (1985) however, notes that in Colonial Tseltal, the language had the same distribution as that found in Chol: *j-* before /k/, and *k-* elsewhere. Thus the modern distribution is the result of a recent analogical extension in Tojol-ab'al, Tseltal and Tzotzil. We are left with two alternatives, either the change started in Tseltalan, and was adopted later by Chol and Chontal, or Chol and Chontal are the source and the Tseltalan languages are the borrowers. If we assume that Tseltalan was the source of this innovation, then we would need to suppose that

Chontal borrowed only the pattern of moving plural to singular, whereas Chol borrowed both the pattern and the allomorphic variation; in other words, the phonological form.

Interestingly, the reverse case also suggests that a phonological form was borrowed. First Chontal and Chol would have innovated by moving the plural to the singular. Then Chol would have innovated by expanding the vowel-initial allomorph to pre-consonantal contexts, dissimilating to *j-* before /k/. It is at this stage, presumably, that Tseltalan would have borrowed not only the pattern of shifting the plural to the singular, but also to some degree the allomorphic expression of that form. This example illustrates the practical difficulty that often arises when attempting to distinguish between instances of ‘pattern’ and ‘matter’ borrowing, particularly when the languages in question are closely related, as is the case with Cholan and Tseltalan.

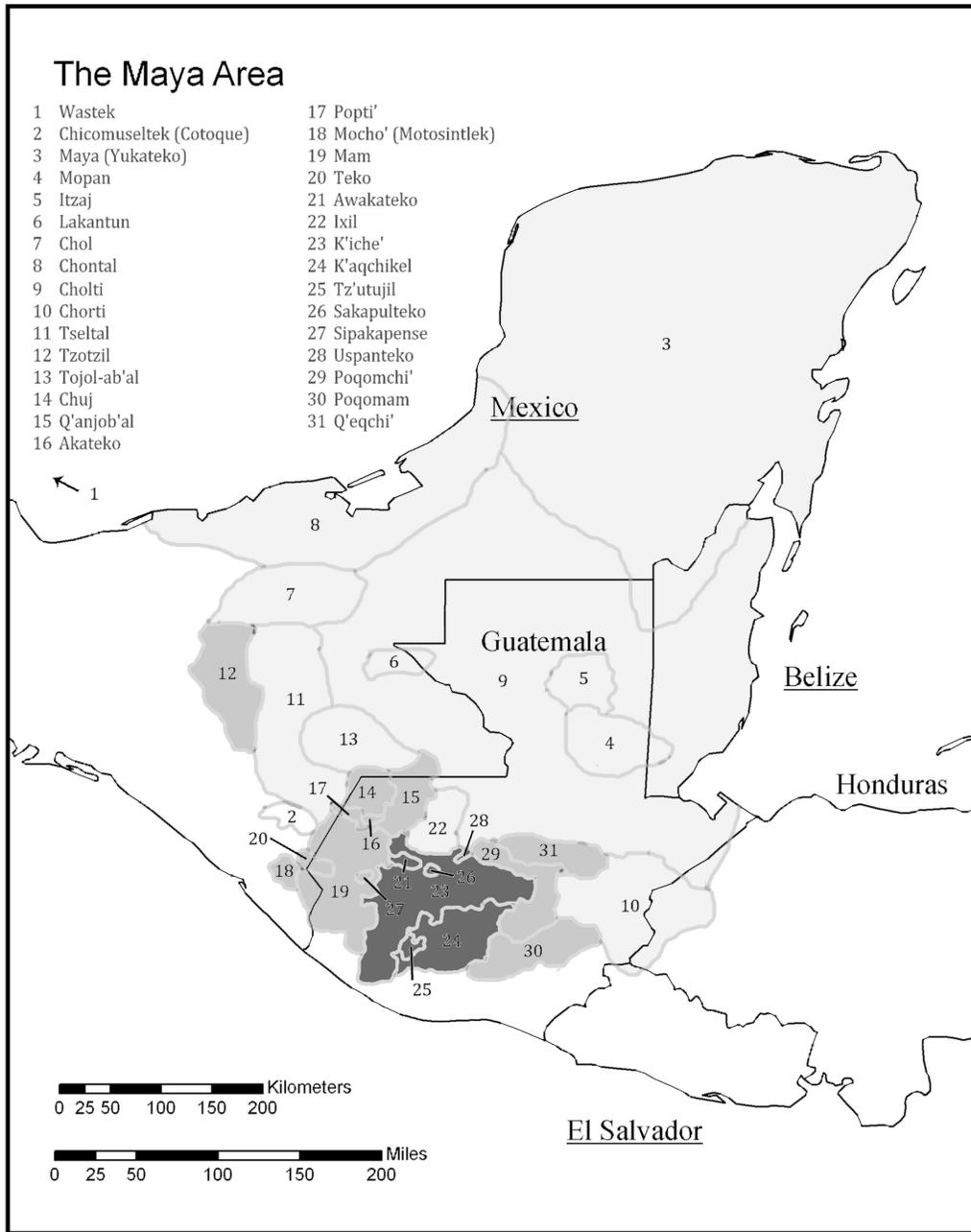
4.2.4 Suffixation of Absolutive

As noted briefly in chapter 3, the placement of the absolutive clitic in proto-Mayan (along with its status as a clitic as opposed to a suffix) has been the subject of some debate (Bricker 1977; Campbell 1979; Robertson 1980, 1992), however, Mayan languages generally take one of three different tacks: (1) they consistently place the absolutive clitic in pre-verbal position, (2) they consistently place it in post-verbal position, or (3) they place it in preverbal position when there is an overt preverbal aspect particle, and put it in postverbal position otherwise (i.e., non-verbal predicates, perfects, imperatives).

<u>Exclusively Preverbal</u>	<u>Both Pre- and Post-verbal</u>	<u>Exclusively Postverbal</u>
Wastek	Poqomchi'	Yukatek
K'iche'	Poqomam	Itzaj
Kaqchikel	Q'eqchi'	Mopan
Sakapulteko	Q'anjob'al	Lakantun
Tz'utujil	Akateko	Cholti
Sipakapense	Popti'	Chorti
Uspanteko?	Chuj	Chol
Awakatek	Mocho'	Chontal
	Mam	Tseltal
	Teko	Ixil
<u>Unknown:</u>	Tzotzil	Tojol-ab'al
Chicomuseltek		

Table 28. Position of set B person markers relative to verb in Mayan languages.

The first thing to note in this table is that the languages with each of these distributions for the set B person markers do not match up with the established genetic subgroups. The languages that exclusively place the set B marker before the predicate are mostly K'iche'an. However, Wastek and the Mamean language Awakatek also display this distribution. The languages that have both pre- and post verbal/predicate positions include three K'iche'an languages, two Mamean languages, most of the Q'anjob'alan languages (the lone exception would be Tojol-ab'al, if it does indeed belong in that subgroup, see Chapter 6 for a discussion of this), and the Cholan-Tseltalan language Tzotzil. The group of languages that exclusively postpose the set B clitic are from the Yukatekan, Cholan-Tseltalan subgroups, and Ixil, from the Mamean subgroup. Significantly, the languages that consistently place the absolutive clitic in post-verbal position are all clearly participants in the Lowland Mayan sphere of interaction based on other evidence. In fact, a consideration of the geographical distribution of these different arrangements of the set B person markers is illuminating (See map 4, below)



Map 5. Distribution of set B positions: dark grey = exclusively preverbal, light grey = exclusively postverbal, mid grey = both pre- and post-verbal.

As this map shows, both the languages that exclusively prepose set B markers and those that exclusively postpose it are neatly geographically circumscribed (with the possible exception of Wastek, which is extremely unusual with respect to person marking). The group of languages that have both preposing and postposing of set B markers are not all geographically contiguous however, since Tzotzil falls into this group, but is separated from the others by its close sister language Tseltal, and Tojol-ab'al. Based on this distribution alone, we would have reason to suspect that these languages are conservative, while the other two groups of languages are innovative. This proposal agrees with Robertson's (1992: 53) most recent reconstruction of the position of the set B markers in proto-Mayan.

4.3 OVERLAPPING ISOGLOSSES AND LAYERS OF BORROWING

In the process of redaction, it has been necessary to separate out the various innovations all shared (through contact, I argue) by many languages in the Mayan Lowlands and beyond, since, as we have seen, each innovation has a slightly different distribution. This raises the question of how these features were shared. Specifically, did borrowing take place in several temporally discrete 'waves' among different languages, or can we postulate a plausible scenario of borrowing in which each language borrowed linguistic features from another only once? In order to determine this, we must clearly define the developments, their probable (language internal) relative sequence, and which language participated in each change. These have been summarized in table 29 below:

	Erg3sg...pl	Erg1/2sg...pl	Incl/Excl	1pl→1sg	Dual
Tzotzil	✓	✓	✓	✓	
Tseltal	✓	✓	✓	✓	
Tojol-ab'al	✓	✓	✓	✓	
Chol	✓	✓	✓	✓	
Chontal	✓	✓	✓	✓	
Cholti	✓				
Chorti	✓				
Classic	✓				
Choltian					
Yukatek	✓	✓	✓		
Mopan	✓	✓	✓		
Itzaj	✓	✓	✓		
Lakantun	✓	✓	✓		✓
Q'anjob'al	✓				✓
Akateko	✓	✓	✓		✓
Chuj	✓				✓
Popti'	✓				
Q'eqchi'	✓				
Mam			✓		
Teko			✓		

Table 29. Areally diffused pronominal features and languages involved

Certainly the first and most widespread innovation is the replacement of the suppletive **ki-* third person plural ergative pronoun with the third person singular form plus a plural suffix. This innovation is shared not only by Tseltal, Tzotzil, Yukatekan, Cholan, Q'anjob'al, Akateko, Popti', and Tojol-ab'al, but is also found in Q'eqchi', which has *x-/r-...-eb* based on the third person singular *x-/r-* (Cuc Caal 1988: 29).

The extension of the pattern “erg sg + pl postclitic”, set forth in the third person, to the first and second persons is not shared by Cholti and Chorti. This precludes the possibility of reconstructing this form for proto-Cholan-Tseltalan, or, for that matter, proto-Cholan, though it seems reconstructible for proto-Yukatekan (see Hofling 2006: 372, 374). The fact that this is not shared by Cholti and Chorti, from which Yukatekan is

hypothesized to have borrowed the bulk of its pronouns, means that it must have been innovated, and presumably dispersed after the third person form was diffused. It is not clear who the likely originator of the innovation was, but it was clearly borrowed into at least two very distinct subgroups.

Except for Mam, Teko, Q'anjob'al and Chuj, the extension of the inclusive/exclusive distinction has the same distribution as the analogical leveling of first and second person plural. I have made the case that the development of an inclusive/exclusive distinction in Mamean is largely independent of this development in the other languages. In Q'anjob'alan, dialectal variation shows that this innovation is both new and most likely still in process. Q'anjob'alan languages (Chuj and Q'anjob'al) appear to be the only ones in which the analogical extension of the plural suffixes to the first person and the development of inclusive/exclusive does not involve the same extension in the second person. It may be that this is simply a result of the ongoing spread of these forms in Q'anjob'alan languages. If this is the case, it suggests that the innovation of the first person plural inclusive/exclusive preceded the innovation of plural suffixes in the second person, and that the former stimulated the formation of the latter.

Finally, we have noted that the languages with the category 'dual' share certain similarities with languages in which the first person plural came to mark the first person singular. I would propose that the languages that shifted the first person plural to the first person singular did so upon innovating a plural postclitic for the inclusive. After this innovation was in place, languages in contact with them (specifically Q'anjob'al, Chuj and Lakantun) replicated the pattern (but not the form) of marking both inclusive and

exclusive with postclitics, but since these languages still had an (unmarked) first person plural form, that form was restricted to a non-exclusive form referring to the speaker and a singular addressee. This could well have originally started out as a vague implicature of the use of the unmarked form, but gradually became grammaticalized. Of note in this account is the fact that Lakantun and the Q'anjob'alan languages would not necessarily have been in contact with one another in order to develop in a parallel way, since the (areally) shared innovation of inclusive and exclusive suffixes set these languages up, in a sense, to develop along this path, something akin to Sapir's concept of 'drift' in a language, but a drift that was sparked by common contact, rather than common inheritance.

4.4 CHOLAN, YUKATEKAN AND MATTER BORROWING

As mentioned in the introduction, it is generally held that the actual phonological forms of pronouns are particularly resistant to borrowing. This has been held to be true for individual pronouns, but particularly for entire paradigms. What we have described so far in this chapter are primarily cases of the replication of specific patterns, either with respect to the morphological sequence used (i.e. calques, the *erg...plural postclitic* pattern is an example of this), or the replication of distinctive semantic categories, such as the inclusive/exclusive distinction. I have made mention of a handful of possible 'matter' borrowings, cases in which the actual form of a person marker has been replicated; such seems to be the case for the allomorphs of the first person marker in Chol, Chontal and Yukatekan, as well as the third person plural marker *-oob in Cholan and Yukatekan. In

fact, however, the similarities between the several Yucatekan and Cholan languages of the Mayan Lowlands are such that we seem to be dealing with the borrowing of the phonological forms of almost entire paradigms of both the ergative and absolutive person markers. The languages that share these forms include all of the Yucatekan languages (Yukatek, Itzaj, Mopan, and Lakantun) and at least two of the four known Cholan languages: Cholti and Chorti. The other two modern Cholan languages, Chol and Chontal might also have taken part in this areal borrowing, but if such is the case, the several areally diffused restructurings of the paradigms of person marking discussed above would have obliterated the diagnostic forms, if they existed.

4.4.1 Shared Innovations and Matter Borrowing in Set A

A crucial point regarding the genetic relationships of these languages is that Yucatekan and Chorti/Cholti are extremely divergent; by all accounts, their only shared ancestor is Common Mayan. Nevertheless, their pronominal systems show remarkable similarities. The Yucatekan languages are all very similar to one another, and have probably only diverged in the last millennium or so. Chorti and Cholti are likewise so similar to one another that at the time of the Spanish conquest, they were almost certainly minor dialectal variants of a single language (see Robertson 1998, Robertson and Wichmann 2004). The Cholti dialect subsequently died out, and is only attested in a single 17th century manuscript (Moran 1695, Robertson et al 2010). Chorti is spoken today by approximately 9,000 speakers in the area of Jocotán, Guatemala (Richards 2003: 50). This suggests that the borrowing between these languages might well have occurred

between only two languages, proto-Yukatekan and Choltian (the common ancestor of both Chorti and Cholti, also sometimes called proto-Eastern-Cholan).

Set A (/C)	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
CM (JSR)⁴⁶	*nu-	*a-	*ru-	*qa-	—	*e-	*ki-
pM (K&N)⁴⁷	*nu-	*aa-	*u-	*qa-	—	*ee-	*ki-
Classic Choltian	<i>ni-</i>	<i>a-</i>	<i>u-</i>	? <i>ka</i> ⁴⁸	—	* <i>i-</i>	<i>u...(-ob)</i>
Chorti	<i>in-, ni</i> ⁴⁹	<i>a-</i>	<i>u-</i>	<i>ka-</i>	—	<i>i-</i>	<i>u...-ob</i>
Cholti	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>ka-</i>	—	<i>i-</i>	<i>u...(-ob)</i>
Colonial Yukatek⁵⁰	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>ka...-eex</i>	<i>ka-</i>	<i>a...-eex</i>	<i>u...-ob</i>
Modern Yukatek	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>k...-e'ex</i>	<i>k-</i>	<i>a...-e'ex</i>	<i>u...-o'ob</i>
Itzaj	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>ki...-e'ex</i>	<i>ki-</i>	<i>a...-e'ex</i>	<i>u...-oo'</i>
Northern Lakantun	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>äk...-eex</i>	<i>in...-o'</i> <i>äk- (dual)</i>	<i>a...-eex</i>	<i>u...-o'</i>
Southern Lakantun	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>äk...-ex</i>	<i>in...-oob</i> <i>äk- (dual)</i>	<i>a...-ex</i>	<i>u...-oob</i>
Mopan	<i>in-</i>	<i>a-</i>	<i>u-</i>	<i>ti...-e'ex</i>	<i>ti-</i>	<i>a...-e'ex</i>	<i>u...-oo'</i>

Table 30. Ergative (set A) pronouns in Yukatekan, Choltian and Common Mayan: Preconsonantal set.

⁴⁶ From Robertson (1992: 53)

⁴⁷ From Kaufman and Norman (1984: 91).

⁴⁸ In the hieroglyphic data, a preposed question mark ? indicates that the form is present in the hieroglyphic corpus, but that its identity is ambiguous or controversial in some way. An asterisk * indicates that the form is unattested, and therefore merely represents a historical reconstruction.

⁴⁹ Ch'orti' data throughout are from my own field notes. The variation here is morphosyntactically conditioned: *in-* inflects verb phrases, *ni-* affixes to nouns. Ch'orti' also has a third innovative set of pronouns not relevant here.

⁵⁰ Unless otherwise noted, data for Yukatekan languages are from Hofling (2006).

Set A (/_V)	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
CM (JSR)	*w-	*aw-	*r-	*q-	—	*er-	*k-
pM (K&N)	*w-	*aaw-	*r-	*q-	—	*eer-	*k-
Classic Choltian	w-	aw-	y-	?k-	—	*iw-	y-...(-ob)
Chorti	<i>inw-</i> , <i>niw-</i>	aw-	uy-	kaw-	—	iw-	uy-...-ob
Cholti	<i>inw-</i> , <i>w-</i> ⁵¹	aw-	uy-, y-	kaw-	—	i-	uy-...(-ob)
Colonial Yukatek	<i>inw-</i> , <i>w-</i>	aw-	uy-, y-	k-...-eex	k-	aw-...-eex	uy-...-ob
Modern Yukatek	<i>inw-</i>	aw-	uy-, y-	k-...-e'ex	k-	aw-...-e'ex	uy-...-o'ob
Itzaj	<i>inw-</i>	aw-	uy-, y-	kiw-...-e'ex	kiw-	aw-...e'ex	uy-...-oo'
Northern Lakantun	<i>inw-</i>	aw-	uy-, y-	äj-...-eex	<i>inw-...-o'</i> (excl) äj- (dual)	aw-...eex	uy-...-o'
Southern Lakantun	<i>inw-</i>	aw-	uy-, y-	ä-...-ex	<i>inw-...-oob</i> (excl) ä- (dual)	aw-...ex	uy-...-oob
Mopan	<i>inw-</i>	aw-	uy-	<i>tiw-...-e'ex</i>	<i>tiw-</i>	aw-...-e'ex	uy-...-oo'

Table 31. Ergative (set A) pronouns in Yukatekan, Choltian and Common Mayan: Prevocalic set.

Note particularly in tables 30 and 31 the similarities between Colonial Yukatek, Cholti, Chorti and Classic (hieroglyphic) Choltian and the marked differences between these languages and the reconstructed forms of Common Mayan. Some of the similarities in these data come from two phonemic mergers, both mentioned in chapter 3: pM /*q/ became /k/, and, more unusually, pM /*r/ became /y/. These sound changes are regular and identical in both Yukatekan and Cholan-Tzeltalan. However, they must have taken place after these languages were already differentiated, since their only shared ancestor is

⁵¹ This *w-* variant is only attested once in the Ch'olti' corpus.

proto-Mayan, and therefore the similarity must be due to linguistic contact. As noted in Chapter 3, both of these areal features are more widespread than just the languages mentioned here, and were noted by Justeson et al. (1985) as evidence of a Lowland Mayan linguistic area.

In several cases, however, forms and patterns are shared that developed from proto-Mayan through irregular (usually idiosyncratic) sound changes: deletion in the case of the third person singular, (assuming Robertson's reconstruction: **ru>u*; expected *yu*⁵²), metathesis, or vowel deletion and epenthesis⁵³ in the case of the first person singular (**nu>in*, expected *nu*)⁵⁴. In addition, new allomorphs were created for the prevocalic pronouns, following the pattern of the second person singular in Common Mayan, in which the prevocalic variant is the preconsonantal form plus a glide (**a- : *aw-*). The singular pronominal paradigm was leveled by analogy (first person *in- : inw-*; third person *u- : uy-*). Chorti and Cholti, as well as Itzaj and Mopan, the two Yucatekan languages geographically situated nearest Chorti and Cholti, extended this pattern to the first person plural as well (Cht *kaw-*, Chr *kaw-*, Itz *kiw-*, Mop *tiw-*). This more limited

⁵² Note that following Kaufman's reconstruction, **u-*, these forms would no longer involve idiosyncratic sound changes, but simple conservation of the earlier form. While this simplifies the analysis for the languages considered here, it does seem to complicate the developmental history of most of the other subgroups. The *t-* in Mam and Teko, the *s-* in Tseltalan and Q'anjob'alan, for example, can more easily be derived from a form like **ru-* than from a form like **u-*.

⁵³ Thanks to Nora England (p.c.) for the suggestion that the /i/ vowel might be analyzable historically as the result of epenthesis.

⁵⁴ In fact, this same change appears to have happened independently as well in some dialects of K'iche' and Kaqchikel (J. Robertson, p.c.). This highlights the issue, mentioned earlier, of trying to distinguish contact-induced changes from the results of 'typological poise' (Enfield 2003: 9), or Sapir's 'drift' (Sapir 1921: 171-178). This topic will be discussed in more detail in chapter 5.

distribution for the first person plural suggests a much later round of contact between these languages, involving a more limited geographic range. Neither Chol nor Chontal, nor any Yukatekan languages other than Itzaj and Mopan, implemented the innovative form for the first person plural prevocalic *kaw-*, unless that form was later replaced with the allomorphs mentioned above *k-* ~ *j-*, that might have been shared through contact with Tseltal/Tzotzil.

Cholti and Chorti also extended this pattern of the prevocalic form + /w/ in the first person into the second person plural, replacing what would have been the regular reflex of the second person plural **iy-* with the form parallel to the first person forms, *iw-*. We cannot know if Mopan and Itzaj extended the form to the second person plural as well, since even if they had, that suppletive plural form was soon replaced with the innovative discontinuous form discussed above, *a(w)-...-e'ex*, as a result of a different round of linguistic contact, radiating from another source.

Interestingly, the Cholan language Chontal also shares the innovative third person prevocalic *uy-*, but Chol has the conservative form *y-*. The preconsonantal allomorph of the third person in Chol is *i-*, itself a probable borrowing from an adjacent (genetically unrelated) Mixe-Zoquean language (Kaufman 2007), which may be part of why Chol has preserved the ancient pre-vocalic *y-*. However, that this form is shared in Chorti, Cholti and Chontal because of contact, rather than the result of common inheritance is confirmed by the fact that the language of Maya hieroglyphs, like Chol, preserves the conservative *y-* prevocalic allomorph.

It is also worth noting that the only other Mayan language with a third person singular ergative marker *i-* is Ixil. This is a similarity that seems likely to be the result of contact, though the question of whether it resulted from Ixil-Chol contact or contact of both Chol and Ixil with some Mixe-Zoquean language is unclear and rather beyond the scope of this dissertation. Ixil also shares the Lowland Mayan positioning of the absolutive (discussed above) and aspect based split ergativity, so it is clear that Ixil has participated in some degree of contact with Lowland languages. The form of the third person ergative may, therefore, be another evidence of Lowland connections with Ixil.

A second noteworthy feature of these pronouns, discussed in detail in the previous section is the replacement of the Common Mayan third person plural morpheme **k(i)-* with the singular form (*u-*, *uy-*) paired with the plural postclitic *-(o)ob* (also displaying an idiosyncratic phonological innovation, the proto-Mayan form was probably **-eb*—see Robertson (1983) for a discussion of this innovation in Yukatekan). The particulars of this large scale areal feature were discussed in detail previously, but here we must emphasize that only in Cholan and Yukatekan was this particular innovative form of the plural **-oob*, along with the analogical leveling, used to replace the archaic form. Thus, it would seem that, in addition to the pattern borrowing, Yukatekan and Cholan languages share a particular linguistic form in this context as well.

4.4.2 Shared Innovations in Set B

Additional idiosyncratic sound changes motivated by analogy can be seen in the absolutive pronouns of these languages, shown in table 32, below:

Set B	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
CM (JSR)	*-in	*-at	*-Ø	*-o'ŋ	—	*-ex	*-eb
pM (K&N)	*-iin	*-at	*-Ø	*-o'ŋ	—	*-ix/*-ex	*-eb
Classic	-en	?-at	-Ø	?-o'n	—	*-ex	-Ø(-ob)
Choltian							
Chorti	-en	-et	-Ø	-on	—	-ox	-Ø -ob
Cholti	-en	-et	-Ø	-on	—	-ox	-Ø(-ob)
Colonial	-en	-ech	-Ø	-oon-eex	-oon	-eex	-oob
Yukatek							
Modern	-en	-ech	-Ø	-o'on-e'ex	-o'on	-e'ex	-o'ob
Yukatek							
Itzaj	-(e)en	-(e)ech	-Ø, -ij	-o'on-e'ex	-o'on	-e'ex	-o'ob
Northern	-en	-ech	-Ø, -i	-oon-eex	-en-	-eex	-o', -ij-
Lakantun					o'(excl)		o'
					-oon		
					(dual)		
Southern	-en	-ech	-Ø	-o'on-ex	-en-oob	-ex	-oob
Lakantun					(excl)		
					-o'n		
					(dual)		
Mopan	-(e)en	-(e)ech	-Ø, -i	-o'on-e'ex	-o'on	-e'ex	-o'o'

Table 32. Absolutive (set B) pronouns in Yukatekan, Choltian and Common Mayan

One shared innovation from Common Mayan in the absolutive set is again due to a shared regular sound change, this time $/*\eta/ \rightarrow /n/$, also noted by Justeson et al. (1985) as a Lowland Mayan areal feature. Note that the change of $/*t/$ to $/*ch/$ in syllable coda is a regular sound change in Yukatekan, and presumably happened after the contact-induced changes, since the Yukatekan second person form *-ech* underwent this sound change. Likewise, the vowel lengthening and (in some languages) glottalization of the plural pronouns in Yukatekan was probably a more recent innovation (see below, and Robertson 1983).

More interesting are the idiosyncratic changes inspired by paradigmatic analogies that these languages share. For the first and second person singular pronouns in Choltian, the following sequence of changes has been reconstructed (Law 2006: 64): First, **-in* went to *-en*, perhaps to dissimilate it from the newly innovated ergative pronoun *in-*. Second, by analogy, *-at* went to *-et*. Third, Cholti and Chorti carried it a step further, perhaps by analogy with the newly vowel-harmonic pair *-en* : *-et* in the singular, they changed **-ex* to *-ox* to harmonize with first person plural *-on* and the third person *-ob*. While Yukatekan did not follow this pattern for the plurals, it also innovated a way to unify the plural morphemes: vowel length and glottalization. This would also have been based on the first person plural form, pM **-o'η*, since $V' \rightarrow V'V$, VV in some Yukatekan languages.

It is interesting to note that the other two Cholan languages, Chol and Chontal, also have *-et* as the second person absolutive, so it would seem to be a straightforward proto-Cholan form. However, this is complicated by the fact that the glyphic language may record the archaic form *-at*.⁵⁵ Based on other evidence, the glyphic language seems to be a daughter of proto-Cholan. This suggests that the script might capture this change

⁵⁵ The identification of *-at* as the second person singular absolutive in the Maya hieroglyphs was proposed by David Stuart (pc) in the early 1990's. The earliest published mention that I am aware of is Stuart (2005). In fact, the glyphic data are somewhat ambiguous on this point. Without delving into the details of hieroglyphic spelling conventions, it is possible that the syllabic sign used to reference this suffix, /ta/, is meant to indicate only that the suffix ends with a /t/, and not that the vowel of the suffix is /a/, though there is indirect evidence that the vowel in question was, at least in some contexts, /a/. Examples of this suffix can be found on the Copan Papagayo Altar (u-mam-at), in the secondary texts on Piedras Negras Panel 3 (ta-ha'-at), and on the 'Bunny Pot', K1398 (ha'-at), among others.

in *medias res*: the first person had already shifted to *-en*, but the second person had not yet followed suit.

The fact that Chol and Chontal have *-et* in the second person while the glyphic language seems to preserve an older form suggests that Cholti and Chorti borrowed *-et* from Chol or Chontal (or from an earlier stage in which Chol and Chontal were a single language, but already distinct from Cholti and Chorti). The prestige clearly enjoyed by Choltian during the Classic period, however, raises the possibility that Cholti or Chorti was the source, making any definite decision about the direction of the borrowing somewhat problematic. Either way, the phonological form of this pronoun seems likely to have been borrowed. This raises the question as to whether other pronouns in Cholan languages were borrowed before or after the breakup of proto-Cholan. This will be discussed below.

One interesting question that these data raise concerns the direction of the loan. Based on hieroglyphic data that show that the dominant language during the first millennium AD was a Cholan language, we might suppose that Yucatekan borrowed from the more prestigious Choltian. For the ergative pronouns, the similarities are so complete that it is impossible, based on these data alone, to make any decision about who was the donor and who was the recipient. The glyphic data mentioned above for the absolutive pronouns, however, provide an intriguing clue supporting the Cholan to Yucatekan hypothesis. If it is the case that the glyphic language has *-at* rather than the innovative *-et* shared by both Cholti/Chorti and Yucatekan, but does have the innovative *-en*, then the glyphic language must manifest an earlier stage in the development of the

pronominal system. This leaves us with several possibilities: either Yukatekan and Choltian both went through parallel and identical patterns of development, or, much more likely, Choltian went through the hypothesized series of developments, and then after this, Yukatekan borrowed the pronominal system from Choltian.

This postulate also leads to some sense of the absolute chronology for the change, and the borrowing. If we assume that the pronominal system was borrowed before Yukatekan broke up into different languages (not a necessary assumption, but a simpler scenario than the alternative) and if we assume that the pronouns were not borrowed until *-at* turned to *-et*, we are left with a date between approximately 800 and 1000 AD, a significant time period in the Maya Lowlands, since it was at this time that the Classic period powers were collapsing, and the (Yukatekan) centers of Chichen Itza, Ek' Balam, etc. were on the rise.

In sum, the Yukatekan and Choltian data present an interesting case of what appears to be wholesale borrowing of clitic and affixal pronominal forms. It is worth noting that, individually, most of these changes are fairly unremarkable and might reasonably be assumed to have been innovated independently more than once. Taken together, however, the complicated nature of this precise set of developments makes it highly unlikely that they were all innovated independently by both Cholan and Yukatekan languages. Of the ergative and absolutive pronouns, nine have shared phonological forms that are both 1) innovative and 2) not part of any regular sound change. These include the ergative first person singular *in-*, and the prevocalic allomorph

*inw*⁵⁶, the third person singular *u*- (assuming Robertson's **ru*- reconstruction) and its prevocalic allomorph *uy*-, the third person plural (and prevocalic allomorph) *u/uy*...-*ob*, as well as the absolutive pronouns first person singular *-en*, second person singular *-et*, and third person plural *-ob*.

Of the remaining nine pronominal forms in the ergative and absolutive paradigms, first person plural ergative *ka*- and absolutive *-on* are identical in Cholan and Yukatekan, but would have obtained through (areally diffused) regular sound changes anyway. Third person singular absolutive \emptyset is unchanged from Common Mayan and is in fact shared with virtually all other Mayan languages. The second person plural form in Yukatekan is a recent development, part of a series of diffused changes that will be discussed in the next section, and might well have replaced an earlier borrowed *i/iw*- (we would expect **e/ey*- through regular sound changes). In the end, the only innovative Choltian forms that were clearly not borrowed by Yukatekan are the ergative first person plural prevocalic allomorph *kaw*- and the absolutive second person plural *-ox*, though Mopan and Itzaj appear to have borrowed the innovative forms *kaw*- some time after the breakup of proto-Yukatekan. This suggests that these changes might have post-dated the time of the main round of borrowing and represent another, more limited round of linguistic interaction.

⁵⁶ It is worth noting that K'iche'an languages also have developed this allomorph of the first person ergative pre-vocalic marker. As England (p.c., 2011) suggests, it is unlikely that this shared innovation resulted from contact between K'iche'an languages and the Lowlands, but rather seems a likely candidate for a parallel independent innovation. In the Lowlands, however, the large number of clearly contact-induced changes shared between Yukatekan and Cholan makes this change seem much more likely to have been caused (at least partially) by the intensive contact between these groups.

Thus far we have identified several different waves of innovation, for which we can postulate a relative ordering on the assumption that if the source language had already adopted a particular innovation at the time of diffusion, the innovative structure would be diffused as well. The first stage of Lowland Mayan pronominal diffusion would have been the diffusion of the new third person plural form, based on the third person singular. This could have been a Common Cholan-Tzeltalan innovation, though that is by no means certain. The second stage involved the extension of the third person plural paradigm to first and second person and the innovation of an inclusive/exclusive distinction, formed with that same bipartite strategy. At least some languages (Tzeltalan, Chol and Chontal) innovated further, but in tandem with the above changes, by replacing the old first person singular with the form of the old first person plural. Much later, Lakantun and (semi-independently) Akateko, Q'anjob'al, and Chuj developed a further 'dual' distinction in the first person.

Colonial sources for Yukatek, Chontal, and Tzeltal show these changes already in place by the time the Spaniards documented the languages. Since the language captured in the hieroglyphs belongs to a branch of the Mayan family that did not participate in any of the changes, it does not directly provide any early limit for the spread of the inclusive/exclusive distinction and its accompanying changes. We can, however, state that it must have occurred in Yukatekan after Yukatekan borrowed its pronouns from Choltian. Since evidence previously mentioned suggests that this happened in the Late or Terminal Classic (~ AD 800-1000), we can tentatively place the inclusive/exclusive development sometime in the Post-Classic (~AD 1000 to Conquest).

