1 The framework

That language structure is fairly resistant to change in situations of language contact has been widely held among students of linguistics for a long time, presumably rooted in Ferdinand de Saussure's distinction between "internal" and "external" linguistics. In this tradition, Edward Sapir managed to persuade a generation of American linguists that there were no really convincing cases of profound morphological influence by diffusion (Danchev 1988: 38; 1989). While it was conceded that certain parts of language, such as phonology and the lexicon, tend to be affected by pressure from other languages, grammar was considered to be immune to major restructuring. More recent studies have shown that this view is incorrect. As some of these studies have demonstrated, essentially any part of language structure can be transferred from one language to another (see especially Thomason & Kaufman 1988: 14; Harris & Campbell 1995: 149–50; Aikhenvald 2002: 11–13). In fact, there is substantial evidence to support this general claim; still, it would seem that such an "anything-goes hypothesis," as Matras (1998a: 282) refers to it, is in need of modification: There is at least one domain of language use and language structure where a significant constraint on linguistic transfer from one language to another can be observed, namely the domain of grammatical meanings and structures.

The main purpose of this book is to demonstrate that the transfer of grammatical meanings and structures across languages is regular, and that it is shaped by universal processes of grammatical change. Using data from a wide range of languages we will argue that this transfer is essentially in accordance with principles of grammaticalization, and that these principles are the same irrespective of whether or not language contact is involved, and of whether it concerns unilateral or multilateral transfer.

The present chapter provides the reader with the analytic framework used throughout the book. To this end, we discuss the key notions of this framework in section **??**, and in section **??** this framework is related to alternative approaches and terminologies. Section **??** presents the theoretical basis for the analysis of contact-induced language change, while section **??** discusses the technical and methodological tools that are used for identifying instances of this change. That the perspective adopted in this book differs from that of a number of other

authors who have worked on language contact is pointed out in section **??**, and the final section **??** provides an outline of the subject matters discussed in the book.

1.1 Grammatical replication

If one finds similarities in form, meaning or structure between different languages then these may have arisen for a number of different reasons: they may be due to universal principles of linguistic discourse and historical development, to shared genetic relationship, to parallel development or drift, to language contact, or simply to chance. This book deals with cross-linguistic similarity, but it is concerned only with one of these causes, namely with language contact and the effects it has for grammatical structure. Broadly speaking, contact-induced influence manifests itself in the transfer of linguistic material from one language to another, where linguistic material can be of any of the following kinds:

(1) Kinds of linguistic transfer

a. Form, that is, sounds or combinations of sounds
b. Meanings (including grammatical meanings or functions) or combinations of meanings
c. Form–meaning units or combinations of form–meaning units
d. Syntactic relations, that is, the order of meaningful elements
e. Any combination of (a) through (d)

Weinreich ([1953] 1964: 30–1) distinguishes three kinds of grammatical transfer (or interference in his terminology). One concerns the transfer of morphemes from what he calls the source language to the recipient language, that is (1c). The second kind of interference relates to grammatical relations, in particlar word order (1d), and the third to functions or meanings of grammatical forms, that is (1b). Situation (1c) involves what Weinreich calls source and recipient languages, while in the case of (1b) and (1d) he uses the terms model and replica languages.

Our interest in this book is with the transfer of grammatical meaning;[1] thus, the kind of transfer discussed here has traditionally been treated under (1b). Accordingly, we will adopt the terms proposed by Weinreich for (1b) and (1d) by distinguishing between model languages (M), providing the model for transfer, and replica languages (R), making use of that model, and we will call the process involving (1b) grammatical replication.

The following example may illustrate the framework used here. The North Arawak language Tariana of northwestern Brazil is in close contact with Portuguese, the official language of Brazil, and has been influenced by the latter in a number of ways (Aikhenvald 2001; 2002). For example, young and

innovative speakers of Tariana recognize that in Portuguese interrogative pronouns are also used as relative clause markers, and these speakers also use their interrogative pronouns as markers of relative clauses on the model of Portuguese. In doing so, they graft their interrogative pronoun (e.g. *kwana* 'who?') onto their own relative construction. Accordingly, instead of (2), which is characteristic of traditional speakers, they use (3) in an attempt to replicate the Portuguese construction of (4).

(2) Tariana (North Arawak; Aikhenvald 2002: 183)

ka-yeka-kanihĩ kayu-na na-sape.
REL-know- DEM:ANIM thus-REM.P.VIS 3.PL-speak
PAST.REL.PL
'Those who knew used to talk like this.'