The geographical distribution, particularly of the inclusive/exclusive distinction and its accompanying analogical leveling, is very interesting. Whereas the borrowing of pronouns involved central Classic Mayan powers, Choltian and Yukatekan, the (apparently) later spread of inclusive/exclusive, as well as the other innovations, specifically excludes the core power, Choltian. This conforms to the decentralization of power during the terminal and Post-Classic away from the Choltian elites who ruled the Classic period to disparate peripheral powers. This shift in the direction and type of linguistic contact during the Post-Classic supports suggestions (i.e. Wichmann 2006b: 55) that linguistic contact in the Post-Classic was more multilateral and unstable than it had been during the hegemonic “Choltian” years of the Classic period.

4.5 DISCUSSION

The data presented above provide another case in the growing literature showing that, whether we are speaking of paradigmatic or semantic ‘patterns’ or the actual morphological ‘matter’, pronouns can be borrowed. As with the linguistic scene described by Wallace (1983) for Indonesia, it also seems that pronominal borrowing in the Maya Lowlands was not particularly unusual. These cases, however, are not ‘counterexamples’ to observations that pronouns are less likely than other grammatical features to be borrowed. Rather, they help to shift our focus to a slightly different question. Rather than asking why pronoun borrowing is so unusual, these data, together with the other examples of pronominal borrowing mentioned earlier, pose the question, “why is pronoun borrowing more common in some languages than in others?”

There are at least two different angles from which to attack this question. The first has to do with the structures of the languages involved, as well as the functions of the pronouns being borrowed. We can hardly assume, for example, that the conditions affecting the borrowing of personal pronominal inflections would be identical to the conditions that might facilitate the borrowing of anaphoric or reflexive pronouns. The second angle from which to consider the instances of borrowing described above concerns the socio-historical surround of language contact: How might social factors facilitate or constrain the borrowing of pronouns? From both of these perspectives, the issue of similarity comes to the fore. Conditioning factors of structure, it seems, often are not simply conceivable as a lone structural variable in, for example, the donor language, but are the sum of similarities and differences in both donor and recipient languages with respect to a particular variable. Going beyond the simple relationships between elements in the linguistic system to the use of language more broadly in the construction of identity—the alignment with or opposition to a particular group—is fundamental in situations of language contact.

4.5.1 Structural Similarity

Several widespread contact-induced changes in Lowland languages have increased the overall similarity between Lowland languages specifically with respect to the placement and function of person markers. At least two structural features that are directly relevant to pronominal distribution and usage have been proposed to have diffused among roughly the same languages treated here. The diffusion of these features led to convergence among these languages with respect to the morpho-syntactic frame for

the pronouns. As discussed in chapter 3, the position of the absolutive pronoun relative to the verb has diffused among these languages. According to Robertson (1992), the Common Mayan absolutive pronouns were post-posed to participles and imperatives and preposed to verbs that were marked for Tense/Aspect/Mood (TAM—Robertson 1992: 53⁵⁷). However, in Yukatekan, Cholan, Tseltal, Tojol-ab'al, and some dialects of Tzotzil, the absolutive came to be suffixed, even where TAM markers are present (Robertson 1992: 185). As with the inclusive/exclusive pattern in Q'anjob'al, the fact that only some dialects of Tzotzil underwent this change suggests that it was fairly recent in that language. However, the glyphic language appears to suffix absolutive pronouns universally, so that this change might have been diffusing areally for some time.

Another diffused structural feature that is tied directly to the pronouns is the split ergative pattern of pronominal marking, which will be discussed in detail in chapter 5. Yukatekan, Cholan, and more peripherally several other languages participated in this innovation, in which intransitive verbs in the incompletive came to be marked with an ergative pronoun, instead of an absolutive pronoun. In every language this involved similar strategies but the differences in the details of each system demonstrate that each language drew on internal resources to construct the new pattern. What is particularly intriguing is that the languages that have the most developed expressions of this ergative split—Yukatekan, Chontal, and Chol—also participated in the Post-Classic restructuring

⁵⁷ England (p.c, 2011), observes that another way of analyzing and describing the same reconstructed distribution for Proto-Mayan absolutives is to say that the absolutive was post-posed to the TAM marker in proto-Mayan, but that in some subsequent languages, TAM ceased to be a possible host, while the active verb stem became the preferred host.

of the pronominals with the innovation of an inclusive/exclusive distinction, as discussed above.

Thus, both of these instances of contact-induced change created striking structural similarities between languages that are otherwise quite divergent in ways related specifically to the pronominal system. This might well help to explain, at least in part, the apparent ease with which pronominal forms and the organizational system of pronouns were borrowed in the Maya Lowlands. Although Yukatekan and Cholan are generally held to have separated from one another around four thousand years ago, with respect to the structural and semantic organization of their pronominal systems, they are nearly identical. This structural convergence could logically have preceded, and facilitated, the later borrowing of phonological ‘matter’ that occurred between these languages.

As the preceding discussion has shown, the structure of both the source and the recipient language is important to take into account. Pronominal borrowing is facilitated because the donor and recipient languages have virtually identical syntactic structures in several areas specifically involving the position and use of pronominal markers. In these languages, rather than needing to ‘lexicalize’ borrowed forms, as appears to be the case in southeast Asia (Wallace 1983) one can simply insert a borrowed pronoun into the recipient language without additional structural accommodation because of their highly convergent typological and structural profiles: a convergence, once again, that is due both to common inheritance and to areal convergence. Matras (2003: 158-159; 168-170) observes that the borrowing of pronouns is much more likely in interdialectal contact, or when the borrowed forms are only used with borrowed lexemes, and not inherited ones.

We can hypothesize that the more structurally and/or phonologically similar pronouns already are, even among different languages, the more susceptible they will be to borrowing. This certainly must come into play in the Mayan case. Not only do all of the languages have a clear set of ergative and absolutive pronouns, but the pronouns all stem from a common, albeit fairly distant ancestor, and they generally must have retained consonants or vowels of at least some of the proto- pronominal forms.

4.5.1.1 Structural Similarity and Processes of Language Change

The overall pervasive formal and structural similarity of these languages gives cause to consider how the fact of systematic inherited similarity may impact the processes of language change involved in situations of language contact. Weinreich (1953: 7), for example, talked about the importance of ‘interlingual identifications’ in bilingual language processing, the process of equating some element or set of elements in one language with an element or set of elements in another. We can do this at many levels. Hanks (2010) discusses the complex set of equivalences on semantic and pragmatic levels between Yukatek and Spanish achieved in ‘Maya Reducido’, the Yukatek Maya of Colonial Yucatan, through the process of ‘commensuration’. As Hanks describes it, “Commensuration is the general process of bringing the two languages into alignment, so that meaning can move from one to the other” (Hanks 2010: 160). Commensuration of meaning does not require formal similarities but is the active constitution of translingual webs of similarity and difference on the level of meaning.

Any attempt at translation requires such an act of commensuration, an ‘interlingual identification’ on the level of meaning.

While Hanks only applies commensuration at a semantic level, there is no requirement that this kind of alignment can not happen at other linguistic levels. Commensuration creates and presupposes a shared assumption of equivalency, and the level that is equated indicates the level at which the languages are taken to be ‘the same’ (whether that ‘sameness’ is shared, or just assumed to be the same, is not necessarily crucial—see Enfield 2008 on ‘tolerable friends’). We can assume that an utterance in another language is equivalent to a particular utterance in our language in terms of its referential meaning, its perlocutionary or pragmatic effect. In some cases, however, the assumed (or manufactured) equivalence can be even tighter, going to the level of parallel constituent parts, words, or morphemes. The ancient Greeks, for example, distinguished two types of translation, which can be taken to represent two different levels of interlingual identification: ‘paraphrase’, which translates the overall meaning of a passage, and the less well-known ‘metaphrase’, which is intended to be a translation of each constituent part of a passage (Baker and Malmkjær 1998: 153). Roughly, the distinction is like that between a ‘loose translation’ and a ‘literal translation’. In paraphrase, the equivalence is on the level of referent, meaning, concept. In metaphrase, the equivalence is on the level of individual form/meaning units, so that specific forms in one language are equated with specific forms in another. As anyone who has attempted translation is well aware, faithfully establishing a word-by-word equivalence is often done at the expense of a clear equivalence on the level of overall meaning and vice versa.

In any situation of language contact, these different levels of ‘commensuration’ or ‘alignment’ are absolutely essential and dynamic. A variety of language contact phenomena, including particularly ‘calques’, can be understood as involving expansion or alignment at a paraphrastic and a metaphrastic level.

I would argue that in languages with pervasive formal similarity, such as, in particular, genetically related languages⁵⁸, we can find a type of interlingual identification that is not available in languages that lack the systematic formal similarity. This is the interlingual identification of forms, or phonetic word shapes. Individuals who speak several related languages often become aware of the systematic formal similarities between the languages they speak and develop a kind of translation algorithm whereby they can derive a form in language X from a form in language Y. The establishment of formal interlingual equivalences leads to expectations of what can be said in another language.

This process is easiest to see when it goes awry. For example, many classic examples of ‘faux ami’ result from the fact that other established equivalences between the languages have led the speaker to develop a productive algorithm for determining ‘how you would say that’ in language Y. Nonce words like ‘*similaridad*’, ‘*sensitivo*’, or the semantically incongruous ‘*embarazada*’ (‘pregnant’) may seem perfectly straightforward and appropriate to an English/Spanish bilingual that is dominant in English because of numerous clear examples of similar English/Spanish pairs that work:

⁵⁸ Languages that share a large body of vocabulary because of language contact may also have recourse to this kind of process.

familiarity/*familiaridad*, forced/*forzado*, expressive/*expresivo*, etc. The process employed by bilinguals in these cases, and the logic behind this process, is very much like the more consciously formalized process of reconstruction used by practitioners of the comparative method. In terms of language contact phenomena, it is also important because nothing has been borrowed or replicated, rather new material has been introduced into the language *as if* it had always been there. If the unsuspecting coiner of the neologism has sufficient sway in his or her social circle, the term may achieve wider circulation, but the process by which it entered the new language cannot be accurately described as borrowing or even calquing, because it is never overtly recognized as novel.

In the case of the person markers in the Lowland Mayan languages, particularly the actual borrowed forms, one wonders if the pervasive preexisting formal similarity between the systems could have changed how the new forms entered the language in much the same way as the formal interlingual identification just mentioned. The changes involved in the ‘borrowing’ of these forms are recognizable not only to the scholar but also logically to speakers of the languages by what amount to subtle cues in pronunciation—a change in vowel quality, the palatalization of a consonant. The important point here is that the awareness, on the part of a bilingual, of the pervasive similarities between two languages, and the very subtlety of the differences involved in the first place, raise a question as to whether these changes were seen as ‘importing’, so to speak, foreign material, or if we should treat such cases as instances of interlingual ‘adjustments’, rather than borrowings. A bilingual, after all, might reasonably say ‘if you say it like *that* in Choltian, then you would say it like *this* in Yukatekan’.

4.5.2 Social Factors

Awareness of similarity can affect processes of language contact in other, more culturally mediated ways. Formal linguistic similarity can be drawn on to support a particular culturally constructed account of the historical relationship between speakers of two languages. It can also be denied if a shared history is ideologically inconvenient. And, like a self-fulfilling prophecy, the cultural assertion of similarity can often lead to greater linguistic convergence and greater actual linguistic similarity. As Thomason and Kaufman (1988: 15) observed: “...social factors can and very often do overcome structural resistance to interference at all levels”. Their landmark study was not the first to point out that the social context of borrowing must be taken into account in order to understand any case of borrowing (e.g. Weinreich 1953: 3), but they did make a compelling case through in-depth studies of numerous instances of heavy linguistic interaction. Thomason and Kaufman, however, did not provide much detail regarding how social context can ‘overcome structural resistance to interference at all levels’. For example, what exactly are the relevant social factors that allow pronouns to be borrowed? The social factors presented by Thomason and Kaufman (1988) are limited to very general categories such as intensity and duration of contact, sustained cultural pressure on a minority group, sustained contact, widespread bilingualism or simply ‘attitudinal factors’.

With the rich archaeological and ethnohistorical material available to use, we are in a position to examine the social factors surrounding the borrowing of person markers

in Lowland Mayan languages in somewhat more detail. It is an indisputable fact that many of the Lowland Mayan languages have been in contact for at least two thousand years. The material wealth and warring nature of the elite during the Maya Classic period make it a virtual certainty that the non-elite were suffering substantial cultural pressure. Additionally, while it is unclear how many people actually spoke the language of the hieroglyphs, the presence of a single, remarkably uniform written prestige language, Choltian, over an area in which several different languages were spoken natively could easily have been accompanied by widespread bilingualism.

All of this agrees with Nichols and Peterson's (1998: 610) claim that "borrowing of pronouns points to unusually close contact..." It goes without saying, however, that the reverse is not necessarily true. Many cases of extremely intense contact have not resulted in pronominal borrowing. This suggests, again, that while such social conditions as widespread multilingualism, or social inequality, are certainly helpful, other factors must come into play in order for pronoun borrowing to take place. Ultimately, a single 'reason' for language X to borrow pronouns from language Y is doomed to be overly simplistic. The causes, as with the outcomes, are multiple and interconnected.

Thomason and Everett (2005) suggest that, "pronoun borrowing—like other contact phenomena—is subject to deliberate and conscious choices..." (13). While Thomason and Everett do not pursue this in greater detail, conscious choice implies a (finite) set of options. Significantly, that set of options, what we are conscious of as possible, even knowable; our whole 'universe of discourse' (Bourdieu 1977: 159-171) is culturally mediated. Additionally, given a particular, socially mediated set of options to

choose from, the option we select will not be socially or symbolically neutral. Whether we intend it or not, our choices will say something to others about us. Thus, to bring the discussion back to the borrowing of pronouns, if, by conscious choice, I borrow a pronoun from another language, it raises two questions with respect to my projected identity: ‘what does that say about me?’, and ‘why would I want to say that?’

In fact, pronouns and other forms of person reference are often highly charged in terms of social identification, both of the self and the other. Whether it be an index of dialectal difference, a trick of secret languages, or a set of complex hierarchical terms of address, as described for Indonesia, person reference is frequently drawn upon in the construction of identity—solidarity and social differentiation, or the assertion of differences in power (Brown and Gilman 1968). It has been well established that language choices are often made in order to align oneself with a particular group, or to distinguish oneself from another group. This can occur in codeswitching, in cases of language shift, and in interdialectal contexts. Pronouns, like other indexical ‘shifters’, both presuppose an object to which they refer and in some instances create or frame the referent, an attribute which Silverstein (1976b: 34) refers to as ‘indexical creativity’. In the case of first and second person personal pronouns, what is referred to and created are the participants in the speech acts (see Wechsler 2010). I would argue both because of their indexical creativity in general and their indexical link to the participants in a speech event, that the forms of pronouns are particularly prone to be used as badges of identity.

First and second person pronouns, as with deictics more generally, are highly context-dependent. Yet as badges of identity (see LePage and Tabouret-Keller 1985) they

can have a great deal more stable meaning as well. For Quakers in seventeenth century England, the exclusive use of the informal 'thee' and 'thou' was an important part of 'plain speech', and was therefore not only a highly significant expression of faith and piety, but also identified the speaker immediately as a faithful Quaker (Bauman 1983). Although as speech participant indices, 'thee' and 'thou' reference the addressee, in seventeenth century England they also served as 'indices of identity' pointing to the social identification of the speaker. The widespread phenomenon of registers of formality in second person address forms also serve to index individual identity, but in the opposite direction: they express the social category in which the speaker places the hearer, with all that this social placement implies about both hearer and speaker. Not surprisingly, these categories of social differentiation are very frequently borrowed, even if the forms are not.

Dialectal variation within a language provides a fertile field in which to see the role of pronouns in social identity. A defining feature of the Texas dialect of English is the innovative second person pronouns *y'all* and *all y'all*. The form of the second person pronoun likewise is a defining feature of several South and Central American dialects, where *vos* is widespread, replacing, or restricting the usage of the standard Latin American Spanish *tu*. Similarly, another example can be found in the second person plural contrasts in Spain, where the conservative *vosotros* is used, as compared to the Americas where *ustedes* is the norm. This is not to say that dialectal variation in pronominal forms is necessarily created specifically to express a new group identity, but that among the variety of divergent features of a particular dialect, pronominal variation

is particularly prone to be singled out as characteristic of that language community's speech.⁵⁹

A good example of pronouns used as indices of identity, and a logical transition into discussions of this phenomenon in terms of pronoun borrowing, is the previously mentioned Indonesian case, described by Wallace. Wallace notes that these pronouns, beyond speech participant deixis, also indicate social intimacy, deference, distance or, in some cases, ethnic or cultural affiliation. As an example, Wallace notes that the intimate pronouns *gue* 'I' and *lu* 'you' borrowed from Chinese, are now used as "prime markers of membership in the peer group of all young Jakartans as well as badges of lower-class solidarity." (Wallace 1983: 579). Wallace, in fact, gives several other examples of borrowed pronouns in other dialects of Malay, and languages throughout Southeast Asia, all of which support the general thesis that group identification and social differentiation are central determiners of pronominal choice in Southeast Asia, and provide a crucial motivation in the widespread pronominal borrowing in this region.

It is clear that many of the structural and social factors that have contributed to widespread pronominal borrowing in Southeast Asia are unique to that region. However, certain parallels between the situation described by Wallace and what we find in the Lowland Maya region merit close attention. The first is the significant structural motivations. In both cases the linguistic details of at least some of the languages involved

⁵⁹ Brian Stross (pc) made the important observation that pronouns are not always prone to serve as markers of group identity. Specifically, the degree of familiarity with the donor language or dialect might be an important factor in determining what is seen as salient.

create a situation in which pronominal borrowing has little impact on the syntactic structure of the recipient language.

A possible second parallel is social. Speakers of languages in both areas appear to be particularly sensitive to pronouns as expressions of group identity and solidarity, while the actual language one speaks is not as important. The complex hierarchical system of reference seen in Indonesia is less apparent in the Maya region, but the sense that the pronouns you use represent what group you are a part of still seems to persist, at least in some communities. Haviland (1988: 92) notes that “for speakers of dialects of modern Tzotzil, an important diagnostic of where one comes from is how one forms one’s verbs, that is, the set of absolutive, ergative, and aspectual affixes that one uses; there are often differences even between neighboring hamlets of the same community in the way verbs are conjugated.” This observation suggests that, among the Tzotzil, verbal affixes, including the pronouns, are important markers of identity.

Coupled with how the Lowland Maya might have expressed their identity through linguistic forms prior to the Spanish Conquest is the way in which the Pre-Conquest Lowland Maya might have constructed that identity. With respect to the highland Mayan languages, Braswell (2006), cautioned that “we must be especially careful not to assume that speakers of each of these languages all shared an identity before the conquest” (131). In fact, given the Colonial history of the European nationalist languages ideology discussed in chapter 1, this cautionary note is perhaps particularly pertinent. Braswell goes on to cite Sol Tax (1937), who made the case that in at least one part of the Maya Highlands (the region of Lake Atitlán, in Guatemala) identity was based on territory (the

municipio, or ‘township’), rather than language⁶⁰. Braswell mentions several cases from ethnohistorical records of the highlands in which groups that today are isomorphic with a single language, such as the K’iche’, were originally composed of people from various different groups with distinct origins who came together through a political alliance. The K’iche’ kingdom, for example, included speakers of numerous other languages, including Kaqchikel, Tz’utujil, and others. Conversely, the *Rabinaleb’* or Achi, while even today speaking a language that is virtually identical to K’iche’, at the time of the Spanish conquest kept themselves politically distinct from the K’iche’ (having separated by then from the K’iche’ kingdom). Thus, as Braswell (2006: 131) maintains, “it is not at all clear that language played an important role in the projects that defined several highland identities.”

While it is often hard to extrapolate from one cultural area (the Maya highlands) to another (the Maya Lowlands), or even from the present situation to the past, it is interesting to note that there is some hint in Colonial records for the Maya Lowlands of a lack of correlation between political or social affiliation and language similar to that noted by Braswell. As mentioned in chapter 2, efforts recorded by Spanish missionaries to figure out which groups spoke the same language often come across as surprisingly confused and vague. In some cases, groups that are rigidly distinguished both politically and culturally by the Spanish authors, with different names and reputations, are likely from other evidence to have spoken the same language. This seems to be the case for the Mopan and the Chinimitas, and perhaps the Kejache and the Itzá (see Jones 1998: 22). In

⁶⁰ See Wilson (1995: 20-21) for a similar observation about the Q’eqchi’ Maya.

other cases, the same language term was used to encompass several ethnically and politically united groups that are known from contemporary sources to have spoken different languages. For example, the term ‘Chol’ was used for at least Chontal, Chol, and Cholti speakers. The term *lacandon* was used both as an ethnic label and a general term for ‘wild indians’ and referred at different times to speakers of Cholti and Lacandon Maya (a Yucatekan Language, De Vos 1988). The confusion about language names and linguistic boundaries apparent in the ethnohistorical records gives the impression that the native informants that were supplying information about the linguistic geography of the Lowlands might have been responding to questions about languages with answers about political, ethnic, and geographical divisions. Though the evidence is indirect and painfully incomplete, it is at least consistent with the hypothesis that to the Lowland Maya, during and before the Spanish Conquest, language was not central to the formation of social identity.

The irrelevance of language to issues of identity is precisely what Heath (1978: 142-143) invokes to explain the massive grammatical and phonological, as well as lexical, borrowing that took place in Arnhem Land, Australia. To speakers of the Australian languages being discussed by Heath, “Language is of little importance in defining one’s social identity” (*ibid*: 142), and therefore “there have been no particularly strong cultural factors inhibiting particular kinds of diffusion” (*ibid*: 143). If this is true, it suggests that linguistic communities can vary a great deal with respect to the degree and manner in which language contributes to the construction of identity. The linguistic communities of Arnhem Land and the pre-Conquest Mayan Lowlands would occupy

points toward one end of a continuum at which linguistic affiliation is not central to the construction of identity, and there are no robust ideological impediments to language mixing. The opposite extreme, in which linguistic affiliation is central to identity and language mixing is highly constrained, has been described, for example, in communities in the Vaupés region of the Amazon basin (Aikhenvald 1996, 2003). In these communities, many of which practice linguistic exogamy, strong social constraints against language mixing have severely limited the amount of linguistic ‘matter’ that is borrowed, notwithstanding pervasive borrowing of linguistic ‘patterns’ (Epps 2007). A crucial distinguishing feature between these polar cases seems to be the degree to which language is seen to define group identity.

If a social group uses pronouns, rather than a language as a whole, to display group membership, both inclusively and exclusively, it stands to reason that these features would become linguistically more mobile, shifting with the allegiances of a speaker. If language, at least in some parts of the Maya region, is not as central to identity construction as it is in other parts of the world, this would provide yet another line of reasoning to explain the ease with which pronominal ‘matter’ and ‘patterns’ have been changed by linguistic contact in the Maya Lowlands.

Chapter 5: Contact Effects in the Lowland Mayan Aspectual Systems

As demonstrated in chapter 4, the systems of person marking in Lowland Mayan languages have been at the center of several remarkable contact-induced changes over the past millennium. Another series of contact-induced changes that ties in to the changes in person marking are contact-induced changes in the system of aspectual distinctions. Aspect relates to person marking in that in most (though, as will be shown, not all) of the Lowland languages a significant areally spread innovation was the development of a split-ergative pattern of person marking based on aspect, in which the verbs in the completive aspect maintain the conservative ergative-absolutive pattern of marking, while verbs in the incompletive aspect follow a nominative-accusative pattern of person marking. However, this significant change is far from the only way in which the system of aspectual distinctions has been modified due to contact among Lowland languages. In this chapter, I will discuss, 1) several instances of the direct replication of specific aspectual morphemes from one language to another or to several, including the completive clitic *ti*, the progressive auxiliary *wal*, and the ‘incompletive’ potential *-oom*;

2) the innovation of aspect-based split ergativity, and 3) the significant ramifications that the particular form of split ergativity had in other areas of the aspectual systems of these languages. I will conclude with a discussion of the notion of contact-induced language change and what the case of Lowland Mayan split-ergativity can show us about both primary and secondary contact effects in the context of genetically related languages.

5.1 DIRECT REPLICATION OF ASPECTUAL MORPHOLOGY

As noted in the last chapter, the various instances in which we seem to be dealing with the actual replication of phonological forms are much more limited in range than the widely dispersed borrowing of patterns. Two of the morphemes discussed in this section clearly follow this tendency, each only involving two languages, presumably a source or model language and a replica or recipient language. Another form, *wal*, seems on the surface to be more widespread, but closer consideration of this feature reveals that this also involves only a very limited range of languages that have borrowed actual forms. Each of these features is discussed below.

5.1.1 *ti* completive proclitic

One form that has been suggested as a borrowing from one language to another (Law et al 2006: 442) is the completive proclitic *t(i)-*, found as *t-* in several modern Yukatekan languages (all but Mopan—Hofling 2006: 389), and also in Chol, in the form *tyi* (alveolar stop consonants were palatalized in most contexts in Chol, possibly as a

result of contact with Zoque—Vázquez Álvarez pc, 2008). These are the only Mayan languages that have a *t-* form in the completive, and the fact that they are both major participants in the Lowland sphere of linguistic interaction makes it likely that the form is a borrowing. In the Yukatekan languages, *t-* is restricted to transitive completive sentences. In Chol, this form is used in both transitive and intransitive contexts. The following example sentences demonstrate the similarity between these forms:

Chol (Vázquez Álvarez 2002: 193)

- (1) *tyi* *a-mek'-e-y-oñ*
 PERFV A2-abrazar-VTT-EPN-B1
 'Me abrazaste'
- (2) *tyi* *wäy-i-y-oñ*
 PERFV dormir-VTI-EPN-B1
 'Me dormí'

Itzaj (Hofling 2000: 512)

- (3) *T-u-mäch-aj u-k'ab' a' winik-ej...ka' t-u-pul-aj ti ja'...*
 COM-A3-grab-CRTS 3A-hand DET man-TOP then COM-3A-throw-CTS PREP
 water
 'It grabbed the hand of the man, and it threw him into the water.'

In Chol, *tyi* alternates with the emphatic form *tsa'*, though there is no reason to suppose that one form derived from the other historically. Another interesting fact is that this morpheme was not apparently used in Colonial Yukatek, so its innovation, at least in Yukatek, is fairly recent, a fact supported by the lack of this proclitic in Mopan.

However, Colonial Yukatek does register a past reference clitic *ti* that cooccured with the

completive verb form (with a completive suffix) and indicated past time of today ‘la cosa se hizo oy’, which sounds from this description like a recent past or proximate form (Buenaventura 1684[1996]: 136). Robertson (1992: 208) suggests that this may be a likely candidate for a historical source of the completive proclitic.

Interestingly, both the distribution of the *t(i)*- completive within the Yukatekan family, and its presence in Chol, suggest that this morpheme was areally shared not only after the breakup of Cholan, but even some time after the breakup of Yukatekan, and possibly during the post-Conquest era.

5.1.2 -oom perfect incompletive

Another aspectual morpheme that seems to have been shared through contact is a suffix *-oom* shared uniquely by the language of hieroglyphs and Colonial Yukatek. Since no modern language maintains this form with the same or similar function, it is difficult to confidently describe that function. Its particularly narrow distribution may be the result of a genre specific use of the morpheme, and give a clue as to why this form might have been borrowed from Classic Choltian into Colonial Yukatek.

5.1.2.1 -oom in Hieroglyphs

The *-oom* future in the hieroglyphs was first discovered independently by David Stuart and Ben Leaf in 1986, both of whom suggested that it was some sort of future marker. A year later, in the 1987 Maya Meetings, Terry Kaufman suggested that it was

the ‘potential-future participle’. In the late nineties, John Robertson, (p.c.), suggested that this suffix was a determinative future derived, ultimately, from a semi-productive agentive suffix *-oom*. More recently Bob Wald, in his dissertation on issues of grammar in the Maya hieroglyphs (Wald 2007) proposed that this suffix was, in fact, a resultative suffix, rather than any sort of future. To my knowledge, Wald is the only one with published arguments and data concerning this suffix, but I believe that much of the data that I will bring out here from my own research is the same as that used by others in support of their claims.

There are several distribution facts about the *-oom* suffix in the hieroglyphs that are important to keep in mind. The first is that this suffix is only found on intransitives. More specifically, it is found on root intransitives, passives, and antipassives.

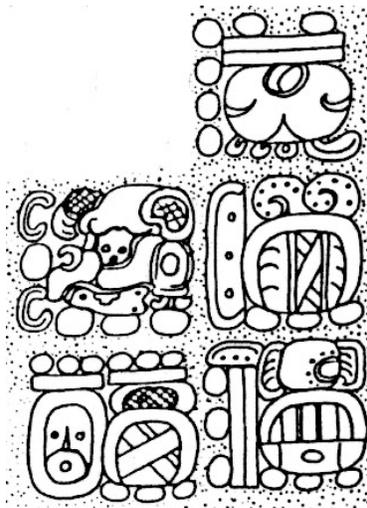


Figure 4. Palenque Temple of the Foliated Cross Tablet. Drawing by M. G. Robertson.

Palenque, Tablet of the Foliated Cross (my transcription and translation)

(4) *chan* [*k'in*] *ka'lahuun winal-jiy* *huun haab*

four [days] twelve score.days-past one haab⁶¹
uht-oom *waxak Ajaw waxak ik'sihoom* *u(y)-uxlahuun winikhaab*
 happen-POT eight Ajaw⁶² eight Wo⁶³ A3-thirteen k'atun⁶⁴.
 'Four [days], 12 winals, and one haab from then, the day 8 Ajaw 8 Wo will happen,
 in the thirteenth K'atun.'

Tzutzjoom on Copan Stela A

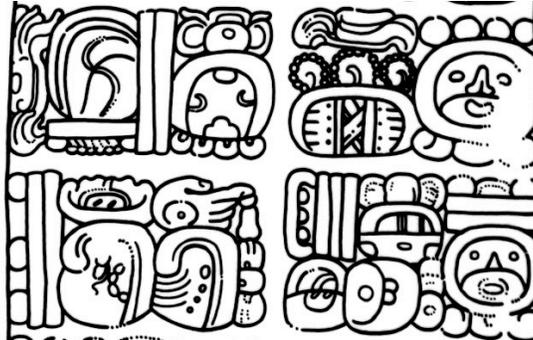


Figure 5. Copan Stela A, back. Drawing by Linda Schele.

Copan, Stela A, back (my transcription and translation)

(5) *u-tz'ak-a* *lahuun [k'in] mi winik-ij uht-oom chan*
 A3-complete-? eleven [days] zero score.days-fut happen-POT four
Ajaw ux-lahuun Yax tzu<h>tz-j-oom u-ho'lahuun
 Ajaw thirteen Yax finish<pass>-pass-POT A3-fifteen
 k'atun
winikhaab...

'At the completion of 10 days (and 0 months), it shall be (the date) 4 Ajaw 13 Yax, The thirteenth k'atun shall be finished.'

⁶¹ A span time span of 360 days.

⁶² A day name for a day in the 260 day calendar.

⁶³ A month name in the 365 day *haab* or 'vague year'.

⁶⁴ A time span of 7200 days (20 x 360).



Figure 6. Copan Stela A, side. Drawing by Linda Schele.

Copan, Stela A, side (my transcription and translation)

- (6) ..*haa'-ob* *pas-n-oom* way *mak-n-oom* way *ti* *tahn-laam*...
 Foc-3pl open-AP-POT portal open-AP-POT portal PREP half-finishing
 '[It is] they [who] will open the portals and who will close the portals during the half-period.'

Importantly, in every context in which it is found, *-oom* involves an event that is in the future relative to time of the writing of the inscription. Even though there is a great deal of disagreement about how tense/aspect is marked on the verbs in Maya hieroglyphs (See Houston 1997, Wald 2000, Bricker 2000, Robertson et al 2004, Macleod 2004 for discussion), the future nature of most of these examples (but not all, as we shall discuss later) is obvious based solely on the extensive calendrical information that accompanies every text, and often every sentence within a text.

5.1.2.2 *-oom in Colonial Yukatek*

Perhaps the first suffix to be equated with the *-oom* suffix in the glyphs was the so-called ‘prophetic future’ that is common in Colonial Yukatek records, but does not survive in any of the modern Yukatekan languages. Both David Stuart and Ben Leaf noted this suffix, and connected it to the form in the hieroglyphs. Two different colonial grammars describe this suffix, Coronel (1620) and San Buenaventura (1684). Their descriptions of the suffix are given below:

Ioan Coronel (1620)

Futuros [acabados] en om

Ay ciertos futuros acabados en om, los quales salen de los verbos neutros, y significan auer de suceder sin falta, lo que el verbo importa; su formacion es al preterito perfecto del indicatiuo, buelta la i en om, como: cimil: [morir], preterito cimi, [futuro cimom]; cimom tac lacal: hemos de morir sin falta todos; talel: [venir], pret[erito] tali, [futuro] talom; vchul: [suceder, preterito] vchi, [futuro] vchom; yanhal: [haber, preterito] yanhi, [futuro yanhom]; yanhom uil chicil ti kin yetel ti .v.: sin falta abra señales en el Sol y Luna.

Gabriel de San Buenaventura (1684)

Formacion de los futuros en om.

Los futuros acabados en om solo salen de los verbos neutros, y passivo; y para formarlos, no ay mas, que mudar la i vltima del preterito en om. Vg: cimi: murio; cimom: moriremos sin falta. Estos futuros significan, aver de suceder sin falta, lo que el verbo significare.

En primeras, y segundas personas de plural se varian con pronombre. Vg: ca cimom: nosotros moriremos sin falta; a cimomex: vosotros morireis sin falta.

These are in fact somewhat inconsistent and San Buenaventura’s discussion, in particular, seems problematic. He gives <cimi>, a third person form and then to illustrate the suffix *-om* he gives a first person plural form <cimom>, which he glosses as ‘moriremos sin falta’, attributing to the example both the first person plural value of *-on*,

and the aspectual value of *-om*. Beltran (1746), writing nearly a century later, notes this inconsistency in (Gabriel de) San Buenaventura's writing, and makes clear that, at least in the form of the language familiar to Beltran, no such suffix existed:

Pedro Beltran (1746)

La formacion de futuros en om, que pone el R. P. Fr. Gabriel, no ha de seguirse; lo uno porque no hay tales futuros en om, como se vè en la misma explicacion que hace en su Arte, fol. 7 vuelta, donde exemplificando, pone cimon, en on, y no en om, fuera de que cimon, no es futuro, sino preterito sincopado, en lugar de cimion, y tambien plusquamperfecto, que supone es cimicon. Lo otro, porque esse que pone por especial futuro, es solo primera persona de varios tiempos, que vãn por la primera conjugacion; pues es la primera persona de plural del Pronombre en, ech, y la variacion, que le da por primeras, y segundas personas de plural: ca cimon, a cimomex, ni la he oïdo, ni está consiguiente: pues en la primera persona acaba en on, y en la segunda en om.

From the Colonial 'Books of Chilam Balam', however, it is clear that the *-oom* suffix did exist in Colonial Yukatek, though apparently by Beltran's time (the mid 18th century) it was already lost (Beltran's knowledge of the language and analytic skills seem to be admirable, so he would be less likely to have simply missed it). As Bolles (1985: 81) notes, this 'prophetic future' is quite common in Colonial literature, but is no longer in use. It seems not to be conjugatable, there being only examples of this tense in the third person. In addition, all examples that I have been able to find are in the Chilam Balam. The use of *-oom* is exemplified in the following passage from the Chilam Balam of Mani:

Example of Colonial Yukatek -oom

The Chilam Balam of Maní

(On 13 Ajaw)

uchicul Hunab ku caanal

ulom uaom che **etzahom** ti cahe

uchebal uzazhal yokol cabe, yume

Dzuni moctamba, dzuni zauinal

ca **talom** ti pul chicul ku.

(On 13 Ajaw)...

‘...the sign of one and only god on high

the cross **shall return**. It **shall be shown** in the towns

Light (enlightenment) shall happen in the world, lord

Quarreling returns, jealousy returns

when the bearers of the sign of god **shall come**.

(Bolles and Bolles 1985: 153)

This example is representative of the most common (only?) context of *-oom* in Colonial Yukatekan, aside from the descriptive grammars. Not only, then, do the *-oom* suffixes in Colonial Yukatek and the language of the hieroglyphs share the same ‘future’ function, but they are also similar with respect to their distribution (they only inflect intransitive verbs), and in their usual discursive context (texts associated with the calendar and with rituals and other activities with religious significance. I will argue that this point is highly significant for understanding the history of the suffix.

5.1.2.3 Borrowing or Shared Retention?

Given its apparent similarity to the *-oom* suffix in the hieroglyphs, it is reasonable to assume that this suffix is related in some way to the glyphic form. However, a very real question exists as to how exactly they are related. At the time when *-oom* was first identified in the hieroglyphs and connected with the same suffix in Yukatekan by Stuart and Leaf, it was generally thought that glyphic texts were often written in a form of

Yukatekan, so the existence of a Yukatekan suffix in a few texts was not at all difficult to explain. It has since come to be accepted that these texts are written entirely (with a handful of salient exceptions in terminal Classic Northern Yucatan, and in Post-Classic codices) in a Cholan language. This leaves us with three options for explaining the similarity: shared retention from proto-Mayan, borrowing, or chance. Wald (2007: 463, footnote 182) argues that the similarity in these forms is chance. His conclusion follows from his argument that they have very different functions. Given what I argue to be extremely parallel formal, functional, and distributional facts, attempting to attribute such a similarity in genetically related languages with an established history of intense language contact to mere chance does not seem likely.

5.1.2.4 Historical Development of -oom

But what about common inheritance? In order to investigate this, we must broaden our investigation to other Mayan languages and try to identify possible cognate forms. Doing these reveals at least three different suffixes with a general form *-Vm* that can be confidently reconstructed for proto-Mayan, though the exact reconstructed form of each is not always entirely obvious. These are an agentive (nominalizing) suffix **-o(o)m*, a gerundive or participial suffix *-V'm* and a perfect suffix *-Vm*.

Note that these forms seem to have been separate morphemes, even in proto-Mayan. The *-oom* agentive, unlike the participle and the perfect verbal form can be suffixed to transitives, intransitives, and even nouns, and is derivational, not inflectional.

Below are examples of the agentive *-oom* forms in K'iche'an, Cholan-Tseltalan and Q'anjob'alan, where it is particularly productive today.

Examples of the *-oom* Agentive

K'iche'an

K'iche' unproductive agentive (Mondloch 1978: 155)

k'inoom 'rico, un rico'

elaq'oom 'ladron'

Cholan-Tseltalan

Classic Choltian:

k'ay-oom 'cantante'

kay-oom 'pescador'

Q'anjob'alan

Q'anjob'al (ALMG 2005: 79, 95)

(17) *kuy-w-om heb' ix*

estudiar-AP-AGT PL/B3 PRO:mujer

"ellas son estudiantes"

(18) *il-om na*

'cuidador de casa'

(19) *man-om kapey*

'comprador de café'

While not conclusive, the fact that there are clear examples of the *-oom* agentive in the hieroglyphic corpus, and that these examples seem to contrast in distribution and function with the so-called *-oom* 'future', seems to suggest that the *-oom* future is not, in fact, related, historically, with the agentive suffix.

The perfect suffix *-Vm* can be exemplified with the following examples from K'iche', which is found primarily on transitive verbs, which maintain their transitivity, as evidenced by the presence of both set A and set B markers in example 7. This same form

without a set A marker, has a passive perfect interpretation, and may in fact be a stative construction (example 8). K'iche' also clearly displays a participial form with *-Vm*, though this is both formally and functionally distinct from the perfects (example 9).

Examples of *-Vm* Perfect and Participle

K'iche': *-VVm-oom* (mostly *-oom*) on transitives and some intransitives (Mondloch 1978: 124, 145)

Perfect

(7) *at w-il-oom* 'Yo te he visto.'; *in a-tzuk-uum* 'Tu me has buscado.'

Passive Perfect

(8) *in il-oom* 'Yo he sido visto.'; *uj tzuk-uum* 'Hemos sido buscados.'

Participle

(9) *tzakom saqmo'l* 'huevo cocido'; *elaq'am pwaq* 'dinero robado.'

In practice, the participle and perfect forms in Mayan languages are not always distinguished rigidly, and numerous suffixes are attested for both categories. Even if we focus exclusively on the *-Vm* perfects and participles, however, the distributions and functions of this form are varied. Wald (2007) gathers fascinating information concerning what he calls a 'resultative' suffix for intransitives, which is clearly cognate with the *-Vm* perfect in other languages. This same suffix is described by Haviland (1988) as a 'stative aspect' marker for Tzotzil (example 11), and as a 'perfect intransitive participle' by Kaufman (1971: 83) in Tseltal (example 12). In the modern languages this suffix takes the form *-em*, however, in Colonial sources, it alternates with the less common *-om*, allomorphy which is apparently lexically determined. In the Tseltalan languages, this suffix takes the same pronouns as stative sentences, and cannot inflect for tense/aspect. Because it only occurs on intransitive forms, it is impossible to distinguish these constructions from stative predicates.

Colonial Tzotzil: *-em* or *-om*, on intransitive verbs (Laughlin 1988:834-cited in Wald 2007)

- (10) *tz'etom ut batik ta tz'etom, ayom ta tz'etom.*
 . . . aquella obra de cortar así [lo que está levantado como arboles],

Modern Tzotzil: 'Stative' *-em* on intransitive verbs (Haviland 1981: 101- 116-117)

- (11) a. *vayem xa* 'ya está durmiendo';
 b. *vayem to* 'todavía queda dormido.'
 c. *sutem xa yajnil* 'Ya ha regresado su esposa.'

Tzeltal: *-em* 'perfect (Kaufman 1971: 83, ex from Polian 2004: 88-89)

- (12) a. *We'-em-on*
 eat-PERF.I-B1
 'I have eaten.'
 b. *Ta'aj-em* =ix *pajel*
 cook-PERF.I(B3) already tomorrow
 'Tomorrow it will be cooked.'

Thus, in K'iche', we see both transitive and intransitive perfects with *-Vm*, while in Tzeltalan, *-Vm* is only found on intransitive verbs. This variation is typical of the family: in Ixil it is found mostly on transitive, but also on a few intransitives, while in Poqom and Yukatekan it is restricted to transitives. The following examples (16 and 17) from Itzaj illustrate this transitive perfect form in Yukatekan:

Itzaj: transitive verbs (Hofling 2000: 55, 369,).

- (16) *u-sätz'-m-aj-Ø*
 3A-stretch-PERF-CTS-3SG.B
 'Ella lo ha estirado' (55)
 (17) *t-u-t'on-m-aj-oo' la'ayti'-oo'-e...ka' kap-ij ti siit'...*
 COM-3A-shoot-PERF-CTS-PL 3IPR-PL-TOP...then begin-3SG.B SUB jump...
 'que ellos mismos habían pegado, entonces empezó a saltar. (370)

In the modern and colonial Cholan languages, it seems that the only remnant of the *-Vm* perfect is in the form of somewhat unproductive participles, as the following examples from Chontal, Chorti and Cholti' illustrate:

Acalan Chontal: only one example.

<*buthem ham*> 'rellena tierra' (Smailus 1975)

Colonial Cholti: Infinitive/adjective *-om /-em* (Moran 1695)

<lo q se coge en guerra	<i>colom</i> >
<lo q se caza el perro	<i>v-colom tzi</i> >
<cazador	<i>ahcolom</i> >
<quebrantar manto	<i>cohlom</i> ; es caza idem>
<embriagado	<i>calem, calpael</i> >
<cosa destruida	<i>polem</i> , desierto, casa dejada, <i>polem otot</i> >
<ropa bieja	<i>paquem buc l. noc</i> >
<desperzarse desperesarse	<i>zatzleyahba; zatzloom</i> >

Chorti: perfect adjective/adjective of transitive and intransitive verbs (Hull - p.c.)

Ojrem u't uyej e tz'i "Los dientes del perro se le han salido."

Sakem sakem uxor ninoya, "El cabello de mi abuela tiene muchos canos. (lit. se ha hecho muy blanco.)"

E chokem otot puruy. 'La casa abandonada se quemó.'

purem 'quemado'

t'ab'em 'elevado'

ok'em 'podrido'

It seems clear that the hieroglyphic and Colonial Yucatekan attestations of the *-oom* 'future' are very different in distribution and function from the participial forms noted above for the Cholan languages. It seems needlessly complicated to suppose that the participial *-Vm* would have developed into another suffix *-oom* restricted in distribution to intransitives *and* limited to the future, all while maintaining its original participial function and distribution, which was maintained in subsequent stages of the language while the future form was lost.

By process of elimination, then, we must consider the viability of relating the *-oom* ‘future’ of the hieroglyphs and the Chilam Balam with the perfect. The *-oom* ‘future’ shares with the Tzeltalan perfect (or resultative, according to Wald) its restriction to intransitive verbs, though the restriction to future reference is innovative, a fact that conflicts, it should be noted, with the distribution of the *-m* perfect in Yukatekan. However, the question remains: how can we explain the shift in meaning from a general ‘perfect’ to one restricted to use in future contexts?

As it turns out, if we assume a ‘perfect’ origin for the potential *-oom*, there is an explanation for the development of *-oom*. We can see how this might come about thanks to a parallel situation in Poqomam. Although the perfect suffix in Poqomam, as in Yukatekan, is restricted to transitive verbs, it is, unlike most Mayan languages, not prohibited from occurring with aspect markers. What is particularly telling for explaining the restriction of *-oom* to the future in the glyphs is what happens the Poqomam perfect when it occurs with an incompletive: when the *-Vm* suffix in Poqomam occurs without any aspect marker, it yields a typical ‘perfect’ meaning (example 20), but when this suffix occurs with the incompletive aspectual prefix *k-*, the meaning becomes potential (example 21).

Poqomam: *-Vm* on transitive verbs (Santos Nicolas and Benito Perez 1998: 183-185).

Perfect

- (20) a. *hat ru-chap-am* ‘te ha agarrado’
 b. *ru-ch’ir-im* ‘lo ha rajado’

Potential

- (21) a. *k-in ru-kaj-am* ‘me correrá’

b. *k-in ki-to'-om* 'me ayudarán'

I argue that the reason that *-oom* is restricted to the future in the language of the hieroglyphs is that, in this language, the incomplete aspect has become unmarked, while complete requires marking. Thus, rather than interpreting a verb marked only with *-oom* as the perfect, it was interpreted as the perfect plus (unmarked) incomplete aspect. As in Poqomam, this combination in the hieroglyphs yields a 'potential' meaning.

Thus, if we assume a Choltian origin for *-oom*, we can explain both the restriction to intransitives (Tseltalan has the same restriction, Yukatekan *-m* perfect is restricted to transitives) and the functional shift from perfect to potential (through the development of the unmarked incomplete). This suggests that the source of the *-oom* future was the language of the hieroglyphs, rather than Yukatekan. If this is the case, it becomes highly significant that the use of *-oom* in Colonial sources is mainly (to my knowledge, exclusively) restricted to a particular genre of sacred oracular texts, the Chilam Balam. One might well wonder, given the restricted pragmatic distribution of this form, if it was borrowed into Yukatek precisely because of its association with the ritual and oracular hieroglyphic texts, the linguistic domain of ritual specialists, rather than a more generally applicable aspectual form.

5.1.3 The progressive with *iyuwal

In their important study of the Lowland Mayan language area, Justeson et al (1985: 9) note that among the several suffixes and grammatical particles that they find to

be unique to the Lowland Mayan (Yukatekan and Cholan) languages is a particle marking progressive aspect, which they present with the form **iwaal*. While this exact form is not shared by the several Mayan languages are generally taken to be part of the Maya Lowlands, the use of similar forms has an interesting distribution. As will be shown, however, its distribution does not conform exactly to the traditional boundaries of the Lowland region.

Justeston et al's description of **iwaal* as a marker of the progressive aspect is typical of how this form has been treated in the literature. The progressive in Mayan languages is often expressed in an auxiliary construction in which the progressive marker itself is the main predicate, and the semantic main verb is its syntactic complement. There are several different instances of this form becoming grammaticalized to a proclitic and becoming a marker of the incomplete, and in some cases it is simply a preverbal particle and the semantic main verb is also the syntactic main verb, not a complement. The form of the progressive in Mayan languages is also often transparently, or semi-transparently derived from a positional root with an 'attributive' or predicate positional suffix (in most Mayan languages either *-V₁l* or *-an*). Q'anjob'al, for example, has three different positional roots that are used in progressive constructions : *lanan*, a positional meaning 'standing, extended', *ipan* 'pushing like position', and *jalan* 'to be tangled' (Mateo Toledo 2008: 55).

This pattern can be exemplified with the following from K'iche', which has the progressive auxiliary *tajin*:

K'iche' (Larsen 1988: 164)

- (24) *tajin k-in-chakun-ik*
PROG INC-1B-work-FF
I am/was/will be working' (*'I work.')

The association of the Lowland form **iwaal* with progressive derives from its use as such in Colonial Cholti (written <yual> and, in one case, <iuual>—Roberston et al 2010: 139, l. 28), and the existence of clearly related forms in the progressive in Chorti (*war*) and the Tumbalá dialect of Chol (*wäli*, *woli*).

The Progressive in Cholti, Chorti and Chol

Cholti (Law et al 2006: 446; my glosses)

- (25) *ko'l iyuwal u-kal-nah-el ti chan*
as PROG A3-do-PAS-NF PREP heaven
'as it is [being] done in heaven.' (from the Pater Noster)

Chorti (Hull 2005: 8)

- (26) *E sitz' war u-b'ani u't u-kamisa.*
DET boy PROG A3-loosen [A3]button A3-shirt
'The boy is unbuttoning his shirt.'

Chol (Whittaker and Warkentin 1965: 16, my glosses)

- (27) *che' abi woli i-k'ajtibeñ jñi i-ña'*
say QUOT PROG A3-ask DEM A3-mother
'He continually nagged his mother, it is said.'

This form is also attested in the Colonial form of Chontal, known as Acalán Chontal, written <yuual>. However, in this language it is not at all clear that it is a marker of the progressive, instead, it seems to be some sort of adverbial particle with a sense of 'later on' or 'while', though its analysis is incomplete. Example 28, below

illustrates a use of *yuual* that does not lend itself to a progressive interpretation, not least because it is associated with a verb in the completive:

Acalan Chontal (Colonial - Smailus 1975: 28)

(28) <hain ahau yuual uyalahulci vinic tixchel>

ha'in ahau yuual uy-alahul-c-i vinic tixchel

DEM lord yuual A3-arrive-CAUS-COM.SUF person Tixchel(place)

'Este rey hizo venir gente a Tixchel.'

The Maya hieroglyphs also have a handful of perplexing attestations at Copan and somewhere in Tabasco of what appears to be a cognate form, spelled i-yu-wa-la, which also seems to be used adverbially, or at least with non-verbal predicates (see Law et al 2006: 430-432, for more details). Unfortunately, the few contexts in which this form occurs are not controlled enough to allow a confident assessment of their meaning, but even these few examples suggest that this form was not the progressive.

In light of these disparate sense of **iwaal*, it makes sense that Kaufman and Norman (1984: 139) would reconstruct two different senses for proto-Cholan **wäl*: the adverbial 'now, today', and the progressive aspect marker. The question is, can either of these senses be considered primary, and which, if any, can we say was shared through contact. In order to answer this, we must look beyond the Cholan languages. The only other languages with relevant forms are Yukatekan, and, interestingly, Tojol-ab'al and Chuj.

In Yucatekan languages, the progressive is not indicated with anything like **iwaal*, instead all of the Yucatekan languages have a progressive form **tahn*, perhaps derived from nominal root for 'chest', 'inside'. However, a compilation of Colonial and

Modern Yukatek sources (the *Cordemex*, Barrera Vasquez 1980) does list both *wal* and *iwal*, as in the glyphic language and Colonial Chontal, as temporal adverbs meaning ‘from now until the end of the day’:

(Colonial) Yukatek (Barrera Vasquez 1980: 274, 909)

IWAL 1. hoy en todo el día, desde ahora hasta la noche; ma’ k ohel iwal wa samal u k’in ka’ luk’ebal way yok’ol kabe’: no sabemos si hoy, si mañana nos partiremos de este mundo. 2. *IWALE’* 1: idem; ah talech wa iwale’: por ventura haz de venir hoy?

WAL 1: pospuesta significa hoy; ma’ wal, maix samal ka’ paxal: no hoy ni mañana nos hemos de ir al pueblo y dejarlo 3: hoy de lo restante del día

Some Yukatekan languages (Colonial Yukatek and Mopan) also have a similar form *walak*, which is the ‘incompletive habitative’ (Hofling 2006: 389), semantically incompletive like the progressive, but specifically not the ‘ongoing, at the moment’ incompletive sense characteristic of progressive aspect. What this leaves us with is that, of the core Lowland languages (Yukatekan and Cholan), only three use a form like *iwal* in the progressive, Cholti, Chorti, and Chol of Tumbalá. The adverbial meaning of ‘now’, or ‘today, from now on’ is found in at least Colonial Yukatek, Acalan Chontal, and, apparently, the language of the hieroglyphs.

Using this range of languages, and the comparative fact that morphemes tend to move from less grammatical functions to more grammatical ones, rather than the reverse (a basic tenet of grammaticalization theory, Hopper and Traugott 2003, etc.) we can suggest that it is the adverbial form meaning ‘today, from now until the end of the day, or

from this point on' that is primary. Cholti, its descendant Chorti, and Chol, then, all innovated by making this form a marker of the progressive.

It is particularly interesting to note, however, that somewhat beyond the typical range of the Lowlands, two more languages have a progressive form that we can connect to *wal*: Tojol-ab'al and Chuj. In Tojol-ab'al, the progressive auxiliary is *wan*. Chuj has two forms that appear to be connected to the Lowland *wal*, what Maxwell (1982: 127) calls the 'durative' *wal*, and the 'incompletive past' *wan*.

Chuj (Maxwell 1982: 128)

- (29) a. *wal-ach b'ey-i*
'You are/were walking'
- b. *wal-ach y-'il-a'*
'He is/was seeing you a lot.'
- (30) *wan ha-b'ey-i*
'You were walking'
- (31) *wan-ach y-il-an-i*
'He was seeing you.'

In Tojol-ab'al, the progressive has generalized, under influence from Tseltal, so that it obligatorily accompanies the incompletive marker in the indicative mood. In this context, it has also reduced phonologically to *wa* (again, parallel to Tseltal), but the full form *wan* is still maintained when phonological material, such as second position clitics, intervenes between the progressive marker and the incompletive aspect marker.

Tojol-ab'al (my fieldnotes)

- (32) *wa x-y-al-a-Ø*
prog inc-A3-say-TVM

‘He/she says it.’ / ‘He/she is saying it.’

- (33) *wan=b'i* *x-y-al-a-∅*
prog=rep inc-A3-say-TVM
‘(It is said) he/she is saying it.’ / ‘(It is said) he/she says it.’

It is particularly interesting, in light of Tojol-ab'al, that Chuj would have a form *wal* as well as *wan*. Since in both Chuj and Tojol-ab'al, the positional suffix is *-an*, rather than the *-V_l* used by Lowland languages, the difference between *wan* in these languages and *wal* in the Cholan languages can be attributed to their different forms of positional inflection. The form *wal* in Chuj, however, cannot be explained this way. It may be, instead, that the form *wal* in Chuj has been borrowed from a Lowland source. One detail that seems to support this is that in Chuj, except for the dialect of San Sebastian, *wan* triggers nominative accusative person marking, as is expected in Q'anjob'alan languages, since it would be an auxiliary complement construction, but *wal* functions more like a proclitic, not triggering split ergativity. This behavior would make sense if *wal* was adopted into Chuj as an adverbial particle.

In a case, as we have here, in which the relevant languages are genetically related, historical and comparative context is often necessary to come to a conclusion as to whether a shared form is borrowed or simply cognate. The alternation between *-l* and *-n* in the Chuj and Tojol-ab'al suggests that we are dealing with a positional root. A likely candidate is the positional root *wa'* ‘to stand’. Interestingly, Mateo Toledo (2008: 55) glosses one of the progressive forms, *lanan*, as ‘standing, extended’. This same form is used for the progressive in the San Mateo dialect of Chuj (*lanan*) and Popti' (*lanan*). While not the exact same meaning as *wa'*, it is clearly similar, raising the possibility that

in Tojol-ab'al and Chuj, *wan* was essentially the replication of a more widespread pattern, using a positional root meaning 'to stand' for the progressive. If so, this same pattern might have been copied by other Q'anjob'alan languages, who selected a non-cognate positional with a similar meaning for the progressive.

5.2 PATTERN REPLICATION, SPLIT ERGATIVITY AND SECONDARY CONTACT EFFECTS

The direct replication of phonological forms, while clearly evident in Lowland languages, as established in the preceding discussion, had relatively little effect in the system of aspect marking in the Lowland languages compared to the massive contact-induced restructuring that occurred as a result of pattern replication in the incomplete aspect in Lowland Mayan languages. The languages that took part in the contact-induced changes discussed here include the Yukatekan and Cholan subgroups of the Mayan language family as well as several other languages that border on the Maya Lowlands, including particularly Ixil (of the Mamean subgroup) and Poqom (Poqomam and Poqomchi', from the K'iche'an subgroup).

Most Mayan languages make use of two distinct sets of markers to indicate person in verbal phrases: an ergative set (also called by the more function neutral term 'Set A') and an absolutive set (set B). In finite verb phrases, the distribution of these person markers follows an ergative pattern, that is to say that the subject of intransitive verbs is referenced with the same set of markers used to reference the object of a transitive (the set B, or absolutive set), while the agent of a transitive verb is referenced

with another set of markers (the set A, or ergative). The following examples illustrate this for the K'iche'an language Tz'utujil.

Tz'utujil (Dayley 1981: 121-123)

- (34) a. **X-in** war-i
 COM-B1 sleep-VTI
 'I slept.'
- b. **X-in** *kee-ch'ey*
 COM-B1 A3P-hit
 'They hit me.'
- c. **X-ee** war-i
 COM-A3P sleep-IVff
 'They slept.'
- d. **X-ee** **nu-ch'ey**
 COM-B3P **A1-hit**
 'I hit them'

In examples (1a) and (1b), the first person singular is marked on the verb with the absolutive person marker *-in* both to reference the subject of the intransitive verb (1a) and to reference the object of a transitive verb (1b). This contrasts with (1d), in which the first person singular is marked with *nu-*, the ergative person marker, when referencing the agent of the transitive verb *ch'ey* 'to hit'.

This pattern contrasts with the nominative/accusative pattern common in European languages, in which the intransitive subject is treated the same as the transitive agent, while the transitive object is treated differently. The nominative/accusative pattern is exemplified below with examples from English and Spanish.

English and Spanish

- (35) a. **I** slept
 ‘**Yo** dormí.’
- b. **I** pushed *him*
 ‘**Yo lo** empujé.’
- c. *He* slept
 ‘*El* durmió.’
- d. *He* pushed **me**
 ‘*El me* empujó.’

5.2.1 The ‘Lowland’ Type of Split Ergativity

As noted briefly in chapter 3, several Lowland Mayan languages, including Yukatekan, Chol, Chontal, and in slightly different ways, Cholti, Chorti, as well as languages that have been peripherally involved in the Lowland sphere of interaction—specifically, Poqom (Poqomchi’ and Poqomam) and Ixil—all display a distinctive pattern of person marking on main verbs, commonly referred to as ‘split ergativity’. A split ergative system of person marking is one in which person marking follows an ergative-absolutive pattern in some contexts, while following a nominative-accusative pattern in other contexts. Thus, in a split-ergative language, the ergative pattern of person marking (in which S patterns with O, and A is different) is not uniform but split, following another pattern in defined contexts.

There are several other non-Lowland Mayan languages that also have systems of person marking that could be described as ‘split ergative’ (Q’anjob’alan and Mamean in particular—See Mateo Toledo 2008: 50, England 1983). However, ‘Lowland’ split ergativity is distinctive in two ways: first, the pattern used is dictated by the aspect of the verb phrase; in broad terms, verb phrases in completive aspect mark person according to

an ergative-absolutive pattern; verb phrases in the incomplete aspect mark person in a nominative-accusative fashion. Second, the (finite) verb form used in the incomplete aspect is derived (historically) from a nominalization or non-finite verb form. While not all of the Lowland languages manifest both of these qualities, in general terms these two characteristics are typical of the Lowland Mayan type of split ergativity.

The pivotal context for seeing this pattern, then, is in intransitive finite verb phrases. For example, in the Itzaj examples below, the person marker used in the intransitive verb phrase matches the person marker used for the *object* of transitive verbs in the complete (-*eech* ‘you’), but matches the person marker used for the *agent* of the transitive verb in the incomplete (*inw-* ‘I’). In addition, the intransitive verb forms are different in each aspect. In the complete, person marking is added to an unmarked verbal root *em*. In the incomplete, the verb form has an *-el* suffix, which is vowel harmonic and, historically, is a reflex of a proto-Mayan infinitive or nominalizing suffix (Bricker 1981).

Itzaj (Hofling 2000: 357)

- (36) a. T-**inw**-il-aj-**eech**.
 COM-A1-see-VTC-B2
 ‘I saw you.’
- b. Em-Ø-**eech**.
 descend-VIC-B2
 ‘You came down.’
- (37) a. K-**inw**-il-ik-**eech**.
 INC-A1-see-VTI-B2
 ‘I see you.’
- b. K-**inw**-em-**el**.

INC-A1-descend-VII
'I come down.'

The same pattern can be seen in the Cholan language Chontal. Note that the intransitive verb form used for the incompletive (-e) is word-final phonological reduction of *-el*, clearly cognate to the *-V_l* suffix used in Yukatek. Once again, it should be emphasized that the incompletive verb form is derived historically from a non-finite verbal form.

Chontal (Osorio May 2005: 24-27)

- (38) a. wan-**on**
jump-B1
'I jumped'
- b. 'a-jäts'-e'-**on**
A3-hit-VTI-B1
'You hit me/are hitting me.'
- (39) a. **kä**-wan-e
A1-jump-VTI
'I jump.'
- kä**-jäts'-et
A1-hit-B2
'I hit you. (past)'

5.2.1.1 The areal distribution of Lowland style split ergativity

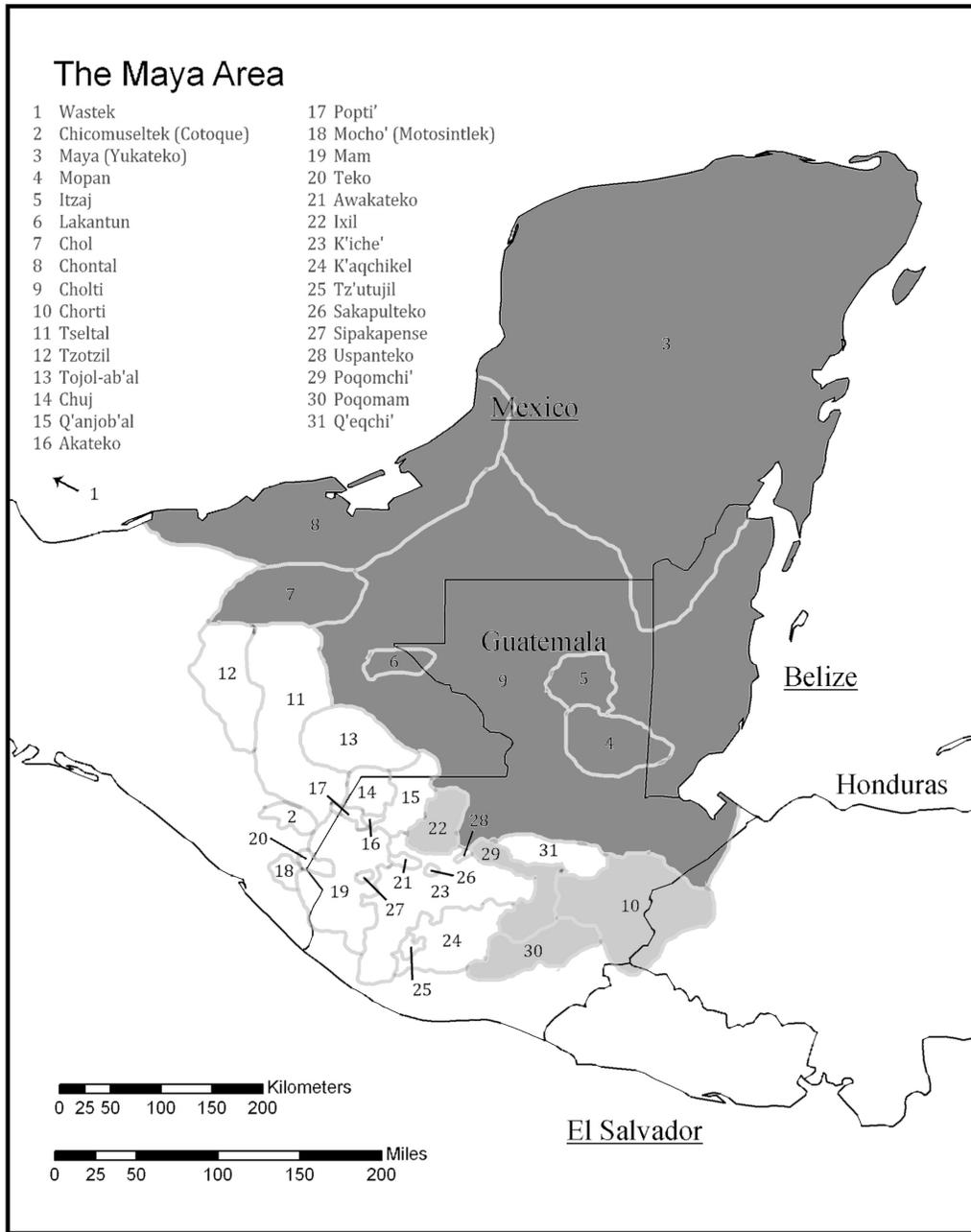
As proposed in Justeson et al (1985: 13), this Lowland form of split ergativity is clearly an areally spread innovation: Yukatekan and Cholan languages are only distantly related to each other genetically, and the close relatives of the Cholan languages, Tseltal and Tzotzil, do not have this kind of aspect-based split ergativity (Haviland 1981, Polian 2004: 89). For discussions concerning possible paths of development of this pattern, see

Bricker 1981 (focused on Yukatekan), and Law et al 2006 (focused on Cholan). For the current discussion, the important point is that this type of aspect-based split ergativity cannot have been present in proto-Mayan (the only common ancestor of both Yukatekan and Cholan). What is more, variation attested regarding this trait within the Cholan subgroup indicates that the characteristic was not present in proto-Cholan either (see Law et al 2006 for more discussion of this point). This suggests that the innovation and spread of aspect-based split ergativity was relatively recent, within no more than the last thousand years or so. This date also agrees with newly accessible data from hieroglyphic texts, which do not display any evidence of this type of split ergativity.

In addition to the mismatch between languages with aspect-based split ergativity and any proposed genetic grouping of the languages involved, another strong piece of evidence that this feature has been shared through contact is the variation among the languages with respect to exactly how this split ergative pattern is realized and in what contexts it is triggered. This variation suggests (at least semi-)independent paths of development for each language (with the possible exception of Yukatekan). In other words, the Lowland languages replicated a particular pattern for marking person and aspect, but each language made use of its own means to implement that innovation (see Heine and Kuteva 2003, 2005, for similar cases in other languages involving what they term ‘contact-induced grammaticalization’).