(3) Younger Tariana speakers (North Arawak; Aikhenvald 2002: 183)

kwana ka-yeka-kani hĩ kayu-na na-sape.
who REL-know- DEM:ANIM thus-REM.P.VIS 3.PL-speak
PAST.REL.PL
'Those who knew used to talk like this.'

(4) Portuguese (Aikhenvald 2002: 183)

quem sabia, falava assim.
(who knew spoke like.this)
'Those who knew, spoke like this.'

As we will see in the following chapters, processes of the kind illustrated above are extremely widespread, they can be expected in virtually any situation of intense language contact. What they have in common is, first, that rather than borrowing, i.e. a transfer of linguistic form–meaning units in accordance with (1c), they involve meaning, that is, (1b). Second, they are suggestive of a fairly complex cognitive process: rather than a simple transfer of meaning from one language to another, they presuppose some kind of equivalence relation that is transferred, in that younger Tariana speakers observe that in Portuguese the marker used for interrogative clauses is also used for relative clauses, and they carry out the same process in their own language – extending the use of their interrogative pronouns to also mark relative clauses; we will be able to look at a number of strikingly similar examples of this kind in the course of the book (see, for example, section 3.1.3).

This example may also illustrate the terminology used in this book: We will call Portuguese the model language (M), Tariana the replica language (R), and the transfer pattern from model to replica language will be referred to as replication.

The terms model language and replica language are relative notions, in that a given language can be associated with both roles. For example, the Austronesian language Tigak of the New Ireland island, Papua New Guinea, has served both as a replica and a model language vis-à-vis the lingua franca Tok Pisin, an English-based pidgin/creole (Jenkins 2002), and in the Vaupés region of northwest Amazonia, the North Arawak language Tariana has acted as a replica language vis-à-vis East Tucanoan languages but as both a replica and a model language for the lingua franca Portuguese (Aikhenvald 2002). In a similar fashion, Basque has served as a replica language vis-à-vis its Romance neighbors Spanish, French, and Gascon (Hurch 1989; Haase 1992; 1997), but it has also acted as a model language for Spanish speakers in the Basque Country (Cárdenas 1995), and Turkish served both as a model and as a replica language for Macedonian (Friedman 2003); for more examples, see Soper (1987).

The effects of contact-induced change[2] are referred to as transfer[3] (or areal diffusion) of linguistic material from one language to another. Transfer tends to be based on some kind of interlingual identification (Weinreich [1953] 1964: 7–8, 32), in our case on some way of equating a grammatical concept or structure Mx of language M (= the model language) with a grammatical concept or structure Rx of language R (= the replica language). In situations of intense language contact, speakers tend to develop some mechanism for equating "similar" concepts and categories across languages, something that Keesing (1991) describes as "formulas of equivalence"; we will refer to them as equivalence relations or, in short, as equivalence (or isomorphism). With this term we refer to corresponding structures of different languages (or dialects) that are conceived and/or described as being the same.

This definition is far from specific; as we will see in section 6.1, equivalence is a complex notion that is associated with a number of different uses. For our purposes, at least two of these uses should be distinguished. On the one hand, it is based on the linguist's analysis, relating to the grammatical categorization as proposed by him or her, referring to structural similarities between the grammars of two or more languages. On the other hand, it refers to the speaker's conceptualization of correspondences between languages in contact, as it is manifested, e.g. in translational practices and conventions. Since in many descriptions it does not become entirely clear which of the two is intended, equivalence is used here for both, but the term (structural) isomorphism (Aikhenvald 2002) is preferred in cases where the former use is intended by the author concerned.

Conceptual transfer will be described in terms of two contrasting descriptive notions, which are use patterns and grammatical (or functional) categories. With the former label we refer to recurrent pieces of discourse associated with the same grammatical meaning, while the latter concerns stable, conventionalized form–meaning units serving the expression of grammatical

functions. We will deal with the former notion in chapter 2 and with the latter in chapter 3.

Contact-induced language change is a complex process that not infrequently extends over centuries, or even millennia. Not all components and stages of this process 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. But it may also happen that some linguistic change not involving language contact at some stage is affected by language contact. Most of the data that are at our disposal do not provide any clues as to which of such developments, or of many other conceivable developments, were involved. As long as there is concrete evidence to the effect that contact-induced transfer of linguistic material was involved in some way or other, we will treat such processes as "contact-induced language change." What this means is that this notion includes a wide range of different phenomena and in some of them, language contact may have played at best a marginal role.