5.2.1.2 Peripheral influence: The verbal form of the incomplete intransitive

Given the evidence that this type of split ergativity is an areally spread feature, it is not surprising that its realization in the languages involved is not monolithic and invariable. In fact, the distribution of languages with the two features that I identified above as typical of Lowland Mayan split ergativity, a split pattern governed by aspect, and an incomplete verb form based historically on a non-finite form, are not identical, but rather the languages that have the second feature are a subset of those with the first. Map 5 visually illustrates the clearly geographic distribution of languages with aspect-based split ergativity, with those languages which have incomplete forms with *-VI* nominalizations in dark gray, and those with some other verbal form for incomplete intransitives in light gray.



Map 6. The distribution of 'Lowland' type split ergativity. Dark grey = languages with -*VI* inchoative form; Light grey = languages with inchoative not based on -*VI*.

Even this simplified representation of the relevant languages reveals a clear southern periphery of languages that do not make use of the same *-VI* suffix typical of the Northern Lowland languages, but still manifest aspect-based split ergativity. The languages that form this periphery are a genetically diverse bunch that includes Chorti (Cholan), Poqomam and Poqomchi' (K'iche'an) and Ixil (Mamean).

5.2.1.2.1 Poqom

As a matter of fact, of these languages, it is Poqom (Poqomam and Poqomchi') that is most similar to the Lowland languages, since the incompletive form of intransitive verbs, while not using a form cognate with the *-VI* of Yukatekan and Cholan, does use a form with a historically parallel function, the non-finite/nominalizing suffix *-iik* (Smith-Stark 1983: 249), which is expressed as *-ih* in some dialects of Poqomchi' (Mo' Isem 2006: 210). In this case, it seems that the exact form of the Northern Lowland languages was not used, but rather "the model language provide[d] speakers of the replica languages with guidelines as to how to replicate a grammatical category via grammaticalization" (Heine and Kuteva 2003: 540). In other words, speakers of Poqom intuited the likely path of the development of the split pattern in the language that served as the model (based on geography, most likely Cholti), and then they applied the same process of grammaticalization to a morpheme in Poqom that they identified as a functional (not formal) equivalent.

5.2.1.2.2 Ixil

In both Ixil and Chorti, the form of intransitive verbs in split ergative contexts is not based on a nominalized or non-finite form. In Ixil, a member of the Mamean subgroup of Mayan, the form of the verb in split ergative contexts is the same finite form found in other contexts.

Ixil (Ayres 1981: 128-129)

- (40) a. Ok-in
enter-B1
'I entered.'
- b. In w-ok-e'⁶⁵
INC A1-enter-FF
'I enter/am entering'

It is important to note that the finite verb forms used in split ergative contexts in Ixil are consistent with the forms used in (non-aspectual) split ergative contexts in related and geographically contiguous Mamean and Q'anjob'alan languages. The primary contexts for split ergativity in these languages are in aspectless clauses, complement clauses, and following certain fronted adverbial phrases (see England 1983, Mateo Toledo 2008). Ixil retains split ergativity in these contexts as well (M. Garcia 2009) though it appears to be somewhat optional, at least for complement clauses, and less productive than in the incompletive. Examples 41, 42, and 43 illustrate various non-

⁶⁵ This *-e'* is a phrase final clitic that has nothing to do with split ergativity, but only occurs in contexts where the verb does not have other suffixation, such as the set B person marker (see Ayres 1981: 137). In spite of its superficial similarity to the *-e*, marker of incompletive aspect in Chontal intransitives, this suffix in Ixil is in no way related to the *-Vl* of Lowland languages.

aspectual contexts of split ergativity, and the verb forms used in Ixil, Mam and Q'anjob'al.

Ixil (Ayres 1981: 133)

- (41) *In lawax q'ii w-ooj-e'*
PRO.1 ten day A1-flee-FF
'As for me, ten days ago I fled.'

Mam (England 1983: 11)

- (42) *noq qit t-jaa-tz nimaal a'*
only at times A3-rise-DIR DEM water
'The water only rose at times.'

Q'anjob'al (Mateo Toledo 2008: 50)

- (43) *Max-Ø y-il ix Malin ha-tz'ib'-l-i*
COM-B3 A3-see CL Malin A2-writing-DER-VI
'Malin saw you writing.'

The similarities with respect to split ergativity that Ixil shares with the other Mamean languages suggest that, perhaps going back to proto-Mamean, these languages had split ergativity only in contexts not marked for aspect, particularly in dependent clauses. This is consistent with what Mateo Toledo (2008: 50) has argued for Q'anjob'al. Following the model of neighboring Lowland languages, Ixil extended this preexisting pattern, without modifying the forms involved, to a new context, the incompletive aspect.

5.2.1.2.3 Chorti

It may not be terribly surprising to find that Poqom and Ixil do not conform entirely to normal Lowland patterns of split ergativity. But it is significant that Chorti, the close relative, or possibly linear descendant of Colonial Cholti (Robertson 1998, 2002), does not have the verbal form typical of the Lowlands either. Instead, like Ixil, Chorti

uses a finite verb form in incomplete contexts. Chorti has a system of person marking that is unique among Mayan languages. It makes use of three different paradigms to mark person, one of which is specifically used to indicate both person and incomplete aspect in intransitive verb phrases (the so called ‘set C’ markers). This pattern is somewhat different from other ‘split ergative’ languages, since it does not result in a nominative-accusative pattern of person marking in the incomplete. However, the difference is not as extreme as it might sound. Even a superficial assessment of the so called ‘set C’ person markers (table 33, below) shows that they are historically related to the set A markers. They are prefixes, like the set A markers, and, in fact, the first person markers (both singular and plural) for both sets are identical.

Chorti	Set B	Set A (_C)	Set C (_C)
1 st	<i>-en</i>	<i>in-</i> [<i>ni-</i> on nouns]	<i>in-</i>
2 nd	<i>-et</i>	<i>a-</i>	<i>i-</i>
3 rd	<i>-∅</i>	<i>u-</i>	<i>a-</i>
1 st plural	<i>-on</i>	<i>ka-</i>	<i>ka-</i>
2 nd plural	<i>-ox</i>	<i>i-</i>	<i>ix-</i>
3 rd plural	<i>-∅(=ob)</i>	<i>u-...(=ob)</i>	<i>a-...(=ob)</i>

Table 33. Chorti Person Markers

The fact that the set C pronouns derive historically from the set A markers might make the more developed aspectual distinction in Chorti seem to be simply an expansion of the Cholti split ergative pattern, which, as will be discussed below, was restricted to the progressive. However, in this case, it is important to take into account the verbal form used with the set C pronouns. As was mentioned earlier, Cholti, Chol, Chontal and the Yukatekan languages all use a verbal form in split ergative (i.e. incomplete) contexts that derives historically from a nominalized or non-finite form. For most verbs, this

involves some sort of *-Vl* suffix (or *-tal* for positionals). In Chorti, however, the only formal difference between incomplete and complete intransitive verbs is the pattern of person marking. For example, in (44) we can see that the verb *numuy* ‘to pass’ uses the same form in the complete (44a) as it does in the incomplete (44b).

Chorti (Hull 2005, my glosses and morphemic analysis)

- (44) a. *Ixni’x numuy-Ø inte’ nixi’ yukb’ar.*
 Years.ago pass-A3 one big earthquake
 ‘Years ago a big earthquake hit (lit. ‘passed’).’
- b. *E ch’ok-nar ma’chi=to a-numuy ta tan.*
 DET young-corn NEG=still C3-pass PREP lime
 ‘The young corn doesn’t go through the lime.’

The fact that incomplete intransitives in Chorti take a finite form suggests a very different path of development for split ergativity from that taken by the other languages of the Maya Lowlands. For a historical account of the development of the set C pronouns, see Robertson (1998), and Robertson and Law (2009). In spite of these differences, we can identify a thread of continuity with the Lowland languages: in all of these languages, the incomplete aspect requires a form of person marking that is different from that used in the complete aspect. While it is clear that Chorti did not inherit split ergativity, it is likewise clear that the innovation of a new pattern of person marking in the incomplete aspect was not created in a vacuum, so to speak, but rather it emerged through the replication of a pattern used in neighboring languages, but using its own means to express the new pattern.

5.2.1.3 *The semantic range of the nominative-accusative pattern*

Another significant type of variation in the different expressions of split ergativity in the Lowland languages has to do with the precise range of aspects that make use of the nominative-accusative pattern of person marking. As it is generally cast, Lowland Mayan split ergativity is typified as involving a nominative-accusative pattern in the incomplete aspect. In Yukatekan languages, Chol, and, for the most part, Chontal, this is rather straightforward: any aspect that is semantically incomplete: progressive, habitual, incipient, all use the same incomplete pattern. Thus, the incomplete pattern for intransitives (an ergative person marker and a verb form based historically on a nominalization) is independent of any specific preverbal aspect marker, and shared by all incomplete aspects. For example, Bricker et al (1998) give the following list of preverbal aspectual markers that cooccur with the incomplete verbal form and nominative-accusative person marking:

Marker	Function
<i>k-</i>	incomplete, habitual
<i>t(áan)</i>	durative
<i>ts'ó'ok</i>	terminative
<i>táant...e'</i>	recent perfective
<i>hó'op'</i>	inceptive
<i>káah</i>	inceptive
<i>yàan</i>	compulsive
<i>tàak</i>	desiderative
<i>k'ab'éet</i>	obligative
<i>hé('el)...e'</i>	assurative future
<i>k-set A-h</i>	definite future

Table 34. Aspectual markers that occur in split pattern in modern Yukatek (Bricker et al 1998: 331)

The following examples from Chol illustrate that it has a comparable range of contexts in which the accusative pattern occurs, including both a) a simple and b) an emphatic form of the incomplete proclitic (*mi-*, *muk'*-), c) the progressive (*chonkol*, in the Tumbalá dialect *woli*), d) the dubitative (*muk' tyi*) and e) the exhortative (*la*).

Chol (Gutiérrez Sánchez 2004: 17, 21, 31)

- (45) a. *mi k-lets-el*
INC A1-rise-NF
'I go up.'
- b. *muk' k-wäy-el*
AUX.INC A1-sleep-NF
'I sleep.'
- c. *chonkol k-wäy-el*
PROG A1-sleep-NF
'I am sleeping.'
- d. *muk' tyi k-wäy-el*
AUX.INC SUB A1-sleep-NF
'¿Could it be that I'm sleeping?'
- e. *la=la-k-lets-el*
EXH=P(INCL)-A1-rise-NF
'Let's go up'

These examples clearly show that the incomplete structure for intransitives (that is, an accusative pattern of person marking and a non-finite verb form) is independent of a specific aspectual prefix. Indeed, in Chontal, the structure itself, without any preverbal markers, is the basic way of marking incomplete aspect in intransitives.

Chontal (Osorio May 2005: 24)

- (46) *kä-wäy-e*
A1-sleep-VTIIMPF

‘I sleep.’

Even in the languages in which split ergativity is very robustly developed, however, there are vestigial incomplete contexts in which the archaic ergative pattern of person marking is used. In Chol this can be found with the auxiliaries *muk* ‘incomplete’ and *chonkol* ‘progressive’, which can optionally take a set B person marker, concurrently altering the syntactic structure of the phrase by including a preposition before the (arguably non-finite) verb form.

Chol (Gutiérrez Sánchez 2004: 18)

(47) a. *muk’-oñ* *tyi* *‘ajñ-el*
AUX.INC-B1 COMP run-NF
‘I run.’

b. *chonkol-oñ tyi* *wäy-el*
PROG-B1 COMP sleep-NF
‘I am sleeping.’

In Chontal, the old ergative pattern is retained in the context of certain types of negation. The most common, perhaps, is negation achieved by combination of the generic negation particle *mach*, and an imperfective auxiliary ‘*u*, which only applies to certain non-agentive roots (Osorio May 2005: 173; compare ex. 48a and b). Other, more specialized contexts in which the ergative pattern is conserved included adversative negation (48c), and the negative optative (48d).

Chontal (Osorio May 2005: 29-30, 173-175)

(48) a. *mach* ‘*u* *kij-on*
NEG AUX.INC stay-B1
‘I don’t stay’

- b. *mach kä-kij-o*
NEG A1-stay-VTI
'I don't stay.'
- c. *mach wa'-ik-et*
NEG stand-OPT-B2
'Don't stand up.'
- d. *mame' muk-ik-et*
NEG bathe-OPT-B2
'Don't go bathe!'

5.2.1.3.1 Languages with more limited range of accusative pattern

Other languages involved with these contact-induced changes differ in more substantial ways. With respect to the extent of the innovative accusative pattern, Poqom and Ixil, both geographically and genetically distant from the heart of the Maya Lowlands, display aspect-based split ergativity in a range of aspectual contexts much more restricted than what we have seen in Yukatekan, Chontal, Chol, and even in Chorti. In Ixil, the only aspectual context that triggers the accusative pattern of person marking is with the incomplete aspectual marker *(i)n(i)-* (ex. 49a). Other non-completive aspects, such as the potential (49b), and the inceptive (49c), and moods, such as volative, optative, or exhortative, all display an ergative pattern (see Lengyel 1978 and Ayres 1981 for a discussion of the details of split ergativity in Ixil).

Ixil (Ayres 1981: 129, 133-134, my glosses)

- (49) a. *in w-ok-e'*
INC A1-enter-FF
'I enter/I am entering.'
- b. *la' ok-in*
POT enter-B1

‘I am going to enter.’

- c. *toq* *ja'-oq-axh*
INCEP rise-IRR-B2
‘You are about to go up.’

In Poqomchi', a nominative-accusative pattern is found in conjunction with only two preverbal particles, *n(a)-* ‘distant or uncertain potential’ and for the progressive auxiliary *chi'*, only with non-agentive verbs (Mo' Isem 2006: 179, 202). In Poqomam (Smith-Stark 1983: 203-207), both a progressive and a future/potential sense are expressed with the same morpheme *n(a)-*, which provides the only context of a nominative/accusative pattern in that language. The basic incomplete (marked with one of several allomorphs, depending on the grammatical person used (*k-*, *q-*, *n-* and \emptyset -), and the proximate potential (potencial cercano), as well as progressive phrases with agentive verbs (at least in Poqomchi') follow the more conservative ergative-absolutive pattern (Mo' Isem 2006: 171, Smith-Stark 1983: 204).

Poqomchi' (Mo' Isem 2006, my glosses)

(50) Progressive (pp. 180-181)

- a. *chi' ni-kimi-ih*
PROG A1-die-NF
‘I am dying’
- b. *chi' k-iin chi wi'-k*
PROG INC-B1 PREP eat-SV
‘I am eating (ongoing or routine)’

(51) Distant or Uncertain Potential (p. 176)

- na n-chal-ih*
POT A1-come-NF
‘I will come.’

(52) Proximate Potential (p. 176)

e *ti-wir-ik*
POT A2-sleep-VI
'You will sleep.'

(53) Incompletive (p. 171)

q-oj *kaman-ik*
INC-B2P work-VI
'We work.'

There is one more language that seems to fit into the group of languages that display split ergativity only in very limited aspectual contexts, the Cholan language Cholti. Unlike Poqom and Ixil, Cholti was spoken in the very core of the Lowlands. In fact, it was very likely the Lowland language that Poqom and Ixil were in closest contact with. While it has often been assumed that Cholti split ergativity was like that of Chol and Chontal, close analysis of the sole attestation of this language, the 17th century "Morán Manuscript" (Law et al 2006, Robertson et al 2010), shows that this language displayed a nominative-accusative pattern in a limited context very similar to that described above in Poqom, namely in the progressive. In fact, like the progressive in Poqomam, described by Smith-Stark 1983: 204), the Cholti progressive is slightly expanded. Although the data are scarce, the semantic range of the Cholti progressive appears to have included the durative idea of an 'event in process', but did not include other meanings typical of the incompletive aspect such as the habitual, potential, etc. These other aspectual meanings were expressed with various methods, and all followed an ergative-absolutive pattern of person marking.

Cholti (Law et al 2006: 428, 446; Robertson et al 2010: 169-174; my glosses)

(54) Progressive

ko'l iyuwal u-kal-nah-el ti chan
as PROG A3-do-PAS-NF PREP heaven
'as it is [being] done in heaven.' (from the Our Father)

(55) Incompletive/unmarked habitual

tali-Ø t-a-puksik'al u-kal-nah-el Confesar?
come-B3 PREP-A2-heart A3-do-PAS-NF confession
Does this confession come from your heart?
Salette de tu corason el confesarte? (from original manuscript)

(56) Habitual/Proximate

a k'ex-pa-Ø ne pa' ti chohb-ya baktal
HAB change-MP-B3 DET bread PREP love-AP.NOM meat
kaw-ahaw-il Jesucristo
A1P-lord-GEN Jesus Christ
'The bread is converted into the beloved flesh of our Lord Jesus Christ.'

(57) Determinative Potential/Proximate

a pakxi-el-en
POT return-NF-B1
'I shall return. He de regresar'

(58) Future/Potential

x-uk'-ik-et, x-awlu-k-et t-u-pat a-tahnal
FUT-cry-FUT-B2 FUT-call/pray-FUT-B2 PREP-A3-back A2-sin
'You will cry, you will shout because of your sins.'

As these examples show, there is a great deal of variation among the language of the Maya Lowlands and its periphery with respect to the form and the semantic range of split ergativity. These data also suggest that the replication of this pattern in each language was carried out through different processes. In the case of Ixil, and perhaps Chorti, only the use of accusative person marking in certain aspects was adopted. This pattern of person marking was also replicated in Poqom, but in addition to this, Poqom imitated the functional source of the verb form used in split ergative contexts, a non-finite

or nominalizing suffix, *-iik* in Poqom, *-VI* in the ‘model’ Lowland languages, from which this pattern was adopted.

5.2.2 Secondary Contact Effects

At this point, it is useful to distinguish the replication of linguistic features, however difficult it may be to isolate or define those features being replicated, from contact-induced language change more broadly, which includes linguistic borrowings but also extends to other changes that were sparked by contact. As Thomason (2003: 688), says, contact-induced language change has taken place “whenever a change occurs that would have been unlikely or at least less likely, to occur outside a specific contact situation.” This is a broader notion of language contact than is generally applied when describing particular cases of language contact, but the consequences of language contact certainly can and do include many changes to the languages involved that would have been unlikely to happen without contact, but whose development is secondary to that contact.

One example of this is what has been termed lexical mediation (Winford 2003: 62). It seems clear that some cases of borrowed derivational morphemes (and by some accounts, all, see King 2000, for example) are not the result of directly borrowing the morpheme *per se*, but instead result from later analogical extensions of patterns inferred or abstracted from loanwords. This process would involve at least a primary case of language contact by which a number of lexical items with particular morphology are replicated in the recipient language, at which point these forms would be understood in

the recipient language as monomorphemic gestalts. Then, once sufficient exemplars of a particular source language morpheme have entered the lexicon of the recipient language, speakers of the recipient language would be able, through inference, to parse the loanwords into smaller morphological units, and apply the newly abstracted morphemes to lexical items that are native to the recipient language. This kind of linguistic process has been identified in numerous cases of language contact, including the adoption in English of several French suffixes, such as *-ment*, *-age*, and *-ity*.

Under this scenario, the adoption of a novel productive derivational morpheme would not involve the direct replication of source language morphology. Rather, it is a secondary change, one that was entirely internal to the recipient language. All that was actually borrowed from the donor language were morphologically opaque loanwords. Thus the existence of these loanwords, clearly an example of contact-induced language change, is a primary effect of language contact, one that involved the direct replication of lexical items from the model language. The subsequent (re-)analysis and analogical extension of a newly inferred derivational suffix is also a contact-induced language change—after all, it would be impossible to imagine such a sequence of events without the impetus of contact—but it does not involve the replication of foreign linguistic material. Because the latter contact effect is not the primary result of contact, I will here refer to contact-induced language changes that are not the direct replication of linguistic features (whether ‘matter’ or ‘pattern’) as secondary contact effects.

5.2.2.1 Secondary contact effects in the completive aspect

In cases of intense language contact, it is often easy to neglect the many secondary effects that adopting linguistic material from another language can have, particularly when grammatical elements of the language have been borrowed. A clear and important example is the development of aspectual suffixes in several Lowland languages as a result of the development of split ergativity.

In proto-Mayan (Robertson 1992: 61, Kaufman 1990: 72), and in the Lowland languages prior to the innovation of split ergativity, intransitive verbs of various root classes took a thematic suffix to indicate their class. Intransitives in finite verb phrases took a suffix descended from the proto-Mayan **-ik* (Robertson 1992: 61, Kaufman 1990: 72—Kaufman refers to this as the ‘plain status’ suffix, Robertson calls it a declarative mood suffix). This **-ik* suffix, which probably only occurred in phrase final position, was clearly unmarked for aspect. It could occur in any aspect. Aspect itself (with the exception of the perfect) was indicated with various preverbal clitics or auxiliary particles. The claim that this category suffix *-ik* was independent of aspect is supported by the following examples showing its use in both completive and incompletive aspect in K’iche’ (59), the Mamean language Teko (60), and the Q’anjob’alan language Chuj (61).

K’iche’ (Can Pixabaj 2004: 28, 36)

- (59) a. *X-ee-wa’-ik.*
COM-B3P-eat-VI
‘They ate.’
- b. *K-in-wa’-ik.*
INC-B1-eat-VI
‘I eat.’

Teko (Perez Vail 2007: 186, my glosses)

- (60) a. *Ma* *kye* *kam-ik*
COM.PROX B3P die-VI
'They died.'
- b. *N-kyin xewt-ik*
INC-B1 breathe-VI
'I breathe.'

Chuj (Maxwell 1982: 127)

- (61) a. *tz-hach* *b'ey-i*
INC-A2 walk-VI
'You walk.'
- b. *'Ix-hach* *b'ey-i*
COM-A2 walk-VI
'You walked.'

As noted earlier, in all of the Yukatekan and Cholan languages, with the exception of Chorti, part of the pattern adopted for marking the incomplete aspect was the use of a particular derivational suffix (of the shape *-VI*, or *-tahl* with positional roots), which came in these languages to indicate, along with the contrastive pattern of person marking, the incomplete aspect for intransitives. This association of a suffix with the incomplete in intransitives affected the complete aspect for intransitives as well. Since the new verbal form in the incomplete was historically non-finite, it did not use, and in fact was in complementary distribution with, the *-ik* finite verbal suffix.

When *-VI* began to behave more like an inflectional suffix (like **-ik*), and to occupy a post-verbal position in finite main verb phrases, the old category suffix (by this time, *-i* in all of the relevant languages) was effectively restricted to the complete aspect. Thus, where root intransitives were previously marked with *-i* in finite clauses

when phrase final, a secondary contact effect, resulting from the particular incomplete verbal form shared through contact, was that the *-i* suffix came to mark both verb category and the completive aspect. This can be seen in the following examples from Chol (62), Chontal (63), Lakantun (64) and modern Yukatek (65):

Chol (Gutierrez Sanchez 2004: 81-82)

- (62) a. *mi k-'uch'-el*
 INC E1-eat-**NF**
 'I eat'
- b. *tyi 'uch'-i-y-oñ*
 PERF eat-**VTI-EP-B1**
 'I ate.'

Chontal (Osorio May 2005: 152-153)

- (63) a. *'a-ch'oy-e*
 A2-get.up-**VI.INC**
 'You get up.'
- b. *ch'oy-i-ø*
 get.up-**VI.COM-A1**
 'Se levantó'

Lakantun (Bergqvist 2008: 91)

- (64) a. *k-u-kihm-in*
 INC-E3-die-**PLN.IV**
 'He dies/is dying.'
- b. *kihm-ij-Ø*
 die-**CP.IV-A3**
 'He died.'

Modern Yukatek (Bricker et al. 1998: 330, my glosses)

- (65) a. *k in hóok'-ol*
 INC-E1-leave-**VI.INC**
 'I leave.'
- b. *k u hóok'-ol*

INC-E3-leave-VI.INC
'He leaves.'

- c. (h) *hòok-Ø-en*
(COM) leave-COM-A1
'I left.'
- d. (h) *hòok-ih-Ø*
(COM) leave-VI.COM-A3
'He left.'

This distributional shift effectively made the reflexes of **-ik* into markers of the completive aspect for intransitives, creating a parallel frame to the novel form used in the incompletive:

(preverbal marker)	set A-	Intransitive verb - incompletive suffix
(preverbal marker)		Intransitive verb - completive suffix -set B

5.2.2.2 *Secondary Contact Effects with Positional Roots*

Root intransitives were not the only intransitive root class that developed a suffixal opposition between completive and incompletive. In the same context in which root intransitives made use of the *-VI* suffix mentioned above, intransitive positional verb phrases, in Yukatekan Chol, Chontal and Cholti (in the progressive) made use of a (historically) nominalizing suffix **-tahl* (itself an areally shared Lowland morpheme). As with the root intransitives, this displaced suffixes that previously only indicated word class and limited them to the completive, producing once again a novel morphological opposition between completive and incompletive in intransitives. Unlike the root intransitive suffix, each language has its own suffix, as demonstrated below with

examples from Chol (*-le*), Chontal (*-wän*) and Modern Yukatek (*-l-ah-ih*). Note that in modern Yukatek, *-ih* is a reflex of the proto-Mayan **-ik* intransitive suffix mentioned above.

Chol (Vázquez Álvarez 2002: 59)

- (66) a. *tyi buch-le-y-oñ*
 COM sit-SEPC-EPEN-B1
 ‘I sat.’
- b. *mi k-buch-tyäl*
 INC E1-sit-SEPI
 ‘I sit.’

Chontal (Osorio May 2005: 67)

- (67) a. *ch’ox-wän-on*
 bend.over-SEPC-B1
 ‘I bent over.’
- b. *‘a-ch’ox -tä*
 A2-bend.over-SEPI
 ‘You bend over.’

Modern Yukatek (Bricker et al 1998: 353. my glosses)

- (68) a. *táan u ch’uy-tal*
 PROG A3-hanging-SEPI
 ‘It is hanging’
- b. *ch’uy-l-ah-ih-Ø*
 hanging-POS-COM-VIC-A3
 ‘It hung.’

In short, the development of an aspect-based split ergative pattern in Lowland Mayan languages resulted in more than just the use of set A pronouns on intransitives in the incompletive aspect. It motivated the introduction of a series of suffixes in the completive aspect for intransitives as well. This effectively expanded the arsenal of

aspect markers in these languages from a series of preverbal aspect markers, typical of Mayan languages, to a complementary completive/incompletive distinction in the suffixes as well. In fact, in Chontal, the suffixes, along with person markers, can be the sole indication of aspect (see examples above).

5.2.2.3 Secondary contact effects in transitive verbs

The ramifications of the adoption of aspect-based split ergativity in Lowland languages are not limited to intransitive verbs, however. In Yukatekan, Chol, and Chontal, another secondary contact effect is that the use of aspectual suffixes appears to have been extended to transitives, so that transitive verbs in the completive take one suffix, while transitives in the incompletive take another form. In Yukatekan, as illustrated below with examples from Itzaj, the incompletive is marked with *-ik* (not to be confused with the proto-Mayan intransitive status suffix, which is *-ih* in Yukatek), and the completive suffix is *-aj*.⁶⁶

Itzaj (Hofling 2000: 357)

- (69) a. *k-inw-il-ik-ech*
INC-A1-see-VTI-B2
'I see you.'
- b. *t-inw-il-aj-ech*

⁶⁶ It is worth noting that derived transitives in Cholan languages also have a special suffix indicating aspect, **-n*. However, this suffix is present in both Ch'olti' and, in vestigial form, in Ch'orti', so that it must have existed before the innovation of split ergativity that seems to have motivated the aspectual suffixes in Chontal and Yukatekan. In fact, the presence of an incompletive aspectual suffix in Cholan prior to the development of split ergativity might have helped influence the form taken in the intransitives. If this is the case, it would provide a clue as to the direction of borrowings.

COM-A1-see-VTC-B2
'I saw you.'

In Chontal, the connection between split ergativity, the completive status suffix, and transitive aspectual suffixes is even more transparent. Once the former intransitive status marker *-i* was restricted to the completive aspect, as described earlier, it apparently was generalized to be a marker of completive aspect in non-derived verbs, regardless of valence. Interestingly, Chontal also innovated in the form of the suffix used on transitives in the incomplete aspect, using what was historically a 'dependent status' suffix (*-a* in K'iche', see Kaufman 1990: 72; Robertson [1992: 62] reconstructs this as **-V_i*' for proto-Mayan, and labels it 'optative suffix') to mark the incomplete on transitives.

Chontal (Osorio May 2005: 38)

- (70) a. 'u-baj-e'- \emptyset
A3-nail-VTI-B3
'He nails it.'
- b. 'u-baj-i'- \emptyset
A3-nail-VTC-B3
'He nailed it.'

Not only does the *-i* of transitives perform the same function as the *-i* of intransitives in Chontal, but it also displays the same idiosyncratic distribution criteria; it is elided before overt set B person markers. Effectively, this means that it is restricted to sentences with a third person subject (in the case of intransitives) or object (in the case of transitives). This is a distributional fact inherited from the proto-Mayan intransitive

category suffix **-ik*. The fact that the transitive completive suffix shares this distribution is further evidence of its connection to the proto-Mayan suffix.

Chontal (Osorio May 2005: 24, 150, 60, 61)

- (71) a. *wan-on*
 jump-**B1**
 ‘I jumped’ (21)
- b. *wan-i-∅*
 jump-**VTIMPERF-B3**
 ‘He jumped.’ (234)
- c. *kü-mek’-et*
A1-embrace-B2
 ‘I hugged you.’ (147)
- d. *kü-mek’-i-∅ ix-telom*
A1-embrace-VTPERF-B3 CNF-girl
 ‘I hugged the girl.’ (147)

It is possible to reconstruct for proto-Mayan a category suffix for root transitives of the form $-V_I$ or $-V_I(w)$ (Houston et al 2000), equivalent in function to pM **-ik*. Of the languages discussed here, only Chol has preserved a reflex of this suffix. The form in Chol consists of a vowel which is harmonic with the quality of the vowel of the root ($-V_I$). By analogy with the root intransitive thematic suffix, this suffix was also restricted to the completive aspect. Its presence in the completive contrasts with the incomplete form, which consists of the bare stem of the verb with no thematic suffixes at all. Thus the lack of overt suffixation is correlated with the incomplete aspect in Chol while an overt vowel harmonic suffix, formerly unrelated to aspect, now indicates the completive aspect.

Chol (Vázquez Álvarez 2002: 48-49, 52)

(72) Incompletive

a. *mi i-mos-oñ x-ixik*
INC A3-cover-B1 CL-woman
'The woman covers me (e.g.: with a blanket).'

b. *mi k-mos-ø aläl*
INC A1-cover-B3 child
'I cover the child.'

(73) Completive

a. *tyi a-mos-o-y-oñ*
COM A3-cover-VTC-EPN-B1
'You covered me (e.g.: with a blanket)'

b. *tyi a-baj-a-y-oñ*
COM A2-nail-VTC-EPN-B1
'You nailed me (literally, not figuratively)'

c. *tyi a-mek'-e-y-oñ*
COM A2-embrace-VTC-EPN-B1
'You hugged me.'

The significant point is that in Chol, as with the other languages discussed here, the post-verbal position has become a key site for making aspectual distinctions, whereas the primary position for expressing aspect in other Mayan languages is preverbal. It is also significant to note that in all of these cases, the model for the changes was the innovative and areally spread split ergative pattern.

5.2.3 Contact-induced grammaticalization and Contact-induced drift

In the preceding discussion, I have presented evidence of an innovation in aspect marking, what is often called 'split ergativity', that affected various Mayan languages in the Lowlands and its southern periphery. The linguistic feature was shared in the region

through intensive language contact between the aforementioned languages. Some aspects of this change were the result of the direct replication of patterns and linguistic features of a model language (which we cannot as yet identify with confidence); for example, the use of ergative person markers with intransitive verbs in certain non-completive aspects and the use of a non-finite verbal form in those same contexts. Nevertheless, not all of the changes apparent in the languages involved in the spread of aspect-based split ergativity are due to the replication of features from a model language. As Heine and Kuteva (2005: 5) observe, “Not all components and stages of [contact-induced language change] are necessarily an immediate product of language contact. It may happen, for example, that language contact provided the trigger for other changes to occur, that is, changes that are independent of language contact.” I have referred to those changes that are triggered by contact, but that are independent of it as ‘secondary contact effects’.

Heine and Kuteva identify one important kind of secondary contact effect, what they call ‘contact-induced grammaticalization’ (Heine and Kuteva 2003, 2005). This is when an element of a language, the ‘replica language’, develops a feature observed in another language, the ‘model language’, but goes through a universal path of grammatical development, and using resources internal to the replica language. This can involve the replication of a particular pattern in a language through a developmental trajectory that is independent of the languages in contact with the replica language, but consistent with universal clines of development. It can also involve what Heine and Kuteva (2003: 539) call ‘replica grammaticalization’, in which the speakers of the replica language copy a pattern from the model language, but they also infer the path of grammaticalization

through which that pattern developed in the model language, and they follow that same inferred path to implement the new pattern in the replica language.

A good candidate for an example of ‘replica grammaticalization’ is the pattern of split ergativity in certain non-completive aspects in Poqom. In addition to displaying the nominative-accusative pattern of person marking, copied from a Lowland model language, Poqom uses a historically non-verbal or non-finite form parallel in function to the *-VI* that is used in the Lowland Yucatekan and Cholan languages. The change from a derivational suffix (*-iik* in Poqom, *-VI* in Lowland languages) to an inflectional suffix is a common change in the languages of the world and a good example of the ‘grammaticalization’ of a morpheme. Nevertheless, it is not likely to be a coincidence that the suffix that Poqom grammaticalized happened to be functionally equivalent to the suffix that Lowland Mayan languages brought through the same process of grammaticalization when innovating split ergativity. It is likely that the speakers of Poqom replicated the split ergative pattern, and also that they inferred the etymological origin of the verbal suffix that the model language(s) used, and they replicated the process of grammaticalization with an equivalent affix.

Contact-induced language changes that are not directly replicated from a model language, in other words secondary contact effects, are often idiosyncratic or unique to just one language. Logically, and by definition, they are independent of the actual contact situation (though dependent on its effects). It is interesting to note, however, that in many respects, the secondary contact effects described here are parallel in several different languages. As I have analyzed them here, these changes are essentially an

epiphenomenon of language contact, they are the result of other changes in the grammatical system of the language, and not necessarily the result of direct influence from neighboring languages.

In spite of this, all of the Yukatekan and Cholan languages, with the significant exception of Cholti and Chorti, developed a series of aspectual suffixes in both completive and incompletive aspect in intransitive verbs, and this innovation was extended to transitive verbs, though with a different form in each language. To what may we attribute, then, the similarities in these secondary contact effects in the Lowland Mayan languages? Particularly regarding the intransitive completive suffix, we cannot attribute it to the aforementioned process of ‘replica grammaticalization’. The restriction of the category suffixes (*-ik for intransitives, and various suffixes for positionals) was a consequence in each language of the structure of the language prior to the change, and the way in which this preexisting structure reacted to the changes effected by contact.

The similarity in the secondary contact effects in the languages can be attributed to the similarity in the way in which they innovated with the development of split ergativity, a similarity due to contact. But, also, the parallel effects of split ergativity in these languages is the result, in part, of the similarities between their respective linguistic systems prior to this innovation, which are due to common inheritance. This last point, the proposal that paths of development in two languages can be similar to one another because of their genetic relationship, is similar to what Sapir called language ‘drift’ (Sapir 1921: Chapter 7 - see Enfield 2003 for the similar notion of ‘typological poise’). As Sapir says, “Language moves down time in a current of its own making. It has a

drift.” (Sapir 1921: 150). This drift guides the language along particular paths of development: “The changes of the next few centuries are in a sense prefigured in certain obscure tendencies of the present and ... these changes, when consummated, will be seen to be but continuations of changes that have been already effected.” (Sapir 1921: 155). The notion of language ‘drift’ is more or less the local, genetic equivalent of ‘clines of grammaticalization’. Clines of grammaticalization, according to the hypothesis (Hopper and Traugott 2003, and others) are universal tendencies for the direction of change in the languages of the world. Language drifts, on the other hand, are specific to language families or groups of related languages, but they are also tendencies that result from structural factors in the languages of a genetic group.

It is tempting to treat a concept like ‘language drift’ as though it were an almost mystical force. Here, I suggest that the example presented above of the development of aspectual suffixes to differentiate completive and incompletive in several related languages is a clear and not at all mystical example of language drift. Like parallel sets of dominoes, knocking over the first piece in each set will have similar consequences—the other pieces fall in a logical pattern, according to the preexisting organization. What is interesting in this case, as with the cases of grammaticalization mentioned above, is that it was triggered by the spark of language contact. The linguistic features replicated from one language into another are not examples of language drift, but the parallel secondary effects that followed in each language as a consequence of the contact-induced changes could be. In such cases, we can speak of a ‘contact-induced language drift’. The changes in the participating languages, which are due to contact, opened the way for certain

secondary changes that are unlikely to have developed out of the linguistic systems prior to the innovation of, say, split ergativity, but arise naturally from the new system formed out of the contact induced change. As with the changes described in chapter 4, this suggests that the processes of change in play in the Maya Lowlands over the last two millennia have been deeply conditioned by the fact of inherited similarity.

Chapter 6: The place of Tojol-ab'al

There seem to be no data which suggest a period of common development for Chuj and Toholabal.

- John Robertson (1977: 120)

Tojolabal is almost identical to Chuj.

- Nicholas Hopkins (2006: 408)

This chapter shifts perspective from consideration of the role of inherited similarity and social differentiation in the large scale areal spread of linguistic elements in particular functional categories across several different languages to the more local effects that the dynamic processes of language contact in the Lowland Mayan sphere of linguistic interaction have had on a single language, Tojol-ab'al. This case study casts a shadow on the utility of the distinction between inherited and contact-induced similarity. The two quotes above, by Robertson and Hopkins, illustrate the level of disagreement among scholars of Mayan languages with respect to the genetic affiliation of Tojol-ab'al within the Mayan language family. I argue here that the root of this disagreement is the fact that the linguistic systems of Tojol-ab'al have been radically altered because of

contact, so much so in fact that the question of what subgroup of the Mayan language family Tojol-ab'al belongs to is either unanswerable or irrelevant, or both. More interesting are the questions: 1) what genetic source can each element in the language be linked to, since, as will be seen, the language is remarkably mixed with respect to the historical origin of different elements, and 2) by what processes did this unusual mixture come about?

In spite of the remarkable mixture of features that make a definite determination of Tojol-ab'al genetic affiliation virtually impossible, Tojol-ab'al differs in interesting ways from other languages that have been described in the literature as 'mixed languages'. I will argue here that at least part of the reason for this difference is that the processes of mixture involved were gradual, the stepwise accretion of borrowed feature after borrowed feature as waves of linguistic influence radiating from both the Lowland and the Huehuetenango spheres of interaction. I also argue that the typological and formal similarities between all of the languages involved in these spheres of linguistic interaction were important factors in this distinctive outcome of language contact.

6.1 MIXED LANGUAGES

In its most trivial sense, the term 'mixed language' could well apply to any human language, since all have at least some mixing of forms from different etymological sources. However, there is consensus among language contact scholars that a particular kind of contact language exists that is categorically different from other outcomes of language contact, and that this type of language merits the label of 'mixed language'.

Consensus, however, rapidly breaks down when it comes to the nitty-gritty of defining exactly what a mixed language is.

Since the influential work by Thomason and Kaufman (1988), which described several mixed languages, including Michif, Mednyj Aleut and Ma'a, in detail, mixed languages have enjoyed increased attention in the literature on language contact. Some authors take the existence of mixed languages as a crucial counterpoint to arguments about universal constraints on the borrowing of particular types of linguistic material (Campbell 1993; cf. Moravcsik 1978). Others argue that they are the 'exception that proves the rule', claiming that both the linguistic and the social contexts that produce mixed languages, and the structural details of the languages themselves, suggest that mixed languages are categorically different from other contact phenomenon. Only in mixed languages have the normally operating constraints on borrowing been lifted, allowing the marked and remarkable etymological mixture that characterizes these languages.

Scholars also differ with respect to what languages can rightly be labeled 'mixed', as opposed to those that are merely the result of 'heavy borrowing' (Thomason and Kaufman 1988: 50). Thomason (2001, 2003), for example, emphasizes the rupture in historical transmission, labeling as a mixed language any language "whose grammatical and lexical subsystems cannot all be traced back primarily to a single source language" (Thomason 2003: 21). This definition logically extends the umbrella to cover not only proto-typical 'interwined' languages (Bakker and Mous 1994: 4), like Media Lengua, Michif, and Mednyj Aleut, but also the much more common category of pidgins and

creoles. The defining criterion, in this view, is the fact that none of these languages can be properly ascribed to a particular position in a particular language family, or, to say it differently, it does not trace its inheritance from a single parent language, a requisite of the stammbaum model of historical linguistic relationships.

Another common definition of mixed languages specifically excludes pidgins and creoles, claiming that in these languages, “it is easy to identify the source of the lexical component, but it is generally impossible to identify a source for the grammatical component (Bakker 2003: 108). This is because pidgins and creoles generally involve simplification and radical restructuring of the grammar. Thus, under this definition of mixed languages, another practical requirement for identifying mixed languages would be the ability to identify whole lexical and morphological components taken from each of the source languages for the bulk of the language.

Mixed languages have also been defined in terms of the relationship of the speakers with the source language. Mixed languages, minimally, would be “[language] varieties that emerged in situations of community bilingualism...” (Matras and Bakker 2003: 1). This criterion would exclude several languages, such as Ma’a, and several Para-Romani varieties, and numerous ‘secret’ languages from the category of mixed languages since often these cases involve “rather irregular contact with the donor language’ (Matras and Bakker 2003: 10), and do not necessarily stem from anything approaching full bilingual ability in the donor language(s).

In fact, the relationship of the speakers of a mixed variety to the source languages has also led some to restrict membership in the category of mixed languages from the

opposite end, suggesting that many cases labeled as ‘mixed languages’ are better understood as pervasive code-switching by fully bilingual communities. Only those cases in which the language form has become codified and obligatory, rather than fluid and optional, can rightly be labeled ‘mixed languages’ (Auer 1999, Myers-Scotton 2000). In practice, this can complicate analysis quite a bit, since most proposed mixed languages are spoken entirely by individuals who are also fluent in one or both of the donor languages, and therefore speakers of the mixed language have constant access to the source language(s) to creatively expand and change the mixed language. Michif (Bakker 1997) seems to be the only clear case in the literature, to my knowledge, in which most speakers are no longer bilingual in either of the donor languages (Cree and French).⁶⁷ Tojol-ab’al, if it is a mixed language, would probably qualify as well, since there are individuals in Tojol-ab’al communities who do not speak either of the apparent source languages.

Finally, scholars often assert that a hallmark of true mixed languages is a distinctive compartmentalization of the subsystems of the language according to the historical source language. The most common division is for one donor language to

⁶⁷ It is, however, often the case that speakers of a mixed language are only familiar with one of the donor languages, not both. For example, the Russian/Aleut mixture Mednyj Aleut appears to have been spoken throughout its existence in a multilingual social context in which Russian served as the wider language of communication (Golovko 1994: 114), but do not necessarily speak Bering or other Aleut languages. Ma’a speakers (aka ‘inner Mbugu’) also speak a non-mixed (bantuu) language, called ‘normal Mbugu’ by Mous (1994:176) along with Ma’a, but no southern Cushitic languages appear to be spoken in the community. The Quechua/Spanish mixture ‘Media Lengua’ is spoken largely by individuals with some degree of fluency in Spanish or Quechua, or both (Muysken 1994: 210).

provide the vast majority of the lexicon (i.e. >90%). The source of the lexicon is often called the ‘lexifier’ language (Muysken 1981) while the language that provides the majority of the inflectional morphology, syntactic patterns, etc (see Matras 2003) is called the matrix or INFL language (Matras 1998).

I will attempt to show that Tojol-ab’al does not tidily agree with any of the above criteria, but that, nonetheless, it shares interesting similarities with mixed languages that merit placing it in that category. Obviously, such an assertion requires a reconsideration of some of the definitional criteria for mixed languages. I argue that the case of Tojol-ab’al helps clarify the limits of mixed languages, and the processes involved in their formation. It also has some relevance to claims about whether language ‘intertwining’ can be considered categorically different from cases of very heavy linguistic borrowing, or simply further along on a continuum of linguistic contact, but the consequence of similar processes.

In addition, the Tojol-ab’al case introduces a further level of complexity into the discussion, since the two primary contributing languages, Tseltal, and Chuj (or a Chujean language) are genetically related. Until this point, almost all of the languages that have been entered into the discussion on mixed languages have involved donor languages that are clearly unrelated (cf. van Bree 1994, Dreyfuss and Oka 1979, Schadeburg 1994). This seems to be, in part, the result of theorists’ desire to avoid undue complexity (Bakker 2003: 108). The genetic relatedness of the donor languages not only complicates attempts to accurately quantify the level of contact, since one must sort out similarities due to language contact from those that might be attributable to common inheritance, but it also

provides a possible motivation for the unusual mixture of linguistic features evident in Tojol-ab'al, and may shed additional light on the question of the role that linguistic similarity can play in determining the outcome of linguistic contact.

The most influential classification of Tojol-ab'al, proposed by Kaufman (1969, 1974, 1976), places it as a close sister of Chuj, in the Q'anjob'alan branch of Mayan. Robertson (1977), noting several salient similarities in the phonology, syntax, and inflectional morphology of Tojol-ab'al with Tseltal, a Cholan-Tseltalan language, proposes that Tojol-ab'al is better understood as a sister of Tseltal and Tzotzil, in the Cholan-Tseltalan branch of Mayan (see Figures 1 and 2 in chapter 2).

As will be discussed below, careful investigation of the data show similarities shared with Tseltal-Tzotzil that, if indeed borrowed, are of a type and degree that makes Tojol-ab'al quite unusual cross-linguistically. It involves 'borrowed' linguistic material that under proposed borrowability hierarchies (Moravcsik 1978, Matras 2007) are only borrowed with vanishing infrequency. These include most of the paradigm of person marking for both the ergative and the absolutive, aspectual affixes for completive (and incompletive), phonological forms, word order, and many others. In the following sections I will review the grammatical and phonological similarities between Tojol-ab'al and Tseltal on the one hand, and Tojol-ab'al and Chuj on the other. Based on these data, I will suggest that Tojol-ab'al might be accurately classified as a mixed language, but only under a modified notion of what a mixed language is. I also note that many of the specific linguistic forms that are relevant to this discussion are also an integral part of broader patterns of language contact phenomena in the Lowland Mayan sphere of interaction, and

that an understanding of the linguistic history of Tojol-ab'al is only retrievable by viewing it in this broader context of language contact.

6.2 TOJOL-AB'AL AND LANGUAGE CONTACT

A review of the historical linguistic literature referencing Tojol-ab'al (see below) immediately leads one to wonder if abnormally high levels of language contact might be at play. As will be shown, there are compelling reasons to place Tojol-ab'al in the Tseltalan subgroup, and there are also compelling reasons to place it in the Q'anjob'alan subgroup. The only solution to this problem, it seems, is to take the position that either the features that Tojol-ab'al shares with Chuj are borrowed, or the features it shares with Tseltal and Tzotzil are. I argue here that the amount and types of materials from each language make it essentially senseless to talk about a single ancestral language. This lack of a single 'parent' language is a hallmark of the class of 'mixed languages', which include pidgins and creoles, as well as what have been termed 'intertwined' languages. However, unlike other so called 'mixed' or 'intertwined' languages, languages whose genesis lies in the mixing of two independent linguistic codes, I suggest that the processes through which Tojol-ab'al arrived at its present state were not radically different from those at play on a larger scale in the Lowland Mayan sphere of linguistic interaction. Tojol-ab'al's present mixed state can be argued to be the result of a gradual accretion of borrowed features, rather than the abrupt invention that has been hypothesized for mixed languages like Michif and Media Lengua, or for creoles. Based on this evidence, I argue that Tojol-ab'al represents a third type of 'mixed language', in

contrast with Creoles and Intertwined languages, one that might be called a layered language.

In order to understand what has happened in Tojol-ab'al, it is crucial to keep in mind that the current linguistic system of Tojol-ab'al is the result of long term intensive language contact between related languages. The relatedness of the languages involved may have been an important facilitator of the types of language mixing that happened in Tojol-ab'al. In the following sections, I will review published opinions about the linguistic affiliation of Tojol-ab'al, then present the comparative linguistic evidence that connects Tojol-ab'al with either Tzeltalan or Q'anjob'alan/Chujean. This will be followed by a discussion of the problematical historical evidence for the geographic origins of the Tojol-ab'al people, and what this can tell us about the history of Tojol-ab'al and what processes it must have undergone to arrive at its present state. The chapter will conclude with a discussion of the processes of change that might lead to language mixing of this magnitude and the role that genetic relatedness might have played in conditioning the direction of that outcome.

6.3 PREVIOUS WORK ON THE AFFILIATION OF TOJOL-AB'AL

The placement of Tojol-ab'al within the Mayan language family has been the subject of some disagreement among Mayan language scholars. Berendt (1876), based apparently on scant lexical data and gut intuitions, did not place Tojol-ab'al (which he referred to as Chaneabal) in any subgroup, simply noting that it "undoubtedly belongs to the Maya family, but is distinguished by copious admixtures from other languages of the

neighboring countries” (10). It is not clear exactly what languages Berendt viewed as the sources of these admixtures. It is unlikely he was aware of the unusual mixture of Tseltalan and Q’anjob’alan features that we are discussing here. The French scholar Charency also seemed mystified as to where to place ‘Chañabal’ (yet another variant name for Tojol-ab’al) in “*la famille Mam-Huastèque*” (his idiosyncratic term for the Mayan language family). He lamented the lack of available data for the language, saying that, “L’absence à peu près absolue de renseignements sur la langue Chañabal ne nous permet pas de préciser la place qu’elle occupe au sein de la famille Mam-Huastèque” (Charency 1883: 95, cited in Campbell 1977: 78). Charency later placed Tojol-ab’al in a subgroup with Tseltalan and Cholan languages (Charency 1890), but does not include in his classification any of the languages that today are recognized as Q’anjob’alan (Q’anjob’al, Popti’, Chuj). Around the same time, Otto Stoll (1884) placed Tojol-ab’al with Tseltal, Tzotzil, Chol and Chontal, but Stoll’s model also does not include any of the Q’anjob’alan languages (Q’anjob’al, Popti’, Chuj).

Gates (1920: 606), did include several Q’anjob’alan languages, including Chuj, Popti’ (Jacalteco), and Q’anjob’al, which he called ‘Solomeca’. He placed Tojol-ab’al (Chañabal) with Tseltalan and Chontal and placed the Q’anjob’alan languages with the Mamean languages. Kroeber (1939) located Tojol-ab’al in a subgroup along with Tseltal, Tzotzil and Chuj, but placed the Cholan languages in a separate subgroup, as well as Q’anjob’al.

These early studies were based entirely on a consideration of vocabulary items, which are clearly problematic for trying to establish genetic relationships, since they can

be easily borrowed from one language into another. The first attempt to use the more reliable indicator of subgrouping, sound correspondences, was Halpern (1942), who also placed Tojol-ab'al in a subgroup with both Chuj and Tseltalan. Unlike Kroeber, however, Halpern included the Cholan languages in this group. McQuown (1956), working with considerably more data, placed Tojol-ab'al in a subgroup with Tseltal and Tzotzil, and suggested that this subgroup might in turn be grouped with the Cholan languages, while Chuj remained separate and was grouped with the Q'anjob'alan languages Q'anjob'al and Popti' (Jakaltek). Using lexical statistic methods, Swadesh (1961) proposed seven subgroups of the Mayan family. He placed Tojol-ab'al in the 'división Yaxche', along with Chuj, Chorti, Chontal, Chol, Tseltal and Tzotzil. His study did not include Q'anjob'al, but Popti' (Jakaltek) and Mocho' (Motozintlec) were both placed in a subgroup with the Mamean languages Ixil and Awakatek.

Kaufman (1964), using significantly more (and higher quality) data than previous scholars, placed Tojol-ab'al and Chuj in their own separate branches from Proto-Mayan. He later revised this on the basis of additional data and analysis (Kaufman 1969, 1972), proposing a 'Chujean-Kanjobalan' subgroup which included both Chuj and Tojol-ab'al, and a 'Cholan-Tzotzilan' subgroup which included the Cholan and Tseltalan languages. While the names of the subgroups have been changed to Greater Q'anjob'alan and Greater Tseltalan respectively, this placement of Tojol-ab'al has ultimately been the most widely accepted and cited classification of Tojol-ab'al from that time on. The main challenge to this placement of Tojol-ab'al to date was voiced by Robertson (1977), who proposed that the similarities in the grammatical systems of Tojol-ab'al and Tseltal,

particularly in the systems of person marking, cannot be explained as anything but features shared because of common inheritance, and, while leaving Chuj in the Q'anjob'alan subgroup, suggested that Tojol-ab'al is more appropriately placed in the Tseltalan subgroup.

Surprisingly, these highly divergent assessments of the place of Tojol-ab'al have generated very little in the way of subsequent debate and discussion. In their review of the state of Mayan linguistics research in 1985, Campbell and Kaufman (1985: 190) note that the place of Tojol-ab'al has been questioned, but state that, "while the issue is open to further study, recent work indicates that it apparently belongs in Greater Kanjobalan, closer to Chuj" (Campbell and Kaufman 1985: 190). Unfortunately, the 'recent work' that they cite is somewhat unhelpful with respect to evaluating the issue. They cite two sources, one an unpublished oral presentation in a symposium in Chicago in 1984 (Kaufman 1984) and one published source by Campbell (1988) that consists of a single relevant paragraph stating, among other things, that "The question of [Tojol-ab'al's] ultimate classification should perhaps be left open for the present". However, it goes on to express the opinion cited above, that Tojol-ab'al is a Chujean language, and that the similarities it shares with Tseltal are the result of intensive language contact. Campbell (1988: 154) argues that "the similarities shared with Tseltal-Tzotzil seem more easily explicable as borrowings, due to diffusion, while the similarities shared with Chuj and other Kanjobalan languages seem much more arbitrary, interrelated, and less likely to be due to contact." Since nowhere in this paragraph is any actual data presented, it is difficult, on this basis alone, to evaluate his claim. Campbell very correctly admits that

his conclusion “is, however, an intuitive judgment and bears careful investigation” (Campbell 1988: 154).

Aside from these cursory dismissals or simple acknowledgments of this proposal with no actual discussion (Campbell and Kaufman 1985: 190, Campbell 1988: 154), the only other serious discussion of the linguistic affiliation of Tojol-ab'al since Robertson's discussion of the topic is Schumann (1981). He takes the position that Chuj and Tojol-ab'al form a subgroup, and does not specify how the Chuj-Tojol-ab'al subgroup relates to the other subgroups of the Mayan language family. While his work postdates Robertson's, Schumann himself notes that he only became aware of Robertson's work after the paper was largely written (Schumann 1981: 168), and he does not engage with any of Robertson's arguments in a serious way.

6.4 TOJOL-AB'AL SIMILARITIES WITH CHUJ AND TSELTALAN

In the historical linguistic work reviewed above, there are essentially four proposed configurations for the genetic relationships surrounding Tojol-ab'al: Robertson's configuration (also espoused by McQuown, and Gates, in his own way) which places Chuj with the Q'anjob'alan languages and Tojol-ab'al in Tseltalan, and three other configurations which place Chuj and Tojol-ab'al in the same subgroup, but position that subgroup, respectively, 1) in the Q'anjob'alan branch (Kaufman), 2) in the Tseltalan branch (the configuration proposed by Kroeber and Halpern), or 3) in its own branch of the Maya stock, with neither Q'anjob'alan nor Tseltalan (a configuration apparently supported by Schumann and proposed, but later rejected by Kaufman in favor

of putting Chuj and Tojol-ab'al in Q'anjob'alan). These positions, with a particular emphasis on Kaufman's and Robertson's proposals, will be considered with respect to the phonology, morphology and syntax of Tojol-ab'al in the following sections.

6.4.1 Shared Phonological Innovations

A logical starting point for investigating the linguistic affiliation of Tojol-ab'al is to look at the shared phonological innovation that might group Tojol-ab'al with one language or another. Since at least the heyday of the '*Junggrammatiker*' in the latter half of the 19th century, sound change has been central to defining subgroups in language families; touted as unfailingly regular and impervious to contact effects (though both of these suppositions have since been proven problematic, for more discussion, see chapter 3). There are a number of sound changes from proto-Mayan that are shared by several Mayan languages. In some cases, these sound changes are useful for establishing particular genetic groupings and determining the history of differentiation of these languages, and the subgroups of Mayan are in most cases fairly straightforward to define (Campbell and Kaufman 1985)⁶⁸. A surprising number of sound changes, however, are not helpful for determining genetic groupings of languages, particularly for those languages that participated in the Lowland Mayan sphere of linguistic interaction, since there is good evidence that these sound changes have been spread in the region through contact, and therefore do not reflect a shared history of common development.

⁶⁸ Relevant to this discussion is the fact that, of the subgroups generally accepted today, the Q'anjob'alan is the one that is least clearly defined, from the point of view of shared phonological innovations.

In the following sections I will discuss those sound changes from the common language that are evident in one or more of the relevant languages: Tzotzil, Tseltal, Tojol-ab'al, Chuj, and Q'anjob'al, in order to get a sense of how Tojol-ab'al patterns vis-à-vis the Q'anjob'alan and Tseltalan languages. There are three sound changes that are of particular interest, since they show a degree of variation among these languages: the fronting of the proto-Mayan velar nasal */ŋ/ to merge with */n/, the fronting of proto-Mayan back velar */q/ and */q'/ to merge with */k/ and */k'/, and several different sound changes involving the palatalization and affricatization of pM */k/, and in some languages */k'/ as well. I will consider each of these in turn.

- **Relevant Phonological Innovations from Proto-Mayan**

- pM */ŋ → n Tojol-ab'al, Tseltalan, Q'anjob'al (not Chuj)
- pM */k → ch/_[V_{front}] Tojol-ab'al, Tseltalan, Q'anjob'alan
- pM */k → ch elsewhere Tojol-ab'al, Tseltalan, Chuj (not Q'anjob'al)
- pM */k' → ch' Tseltalan (Not Tojol-ab'al or Chuj)
- pM */q(ʼ) → k(ʼ) Tojol-ab'al, Tseltalan, Chuj (Not Q'anjob'al)

6.4.1.1 pM */ŋ → /n/

The state of proto-Mayan */ŋ in these languages is illustrated with the cognate set in table 35, below. In this case, Tojol-ab'al clearly patterns with Tseltal and Tzotzil, but it also patterns with Q'anjob'al, which went through an identical merger. In fact, as discussed in chapter 3, the phoneme /ŋ/ only exists in three of the Mayan languages spoken today, of which Chuj is one (along with Popti' and Mocho'). In the K'iche'an and Mamean languages, the reflex of pM */ŋ is still distinct from pM /n/, but has lost nasality, and merged with the voiceless velar fricative /j/. In all other branches of the Mayan

language family, with the exception of the three languages mentioned above and Wastek⁶⁹, *ŋ has merged with *n. The distribution of those languages that have not merged clearly shows that the merger is a (relatively) recent areal phenomenon. Thus, while it is interesting that Tojol-ab'al and Chuj do not pattern together, language contact in the region makes this feature unhelpful for determining genetic relationships. This difference from Chuj and similarity with Tseltal is inescapably due to contact.

pM	Tzotzil	Tseltal	Tojol-ab'al	Chuj	Q'anjob'al
*ŋeeh 'tail'	<i>ne</i>	<i>ne</i>	<i>nej</i>	<i>ŋe</i>	<i>ne</i>
*q'iiŋ 'sun'	<i>k'in</i>	<i>k'in</i>	<i>k'in</i>	<i>k'iŋ</i>	<i>q'in</i>
*tyaq-iiŋ 'dry'	<i>takin</i>	<i>takin</i>	<i>takin</i>	<i>takiŋ</i>	<i>taqin</i>
*ooŋ 'avacado'	<i>on</i>	<i>on</i>	<i>on</i>	<i>oŋ</i>	<i>on</i>
*xaŋab 'sandal'	<i>xonob</i>	<i>xanab</i>	<i>xanab</i>	<i>xaŋab</i>	<i>xanab</i>
*ŋaah 'house'	<i>na</i>	<i>na</i>	<i>naj</i>	<i>ŋa</i>	<i>na</i>

Table 35. pM *ŋ → /n/ (merged with *n)

6.4.1.2 pM *q(ʼ) → /k(ʼ)/

The merger of proto-Mayan *q(ʼ) and *k(ʼ) is similarly unhelpful for determining genetic relatedness. As is evident in table 36, below, Tojol-ab'al once again patterns with Tseltal in this respect, but so does Chuj. Of these languages, only Q'anjob'al retains the archaic velar/back velar distinction. In fact, England (p.c. 2010) suggests that both the retention of /q/ and/or /qʼ/ and its merger with /k(ʼ)/ may be influenced by contact, with the Huehuetenango sphere in the one case, and the Lowlands in the other. For more details on this, see chapter 3. In any event, since isoglosses for this particular feature cut

⁶⁹ Interestingly, Wastek underwent a change of pM *ŋ to /h/, seemingly independently of Mamean-K'iche'an languages.

firmly across established genetic groupings, it is apparent that this similarity, too, is at least in part attributable to the intense linguistic diffusion in the Maya Lowlands. Thus while Chuj, Tojol-ab'al and Tseltalan pattern together with respect to this sound change, that similarity can not be used to make any argument about genetic relationships.

pM	Tzotzil	Tseltal	Tojol-ab'al	Chuj	Q'anjob'al
* <i>ooq</i> 'cry'	<i>ok'</i>	<i>ok'</i>	<i>ok'</i>	<i>ok'</i>	<i>oq'</i>
* <i>q'iiŋ</i> 'sun'	<i>k'in</i>	<i>k'in</i>	<i>k'in</i>	<i>k'iŋ</i>	<i>q'in</i>
* <i>tyaq-iiŋ</i> 'dry'	<i>takin</i>	<i>takin</i>	<i>takin</i>	<i>takiŋ</i>	<i>taqin</i>
* <i>q'ahq</i> 'fire'	<i>k'ok'</i>	<i>k'ahk'</i>	<i>k'ak'</i>	<i>k'ak'</i>	<i>q'aq'</i>
* <i>luquum</i>	<i>lukum</i>	<i>lukum</i>	<i>lukum</i>	<i>lukum</i>	<i>luqum</i>

Table 36. pM *q(ʼ) → /k(ʼ)/

6.4.1.3 Fronting and affricatization of pM *k and *kʼ

The change of proto-Maya *k and *kʼ is perhaps the most interesting and complex sound change involving these Mayan languages. Many Mayan languages have gone through some degree of palatalization of velar stops (see Campbell 1977 for a description of this in K'iche'an and Mamean languages). Kaufman (cited in Kaufman and Norman 1984: 141) proposed that most of these palatalized sounds occurred in predictable regular phonological contexts, and therefore, a single proto-sound could be reconstructed from which all of the variants had developed. Note also, that this sound change, in the languages to which it applied, must have preceded the merging of *q(ʼ) and *k(ʼ), since palatalization only occurs in reflexes of *kʼ.

Each language has slightly different conditioning contexts, some of which are particularly complex. As table 37 below demonstrates, Tzotzil, Tseltal, Tojol-ab'al, Chuj and Q'anjob'al all underwent palatalization of plain (unglottalized) /k/ before front vowels.

pM	Tzotzil	Tseltal	Tojol-ab'al	Chuj	Q'anjob'al
*kehj 'deer'	chij	chij	chej	chej	chej
*kiih 'agave'	chi	chi	chij	chi	chi'
*ki' 'sweet'	chi'	chi'	chi'	chi'	chi'
*kik' 'blood'	ch'ich'	ch'ich'	chik'	chik'	chik'

Table 37. pM *k → /ch/ Before front vowels

Table 38 shows that Tojol-ab'al and Chuj both pattern with Tzotzil and Tseltal in also palatalizing */k/ elsewhere. Q'anjob'al, as with the other Q'anjob'alan languages, does not undergo the change in other contexts.

pM	Tzotzil	Tseltal	Tojol-ab'al	Chuj	Q'anjob'al
*ka' 'metate'	cho'	cha'	cha'	cha'	ka'
*kab 'bee'	chab	chab	chab	chab	kab
*sanik 'ant'	xinich	xanich	xanich	xan'ich	sanik
*ok 'enter'	och	och	och	och	ok

Table 38. pM *k → /ch/ Elsewhere

However, Tojol-ab'al and Chuj do pattern with Q'anjob'al (and the other Q'anjob'alan languages) with respect to the glottalized velar *k', which is not palatalized or changed in any context, even before front vowels:

pM	Tzotzil	Tseltal	Tojol-ab'al	Chuj	Q'anjob'al
* <i>k'uhm</i> 'squash'	<i>ch'um</i>	<i>ch'uhm</i>	<i>k'um</i>	<i>k'um</i>	<i>k'um</i>
* <i>k'ak</i> 'tick'	<i>ch'ak</i>	<i>ch'ak</i>	<i>k'ak</i>	<i>k'ak</i>	<i>k'aq</i>
* <i>k'ix</i> 'thorn'	<i>ch'ix</i>	<i>ch'ix</i>	<i>k'ix</i>	<i>k'ix</i>	<i>k'ix</i>
* <i>uk</i> 'louse'	<i>uch'</i>	<i>uch'</i>	<i>uk'</i>	<i>uk'</i>	<i>uk'</i>
* <i>kik</i> 'blood'	<i>ch'ich'</i>	<i>ch'ich'</i>	<i>chik'</i>	<i>chik'</i>	<i>chik'</i>

Table 39. pM **k*' → /*ch*'/

The *k*(')→*ch*(') sound change provides evidence for grouping Tojol-ab'al and Chuj together. The palatalization of **k* in contexts other than before front vowels (a shared innovation) suggests that both Chuj and Tojol-ab'al should be grouped with Tseltalan. With respect to the lack of palatalization of **k*', on the other hand (a shared retention), Tojol-ab'al and Chuj pattern with Q'anjob'al. In both cases Chuj and Tojol-ab'al pattern together. However, the evidence is not necessarily as clear as it appears. Generally, we must take shared innovations as more compelling evidence of forming a subgroup than shared retentions, since languages from very divergent subgroups might have retained an earlier sound change. Such is the case with velar nasal **ŋ*, discussed earlier, which is in no way evidence that Mocho', Popti' and Chuj should be considered a genetic subgroup. In terms of the palatalization of **k*('), this would mean that Chuj and Tojol-ab'al would be more appropriately placed with the languages with which they share an innovation (i.e. the Cholan-Tseltalan languages), rather than with the languages with which they share a retention (i.e. the Q'anjob'alan languages).

If we were to place Chuj and Tojol-ab'al with Tseltalan on the basis of the shared innovation of **k*→*ch* before non-front vowels, however, this would mean that the innovation shared among all other Cholan and Tseltalan languages of palatalizing **k*' was

areally spread, since it would need to exclude two members of that subgroup (Chuj and Tojol-ab'al). Purely in terms of numbers of shared phonological innovations, this account, which requires assuming the areal diffusion of the sound change **k'* to /ch'/ in Cholan and Tseltalan languages, is no more simple than assuming that the shared phonological innovation **k* to /ch/ that linked Chuj and Tojol-ab'al to each other and to Cholan-Tseltalan was areally diffused. Indeed, current work (Law et al., forthcoming) proposes, based on comparative data, as well as hieroglyphic evidence, that the palatalization of **k* and **k'* was diffused areally in the Maya Lowlands. Thus, while the evidence of shared phonological innovations seems to favor the placement of Chuj and Tojol-ab'al together in the Cholan-Tseltalan family, in reality, no configuration of genetic relationships avoids hypothesizing the areal diffusion of one or more shared phonological innovations.