A useful classification of grammatical changes is proposed by Tsitsipis (1998: 34) in his study of contact between the Albanian variety Arvanítika and Greek, distinguishing between completed, continuous, and discontinuous changes. Aikhenvald (2002) adopts this classification in her work on language contact in northwestern Amazonia and demonstrates that the distinction is a relevant one. Unfortunately, most of the works that we were able to access do not provide sufficient information on this issue.

The following chapters will be concerned with languages, and we will have little to say about contact between dialects. The reason is that research on transfer of the kind studied here has focused on contact between distinct languages and, accordingly, corresponding data on inter-dialectal contact are hard to come by. On the basis of the evidence that is available, it would seem, however, that what we have to say about languages applies in much the same way also to dialects in contact.

Our work will be concerned with the influence of one language on another or, more precisely, with how people change their linguistic habits when they are exposed to other languages. This subject falls squarely within what is widely referred to as contact linguistics. Contact linguistics is a broad field that has been the subject of diversified academic activity, involving disciplines such as linguistics, psycholinguistics, sociolinguistics, anthropology, and education. Myers-Scotton observes: "While of course contact linguistics has affinities with both psycholinguistics and sociolinguistics, it is something else. It deals specifically with the grammatical structure of the languages of bilinguals" (Myers-Scotton 2002: 5). We could not agree more with Myers-Scotton. What we will have to say relates to linguistic activity and its products, even if we will also be concerned with the cognitive foundations underyling this activity. At the same

time, we will not treat contact linguistics as a discipline of its own. Rather, it would seem that the linguistic processes analyzed here are not substantially different from processes to be observed elsewhere in language use and language change.

1.2 Alternative approaches and concepts

Both the perspective and the terminology proposed above differ from those adopted in many other works on language contact. In fact, a number of the terms that students of contact linguistics may be familiar with will not be used here. This does not mean that we question the significance of alternative approaches and terms; rather, they are not immediately relevant to the analytic framework used in this work. Perhaps more than some other domains of linguistics, contact linguistics has developed a wide range of analytic concepts and labels. In the present section we will relate our framework to alternative approaches to language contact.

To start with, there is one label that we will use, even though it is marginal to the present treatment, which is borrowing. We will use this term exclusively with reference to what we defined in section **??** as (1a) and (1c), that is, to contact-induced transfer involving phonetic substance of some kind or other. In avoiding this term for other kinds of phenomena to be discussed in this book we deviate from conventions used in a number of other works. In these works, borrowing is used generally for any kind of linguistic influence of one language on another, in accordance with Haugen's (1989: 197) classic definition, according to which borrowing "is the general and traditional word used to describe the adoption into a language of a linguistic feature previously used in another" (see also Aikhenvald 2002: 3). We will use the term "transfer (from one language to another)" corresponding to Haugen's use of borrowing or to Weinreich's ([1953] 1964) term "interference," and we will restrict borrowing to the uses it is most commonly associated with, namely to processes involving the transfer of either forms or form–meaning units.

There is a variety of terminologies that have been proposed for the kind of process discussed in section **??**. Most commonly, grammatical replication is subsumed under headings such as grammatical calquing, loanshift (Haugen 1950b), indirect (morphosyntactic) diffusion (Heath 1978; Aikhenvald 2002: 4), interference (see Thomason & Kaufman 1988),[4] congruence (Corne 1999; Mufwene 2001), code-switching, convergence, or attrition (Myers-Scotton 2002), structural borrowing (Winford 2003: 12).

Presumably the most refined descriptive framework to deal with contact-induced transfer can be seen in Johanson's (1992; 2002a) work on code copying. An important distinction figuring in the work of Johanson and his associates is that between *Globalkopieren* (global copying) and *Teilstrukturkopieren*

(selective copying). The former refers essentially to the joint effects of transfer of the factors enumerated in (1), while the latter relates to a more limited spectrum of components figuring in contact-induced transfer, frequently only to one of them. The phenomena studied here can be analyzed profitably in terms of *Teilstrukturkopieren*, for the following reasons. First, our terms model language and replica language correspond closely to his terms model code and basic code. Second, our notion replication is similar to Johanson's notion copying, in that both imply that the product of the process is not identical with the model. And third, both replication and copying are conceived of as essentially creative acts (see section **??** below). Speakers create a new use pattern or category in language R on the model of another language (M), where the outcome of the process is not an exact copy of what exists in M but rather a new structure that is shaped, first, by what is available in R, second, by universal constraints on conceptualization, third, by what speakers of R conceive as being pragmatically most appropriate in the situation in which language contact takes place, and, fourth, by the length and intensity of contact and – accordingly – by the relative degree to which replication is grammaticalized (see section **??**; chapter 3).