6.4.1.4 Other Relevant Sound Changes from Proto-Mayan

Other significant sound changes that affected the languages mentioned here are similarly problematic because of the likelihood that they were transmitted across language boundaries via language contact. For example, all of the languages in this study have merged the two proto fricatives, glottal **h* and velar **j* except for the modern Tseltal dialects of Bachajon, Yajalon, and Sitalá and the Tzotzil dialects of Huixtán and Chamula (Kaufman 1972: 27-28). As mentioned in chapter 3, even in dialects that no longer have the sound, such as Tzotzil of Zinacantán, we see diverse sound correspondences, so that the loss of /h/ has not resulted from the merging of /h/ with /j/ in all contexts (see

Haviland, in Laughlin 1988: 84). In addition, about half of the Q'anjob'alan languages retain the contrast. And in the Cholan branch, all languages have lost this contrast, but hieroglyphic sources still maintain it, emphasizing the fact that this sound change was spread via language contact long after these languages had separated.

Another sound change that occurred widely in the Lowland area, and applied to all of the languages in this study, but that is evidently a relatively recent, areally diffused change, is the loss of contrastive vowel length. The proto-Mayan system of five short and five long vowels has been lost in all of the Q'anjob'alan and Cholan-Tzeltalan languages, with the possible exception of Mocho'. Again, however, it is clear that Classic Maya scribes did maintain a clear orthographic distinction between words with proto-Mayan long vowels and those with short ones (Houston et al 1998), suggesting that this loss was diffused later in the history of the languages, and is not an inherited trait.

The innovation of a new phoneme, the bilabial ejective /p'/, in contrast to a voiceless bilabial stop /p/ and a bilabial implosive /b'/ is also clearly a diffused sound change, but one that made Tojol-ab'al more similar to Chuj and the other Q'anjob'alan languages, since none of these languages took part in this innovation, but Tzeltal and Tzotzil did (along with the Yucatekan and Cholan languages (except Chorti), Poqomam, and some eastern dialects of Poqomchi' — see Wichmann 2006a for a discussion and analysis of this sound change).

A final sound change that has increased Tojol-ab'al's overall similarity to both Chuj and Tzeltalan, but is apparently another similarity due to contact, is the change of pM *r to /y/. This happened across the board in all Q'anjob'alan and Cholan-Tzeltalan

languages, including the language attested hieroglyphically. However, the fact that this is also shared by Yukatekan opens up the possibility that, at some level, the shared similarities were areally diffused, just as we have seen for all of the above sound changes, with the possible (though debatable) exception of the change of **k(ʼ)* to */ch(ʼ)/*.

A look at the phonological innovations pertinent to these languages, then, has only highlighted the extensive effects of language contact not only on Tojol-abʼal, but on all of the languages in the study. No clear evidence has been garnered in terms of the phonology to place Tojol-abʼal in one branch or another, but the phonemic inventory of Tojol-abʼal, the result of the layering of numerous areally spread sound changes, has come to be very similar to both Chuj and Tzeltalan as a result of contact-induced change.

It is clear that separate waves of linguistic diffusion, which are not limited to Tojol-abʼal alone, have overlapped in the case of Tojol-abʼal to such an extent as to make classification of this language based on phonological innovation essentially impossible. In the next section, we will discuss the patterning of similarities in the verbal inflections for person, tense/aspect/mood, and voice, and other morphological elements, and see that similar processes seem to have influenced the core morphological paradigms of the language.

6.4.2 Shared Morphological Innovations

From a comparative standpoint, one of the most remarkable and perplexing facts about the morphological system of Tojol-abʼal is the strong similarities that it has with both Chuj and the other Qʼanjobʼalan languages on the one hand, and Tzeltal/Tzotzil on

the other. Obviously, since all of the languages involved belong to the Mayan language family, part of this similarity is common inheritance from proto-Mayan. However, a careful consideration of these similarities allows us, in many cases, to identify those features that are similar because they are shared retentions, and those that are shared innovations. Shared innovations can have only one of two explanations: they indicate a period of shared development, that is, they indicate a genetic subgroup, or they indicate language contact and are the result of areal diffusion. Shared retentions don't necessarily imply a genetic subgroup, but they can be illuminating in their own right.

Tables 40 and 41, below, summarize some of the salient similarities between Tojol-ab'al and Tseltal (table 40) on the one hand, and Chuj (table 41) on the other, and whether these are shared retentions (reconstructible to proto-Mayan or Western Mayan) or shared innovations.

Tojol-ab'al Grammatical Features Shared with Tseltal

Agentive RN <i>-u'un</i>	Innovation
Comitative Preposition <i>sok</i>	Innovation
Negative Existential <i>mayuk/me'yuk</i>	Innovation
Phrase final topic clitic <i>-i/-e</i>	Retention?
Phrase final distal clitic <i>-a</i>	Retention?
1 st Pl inclusive suffix <i>-tik</i>	Innovation
1 st Pl Exclusive suffix <i>-tik+I.ABS</i>	Innovation
?*1 st pl to unmarked for number	Innovation
Position of Set B marker	Retention
Completive Intransitive (unmarked)	Coincidence
Incompletive Intransitive <i>x-</i>	Innovation
Incompletive Transitive <i>x-</i>	Innovation
Antipassive <i>-wan</i>	Innovation
Loss of agent focus	Innovation
Plural <i>-ik</i> (pos. and adj)	Innovation
Plural for nouns <i>-tik</i>	Innovation
Plural for humans <i>-tak</i>	Retention?
Plural imperative <i>-ik</i> (from *-eq)	Innovation
Irrealis <i>-uk</i>	Innovation
Definite Article (not form)	Innovation
Inclusive/Exclusive distinction	Innovation
No noun classifiers	Retention

Table 40. Tojol-ab'al Grammatical Features Shared with Tseltal.

Tojol-ab'al Grammatical Features Shared with Chuj or Q'anjob'alan

General Preposition <i>b'a(y)</i>	Innovation
Perfect Transitive <i>-unej, -nak</i>	Retention
Future/Potential <i>oj-, ok-</i>	Innovation
Negative Existential <i>me'ey, ma'ay</i>	Retention
Progressive Auxiliary <i>wan</i>	Innovation
Intransitive Status Suffix <i>-i</i>	Retention
Transitive Status Suffix <i>-a(')</i>	Retention
Passive <i>-j</i>	Retention
Mediopassive <i>-x</i>	Retention
Interrogative particle <i>(a)ma</i>	Innovation
Directionals	Innovation
Nominal plural for humans <i>-e'</i>	Innovation
Third person plural <i>-e'</i>	Innovation

Table 41. Tojol-ab'al Grammatical Features Shared with Chuj or Q'anjob'alan

6.4.2.1 Person Marking

A good starting point for comparing the inflectional morphology of Tojol-ab'al with that found in other languages is the system of person marking, where marked similarities can be seen with Tzotzil and Tseltal. Tojol-ab'al, like most Mayan languages, has two distinct sets of person markers, which in most contexts follow an ergative-absolutive patterning. The so-called 'Set A' pronouns prefix to transitive verbs and agree in person and number with the grammatical subject or agent. They also inflect nouns to reference the possessor and are used to reference several other grammatical relations by inflecting 'relational nouns', a common category in Mesoamerican languages (Campbell et al. 1986). Set A markers in Tojol-ab'al and most Mayan languages have two allomorphs, one that prefixes to pre-vocalic stems, and one to consonant-initial stems.

The second set of person markers, set B, are obligatory in all predicates. In stative predicates and intransitive verbs, they reference the grammatical subject. In transitive verbs, they reference the grammatical object. Both paradigms of set A pronouns and the set B paradigm are given below for each of the languages, along with the reconstructed paradigms for proto-Mayan proposed by Kaufman and Norman (1984 - K&N) and Robertson (1992 - JSR):

Set A (/__C)	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
CM (JSR)	*nu-	*a-	*ru-	*qa-	—	*e-	*ki-
pM (K&N)	*nu-	*aa-	*u-	*qa-	—	*ee-	*ki-
Q'anjob'al	<i>hin-</i>	<i>ha-</i>	<i>s-</i>	<i>ko... (heq)</i>	<i>ko... hon(on)</i>	<i>he-</i>	<i>s-</i>
Chuj	<i>hin-</i>	<i>ha-</i>	<i>s-</i>	<i>ko... (hek)</i>	<i>ko... hon</i>	<i>he-</i>	<i>s-</i>
Tojol-ab'al	<i>h-</i>	<i>ha-</i>	<i>s-</i>	<i>h...-tik</i>	<i>h...-tikon</i>	<i>ha...-ex</i>	<i>s...(-e')</i>
Tzotzil	<i>j-</i>	<i>a-</i>	<i>s-</i>	<i>j...-otik</i>	<i>j...-otikotik</i>	<i>a...-ik</i>	<i>s...(-ik)</i>
Tseltal	<i>j-</i>	<i>a-</i>	<i>s-</i>	<i>j...-tik</i>	<i>j...-yotik</i>	<i>a...-ik</i>	<i>s...(-ik)</i>

Table 42. Ergative (set A) pronouns: Preconsonantal set.

Set A (/__V)	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
CM (JSR)	*w-	*aw-	*r-	*q-	—	*er-	*k-
pM (K&N)	*w-	*aaw-	*r-	*q-	—	*eer-	*k-
Q'anjob'al	<i>w-</i>	<i>h-</i>	<i>y-</i>	<i>j... (heq)</i>	<i>j... hon(on)</i>	<i>hey-</i>	<i>y-</i>
Chuj	<i>w-</i>	<i>h-</i>	<i>y-</i>	<i>k... (hek)</i>	<i>k... hon</i>	<i>hey-</i>	<i>y-</i>
Tojol-ab'al	<i>k-</i>	<i>haw-</i>	<i>y-</i>	<i>k...-tik</i>	<i>k...-tikon</i>	<i>haw...-ex</i>	<i>y...(-e')</i>
Tzotzil	<i>k-</i>	<i>av-</i>	<i>y-</i>	<i>k...-otik</i>	<i>k...-otikotik</i>	<i>av...-ik</i>	<i>y...(-ik)</i>
Tseltal	<i>k-</i>	<i>aw-</i>	<i>y-</i>	<i>k...-tik</i>	<i>k...-yotik</i>	<i>aw...-ik</i>	<i>y...(-ik)</i>

Table 43. Ergative (set A) pronouns: Prevocalic set.

Set B	1	2	3	1pl (inc)	1pl (exc)	2pl	3pl
CM (JSR)	*-in	*-at	*-Ø	*-o'ŋ	—	*-ex	*-eb
pM (K&N)	*-iin	*-at	*-Ø	*-o'ŋ	—	*-ix/*-ex	*-eb
Q'anjob'al	<i>(h)in</i>	<i>(h)ach</i>	<i>-Ø</i>	<i>(h)on...</i> <i>(heq)</i>	<i>(h)on...(h)on(</i> <i>on)</i>	<i>(h)ex</i>	<i>-Ø</i> <i>(heb')</i>
Chuj	<i>(h)in</i>	<i>(h)ach</i>	<i>-Ø</i>	<i>(h)on...</i> <i>(hek)</i>	<i>(h)on...-(h)on</i> <i>on)</i>	<i>(h)ex</i>	<i>-Ø</i> <i>(heb')</i>
Tojol-ab'al	<i>-on</i>	<i>-a</i>	<i>-Ø</i>	<i>-otik</i>	<i>-otikon</i>	<i>-ex</i>	<i>-Ø (-e')</i>
Tzotzil	<i>-on /</i>	<i>-ot /</i>	<i>-Ø</i>	<i>-otik /</i>	<i>-otik /</i>	<i>-oxuk /</i>	<i>-Ø (-ik)</i>
	<i>-i-</i>	<i>-a-</i>		<i>-i...-otik</i>	<i>-i...-otikotik</i>	<i>-a...-ik</i>	
Tseltal	<i>-on</i>	<i>-at</i>	<i>-Ø</i>	<i>-otik</i>	<i>-yotik</i>	<i>-ex</i>	<i>-Ø (-ik)</i>

Table 44. Absolutive (set B) pronouns

These data illustrate clearly that the system of person marking in Tojol-ab'al is much more similar to Tseltal-Tzotzil than it is to Chuj. Most notably, Tojol-ab'al, Chuj and Tseltal all share the innovative spread of the first person plural to become the generic first person marker, and postclitics to indicate first person plural exclusive and inclusive

for non-third person referents based on the morpheme *-tik*. Placing Tojol-ab'al with Chuj genetically would require postulating the direct borrowing of at least the first person plural forms, as well as adopting innovative patterns for the first person singular and the first and second person plural forms. While such a scenario goes against many proposed universal constraints of linguistic borrowing, as discussed in chapter 4 and in Law (2009), pronoun borrowing among languages connected to the Lowland Mayan sphere of influence was actually fairly common (see chapter 4 for more discussion). As with the phonological diffusion discussed above, the shared similarities noted here, when viewed in the broader regional context, can be seen to follow general patterns typical of the Lowland Mayan linguistic area.

6.4.2.2 *Position of the Absolutive*

Another similarity between Tseltal and Tojol-ab'al is the position of the set B (absolutive) markers relative to the verb. For proto-Mayan, there is evidence to reconstruct the set B markers as coming after the stem in participles, stative predicates, unmarked (completive) aspect and imperatives, and coming before the stem for verbs that are overtly marked for aspect (Robertson 1992: 53). This is essentially the pattern found in both Q'anjob'al and Chuj, as well as in some dialects of Tzotzil. However, Tojol-ab'al and Tseltal both suffix set B person markers universally, as shown in table 45, below.

	Q'anjob'al	Chuj	Tojol-ab'al	Tseltal	Tzotzil
NVP	After	After	After	After	After
Perfect	After	After	After	After	After
Active	Before	Before	After	After	Before

Table 45. Position of Set B marker relative to predicate.

Once again, however, the broader context of language contact phenomena in the region labels this an areal feature: the same pattern is found in all of the Yukatekan and Cholan languages. For further discussion, see chapter 4; see also Bricker (1977).

6.4.2.3 *Plural*

The formal similarities relating to both person and number agreement between Tojol-ab'al and Tseltalan go even further than the noteworthy parallels mentioned above. They also share a great deal in terms of the way that plurality is managed. In most Mayan languages plurality is optionally expressed, with a much stronger inclination to mark plurality on nouns higher on the animacy hierarchy. Number is often marked on both nouns and verbs as well as adjectives, in some languages. Number agreement on verbs is generally expressed along with person in the two sets of person markers common to Mayan languages.

Tojol-ab'al and Tseltal are typical of other Mayan languages in this respect, though, as was discussed in Chapter 4, they, with several other languages, have developed a series of plural postclitics so that person and number are not expressed by the same morpheme. In fact, as discussed in chapter 3, number agreement may have been lost in Lowland languages so that all plurality is nominal or pronominal (see Mateo-

Toledo 2008: 49 for this analysis in Q'anjob'al) The main plural markers in Tojol-ab'al are *-tik*, *-ik*, *-e'*, and the enclitic *jumasa'*. Furbee-Losee (1976: 144), describes *-tik* as the 'general plural for nouns', and as a 'collective' plural suffix. It is also the plural suffix used for the first person inclusive, and the base for the 1st person plural exclusive suffix (*-tik-on*). The suffix *-ik* is found in plural contexts in the imperative mood (and extensions of that form in the optative or irrealis mood, as will be discussed below), on predicate adjectives, positional stative and perfects (Gómez Cruz 2010: 9), it can also be found on some possessed nouns in the second person. The plural suffix *-e'* indicates plural agreement for third person human referents on verbs, for both set A and set B markers (Gómez Cruz 2010: 49). A suffix *-e'* also occurs as a general numeral classifier after all numbers greater than one (Furbee-Losee 1976: 122). The plural clitic *jumasa'* is extremely productive in modern Tojol-ab'al. It is also an innovative form and is the only plural morpheme in Tojol-ab'al that is not shared with any other Mayan language.

Tseltal has a slightly more complex system of plural marking, but one that is clearly similar to Tojol-ab'al in striking ways. Polian (2004: 28, 34, 50) gives the following plural morphemes for Tseltal: *-etik*, *-ajtik*, *-ik*, *-ab*, and *-tak*. The suffix *-etik* would perhaps be the most generic, used for unpossessed and countable nouns. *-ajtik*, which is formally similar, is the plural form for 'positional adjectives' (which can also take *-V_l-ik*). As in Tojol-ab'al, *-ik* is the plural form for adjectives in Tseltal. It is also the form used in Tseltal to indicate plurality of non-first person subjects and objects of verbs, so its occurrence in Tseltal is quite frequent. Both *-tak* and *-ab* are used solely to mark plurality on possessed human referents. Tseltal also has a general number suffix *-eb*,

clearly cognate with *-e'* in Tojol-ab'al, but restricted to marking numbers greater than one with no other numeral classifiers.

Tzotzil has largely the same system of plural marking as that in Tseltal. The plural markers in Tzotzil include *-etik* (plural for unpossessed nouns), and *-tik*, which Haviland (1981: 305) describes as 'a continuation of something', *-ik*, plural of imperatives, as well as the plural for 2nd and third person, and in non-verbal predicates, *-tak*, which is reported to have a collective sense, and *-ab*, which is archaic; only used in ritual speech. While Haviland (1981: 305) does not state it explicitly, all examples given of this *-ab* suffix involved human referents, and it may well be that this is exclusive to humans, as it is in Tseltal. Finally, Tzotzil, like Tojol-ab'al and Tseltal, has a general or 'absolute' numeral classifier (Haviland 1981: 165), which is realized as *-ib* with the numbers 2, 3, 4, 6, 8 and 11 and elsewhere is *-eb*, and clearly relates to plurality in that it only affixes to numbers greater than one.

Tseltal and Tzotzil, then, share with Tojol-ab'al the plural suffix *-tik*, and the expanded functions of the plural suffix *-ik*, which is elsewhere restricted to the imperative mood. While Tseltal and Tzotzil have expanded the function of *-ik* even beyond what we see in Tojol-ab'al, the commonality between the two is clear. The suffix *-tik* is likewise transparently similar, as was discussed in the section on person marking in Tojol-ab'al.

The similarity of plural markers in Tojol-ab'al and the Tseltalan languages becomes even more pronounced upon consideration of Chuj, which is markedly different, and more conservative. In Chuj, there is a cognate of Tojol-ab'al's *-ik* (also found in Tseltal and Tzotzil, as well as numerous other Mayan languages) in the form of a plural

imperative suffix *-ek*, almost certainly a proto-Mayan retention. However, this is very restricted in usage: it does not mark plurality on adjectives as in Tojol-ab'al and the tseltalan languages, though Q'anjob'al does have a suffix *-eq* as a plural of adjectives, nor can it be used for plural agreement on verbs outside of the imperative mood. Finally, its form does not reflect the idiosyncratic vowel change shared by Tojol-ab'al and the Tseltalan languages. Chuj also lacks any semblance of *-tik* for marking plurality.

The primary plural marker in Chuj, however, is *-(h)eb'*, which is clearly cognate with Tojol-ab'al *-e'*, and probably the number suffix *-eb* in Tseltal and Tzotzil as well. However, Chuj and Tojol-ab'al, like other Q'anjob'alan languages, have seen a merging of the general number classifier and a historically separate third person plural agreement marker (though, according to Mateo Toledo 2008: 48-50, the form traditionally analyzed as a plural agreement marker may, in fact, be better analyzed as a separate, pronominal argument). In Tojol-ab'al, this suffix is restricted to human referents. In Chuj, it can mark plural on inanimates, although, as with most Mayan languages, Chuj has a definite preference for marking plurality on things that are higher in the animacy hierarchy. The Tojol-ab'al and Chuj forms are cognate with the Tseltalan form *-ab'*, and a retention of the proto-Mayan plural form used for plural absolutive agreement. In Chuj, *heb'* is prefixed to noun classifiers to indicate plurality of nouns and it is suffixed to indicate plurality in third person verbal agreement.

	Tzotzil	Tseltal	Tojol-ab'al	Chuj	Q'anjob'al
Imperative	<i>-ik</i>	<i>-ik</i>	<i>-ik</i>	<i>-ek</i>	<i>-eq</i>
Adjective	<i>-ik</i>	<i>-ik</i>	<i>-ik</i>	-	<i>-eq</i>
Positional		<i>-ik, -ajtik</i>	<i>-ik</i>	-	
3 rd Person	<i>-ik</i>	<i>-ik</i>	<i>-e'</i>	<i>-e'</i>	<i>heb'</i>
Nouns	<i>-etik</i>	<i>-etik</i>	<i>-tik, jumasa'</i>	<i>heb'</i>	<i>laq</i>
2 nd Person	<i>-ik</i>	<i>-ik</i>	<i>-ex, -ik</i>	-	<i>-ex</i>
Nouns (human)	<i>-tak</i>	<i>-tak</i>	<i>-tak</i>	-	-
Nouns (human)	<i>-ab'</i>	<i>-ab'</i>	<i>-e'</i>	<i>-(h)eb'</i>	<i>heb'</i>
General Numeral Suffix	<i>-eb', -ib'</i>	<i>-eb'</i>	<i>-e'</i>	<i>-eb'</i>	<i>-eb'</i>

Table 46. Summary of Plurals.

Thus we see that Tojol-ab'al shares three of its plural markers with Tseltal and Tzotzil, both of which are clearly innovative in their distribution and their form. In keeping with its 'mixed' appearance, however, Tojol-ab'al also shares a plural marker with Chuj (and the other Q'anjob'alan languages). As mentioned above, this suffix is a retention of a proto-Mayan plural form, a reflex of which is preserved in Tseltal and Tzotzil, but both the exact form, and the third person verbal agreement function are shared by Chuj and Tojol-ab'al.

6.4.2.4 Aspectual System

Tojol-ab'al also shares a remarkable number of features with Tseltal and Tzotzil in the system of aspect, as well as having some shared features with Chuj. These are summarized in table 47 below.

	Q'anjob'al	Chuj	Tojol-ab'al	Tseltal	Tzotzil
COMPLETIVE					
trans	<i>(ma)x-</i>	<i>x-</i>	∅	<i>la</i>	<i>l-</i> (~ <i>i-</i> 3 rd person)
intrans	<i>(ma)x-</i>	<i>x-</i>	∅	∅	<i>l-</i> (~ <i>i-</i> 3 rd person)
PROXIMATE	∅	∅	---	---	---
INCOMPLETE					
trans	<i>ch(i)-</i>	<i>tz-</i>	<i>(wa) x-</i>	<i>ya</i>	<i>t(a) x-</i>
intrans (3rd)	<i>ch(i)-</i>	<i>tz-</i>	<i>(wa) x-</i>	<i>(ya) x-</i>	<i>t(a) x-</i>
intrans (non-3rd)			<i>(wa) la-</i>	<i>(ya) x-</i>	<i>t(a) x-</i>
PROGRESSIVE	<i>lanan</i>	<i>wal, wan</i>	<i>wan</i>	<i>yak</i>	<i>yak</i>
POTENTIAL	<i>(h)oq-</i>	<i>oj-</i>	<i>oj-</i>	---	---

Table 47. Tense/Aspect/Mood

6.4.2.4.1 Completive

The first similarity (and difference) to note is in the completive aspect. In Tojol-ab'al and, with intransitive verbs, in Tseltal, the completive aspect is unmarked. However, it is not clear what to make of this similarity. The proto-Mayan completive was most likely unmarked (Roberston 1992: 66), so that the similarity between Tseltal and Tojol-ab'al would seem to be a retention. However, Colonial Tseltal data show that in the Colonial Tseltal completive involved a preverbal clitic *u-* for both transitives and intransitives (Robertson 1992: 184). The fact that an attested prior stage of Tseltal had a clear overt marker for the completive, which was subsequently lost, seems to suggest that, if the unmarked completive is a similarity due to contact, it would have to be the result of recent contact. However, we might also speculate that a conservative, unmarked completive did exist, perhaps in a more restricted function, in Colonial Tseltal, but that it has been missed or is simply unattested in the available Colonial materials (see, for example, Mateo Toledo's [2008] identification of an unmarked completive in Q'anjob'al, where no such form had been noted previously). It is also possible that Tojol-ab'al

maintained the conservative completive form, while Tseltalan underwent several different changes, ultimately ending back where it began

While the similarity between Tseltal and Tojol-ab'al in the completive may be inconclusive, the difference between *Chuj* and Tojol-ab'al with respect to the completive marking does seem significant. *Chuj*, as well as Q'anjob'al, Popti', Akateko, and, curiously, most of the K'iche'an languages, indicate the completive aspect with a preverbal marker *x-* (not related to the Tojol-ab'al incompletive, to be discussed below). Q'anjob'al and *Chuj* also have an unmarked completive/past form, the precise semantics of which are unclear.⁷⁰ Robertson (1992: 66) reconstructs a proximate particle *'ix*, common as a second position clitic with the meaning 'soon', 'recently' or 'already'. Robertson proposes that the completive marker in Q'anjob'alan and K'iche'an is derived from this particle. The fact that the meaning reconstructed by Robertson for **'ix* now appears to be expressed in these languages with a zero, while the more generic completive is marked with *x-*, suggests that these forms switched values (i.e. markedness reversal). If Tojol-ab'al indeed belongs to the Q'anjob'alan subgroup, it either expanded the unmarked form to be the general completive (in effect, returning to a previous state of affairs) or the form of the completive in the other Q'anjob'alan languages (*x-*) developed

⁷⁰ Mateo Toledo, for example, describes the semantics of this unmarked form in Q'anjob'al as having a 'past tense interpretation' (Mateo Toledo 2008: 54). For *Chuj*, Maxwell describes the unmarked form as either 'recent past' or 'distant past' depending on the placement of the set B pronouns (Maxwell 1982: 127, 130). England (pc, 2011) suggests that reconstructing a distinction between completive and perfective in proto-Mayan might resolve these difficulties. In the end, because of the semantic subtleties involved, more careful semantic analysis of all of these languages is necessary in order to confidently reconstruct the function of these proto- forms.

some time after the separation of Q'anjob'al from other members of that subgroup, including Chuj, which would suggest that the *x*-completive was areally diffused among Q'anjob'alan languages.

6.4.2.4.2 Incompletive

In the incompletive aspect, things are somewhat clearer. All of the languages shown in table 47 have reflexes of the same proto-Mayan incompletive aspect marker **k(i)-* (Robertson 1992). However, Tojol-ab'al shares the same idiosyncratic mutation of this marker found in Tseltal and Tzotzil: *x-*, while the Q'anjob'alan languages have simple affricativization to *ch-*. It is interesting too that first and second person intransitives in Tojol-ab'al have a different form, *la-*, in the incompletive, much as we find for the completive aspect in Tzotzil. These forms clearly have different etymological sources. The *l-* in the Tzotzil completive is likely a reduction of the auxiliary *laj-* 'to complete', the source of *la* in Tseltal as well. The *la-* in Tojol-ab'al has been linked with the **la* reconstructed for the 'future' form in proto-Mayan (Robertson 1992).

6.4.2.4.3 Progressive and Potential

In other respects, the system of aspectual distinctions in Tojol-ab'al is very similar to Chuj, particularly with respect to both the progressive auxiliary, and the potential or 'future'. The progressive is *wan* in Tojol-ab'al, and both *wan* and *wal* can be found in Chuj. This form seems to be remarkably similar to the Lowland progressive auxiliary, discussed in chapter 5, which is found in Chol from Tumbalá (*woli*), Cholti

(<yual>), Chorti (*war*), and possibly even Yukatekan (*walak* in Mopan and Colonial Yukatek).

The potential or future prefix is clearly a Q'anjob'alán innovation. It derives from the historical optative suffix **-oq*, which was prefixed and given the new function of 'potential', while the old suffix remained in its prior location with its historical function. In Tojol-ab'al, the form that was prefixed and the current form of the optative suffix in the language are not the same (*oj-* vs *-uk*). This will be discussed in more detail in §6.4.2.4.5 below on the optative suffix *-uk* in Tojol-ab'al.

6.4.2.4.4 Perfect

The perfect is another aspectual form that can be used to understand the relationship between Chuj and Tojol-ab'al. While it is clearly semantically classifiable as an aspect, the perfect is different from other aspects in these languages (and in most Mayan languages, see chapter 4 for discussion) in that it is indicated with a suffix on the verb. In this sense, it is more like a marker of mood or of what Kaufman (1990: 72) calls the 'status' of a verb. It does not cooccur with other markers of aspect in most Mayan languages (though, see chapter 5 for a discussion of this in Poqomchi'). In some languages, we can formally distinguish between perfect participles, which function like non-verbal predicates, and verbal perfects, which maintain all of the associated grammatical roles of a verb. In many languages, however, there is no distinction between these two forms in terms of the perfect suffix used, and it is often very difficult, in practice, to determine if a given instance of a perfect suffix is verbal or non-verbal,

particularly with intransitives and in secondary predications. This lack of clarity means that the analysis of the perfect varies not only from language to language but also from linguist to linguist when describing the same language. A careful comparative semantic and structural analysis of the perfect in Mayan languages might help clarify the matter.

For the purposes of determining the genetic affiliation of Tojol-ab'al, this distinction is not crucial. Even with a very imprecise understanding of the perfect in these languages, we can still observe that Tojol-ab'al displays certain similarities with Q'anjob'alan languages that it does not share with Tseltal. Tol-ab'al *-unej* is a retention of a proto-Mayan form **-Vnaq*. A reflex of this morpheme is also found in Q'anjob'al (*-naq*) and in Chuj (*-nak*), which has extended the use of *-nak* to transitives as well as intransitives. Note that the change of morpheme final /k/ to /j/ in Tojol-ab'al is irregular, but fairly common, particularly in grammatical morphemes. Tseltal and Tzotzil are innovative in using a reflex of the Common Mayan transitive perfect suffix, *-em*, for the intransitive perfect (see chapter 5), and an innovative *-oj* for transitive perfects.

6.4.2.4.5 Irrealis and Imperative

While the perfect in Tojol-ab'al is a retention shared with Chuj, the modal suffixes for marking the irrealis as well as the imperative, to a lesser degree, both show innovative characteristics of use and form that are shared with Tseltal and Tzotzil. The proto-Mayan intransitive imperative **-aŋ* (sg.) and **-aŋ-ek* (pl.) is, for the most part, preserved in all of the languages here, with the one caveat that Tojol-ab'al follows Tseltal

and Tzotzil in having a high vowel *-ik* for the plural, rather than *-ek* (see the section on plurals above for more discussion).

The optative of Tojol-ab'al, however, in its form, its distribution of use, and in an irregular fact of its paradigm that is related to the imperative, shows strong similarities with Tseltalan. The first thing to note is that, as mentioned above, Tojol-ab'al manifests the same distinctive mutation of the proto-Mayan optative/irrealis suffix **-oq* in the form *-uk*. This is in spite of the fact that the preposed derivative of this suffix, used to mark the future, displays the conservative low vowel *oj-*, a feature that Tojol-ab'al shares with Chuj and the other Q'anjob'alan languages.

Even more interesting for our purposes, is the fact that the *-uk* optative suffix is not perfectly regular across the paradigm. As Robertson (1977: 111) notes, in Tseltal, Tzotzil, and Tojol-ab'al, the second person optative form is derived from the imperative, so that rather than the combination **-uk-a* (toj), **-uk-at* (tse), or **-uk-ot* (tzo), we get *-an*, and in place of their respective plural forms (**-uk-ex* [toj and tse], **-uk-oxuk* [tzo]), we find *-an-ik*. This irregularity in the paradigm is likely to be rather unstable, and Polian (2004: 113) reports *-uk-at* for the Tseltal of Oxchuc. The fact that such a marked innovative irregularity is shared by these three languages is highly salient. These forms, as well as those for the perfect and imperative, are summarized in table 48, below.

	Q'anjob'al	Chuj	Tojol-ab'al	Tseltal	Tzotzil
PERFECT					
trans	<i>-b'il</i>	<i>-nak</i>	---	<i>-oj</i>	<i>-oj</i>
intrans	<i>-naq</i>	<i>-nak</i>	<i>-unej</i>	<i>-em</i>	<i>-em</i>
IRREALIS/OPTATIVE (1ST & 3RD PERSONS)	<i>-oq</i>	<i>-ok</i>	<i>-uk</i>	<i>-uk</i>	<i>-uk</i>
IRREALIS/OPTATIVE (+2ND PERSON)	<i>-oq</i>	<i>-ok</i>	<i>-an (pl. - anik)</i>	<i>-an (pl. - anik)⁷¹</i>	<i>-an (pl. anik)</i>
IMPERATIVE INTRANSITIVE	<i>-an (pl -an- eq)</i>	<i>-aŋ (pl. - aŋ-ek)</i>	<i>-an (pl. - anik)</i>	<i>-an (pl. - anik)</i>	<i>-an (pl. anik)</i>
IMPERATIVE TRANSITIVE	<i>a' ~ -V', -j</i>	<i>-a' ~ -ah/ -V' ~ - Vh⁷²</i>	<i>-an (pl. - anik)</i>	<i>-a (all persons; pl. -a(w)ik</i>	<i>-o (3rd abs) -Ø (1st & 2nd)</i>

Table 48. Perfect, Irrealis, Imperative and Interrogative.

Another significant aspect of the *-uk* suffix in Tojol-ab'al has to do with its syntactic and semantic functions. All of the languages under investigation here seem to use *-uk/-ok* both for irrealis/optative and to mark dependent clauses, however, the marking of dependent clauses is central in Q'anjob'alan, while the irrealis/optative function is more salient and productive in Tseltal, Tzotzil and Tojol-ab'al. In addition, while *-uk/-ok* is used in all of these languages to mark negation in non-verbal predicates, in Chuj, *-ok* marks negation in verbal predicates as well.

⁷¹ Kaufman (1971: 104) gives this as the form for Tseltal. Polian (2004: 113) has *-uk-at* as well. It may be that the more transparent form *-uk-at* is a recent innovation in the Tseltal of Oxchuc, described by Polian, the result of regularization of an irregular paradigm.

⁷² The vowel used in the transitive category suffix depends on the vowel of the root: if unrounded, then /a/, if rounded, then it matches the vowel quality of the root (Maxwell 1982: 132).

6.4.2.5 *Category Suffixes*

Another noteworthy similarity between Tojol-ab'al and Chuj can be seen in several root category suffixes. There are three suffixes in particular to note here: a positional 'adjective' or stative predicate suffix, and two root thematic or category suffixes, one for root transitives, and one for root intransitives. As will be seen, Tojol-ab'al looks like Chuj and Q'anjob'alan in all three cases.

The root category of positionals common to all Mayan languages generally cannot be expressed without some sort of suffix; the precise suffix depends on the semantic and morpho-syntactic context of the form. One common form for positionals to take is what has been referred to as 'positional adjectives' but are now understood, in most Mayan languages, to be stative predicate forms, which often predicate upon, or in a sense 'modify', one of the arguments of a main predicate (a situation known as 'secondary predication', see Aissen and Zavala 2010). The stative predicate suffix for positionals in the Q'anjob'alan languages and Tojol-ab'al is *-an*. In Tseltal and Tzotzil, as well as the Cholan and Yukatekan languages, it is a vowel-harmonic *-V₁l* suffix. Given this distribution, it seems reasonable to suppose that the state of affairs in proto-Mayan was similar to what we find in K'iche' (López Ixcoy 1997: 201), where positional roots take *-V₁l*, unless the root has /l/ or /r/, in which case the root takes *-an*. If this is the case, then both the Tseltalan (and broader Lowland) and the Q'anjob'alan state of affairs are innovative. Tojol-ab'al clearly patterns with Chuj and Q'anjob'alan in this respect.

The other two category type suffixes that Tojol-ab'al shares with Q'anjob'alan are more clearly retentions of proto-Mayan forms. These are the intransitive category suffix,

which affixes to intransitive roots, and in some languages intransitive verbs in general, in all contexts that don't call for some other suffix (i.e. perfect aspect, optative or imperative mood, non-third person, in languages that suffix the set B person markers) and the transitive category suffix, which is parallel in distribution to the intransitive category suffix, but occurs on transitive verbs (one form for CVC root transitives, and another for non-CVC/derived transitives). In Tojol-ab'al, Chuj, and the other Q'anjob'alan languages (and many others) the intransitive category suffix is *-i* (from proto-Mayan **-ik*), while the transitive category suffix in these languages is *-a* (toj), *-a'* (chu, q'an; vowel harmonic *-V_i'*, if the root vowel is rounded) for CVC roots, and *-Vj* or *-j* for non-CVC ones. The proto-Mayan form of the root transitive category suffix was most likely a root-vowel harmonic vowel, so that the use of /a/ across the board in Tojol-ab'al, and with unrounded vowels in Chuj and Q'anjob'al is innovative. There is also minor variation with respect to the contexts in which these suffixes occur, but in general, they occur phrase-finally, except in certain contexts noted for Tojol-ab'al.

The contrast with Tseltal and Tzotzil with respect to these markers is obvious, since in both of these languages, both the transitive and intransitive status markers were entirely lost, an innovation clearly not shared with Tojol-ab'al. See table 49, below, for a summary of these status markers in the various languages.

	Q'anjob'al	Chuj	Tojol-ab'al	Tseltal	Tzotzil
Positional Pred	<i>-an</i>	<i>-an</i>	<i>-an</i>	<i>-V₁l</i>	<i>V₁l</i>
Intransitive	<i>-i</i>	<i>-i</i>	<i>-i</i>	<i>none</i>	<i>none</i>
Category Suffix					
Transitive	<i>a' ~ -V'</i> ,	<i>-a' ~ -ah/</i>	<i>-a(w), -aj</i>	<i>none</i>	<i>none</i>
Category Suffix	<i>-j</i>	<i>-V' ~ -Vh⁷³</i>			
Category suffixes	<i>yes</i>	<i>yes</i>	<i>yes and no⁷⁴</i>	<i>--</i>	<i>--</i>
Phrase final?					

Table 49. Category and Root Class suffixes

6.4.2.6 Voice

The system of voice, in general, seems to show a greater connection between Tojol-ab'al and Chuj than what we've seen in other aspects of the inflectional morphology of these languages (table 50).

	Q'anjob'al	Chuj	Tojol-ab'al	Tseltal	Tzotzil
Passive					
root	<i>-lay</i>	<i>-aj</i>	<i>-j</i>	<i>-ot</i>	<i>-e</i>
derived	<i>-lay</i>	<i>-ax</i>	<i>-j</i>	<i>-ot</i>	<i>-at</i>
Mediopassive	<i>---</i>	<i>---</i>	<i>-x</i>	<i>-j-</i>	<i>Ø</i>
Other Passive	<i>-chaj</i>	<i>-chaj</i>	<i>---</i>	<i>ich' (aux)</i>	<i>chi' (aux)</i>
Antipassive	<i>-waj</i>	<i>-waj</i>	<i>-wan</i>	<i>-wan</i>	<i>-van</i>

Table 50. Voice

The passive in both of these languages is indicated with an *-(a)j* suffix. The main differences with respect to passive voice is that the *-(a)x* form is used on derived

⁷³ The vowel used in the transitive category suffix depends on the vowel of the root: if unrounded, then /a/, if rounded, then it agrees matches the vowel quality of the root (Maxwell 1982: 132).

⁷⁴ Yes, in 3rd person and with CVC roots; no in 1&2nd, and with CVCC roots.

transitives in Chuj, whereas that same form has a mediopassive function in Tojol-ab'al; the *-j* passive in Tojol-ab'al has been extended to inflect both root and derived transitives.

But even in the voice system, Tseltalan influence is not entirely absent. While all of the antipassive forms listed here are cognate to a degree, Tojol-ab'al, Tseltal and Tzotzil all display an innovative form *-wan*, historically created as a combination of the two Common Mayan antipassive suffixes **(V)w* and **-Vn*. The antipassive form *-waj* in both Chuj and Q'anjob'al is likely a reflex of the **(V)w* antipassive.

Note in the table above that a **-Vn* antipassive form is not the productive antipassive in any of the languages here, at least in the grammatical function that Smith Stark (1978) called the 'absolute antipassive', in which the verb is made intransitive and the remaining overt argument is the semantic agent of the verb, while the semantic patient not specified. This does not mean that the **-Vn* suffix can not be found in any of these languages. In fact, as Robertson (1977: 112) notes, Chuj and other Q'anjob'alan languages make particularly productive use of this suffix in a large range of contexts, including cases in which the agent of a transitive verb has been moved to focus position (as also happens with content questions, and often in negation), when a transitive verb phrase is relativized and the agent of this relative clause is the same as the noun phrase that the relative clause modifies, or, in the Q'anjob'al languages at least, in any transitive complement clause where the agent of the complement is correferential with the agent of the main clause.

(transitive agent)	Q'anjob'al	Chuj	Tojol-ab'al	Tseltal	Tzotzil
Agent Focused	-on-i	-an-i	unmarked	unmarked	unmarked
Relative Clause	-on-i	-an-i	unmarked	unmarked	unmarked ⁷⁵
Complement Clause	-on-i	-an-i	unmarked	unmarked	unmarked

Table 51. Comparison of Contexts for -Vn Antipassive Suffix.

Tseltalan and Tojol-ab'al, like the Cholan and Yukatekan languages mentioned in chapter 3, however, do not have any sort of distinctive marking for focused agents or relative clauses, and certainly show no signs of the innovative use of this suffix in complement clauses generally. Once again, it seems this similarity between Tojol-ab'al and the Tseltalan languages is a consequence of larger patterns of linguistic diffusion.

6.4.2.7 Prepositions

Mayan languages generally have a small set of prepositions (in many cases only one), while most locative and relational meaning are expressed with relational nouns, which are functionally equivalent to prepositions in English, but morphologically like possessed noun phrases. Tojol-ab'al has two prepositions, the general preposition *b'a* and the comitative preposition *sok*. The general preposition is not cognate with prepositions in Chuj, but it is related to the benefactive/locative preposition in Q'anjob'al, *b'ay*, which is a Q'anjob'alan innovation.

Tojol-ab'al (Curiel 2007: 57)

(1) [kan- \emptyset -ta lap-an **b'a** bigro **b'a** y-olom ja= ts'i' =i]

⁷⁵ Robertson (1977: 112) says that Tzotzil uses an *-on* suffix in certain relative clauses in the dialect of Zinacantan, but not in Chamula, Haviland (1988: 342-360) does not show any examples of the use of the *-on* suffix in this context. This may indicate that it can be optionally used in Zinacantan

quedarse-B3-ya puesto.ropa-POS PREP vidrio PREP A3-cabeza DET= perro =TOP
 ‘El perro se quedó atorado dentro del frasco al nivel de su cabeza’

Q’anjob’al (Mateo Toledo 2008: 60)

- (2) *Max-∅ w-aq’ te on b’ay cham winaq.*
 COM-A3S E1S-give CL avocado PRE CL man
 ‘I gave the avocado to the old man.’

The other preposition in Tojol-ab’al, however, is shared uniquely with Tseltal.

This is the comitative preposition *sok*, which is almost certainly a frozen form of what was formerly a relational noun with a third person possessive prefix (*s-* in both Tojol-ab’al and Tseltal). In fact, the only contexts in which it occurs could be analyzed as third person. Polian (2004: 54) proposes a Tseltalan etymology for this form based on the tseltalan root **joy* to accompany and the optative suffix *-uk*: **s-joy-uk > sok* (cf Kaufman 1971: 118). It is also possible that it derives from the root *-mok* (*s-mok > sok*), since in Tojol-ab’al, the form *s-mok* varies with *sok*, and in non-third persons *-mok*, with a possessive prefix, is the form of the comitative for first and second person.

Tojol-ab’al (Curiel 2007: 83, 54)

- (3) *[yaj =ni nupan-y-on sok jun sapatista ja= k-e’n =i] [lek lek wan-∅ ‘ek’-el k-uj]*
 cuando/porque =ENF casarse-VI-B1 con uno zapatista DET= A3-PRON =TOP bien bien
 ICP-B3 pasar-NF A1-AGEN
 ‘Como me casé con una zapatista yo, bien bien la estoy pasando’

- (4) *[te’y-a j-mok-tikon =a]*
 DEM+EXT-B2 A1-con-1PL.EXCL =DIST
 ‘Aquí estás con nosotros’

Tseltal (Polian 2004: 53, my translation)

- (5) *Jich k’ax-∅ j-wokol-tik sok te j-me’*
 thus pass-B3 A1-suffering-PL with DET A1-mother
j-tat-tik namey
 A1-father-PL long.ago
 ‘Thus we suffered with our parents in the olden days.’

6.4.2.8 Negation

The system of negation is formally somewhat different in Tojol-ab'al than in other Mayan languages. It appears to have innovated by recruiting the interrogative/hypothetical mode particle *mi* to be the generic marker of negation. Both Tseltal and Chuj have reflexes of the Common Mayan negation **ma'* for most forms of negation. In addition, Chuj has a derived negative form for nonverbal predicates, *maŋ*. All three languages, also have a negative existential. Chuj has *ma'ay*; Tseltal has *mayuk*. Interestingly, Tojol-ab'al has two variants of this morpheme, one parallel to Chuj, *me'ey* (from **mi-'ay*), and one parallel to Tseltal, *meyuk* (from *mi-'ay-uk*). In this case, the form *ma'ay/me'ey* is the more conservative form, and *me'yuk/mayuk* is an innovative form derived from **ma'ay/me'ey* with the addition of the irrealis suffix *-uk*.

	Tseltal	Tzotzil	Tojol-ab'al	Chuj
Verbal	<i>ma</i>	<i>mu</i>	<i>mi</i>	<i>ma...-ok</i> ⁷⁶ (<i>-laj</i>)
Nonverbal	<i>ma...-uk</i>	<i>mu ...-uk</i>	<i>mi</i>	<i>maŋ ...-ok</i> (<i>-laj</i>)
Existential	<i>mayuk</i>	<i>mu'yuk,</i> <i>ch'abal</i>	<i>me'yuk, me'ey</i>	<i>ma'ay</i>
Imperative	<i>ma</i>	<i>mu</i>	<i>mok</i>	?

Table 52. Negation in Tseltal (Polian 2004:105, 210, 212), Tzotzil (Aissen 1987: 6, 12), Tojol-ab'al (Curiel 2007: 78), and Chuj (Maxwell 1982: 179).

6.4.3 Core Vocabulary

A final area that merits some comment is the extent of similarities apparent in the 'core vocabulary' of these languages. This is particularly important, as will be discussed later, since by some definitions one distinguishing feature of true mixed languages is that

⁷⁶ The suffix *-ok* does not appear when the verb is transitive. (Maxwell 1982: 178)

the bulk of their lexicon has one source, while the bulk of the grammatical forms and structures comes from another. Clearly, from the preceding review of the grammar of Tojol-ab'al, we would be hard pressed to identify a single source for it. In his investigation of the classification of Tojol-ab'al, Schumann (1981) compared the Swadesh 100 list of basic vocabulary for Tojol-ab'al, Chuj, Tseltal, and Tzotzil. The result was the following statistics:

- **Tojol-ab'al Basic Vocabulary** Schumann (1981: 160-161)
- Shared with Tseltal: 65%
- Shared with Tzotzil: 60%
- Shared with Chuj: 69%

Based on these statistics, Schumann concluded:

Resulta evidente que las aproximaciones léxicas se dan con mucha mayor frecuencia entre el tojolabal y el chuj, aunque sin llegar a ser tan manifiestas como lo son las del tzeltal en relación a las del tzotzil; de todas formas, las aproximaciones léxicas del tojolabal apuntan hacia el chuj y no hacia otra lengua de la familia maya.

While it is true that Chuj had a higher percentage of shared lexicon with Tojol-ab'al than Tzotzil and Tseltal do, it does not seem accurate to me to say that these shared lexical items "se dan con mucha mayor frecuencia entre el tojolabal y el chuj". What these statistics seem to show, to the contrary, is that the lexical similarities between Tojol-ab'al and Chuj, Tseltal and Tzotzil, are remarkably parallel, with Chuj only sharing four more terms from the basic word list than Tseltal does. The results are remarkably similar to those obtained from looking at similarities in the grammar.

My own simple comparison of the Swadesh 100 word list for Chuj, Tojol-ab'al and Tzotzil concords with Schumann's statistics, and allow us to manipulate the numbers to bring out additional detail. These results are summarized in table 53, below.

% no similarity	19.5 % (19)
% all three similar	48.4% (47)
% like Tzotzil and not Chuj	11.3% (11)
Total % similar between TZO and TOJ	59.7% (58)
% like Chuj and not Tzotzil	17.5% (17)
Total % similar between CHU and TOJ	65.9% (64)
% Chuj and Tzotzil same (but not TOJ)	3% (3)
Total Sample	100% (97)

Table 53. 100 Word List Comparison Chuj, Tzotzil and Tojol-ab'al

One thing that the lexical data show clearly is the complexity introduced by the fact that these languages are genetically related. Almost half (48.4%) of the items in the word list are shared by all three languages. Another noteworthy fact is that Chuj and Tzotzil are fairly similar with respect to the number of additional similarities each contributes. Chuj has more similarities with Tojol-ab'al in the basic vocabulary than does Tzotzil, but the difference (65.9% vs. 59.7%) is hard to interpret as anything like the prototypical massive relexification that is often associated with language mixing. Neither language is obviously the 'lexifier' language.

The fairly ambiguous and obviously mixed results of the analysis of basic vocabulary leads us to open once again the more theoretical question of how to determine if a language is 'mixed', and whether a mixed language is categorically different from cases of heavy, or even extremely heavy borrowing. The general sense is that there is something essentially different about mixed languages. Some even argue that this

difference is easily quantifiable. For example, in the introduction to the first edited volume dedicated entirely to mixed languages, Bakker and Mous (1994: 5) hypothesized that “extreme borrowing never exceeds roughly 45% of the lexicon, whereas in some the mixed languages discussed the proportion of ‘foreign’ lexical elements is closer to or over 90%”. They go on to note that “there do not seem to be languages with a proportion of borrowed items between 45% and 90%, so that there is no continuum between languages with heavy borrowing and mixed languages” (Bakker and Mous 1994: 5).

The Tojol-ab’al data are unclear on this point. If we include all similarity, and do not attempt to distinguish inheritance from possible borrowing, the figures (59.7% and 65.9%) fall firmly in this ‘no man’s land’ between 45% and 90%. If we exclude the similarities shared by all three, the numbers (11.3% and 17.5%) barely qualify as heavy borrowing, and if we exclude from these numbers lexical items that are likely retentions from Common Mayan, the numbers drop even further. Only three of the eleven similarities shared by Tzotzil and Tojol-ab’al, but not Chuj, are clearly innovative forms and only seven of the seventeen forms that Chuj and Tojol-ab’al share are innovative.⁷⁷

The claim that the difference between language mixing and heavy borrowing is one of kind, and not a matter of a continuum has been questioned elsewhere (Stolz 2003). The Tojol-ab’al data do not provide a direct refutation of this claim, but they do problematize the validity of such lexical statistics as a definitional criterion for mixed languages. Because the criterion cannot readily apply to related languages, as the Tojol-

⁷⁷ A comparison of non-core vocabulary in different semantic domains might be particularly revealing in terms of the historical and social connections that Tojol-ab’al has with other Mayan languages.

ab'al data have shown, we are forced either to accept genetic unrelatedness as another defining requirement of mixed languages, in my view an unacceptable proposition, or seek other means for defining mixed languages as a distinct category.

6.5 HISTORICAL CONTEXT OF TOJOL-AB'AL

In order to help evaluate and correctly interpret the conflicting and confusing historical linguistic data of Tojol-ab'al, it would be valuable to have clear non-linguistic evidence regarding the history of the Tojol-ab'al people. Unfortunately, the available historical and ethnographic record tapers off into the murkiness of conjecture relatively quickly. The problem is exacerbated by the lack of a consistent name for the language or apparently the speakers of that language. The earliest secure linguistic material written in the Tojol-ab'al language, dating to 1775, refers to the language as Chanabal. This source is a liturgical and confessional text written by the Dominican friar Domingo Paz titled *Confesionario y Doctrina Christiana en lengua Chanabal de Comitán y Tachinulla en las Chiapas* (Published in Ruz 1989: 33-73, along with a 'chanabal' confessionary from 1813). Here we have a good example of the confusion surrounding language names in Chiapas, since within this manuscript 'en lengua Chanabal', we have texts in Tojol-ab'al (from Comitán), Mocho' (from Tachinulla), and (the now extinct) Cotoque, or Chicomuseltek. Clearly the author of these texts was aware that they were different languages, but precision in use of language names does not seem to have been particularly important.

Tojol-ab'al is also referred to in the later Colonial literature as Chaneabal, Chañabal, Trokek, Casdal, Jojlabal, Jocolabal (Campbell 1988: 153), or Comiteco, after the municipal head where it was reported to be spoken, Comitán. Nearly a century prior to the writing of the Chanabal manuscript, in the year 1686, Fray Matías Martínez was granted license to preach in the Chañabal language, which presupposes its existence in the region (Contreras Garcia 2001: 83). Assuming this is the same Chanabal of Fray Paz' confessional, we can trace a Tojol-ab'al presence in Chiapas to at least to the middle of the 17th century. However, going much earlier than that, we run into a great deal of disagreement about the Tojol-ab'al.

At the heart of the disagreement about the Tojol-ab'al in the 16th century, that is to say, around the time of the Spanish conquest, is the debate about the ethnolinguistic label *Coxoh*. Some have proposed that this label refers to a dialect of Tseltal (Campbell and Gardner 1988) while others have argued that it is another name for Tojol-ab'al (Vivó 1942: 129, C. Lenkersdorf 1979, G. Lenkersdorf 1986)⁷⁸.

This is significant for the Colonial history of Tojol-ab'al, since, in documents dating as early as 1586, we have mention of a language Coxoh that was spoken in the 'curates' of Comitán, Zapaluta (Trinitaria), Escuintenango, Coneta, Coapa and Aquespala. Since Comitán and Trinitaria are both Tojol-ab'al speaking today, this seems to agree relatively well with the modern distribution of Tojol-ab'al (though, cf Campbell and Gardner 1988: 319, who do not see it as similar). If the Coxoh were Tojol-ab'al

⁷⁸ Feldman (1972: 57) even proposed that Coxoh might have been a variant of Mocho (Cabil).

speakers, then their history is rather straightforward (see G. Lenkersdorf 1986: 46-47); at least as far back as the Conquest, they have remained in approximately the same region but were first called Coxoh, then Chanabal, then Tojol-ab'al.⁷⁹

If the Coxoh were not the Tojol-ab'al, the question remains: where were the Tojol-ab'al during the first century and a half of the Spanish conquest? One proposal (Ruz 1981: 43; Contreras Garcia 2001: 83) is that, upon the arrival of the Spaniards, the Tojol-ab'al, like other indigenous groups in the region, including, for example the Manché and Lacandon Chol, fled into the jungles and mountains and stayed there, either under the radar of the Spanish, so to speak, or else simply folded into the larger group of 'wild Indians', of various ethnicities, that were all simply called 'lacandones'. Sometime in the mid 17th century (prior to the 1686 mention of Chanabal), they would have come out of the mountains and yielded to Spanish rule. If this is the case, there is no historical record of it, in spite of the fact that such an event would have been considered quite a coup by the Spanish missionaries, who were constantly trying to get the rebel Indians out of the jungles and mountains and into easily controlled towns.

Another possibility is that the Tojol-ab'al (Chanabal) were originally from near the Chuj region in Guatemala, and that they did not migrate to Chiapas until the mid 17th century. However, such a large scale migration into the heart of a region already under

⁷⁹ One difficulty with this is the fact that Chanabal and Coxoh are mentioned in Colonial sources as separate languages or groups. However, Coxoh and Tseltal are also mentioned in some sources as being separate. Unfortunately this is typical of the use of language and ethnic group names by Colonial authors, many of whom had no first hand knowledge of the region (G. Lenkersdorf 1986), making such seemingly clear distinctions between languages less helpful than one might imagine.

the control of the Spanish seems unlikely to go without mention by contemporary missionaries and historians. This hypothesis, however, brings us to another important question about the history of the Tojol-ab'al. Whether it happened before or after the Spanish conquest, the striking similarities between Tojol-ab'al and Chuj make it clear that these languages have extensive shared history. Whether this was in the form of Tseltalan language speakers interacting with Chuj, or in the form of speakers of a Chujean language engaging in intensive interaction with speakers of Tseltal (ultimately, the question of genetic affiliation), a historical connection with Chuj speakers is unavoidably necessary to explain the form of the language.

Campbell and Gardner (1988), and, in the same volume on the linguistics of Southeastern Chiapas, Adams (1988), describe striking ethnographic evidence of the same historical connection implied by the linguistic structure of Tojol-ab'al. Traditionally (though it is unclear if this tradition continues today) the Tojol-ab'al participated in a yearly pilgrimage to certain salt water springs near San Mateo Ixtatán, in the department of Huehuetenango, Guatemala, a Chuj speaking region four days journey from Trinitaria, the starting point of the *romería*. According to some Chuj traditions, the Tojol-ab'ales used to live near Ixtatán, and attempted to take over the salt mines in that area. The Chuj are said to have used the help of cougars to scare the Tojol-ab'ales away (Campbell 1988: 160-161).

A historical connection with the Tseltal is also apparent in this pilgrimage, however, because the pilgrimage is traditionally led by Tseltal speakers, who must lead the group because the necessary prayers for the journey are all in Tseltal (Adams 1988:

184). To further confuse the matter, the same group of Tojol-ab'al, again led by Tseltal *rezadores*, engages in another yearly pilgrimage to Oxchuc, in the heart of Tseltal country, a three day journey from Trinitaria. Clearly, the ethnographic description of these religious practices, like the language itself, is a testament to a history of strong connections with both the Chuj and the Tseltal.

The above mentioned explanation of the Chuj/Tojol-ab'al relationship provides anecdotal evidence that the Tojol-ab'al migrated at some point, most likely some time prior to the Conquest, from the Chuj region. This would be consistent with a scenario in which a group of Chujean speakers left their homeland and moved among the Tseltal. However, it is important to emphasize that even if we accept the scenario in which a group of Chuj or Chujean speaking people migrated into what had been Tseltal speaking region and established strong ties with them, the question of the genetic affiliation of Tojol-ab'al does not go away. The metaphor of genetic descent in language cannot erase the fact that language is not, in any sense, genetic. We could just as easily speak of a group of Chuj speakers shifting to Tseltal, but making it a Tseltal full of Chujean features⁸⁰, as we could a group of Chuj speakers maintaining their language, but replacing large portions of the inflectional morphology, syntax, and lexicon with features from Tseltal.

⁸⁰ In fact, this process is quite similar to the process of 'relexification' proposed by Muysken (1981) for the formation of the mixed language Media Lengua. Relexification involves a shift to a new language and then a subsequent replacement of much of the lexicon with items from the older language.

6.6 TOJOL-AB'AL IN THE CONTEXT OF LOWLAND LANGUAGE CONTACT PHENOMENA

Campbell (1988: 154), in a discussion of the genetic classification of Tojol-ab'al, offers his "intuitive judgement" that Tojol-ab'al is more appropriately placed with Chuj than with Tzeltal-Tzotzil. He favors this, he says, because "the similarities shared with Tzeltal-Tzotzil seem more easily explicable as borrowings, due to diffusion, while the similarities shared with Chuj and other Kanjobalan languages seem much more arbitrary, interrelated, and less likely to be due to contact." He goes on to argue that "Tojolabal (as well as Tzeltal-Tzotzil) received much influence from Cholan, the principle language of the Classic Maya civilization." This mutual influence from a single prestige language may, he argues, account for many of the similarities between the languages.

While the particulars of Campbell's statements are not quite accurate, and, as he himself recognizes, he offers no data or solid evidence for his assertion, I would argue that he was on the right track to look to language contact and areal diffusion to sort out the influence from Tzeltal and Tzotzil versus the influence from Chuj. While this perspective may not ultimately be able to conclusively answer the question of Tojol-ab'al's classification, it does prove illuminating for understanding the processes of change that we might hypothesize for Tojol-ab'al. Specifically, I think it shows that the contact-induced changes in Tojol-ab'al are best understood as a local reflection of the larger scale patterns of language contact, many of which have been described in this dissertation. Not less than five areally diffused phonological changes have made Tojol-ab'al phonology more similar to Tzeltal and Tzotzil, as well as other Lowland and non-Lowland languages, one of which (the merging of *ŋ* and *n*) made Tojol-ab'al different

from Chuj. At least one Lowland sound change, the introduction of the new contrastive sound *p'*, made Tojol-ab'al less like Tseltal and Tzotzil, since these languages participated in that areally spread innovation, while Tojol-ab'al did not. Of the 22 grammatical features surveyed above that are shared by Tojol-ab'al and Tseltal and not Chuj, eight are features that are shared with other (Lowland) languages as well, demonstrably because of contact after the breakup of their common language. Two of the innovations that Tojol-ab'al shares with Chuj (the progressive auxiliary *wan*, and the use of the nominal plural *-e'* for humans) are also likely areally diffused innovations that have impacted much more than just Tojol-ab'al and Chuj, though more careful study of the highland Huehuetenango sphere of influence would undoubtedly uncover more.

What all of this shows is that a large part of the remarkable amount of similarity, particularly between Tojol-ab'al and Tseltal/Tzotzil, is attributable to the effects of intensive contact with the Lowland Mayan sphere of linguistic interaction. This brings us back to the question of linguistic areas and areal diffusion in general, discussed in chapter 3. It is highly unlikely that all of these areal features were spread through the region simultaneously; in some cases, this is necessarily not the case. But is it possible, in the case of Tojol-ab'al, to imagine an abrupt adoption of the many features that had already been shared through contact elsewhere because of contact with Tseltal? Or, is the present state of Tojol-ab'al the result, as it must certainly be with other Lowland languages, of the gradual accretion of more and more linguistic features from the Lowland Mayan sphere of linguistic interaction?

6.7 COMPARTMENTALIZATION

The hypothesis that mixed languages are in some way categorically different from other consequences of language contact remains to be considered. As mentioned earlier, one proposed distinctive feature of mixed languages, in terms of the actual observable form of the language, is that the etymological source, the ‘donor language’ for linguistic matter, tends to vary according to linguistic subsystems. The most common realization of this compartmentalization of linguistic sources is the grammar-lexicon divide. Matras and Bakker (2003: 14) note that “[mixed languages] tend to show a split between the source language of much of the grammar and that of much of the lexicon” (see also Golovko 1994). This split can be seen in *Media Lengua* (Muysken 1981) and *Ma’a* (Thomason and Kaufman 1988), among others. However, other patterns exist, such as the division between Cree verbs and verbal inflections and French nouns and noun morphology in the mixed language *Michif* (Bakker 1997), or Russian finite verb morphology and Aleut nominal and non-finite verb morphology in *Mednyj Aleut* (Thomason and Kaufman 1988: 234).

In *Tojol-ab’al*, however, there does not appear to be a handy division in terms of one grammatical subsystem or another. Rather, *Tojol-ab’al* seems to display a general mixture of features at every level that I have investigated here. It seems wrong-headed to remove a language from the category of ‘Mixed Languages’ because it is too mixed. Bakker (2003: 123) cites work by Wurm (1976, 1978, 1992) on several languages of the Reef Islands and Santa Cruz that share Papuan and Austronesian elements as examples of “languages that are mixed at all possible levels”. Such references as these, while

deserving further investigation, suggest that Tojol-ab'al may not be the only language with this sort of non-compartmentalized mixture.

6.9 PROCESSES

The question of whether or not Tojol-ab'al can be labeled a mixed language should not distract attention from the underlying question that gives importance to the label: Are the historical processes that led to the current state of the Tojol-ab'al language clearly different from those that led to the formation of other 'mixed languages', or conversely, to the processes of language change in 'normal' transmission? The processes through which mixed languages are formed have received a great deal of attention in the literature. For example, scholars have debated the role of code-switching in the creation of mixed languages (Myers-Scotton 2002, 2003; Auer 1999), and the role that intermarriage between speakers of each language may play in the creation of mixed languages (Bakker 1997). Here I will focus on two processes discussed in the literature as typical of mixed languages, and consider their role in understanding the nature of mixed languages from the perspective of Tojol-ab'al.

The first of these is that mixed languages involve a rupture through which normal transmission of language does not occur and, consequently, the standard model of genetic inheritance cannot apply. It is simply impossible to determine which of the source languages should qualify as the genetic progenitor of the language (Thomason and Kaufman 1988, Thomason 1997). For this reason, a central aspect of most definitions of mixed languages is that they are "[language] varieties that emerged in situations of

community bilingualism, and whose structures show an etymological split that is not marginal, but dominant, so that it is difficult to define the variety's linguistic parentage as involving just one ancestor language." (Matras and Bakker 2003: 1).

The history of scholarship on Tojol-ab'al reflects the fact that it has been difficult to define its linguistic parentage. Attention to the similarities it shares with potential sister languages does not suggest a clear and unambiguous genetic affiliation. This would argue in favor of categorizing Tojol-ab'al as a mixed language. However, as mentioned earlier, several of the similarities that Tojol-ab'al shares with Tseltalan, with respect to its phonology and particularly its system of person marking, involve features, and in some cases actual morphological forms, that were shared through language contact with other languages in the Lowland Mayan sphere of influence as well (See chapters 3, 4 and 5, as well as Law 2009, Law et al 2006, and Justeson et al 1985). The fact that many similarities in phonology and person marking can be shown to derive from language contact rather than inheritance in other languages in the area not only provides a possible logic for grouping Tojol-ab'al with Chuj rather than Tseltalan, but also puts a different perspective on the processes through which Tojol-ab'al acquired its present form. From the point of view of language contact in the Mayan region more broadly, Tojol-ab'al does not look categorically different from other participating languages, but rather looks to be on the extreme end of a continuum of consequences of linguistic contact, many stages of which can be exemplified by different languages in the area.

Another process that has been connected to the creation of mixed languages is the use of language to perform 'acts of identity' (LePage and Tabouret-Keller 1985, Croft

2003). It has been argued by several language contact scholars (Thomason 1999, 2001; Matras 2000; Golovko 2003) that mixed languages are motivated by the conscious desire to express a new ‘hybrid’ group identity. The claim is that mixed languages surface in contexts in which a ‘hybrid’ group, involving individuals from different backgrounds feel the need to distance themselves from their social and linguistic antecedents, so to speak, and create, following Bakker’s (1997) phrasing ‘a language of their own’. Thus mixed languages are seen by many language contact scholars as a consciously engineered code created as an emblem of a new identity. The emphasis placed on language mixing as a conscious choice is useful for explaining, at least in part, the cross-linguistically unusual forms that are borrowed, and the fact that normally fairly robust constraints against certain types of language mixing are apparently lifted for mixed languages.

While the social context which gave rise to Tojol-ab’al is shrouded in the past, it is would be reasonable to suppose that identity could have played a role in the evolution of the Tojol-ab’al language. Even today, Tojol-ab’al maintains close cultural ties with both Tseltalan and Chuj communities, though the degree of linguistic ‘mixing’ suggests that these ties might have been somewhat stronger in the past. However, there seems to be no reason to highlight this process of identity formation to the creation of mixed languages. Law (2009), for example, suggests that such ‘acts of identity’ provide a possible social motivation for the widespread borrowing of bound person markers by several different languages in the Maya Lowlands, in addition to Tojol-ab’al. As with the more extreme case of mixed languages, the consequence of the conscious use of linguistic forms as badges of identity is that the linguistic forms themselves can be more

consciously manipulated, and therefore overcome normal, unconscious constraints against mixing language in certain ways.