The term interference has been used as a convenient label for all kinds of processes. Still, we will not use it here since it has been associated with different types of linguistic change and, hence, may lead to misunderstandings.[5] For example, while Weinreich ([1953] 1964: 30–1) proposes to use it in a general sense to refer to all kinds of contact-induced phenomena, it is used by Thomason and Kaufman (1988) in a more restricted sense, relating only to one subset of changes that contrasts with structural borrowing, their second cover term (see also Romaine 1989).

Throughout this book we will be confined to replication, that is, we will have nothing to say about borrowing. This means that a number of issues that are central in some other works on language contact are not dicussed here. One such issue concerns code-switching, which is involved when "contact phenomena show surface-level morphemes from two or more languages" or, less technically, when there is an alternation of two languages within the same discourse, sentence, or constituent (Myers-Scotton 1993; 2002: 3, 105; Savić 1995: 476). As this definition suggests, code-switching involves "borrowing" in a wider sense – hence it is not within the scope of this book. Still, code-switching influences linguistic transfer in a number of ways, and it is at least possible that it may facilitate grammatical replication (Myers-Scotton 1993; 2002). On the whole, however, we have not found concrete evidence to the effect that code-switching is a notion that is helpful to understand contact-induced grammaticalization in particular and grammatical replication in general.

What we observed on code-switching applies in much the same way to what has been widely discussed as constraints or implications of borrowing, or as

hierarchies of borrowing. Substantial work has been carried out on this issue (e.g., Weinreich [1953] 1964: 35; Moravcsik 1978; Thomason & Kaufman 1988: 74–5; Scotton 2002; see also Winford's [2003: 93ff.] constraints on borrowing), and it has produced a wide range of generalizations on temporal sequencing or preferences in the way linguistic forms and structures are borrowed; however, most of this work has been confined to borrowing, and it remains largely unclear how such generalizations relate to grammatical replication. Some of these generalizations might turn out to also shed light on conceptual transfer and replication. For example, what surfaces from this work is that in situations of contact, linguistic constituents characterized by structural autonomy and/or referential stability are more likely to be affected by contact than structurally dependent and/or referentially less stable constituents (see Matras 1998a). Overall, however, the relationship between borrowing processes and the temporal order in which grammatical use patterns and categories are replicated remains largely unclear.

In his analysis of syntactic change in Pipil, an Aztecan language of El Salvador, Campbell (1987: 277) observes that some of the changes described by him "are so natural that languages easily undergo them independently, and instances of the change are found repeatedly in the world's languages." He refers to these changes with the term naturalness (for a different use of the term "natural change," see section 6.5), but his discussion does not make it clear what this notion stands for, other than that it is a phenomenon that can be observed cross-linguistically and that languages undergo changes via naturalness independently. Still, Campbell provides two examples to illustrate how naturalness was responsible for changing the structure of Pipil as a result of contact with Spanish. One example is the development of third-person plural forms to markers of impersonal verb forms, and the second example concerns the development of a periphrastic future using a verb for 'go,' both developments being hypothesized by him to have been influenced by corresponding Spanish structures.

Both examples in fact relate to processes that are cross-linguistically common and may happen independently in a given language, and both constitute canonical processes of grammaticalization, as we hope to demonstrate in chapter 3. What this means is that they are suggestive of a unidirectional process: There are quite a number of languages where a third-person plural pronoun (e.g. 'They eat fish in Japan') has been grammaticalized to a marker of an impersonal construction ('Fish is eaten in Japan'), but we are not aware of any language where a marker of an impersonal construction developed into a third-person plural pronoun.[6] And the same applies to periphrastic 'go'-futures: many languages, including English, have grammaticalized a periphrastic verb form involving the lexical verb 'go' to a future tense marker, but so far no evidence has been found for a change from future tense to a lexical verb for 'go.'

While Campbell (1987) provides only these two examples to illustrate what he means by naturalness, his paper discusses a range of additional cases where Pipil has undergone morphosyntactic changes under the influence of Spanish. Of the seventeen examples presented in that paper, three relate to the transfer of form–meaning units, that is, to borrowing (see **??** (1c)), which is beyond the scope of the present work. But the remaining fourteen examples are instances of grammatical replication, that is, they are central to the present treatment, and all fourteen conform to principles of grammaticalization, as we hope to demonstrate in the following chapters: They involve unidirectional developments from lexical to grammatical and from less to more grammatical forms and constructions, i.e., none is in conflict with the unidirectionality hypothesis, which is central to grammaticalization theory (see section **??** below).

What these observations suggest is, first, that naturalness is not really a notion that is specific enough to be helpful for explaining grammatical change; second, if naturalness is taken to stand for universal principles of grammaticalization, as appears to be the case for the most part, then it captures significant properties of grammatical change. And third, and most importantly, these observations also suggest that contact-induced change in the Aztecan language Pipil is in accordance with what can be found in linguistic evolution that does not involve language contact. As we will see in chapter 3, Pipil is not an isolated case; rather, it conforms to what can be observed in many other situations of language contact.

In quite a number of works, grammatical replication is treated as a manifestation of convergence. In fact, in addition to the various meanings the term has received outside contact linguistics, convergence is proposed in many works as a technical term of contact linguistics. It has been applied to a wide range of phenomena, and some of them are relevant to the present discussion. Most conspicuously, this applies to the recent work of Aikhenvald (2002) and Myers-Scotton (2002; for a detailed discussion, see Myers-Scotton 2002: 171–3). Both authors use it for phenomena that include replication. But there are differences. According to Aikhenvald, convergence means that languages in contact "gradually become more like each other" (2002: 1). Myers-Scotton again uses the term in a more restricted sense. In her model of grammatical outcomes of language contact, instances of grammatical replication are subsumed under the rubric of either attrition or convergence (see section 6.4). Attrition, as treated by her, "is a phenomenon of individuals, referring to what happens to an individual's production of a language (usually an L_1), *and* the state of any loss at a point of time" (Myers-Scotton 2002: 179). Convergence is a complex phenomenon in her usage. It is said to be motivated by a situation where "the influence of one language on another reflects generally asymmetrical sociopolitical relations between the native speakers of the languages involved"; as a process it is "a mechanism in the progressive outcomes of attrition, language shift, language

death, and creole formation," and its outcome "is a linguistic configuration with all surface morphemes from one language, but part of its abstract lexical structure from another language" (Myers-Scotton 2002: 101).[7]

Apart from the fact that the subject matter analyzed by Myers-Scotton differs in a number of theoretical and empirical aspects from the one looked at here, she uses the term convergence for a range of phenomena most of which are essentially irrelevant to our discussion. First, this applies to the motivation for and the process of convergence, which are described in terms of a set of sociolinguistic parameters. None of these parameters is a requirement for grammatical replication. As we will see in the following chapters, such constraints do not apply to replication, which is neither confined to specific kinds of sociopolitical situations nor does it correlate in any significant way with such notions as attrition, language death, or creole formation.

Second, Myers-Scotton applies the term convergence as an outcome to a number of linguistic manifestations, some of which do but most of which do not concern replication. One manifestation relates to the neutralization of morphological contrasts (cf. also Myers-Scotton's notion of attrition, which we will take up in section 6.4); for example, speakers of Malinche Mexicano (Nahuatl) take masculine as the default gender when using Spanish content morphemes (Myers-Scotton 2002: 102). Another instance concerns what one might be inclined to call an "inappropriate handling" of grammatical categories of another language, illustrated by Myers-Scotton (2002: 166) with a Spanish-speaking child from Colombia, living in the USA and being fluent in English. In this case, for example, convergence is manifested in the fact that the child produces a compound noun on an English pattern, uses inconsistent gender marking, and does not observe the pro-drop convention of Spanish.

The last example illustrates another problem with this term. The fact that the Spanish child does not observe the pro-drop convention of Spanish, producing overt first person pronouns as subjects instead, is discussed by Myers-Scotton as a manifestation of convergence. But essentially the same phenomenon is treated by her as a case of attrition rather than convergence (Myers-Scotton 2002: 201; see section 6.4): In her analysis of attrition hypotheses she discusses the development of pronominal subject marking of five Russian boys living in the USA for whom English is or is becoming the dominant language. She concludes that this development is characterized by what she calls "the decline in the Standard Russian use of the pro-drop parameter." Now, if speakers of a pro-drop language start using overt subject pronouns on the model of another language then this can be viewed as suggesting either that these speakers do not observe the pro-drop convention, or that they experience a decline in the pro-drop parameter, or else, as Savić (1995: 487–8) argues with reference to Serbian immigrants in the USA, that "the pro-drop parameter is being reset in accordance with English syntactic rules." We do not see what justification there