While the claim that other types of language contact phenomena are also motivated or facilitated by processes of identity construction is not in itself very controversial, the often unstated implication of this fact is that, once again, the difference between mixed languages, at least those like Tojol-ab'al, and other languages with more minor patterns of borrowing, is one of degree not kind. Similar processes are at work, but the intensity of the processes varies along a continuum.

6.10 CONCLUSION

Is Tojol-ab'al a mixed language? The grab bag mixture of elements apparently from different branches of the Mayan language family seems to argue in favor of such a label. The real answer, however, depends crucially on what a mixed language is. In fact, under several prominent definitional criteria in the literature, Tojol-ab'al does not fit the 'structural prototype' (Matras 2004) of a mixed language: It is not neatly compartmentalized according to the etymological source of linguistic material in different linguistic subsystems, and, at least arguably, we can trace all of its linguistic subsystems back to a common source (i.e. proto-Mayan), if broader patterns of language contact in the region are taken into consideration. However, I would argue that languages like Tojol-ab'al, invite us to reconsider current definitions of mixed languages. The typologies proposed for mixed languages to date have largely ignored mixing between related languages, as well as, for the most part, languages in known *sprachbund*. These

more complex situations, like that of Tojol-ab'al, are precisely the contexts in which the tidy typologies proposed to date would be most likely to break down. Perhaps language mixing can be more productively analyzed, as suggested by Stolz (2003) as a continuum, rather than a series of discrete categories. The remarkable outcome of language contact in Tojol-ab'al is only remarkable in its degree. In kind, it is very much like the several other Mayan languages in the Lowland Mayan sphere of linguistic influence.

Chapter 7: Conclusions

The details of Mayan linguistic history that have been presented in the previous chapters paint a picture of a remarkably dynamic and diverse sphere of linguistic influence that has had a lasting impact, to varying degrees and in different ways, on the form of more than a dozen different Mayan languages. I have identified features shared through contact among two or more languages in the Lowlands that range from diffused phonological innovations (phonemic mergers, sound changes and even new phonemic contrasts), to syntactic and semantic patterns (the loss of the agent focus antipassive, the development of an inclusive/exclusive distinction in person marking, aspect-based split ergativity, etc.), to the direct replication of actual morphological forms, linguistic ‘matter’ (several person markers, voice and aspect suffixes, auxiliaries, plural markers, numeral classifiers, etc.). By many metrics, the level of contact-induced language change in and around the Maya Lowlands is extremely high and cross-linguistically highly unusual.

This remarkable amount of contact-induced language change should not, however, be taken to indicate a unitary, coherent linguistic area. As discussed particularly in chapter 3, if we look in closer detail at the distribution of individual contact

phenomena, we find that each linguistic feature has its own unique distribution and history. The adoption of Lowland-type split ergativity, for example, only affected Cholti slightly, and did not affect Tseltal and Tzotzil. The neutralizing of the plural meaning of the archaic first person plural, on the other hand, did affect Tseltal and Tzotzil, along with Chol and Chontal, but did not touch the Eastern Cholan languages Cholti and Chorti. The isoglosses for individual shared innovations are distinct but often overlapping. In spite of having a clear candidate for a regional cultural and linguistic superpower, the language of Classic inscriptions, we are hard-pressed to find a non-lexical contact-induced change that clearly correlates to the area of the Classic Maya civilization. And many of the most striking areally shared linguistic features (split ergativity, the several changes in the system of person marking mentioned above, the loss of the agent focus construction, the neutralizing of vowel length and the merging of /h/ and /j/, do not appear to have been present in the prestigious classic literary language. In order to really understand the ‘Lowland Mayan linguistic area’, we need to fracture the apparent historical and linguistic unity of the region and examine its underlying diversity.

But while emphasizing the diversity of histories etched in Mayan linguistic systems, it is important not to neglect the fact of long term historical unity. One of the defining aims of this study was to examine a group of genetically related languages that have been in contact for a very long time, as is, in fact, the norm for related languages. Inherited similarity has clearly played a very significant role in how language contact has played out in and around the Maya Lowlands. In chapter 5, for example, I argue that this

inherited similarity not only made the logistics of borrowing grammatical forms less complicated by allowing more straightforward interlingual equivalences, but also, in some cases, seems to have allowed different languages to respond to new forms in similar ways, a sort of contact-induced ‘drift’, triggered by contact, but proceeding along a path ‘prefigured’ by the (genetically shared) structures of the recipient languages. Such seems to have been the case with the development of the system of suffixes associated with aspect in all and only the Lowland languages that have both a *-VI* (and **-tahl* for positional) nominalized form and a pervasive ergative split in the incompletive aspect. Interestingly, the same sort of process can explain the parallel but likely independent development of a dual category in some Q’anjob’alan languages and Lakantun, as mentioned in chapter 4.

While much of the dissertation focused on large-scale areal patterns of language contact and change, Tojol-ab’al, discussed in detail in chapter 6, provides an interesting case study demonstrating how these regional patterns of language contact can affect a single language. The case of Tojol-ab’al brings to the fore questions of genetic classification, language mixing, and the limits of borrowing. Among the issues that Tojol-ab’al raises for languaging mixing is the question of defining mixed languages. Some of the heuristics for determining whether a language is ‘mixed’ or not, including the use of percentage statistics regarding source of vocabulary, simply cannot be reasonably applied to related languages. Tojol-ab’al may share 66% of its basic vocabulary with Chuj, but it shares 60% of its basic vocabulary with Tzotzil. Perhaps even more crucially, however, these statistics raise the question of processes of language

change. What difference does it make in terms of the ‘borrowability’ of basic vocabulary that nearly half of the basic vocabulary is already shared because of genetic relatedness? Can we truly speak of the same processes of contact-induced change in such cases, as opposed to instances of borrowing between languages with virtually no preexisting similarity?

Given the fact that it is very common for related languages to be in contact throughout the history of their development, one is led to wonder why the contact-induced changes found in the Maya Lowlands are not more common. Inherited structural similarity undoubtedly played a role in the massive contact-induced changes in the systems of person marking in Lowland Mayan languages, discussed in detail in chapter 4. Both prior linguistic convergence, and the retained genetic similarities in how person markers fit in to the grammar of the language allowed for a fairly straightforward substitution scenario.

However, ‘similarity’, as mentioned in chapter 1, is not independent of the observation of that similarity. Speakers of languages can notice similarity much like professional linguists do, but as with the linguist, how speakers categorize languages and linguistic features as ‘same’, ‘alike’, or ‘different’ is filtered through the ideological lens of the community to which the speaker (or linguist) belongs. To return to the example of Wallace’s (1983) work on pronoun borrowing in Indonesia, he argues that this type of borrowing is common in the region because of the highly lexicalized nature of person reference in Indonesia. This allows person markers to be borrowed by bilingual speakers much like simple lexical borrowings. Wallace goes on to report, however, that the

English forms *you* and *I* are among the forms borrowed in Southeast Asia because they are interpreted in the same ‘lexicalized’ way that Indonesian pronouns are. It is the identification of English *I* and *you* as ‘similar’ in this way, that appears to allow them to be borrowed. And that identification is not dependent upon an objective reality, but on a culturally mediated perception of that reality.

In Thomason and Kaufman’s terms, the Maya Lowlands clearly represents a situation of “intense contact”. But, this label, and the empirically based impressions that spawn it, beg the question: what exactly made this a situation of intense language contact? A comparative perspective on language contact suggests that factors such as degree of bi- or multilingualism, power relationships, or duration of contact, while clearly relevant, and perhaps even necessary, are not, of themselves, sufficient to explain the diversity of outcomes of language contact. In the Maya case, massive contact-induced convergence at all linguistic levels is inextricably linked to the inherited similarity between these languages. But what is central is not merely empirical and objective measures of similarity, but how that similarity is understood and addressed by speakers of the languages. Not only can linguistic similarity decrease the need for structural accommodation of loans and facilitate the establishment of inter-lingual equivalences; on a social level, it can also be taken as symbolic of a shared cultural identity or a common history, which can, in turn, drastically affect the processes of change induced by language contact. I make this case explicitly in terms of the borrowing of person markers, described in chapter 4, but one can also make the case that such ideological factors were

at play in many of the other contact-induced changes, including the expansion of the numeral classifier system, discussed in chapter 3.

What this observation suggests, in terms of language contact typologies, is that how people understand similarity and difference in language can have a drastic effect on what they do with language. Given the globalized and globalizing context in which current research on language contact is being done, it is important to recognize that a globally significant tendency may be an artifact of a global history of colonization. We may legitimately ask, for example, if cases like the Maya Lowlands indeed represent social factors “overcoming resistance to interference at all levels”, or has the global reach of a particular Colonial ideology created widespread resistance that may not have been there previously? As discussed in chapter 1, the European nationalist ideology of a language, as an independent, self sustaining linguistic system, being a natural aspect of particular ‘types’ of people (ethnicities, races, nations) has been particularly influential in the global linguistic scene (Errington 2001, 2008). In situations, typical of the post-Colonial world, in which a person’s language, as a whole (i.e. not just the way they speak) is a defining characteristic of that individual’s group (ethnic, political, racial, regional, class) identity, individual linguistic elements, such as person markers, often seem to be emblematic of both a group and a language. From this perspective, employing a linguistic element outside of its original linguistic matrix is a negation of the implicit metonym of a linguistic form as the whole language, and the whole language as a whole people.

When language as a whole is not central to one's group identity, as I argue was the case for the Maya Lowlands prior to the conquest (see chapter 4 for more discussion), individual linguistic elements can (and inevitably will) still be used strategically for expressing identity, but, in multilingual contexts, they can in theory be untethered from a specific language and employed in new contexts as an expression of one's group affiliation. By the same logic, many other linguistic features could be taken up as 'badges of identity' or a group, and, without the ideological impediment of linguistic boundaries could be free to circulate more broadly.

Over the course of this dissertation, I hope I have persuasively made the case that pervasive preexisting similarity, such as that found between genetically related languages, can have a profound impact on processes of language contact in several ways. Accordingly, the study of language contact between related languages, in a variety of social and historical contexts, deserves serious attention. Similarity can facilitate mechanisms of contact-induced change, and be drawn on socially in the expression of identity. At the same time, similarity is, in many ways, socially constructed, so that in order to truly understand the consequences of similarity in language contact, we must make a concerted effort to understand how that similarity was imagined in the social surround in which language contact took place.

Appendix: Lowland and Greater Lowland Mayan Lexical Items

While the focus of this dissertation is on non-lexical contact phenomena in the Maya lowlands, it seems appropriate to include those lexical borrowings that have been identified as relevant to the Lowland Mayan sphere of linguistic interaction. The following is a compiled list of Lowland and Greater Lowland Mayan lexical items noted by Justeson et al (1985) and, particularly, culled from Kaufman's (2003) Mayan etymological dictionary. The forms given are those reconstructed by the authors of the sources from which these forms were taken. They represent the hypothetical form of the loanwords at the time at which the loan is assumed to have been borrowed. "Lowland Lexemes" are defined as lexical items unique to one or more Cholan and one or more Yucatekan language. "Lowland Unusual Cases" are ones that have a slightly larger distribution than the standard definition of "Lowland Languages" would allow, but for which there is still reason to see the sharing between Yucatekan and Cholan as a borrowing. "Greater Lowland Lexemes" are words that are shared exclusively by Cholan-Tzeltalan and Yucatekan languages. "Greater Lowland Unusual Cases" are those that do not fit this profile, but in otherwise seem to be connected with the Greater Lowland

sphere of linguistic interaction. See chapter 3 for a brief discussion of loanwords in the context of the Lowland Mayan language area.

LOWLAND LEXEMES

- 1) LL *7ixik < **7ix.oq ‘woman’ [Yuk, Lak, EpM, Chr, Cht, Chl, Chj]
- 2) LL *saku7n ‘same sex elder sibling’ [Itz, Mop, EpM, Chr]
- 3) LL *ja7an ‘son-in-law’ [Yuk, Itz, Mop, Chr, Chl]
- 4) LL *k’ahti ‘ask’ [Itz, Mop, Chr]
- 5) LL *yal ‘throw’ [Yuk, Chr, Chl, Tze]
- 6) LL *weky’ [Yuk, Itz, Chl, Yok, Chr]
- 7) LL *ka7n.(e)s(a) ‘to teach’ [Yuk, Itz, Mop, Chr, Cht] from pM *kan ‘to learn’
- 8) LL *sub’al ‘shame’ [Chr]
- 9) LL *sub’l.aak ‘shame’ [Itz, Mop]
- 10) LL *7ooj-eel ‘to know’ [Yuk, Lak, Chl, Yok]
- 11) LL *7ub’i < **7ab’I ‘to sense, hear’ [Yuk, Lak, Itz, Mop, Chr, Cht, Chl]
- 12) LL *tuk’ub’ ‘hiccups’ [Lak, Itz, pCh? (K&N: 535)]
- 13) LL *ta(a)7 ‘excrement’ from pM *tzaa’ [Yuk, ITz, Mop, Chr, Chl]
- 14) LL *sot’.ot’ ‘lungs’ [Yuk, Itz, Mop, Chl, Tzo, Tze]
- 15) LL *puksik’al [from Totonako] ‘heart’ [Yuk, Itz, Mop, Cht, Chl]
- 16) LL *naq’ [1] ‘stomach’ [Yuk, Lak, Itz, Mop, Chr, Cht, Chl]
- 17) LL *Haty naq’ ‘stomach’ [Mop, Chr]
- 18) LL *pi7x ‘knee’ [Yuk, Itz, Mop, Chr, Chl, Chr, Cht]
- 19) LL *paat=tyee7 ‘bark’ [Mop, Chl]
- 20) LL *taa7=q’iinh ‘metal’ [diffused from pre-Proto-Cholan/Yukatekan] [Was, Yuk, Itz, Mop, Chr, Cht, Chl, Tzo, Tze, Toj, Mch, Tuz]
- 21) LL *siHs ‘cold’ [Yuk, Lak, ITz, Mop, Chr, Cht, Yok, Mop, Chr]
- 22) LL *k’ihn ‘warm’ [Yuk, Chr, Mop] (from k’in ‘sun’)
- 23) LL *b’utz’ ‘smoke’ [Yuk, Lak, Itz, Mop, Chr, Cht, Chl]
- 24) LL *muwaan (?) ‘hawk’ [Mop, EpM, Chr]
- 25) LL *huuj ‘iguana’ [Yuk, Itz, Chr, Cht]
- 26) LL *xeex ‘shrimp’ [Itz, pCh? (K&N 632)]
- 27) LL *(h)a7l.V ‘to say’ [Yuk, Itz, Mop, Chr, Cht]
- 28) LL *t’aan ‘language’ [Yuk, Itz, Mop, Chl]
- 29) LL *k’aab’aa7 ‘name’ [Yuk, Lak, Itz, Mop, EpM, Chr, Cht, Qeq]
- 30) LL *xuhch’ ‘theft’ [Mop, Chr, Tuz]
- 31) LL *pan ‘excavate’ [Itz, Mop, Chr]
- 32) LL *ch’ak ‘cut’ [Itz, Mop, pCh, Chr, Tuz, Chj]
- 33) LL *kuuch ‘load’ [Yuk, EpM, Cht, Chl, Tuz, Chj]
- 34) LL *wal ‘fan’ [Yuk, Chr, Qeq]
- 35) LL *p’uhl ‘jug’ [Itz, Mop, Chr]
- 36) LL *luch ‘container (guacal)’ [Itz, Mop, Chr, Chj]

- 37) LL *chuy ‘to sew’ [Itz, Mop, Chr]
 38) LL *meeT ‘crown’ [Mop, pCh (K&N 318)]
 39) LL *kyol ‘cornfield’ [Yuk, Mop, Chr, Cht, Chl]
 40) LL *pak’ ‘to sow’ [Itz, Mop, Chr]
 41) LL *7iitz ‘drop’ [Yuk, pCh (K&N 174)]
 42) LL *hina:j ‘seed’ [Yuk, EpM, Chr, Cht]
 43) LL *b’u7ul ‘bean’ [Yuk, Itz, Mop, EpM, Chr, Cht, Chl]
 44) LL *chi7 `nanche’ (Byrsinoma crassifolia) [Itz, Mop, Chr, Chl, Qeq]
 45) LL *tyaj tyee7 ‘pine tree’ [Mop, Chr]
 46) LL *tz’Vr=muuy ‘anona’ [Yuk, Chr, Qeq]
 47) LL *jalal ‘rod, arrow shaft’ [Yuk, Itz, Chr, Cht, Chl, Tze]
 48) LL *sa7 ‘atole, brains’ [Qeq, yuk, Mop, EpM, Chr, Pqm, Pqm, Pch]
 49) LL *saq sa7 ‘white atole’ [Itz, Chr]
 50) LL *7ohm ‘foam’ [Itz, Mop, Chr, Chj]
 51) LL *kaj ‘to begin’ [Mop, Chr, Mch?]
 52) LL *putz’ ‘to flee’ [Itz, Mop, Chr]
 53) LL *tal.esa ‘to bring (come+causative)’ [Itz, Mop, Chr]
 54) LL *tak’ ‘sticky’ [Itz, Mop, Chr]
 55) LL *tz’i ‘little’ [Yuk, Mop, Chl]
 56) LL *7ay.aan ‘there is/are’ [Itz, Mop, Chr, Cht, cf. Qeq aran]
 57) LL *7on ‘many’ [Yuk, EpM, Chl]
 58) LL *p’ehl ‘generic numeral classifier’ [Yuk, Chl]
 59) LL *7et=‘ok ‘companion’ [Itz, Mop, Cht, Chl, Yok, Chr]

Lowland Unusual Cases

- 60) WM+LL *nup ‘join’ [Yuk, Cht, Chj, Qan, Chr, Chl, Tze, Toj]
 61) LL *tz’eeh ‘side, left’ [Chr, Chl, Chj, Qan, Qeq]
 62) Was+LL *tyuhb’.a ‘to spit’ [Was, Chr, Cht, Qeq] (from pM *tyuhb’)
 63) WM+LL *pixan ‘soul/heart’ [Yuk, Lak, Itz, Mop, Tzo, Chj, Qan, Aka, Pop]
 64) WM+LL *7aq’b’.aal ‘night’ (from pM *’ahq’ab) [Chr, Chl, Tzo, Tze, Toj, Chj, Pop, Mch, Tuz, Awa, Ixl, Qan]
 65) WM+LL *sehbb’ ‘quick’ [Itz, Mop, Chl, Chj, Qan, Aka, Ixl, Qeq]
 66) WM+LL *ha7b’.il ‘year’ (from pM *haab) [Yuk, Chl, Tzo, Tze, Toj, Chj, Qan, Aka, Pop, Mch, Tuz, Qeq]
 67) WM+LL *7uch ‘possum’ [Yuk, Lak, Mop, Chr, Tzo, Tze, Mch, Tuz, Qeq]
 68) WM+LL *ty’el ‘Perico’(diffused) [Yuk, Tzo, Toj, Chj, Qan, Aka, Mch, Tuz]
 69) WM+LL *ra7x kaan ‘Flying serpent’ [Itz, Aka]
 70) WM+LL *k’ajb’ ‘penitence, fasting’ [Yuk, EpM, pCh? (K&N 105), Tze, Chj, Qan]
 71) LL *7uht ‘to do, happen’ [pYuk, pCh (transitive in Was, Tzo, Tze, Toj, Pop, Mch, Tuz)]

- 72) WM+LL *toj.ool ‘valuable’ [Yuk, Itz, Mop, EpM, Chr, Tzo, Tze, Chj, Qan, Aka, Pop]
- 73) WM+LL *man ‘to buy’ [Yuk, Itz, Chr, Cht, Chl, Tzo, Tze, Toj, Chj, Qan, Aka, Mch, Tz]
- 74) WAS+LL *jeb’ ‘open, come out’ [Was, Itz, Mop, pCh (K&N 193), Cht]
- 75) WM+LL *cha7am ‘molar’ [Yuk, Chr, Cht, Chl, Tzo, Tze, Toj]
- 76) WM+LL *meq’ ‘to hug’ [Chr, Qan, pop, Tuz, Itz, Mop]
- 77) LL *pakal ‘mend’ [Itz, Mop, Qan]
- 78) WM+LL *nik ‘flower’ [Yuk, EpM, Chr, Cht, Tzo, Tze, Toj, Chj, Mch, Tuz]
- 79) WM+LL *juch’ [from Mije-Sokean] ‘to grind’ [Yuk, Itz, Mop, pCh, Chr, Cht, Chl, Tzo, Tze, Toj, Qan, Mch]
- 80) WM+LL *tuxCum [diffused] ‘corn cob with few grains’ [Mop, Qan, Aka]
- 81) WM+LL *b’aqal ‘fresh corn’ [Was, Yuk, Itz, Mop, pCh, Chr, Chl, Tzo, Tze, Toj, Chj, Qan, Aka, Pop, Mch, Tuz]
- 82) WM+LL *sooj ‘bean plague’ [Mop, Mch]
- 83) WM+LL *7o7t ‘food’ [Yuk, Lak, Tzo, Tze, Toj, Chj, Pop]
- 84) WM+LL *paaj ‘bitter’ [Yuk, Itz, Mop, Chr, Cht, Chl, Tzo, Tze, Toj, Chj, Qan, Aka, Pop]
- 85) WM+LL *xoy ‘surround, round’ [Mop, pCh, Chr, Aka, Tuz]
- 86) WM+LL *loq’ [1] ‘to exit’ [Yuk, Chr, Chl, Tzo, Tze, Qan, Cht]
- 87) WM+LL *poy ‘loose’ [Itz, Aka, Mch, Tuz, Qan, Qeq]
- 88) WM+LL *tat ‘thick’ [Yuk, Itz, Mop, EpM?, Chr, Cht, Chl, Tzo, Tze, Chj, Qan, Aka, Pop, Mch, Qeq]
- 89) WM+LL *lo.. [multiple reconstructions] ‘twins’ [Yuk, Itz, Chl, Tuz, Qeq, Tzo, Tze, Toj, Pch]
- 90) WM+LL *b’alunh= ‘nine’ [Yuk, Chl, Tzo, Tze, Toj, Chj, Qan, Aka, Pop, Mch]

GREATER LOWLAND LEXEMES

- 1) GLL #mun.aty ‘esclavo, tributo’ [Yuk, Tze, Tzo]
- 2) GLL *naq ‘enemy’ [Yuk, Tze]
- 3) GLL *kaa7=7aal ‘second child’ [Yuk, Tzen]
- 4) GLL *kiik ‘older sister (of a man)’ [Yuk, Itz, Mop, Chl, Tze]
- 5) GLL *kohk ‘deaf’ [from Totonako qo:qo7 ‘dumb’] [Yuk, Itz, Mop, Chl]
- 6) GLL *tzan ‘sound of iron, bell, or stone’ [Yuk, Chl, Tze]
- 7) GLL *chik.a7n ‘something that is seen’ [Yuk, Itz, Mop, Tze, Toj, Aka]
- 8) GLL+ *tz’eh.el ‘side’ [Chl, Tzen, Toj]
- 9) GLL *yut ‘inside’ [Yuk, Tzo, Tze]
- 10) GLL+ *xeh ‘vomit’ [Yuk, Lak, Itz, Mop, Chr, Chl, Tze, Toj, Chj, Tuz]
- 11) GLL *kooh 7iit ‘buttock’ [Chl, Tze, Qeq, Tuz]
- 12) GLL *jo7l ‘head’ [Yuk, Lak, Itz, Chr, Cht, Chl, Tzo, Tze]
- 13) GLL *tzo7tz ‘hair’ [Yuk, Lak, Itz, Mop, Chr, Cht, Chl, Tzo, Tze, Toj]
- 14) GLL *tzo7n ‘body hairs, moss’ [Yuk, Chr, Tzo, Tze, Mch?, Tuz?, Chl?, Tze?]

- 15) GLL *sihm `snot' [GLL innovation] [Yuk, Itz, Mop, Chr, Cht, Tzo, Tze, Chj]
- 16) GLL #kuket 'body (trunk)' [from Mije-Sokean *kuk `middle'] [Yuk, Chl, Tze]
- 17) GLL *tahn 'center, chest' [Mop, Chr, Chl, Tze]
- 18) GLL *7iky-an 'with, in front of' [Yuk, Tzo, Lak, Itz]
- 19) GLL #ha7=tzihaam 'sneeze' [Yuk, Chr, Chl, Tzen, Mop]
- 20) GLL *7ojl 'middle' [Yuk, Chl, Tzo, Tze]
- 21) GLL *lu7m 'earth' [Yuk, Itz, Mop, Chr, Cht, Chl, Tzo, Tze, Toj, Chj]
- 22) GLL *xix 'gravel' [Yuk, Tzo, Tze]
- 23) GLL *7ahq`ab`.eer 'last night/yesterday' [Yuk, Chr, Cht, Chl, Tzo, Tze]
- 24) GLL+ *k`uh.ul 'sacred' [Yuk, Chl, Tze, Mch, Tuz]
- 25) GLL *k`uuh=nhaah 'God House' [Yuk, Itz, Mop, Tzo, Tze]
- 26) GLL *7eeq 'star' [Yuk, Itz, Chr, Chl, Tze, Qeq]
- 27) GLL *kahoq.VI ha7 'thunder storm' [Yuk, Tze]
- 28) GLL+ *7uuh 'moon' [Yuk, Mop, Chr, Cht, Chl, Tzo, Tze, Chj]
- 29) GLL+ *q`ix-in 'warm' [Chr, Chl, Tzo, Tze, Toj, Chj, Qeqw]
- 30) GLL+ *7uq`um or *7uk`um 'river' [Yuk, Chl, Tze, Toj]
- 31) GLL *tzimen 'danta // tapir' [Itz, Mop, Tze]
- 32) GLL+ *k`i7x 7uch 'porcupine' [Chl, Tze, Qeq]
- 33) GLL? #k`uk`um `feather' < **q`u7q' [Yuk, Lak, Itz, Cht, Chl, Tze, Tuz, Qeq, Chj, ch, but cf/ possible q`uq`um in K`iche']
- 34) GLL *muut 'bird' [Yuk, Chr, Chl, Tzo, Tze, Toj, Chj]
- 35) GLL *qootz 'wild turkey' [Yuk, Itz, Mop, Chr, Tze]
- 36) GLL *7aajaaw=kaan 'rattlesnake' [Yuk, Chr, Chl, Tzo, Tze, Toj, Qeq]
- 37) GLL+ *xuux 'wasp' [Yuk, Mop, Chr, Cht, Chl, Tze, Awa]
- 38) GLL "GREEN FLY"; *ra7x=ha7h [Chr, Tze, Pch]
- 39) GLL *motzo7 'worm (intestinal?)' [Yuk, Chl, Qeq]
- 40) GLL *tzitz [2] 'to bless' [Yuk, Tze]
- 41) GLL *7es 'enchantment, secret, lie' [Yuk, Tze, Chj, Yuk]
- 42) GLL *chikil 'tickle' [Itz, Mop, Cht, Toj, Mch, Tuz]
- 43) GLL *chikil.ta 'to tickle' [Mop, Chr, Tze, Toj, Mch, Tuz]
- 44) GLL *7ahk`oot OR *7ahk`ut 'dance' [Yuk, Itz, Mop, Chr, Cht, Tzo, Tze]
- 45) GLL *q`aay 'song' [Yuk, Lak, Itz, Mop, Chr, Cht, Chl, Tzo, Tze]
- 46) GLL+ *7aalaq 'pet' [Yuk, Chr, Cht, Chl, Tzo, Tze, Qeq]
- 47) GLL+ *jel 'to change' [Yuk, Mop, Chl, Tzo, Tze, Toj]
- 48) GLL *b`et 'debt' [Yuk, Chr, Cht, Chl, Tzo, Tze, Mop, Chr]
- 49) GLL *p`ol 'increase' [Yuk, Chr, Tzo, Tze, Cht, Toj]
- 50) GLL *nap 'joined' [Yuk, Chl, Tze]
- 51) GLL *lih-IV 'to shake' [Yuk, cht, Tze]
- 52) GLL+ *kus 'to clean' [Yuk, Tze, Toj]
- 53) GLL *joch [2] 'drag, pile up' [Yuk, Itz, Mop, Tze, Chj, Mch]
- 54) GLL *t`ox 'to split' [Yuk, Mop, Chl, Tzen, Toj, Chr]
- 55) GLL *xot 'to split' [Itz, Chr, Chl, Tze, Mch]
- 56) GLL *pihs 'numeral classifier-stones/time' [Yuk, Tze]

- 57) GLL *sam.eht ‘comal’ [Yuk, Itz, Mop, Chr, Cht, Chl, Tzo, Tze, Toj, Ixl]
 58) GLL *pehtz’ ‘trap, smashed’ [Yuk, Mop, Cht, Chl, Tze, Mch]
 59) GLL *tzal ‘flagstones’ [Yuk, Tze]
 60) GLL *pahk’ ~ *pak’ ‘wall’ [Chl, Tze, Qeq, Yuk, Lak, Toj, Tzo]
 61) GLL *jit’ ‘to tie, weave’ [Yuk, Itz, Mop, Tzen, Mop]
 62) GLL *joch [1] ‘to empty’ [Chr, Yuk, Chl, Tze]
 63) GLL *lup (cf. *pul) ‘take out water with a spoon/bucket’ [Yuk, Chr, Tze]
 64) GLL *tyiinh.am ‘cotton’ [Yuk, Itz, Mop, Chr, Cht, Chl, Tze]
 65) GLL *paj=kaq’ ‘guayaba’ [Yuk, Tze]
 66) GLL *tz’ohl ‘calabaza chata verde’ [Yuk, Tzo, Tze, Toj]
 67) GLL *xekul ‘verdolaga (saltwort)’ [Yuk, Cht, Tze]
 68) GLL *puj ‘reed’ [Yuk, Itz, Chl, Tze]
 69) GLL *we7 ‘to eat (general)’ [Yuk, Chr, Cht, Tzo, Tze, Toj, Tek]
 70) GLL *maq’ ‘to eat (soft foods)’ [Yuk, chr, Cht, Chl, Tze]
 71) GLL *luhb’ ‘get tired’ [Yuk, Lak, Cht, Chl, Tze, Qeq]
 72) GLL *walaq’ ‘return’ [Yuk, Tze]
 73) GLL *x@m.b’aal ‘walk’ [Yuk, Lak, Mop, Chl, Tzo, Itz, Cht]
 74) GLL *q’ot vi llegar alla* // to arrive elsewhere (from *pM q’ot ‘circle, dar vuelta’
 [Itz, Chr, Cht, Chl, Tzo, Tze, Toj, Chj, Mop]
 75) GLL *num ‘go by’ [Chr, Qeq]
 76) GLL *saak’ ‘itch’ [Yuk, Itz, Chr, Cht, Chl, Tze, Qeq, Mop]
 77) GLL *7ip ‘sick’ [Yuk, Tzo, Tze]
 78) GLL *qohm ‘short’ [Yuk, Lak, itz, Mop, Chr, Cht, Chl, Tze, Toj]
 79) GLL *muq’ ‘strength, big’ [Yuk, Cht, Tzo, Tze, Tuz]
 80) GLL *jaw P boca arriba // face up [Chl, Toj, Yuk, Mop, Chr, Tze, Cht]
 81) GLL *tuhl ‘numeral classifier (persons)’ [Yuk, Cht, Tze]
 82) GLL *wol-ej-eer ‘yesterday’ [Yuk, Itz, Mop, Tzo, Tze]
 83) GLL *buluky= < **b’elenh=ka7 ‘eleven’ [Yuk, EpM, Chl, Tzo, Tze]
 84) GLL *tahb’ `20, salt, mecapal’ [Yuk, Itz, Mop, Tzo, Tze, Toj, Qeq]?
 85) GLL *b’ahk’ ‘fourhundred’ [Yuk, Chl, Tzo, Tze]

GLL Unusual Cases

- 86) GLL+Was *q’as ‘ugly, evil, to break’ [Yuk, Itz, Mop, Chr, Chl, Tze]
 87) GLL+Was *q’a.q’as ‘ugly, bad’ [Wasw, Itz, Mop]
 88) WM+LL *b’is [p’is is a GLL innovation]
 89) WM+GLL *q’aab’
 90) WM+GLL *7anh
 91) WM+GLL #yax
 92) WM+GLL *q’a7aw s zanate // boat-tailed grackle
 93) WM+GLL *paat [1]
 94) WM+GLL *k’i7x 7uhchum
 95) GLL+WM *toonh

- 96) GLL+WM *q'ahq'
- 97) GLL+ *sib'aq, etc. <= *sii7=b'aq or *sib'.aq 'soot' [Yuk, Itz, Chr, Cht, Chl, Tze, Toj, Mam]
- 98) GLL+ *k'iwik 'marketplace' [Yuk, Tzo, Tze, Mam]
- 99) GLL #sur 'moth' [Mop, Chj, cf MIG]
- 100) GLL+Hue *jat 'to rip' [Yuk, Chr, Chl, Tze, Qan]
- 101) GLL *xel 'to divide' (maybe related to pM *xil?) [Yuk, Chr, Chl, ze, Toj, Tuz, Ixl?, Qeq, Mch]
- 102) "GREEN TREE" = `ceiba'; GLL *ra7x=tyee7 [Yuk, Itz, Mop, Chr, Cht, Tzo, Tze, Kch, Kaq]
- 103) GLL *k'uhtz 'tabacco' [Yuk, Itz, Mop, EpM, Chr, Cht, Chl, Chj, Qan, Was?]
- 104) GLL "EAR (of) TREE" `tree ear (a type of mushroom)' [Was, Itz, Mop, Tze, Tuz]
- 105) GLL+Was *7aj [multiple reconstructions] 'awaken' [Was, yuk, Mop, Qeq]

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