

Notes on language contact within the Minimalist architecture¹

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1. Introduction

The main purpose of this paper is to investigate language contact from the Minimalist perspective, especially with respect to the role that features play in language contact.

1.1. Minimalism (Chomsky 1995, 1998, 2000b, 2001, 2004, 2005, 2007a, 2007b, 2008)

- L(anguage) = I-language = a state of F(aculty of) L(anguage) = computational system
- UG = theory of initial state of FL
- S(trong) M(inimalist) T(heory): language is an optimal solution to interface legibility conditions imposed on FL, an optimal way to link sound of the S(ensory)-M(otor) interface and meaning of the C(onceptual)-I(ntentional) interface.
- Linguistic levels: interface levels accessible to S-M and C-I
- Operation: Merge (Internal & External)
- Syntactic relations:
 - Set-membership, based on Merge
 - Probe-goal: the probe agrees with goals with no unvalued features; in case of match, intrinsic features of the goal value those of the probe; in case of multiple-agree, features of the goal value all matched elements
- Phase

1.2. Features (Chomsky 1995, 1998, 2000b, 2001, 2004, 2005, 2007a, 2008)

One element of parameter-setting is assembly of F(eatures) into L(exical) I(tems), thus a particular language is partially defined by features selected from all the features made available by UG and the way they are combined. Each language makes a one-time selection of a subset of all features and a one-time assembly of the selected features as its lexicon.

- F as
 - Primitive property of LI
 - Carrier of information relevant to the way their arrangements are interpreted at the interfaces
 - Necessary condition for probe-goal relation
 - Driving force for Internal Merge
 - Mechanism to induce structural properties required by interpretive systems at the interface
- Types of F:
 - Phonetic, phonological, semantic, structural
 - Interpretable vs. uninterpretable

¹ I would like to thank the laboratory "Laboratoire des langues et civilisations à tradition orale" (UMR 7107 CNRS) for financing this study partially.

- Intrinsic vs. inherited
- Edge feature
- Agree-feature (i.e. ϕ -features)
- Uninterpretable features (uF): They are selected from the lexicon unvalued because of lack of semantic interpretation, are to be valued at the phase-level (whereby they are now indistinguishable from interpretable features) only if certain matching conditions and structural configurations (e.g. locality) are satisfied, and must be deleted (once valued) before reaching the semantic interface for the derivation to converge.

1.3. Language contact

Language contact:

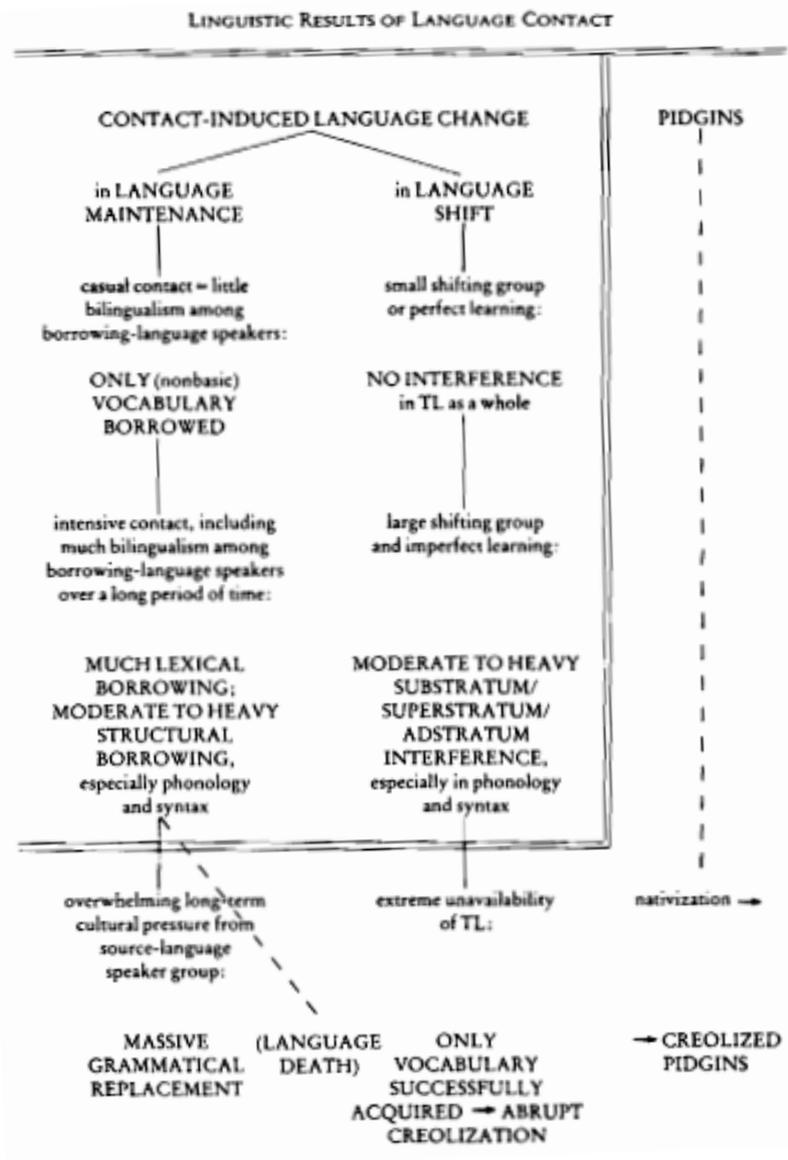
- the use of more than one language in the same place at the same time (Thomason 2001: 1)
- [the case where] the people speaking their respective languages ... have contact with each other and ... resort to varying forms of mixture of elements from the languages involved (Winford 2003: 2)

2. Language contact: an internalist explanation

2.1. Externalist explanations on language contact: why they are not appropriate?

- Thomason & Kaufman (1988): previous analyses in terms of typological constraints, implicational universal constraints and naturalness-based constraints have too many exceptions and even involve circular reasoning, thus, the primary determinant of the linguistic outcome of language contact is not the structure of languages in contact but the sociolinguistic history of the speakers, and social factors (such as intensity of contact) are predicative of interference between languages in contact.

More descriptive than explanatory



- Thomason (2001): contact-induced changes result from social factors such as intensity of contact, imperfect learning, and multilingualism. Mechanisms of contact-induced changes include code-switching, code alternation, passive familiarity, negotiation, second-language acquisition, bilingual first-language acquisition and deliberate decision.
Loose ends: as she admitted, it is possible to find phenomena that do not fit into the catalogue properly and even the whole topic of mechanisms of interference is far from adequately understood.
- Winford (2003): language contact has different types, i.e. language maintenance, language shift and language creation. Each type should be explained by different factors, for example lexical borrowing plays a central role in language maintenance given its impact on phonology, morphology and the lexicon.
Still more nomenclatural than explanatory
- Aikhenvald (2006): language contact is the external influence resulting in language change. Mechanisms are enhancement of an already existing feature, extension by analogy, reinterpretation and reanalysis, areally induced grammaticalization, grammatical accommodation, loan translations and lexical/grammatical parallelism. Linguistic factors facilitating diffusion of forms are pragmatic salience, matching genres, tendency to achieve word-for-word and morpheme-per-morpheme intertranslatability, frequency, impact on cultural conventions, practice borrowing, the existence of a perceivable gap, typological naturalness or typological pattern, compactness of expression, pre-existing structural similarity, innovational proclivities of the target language, analogy and functional parallelism, the existence of a lookalike in a contact language, morphotactic transparency and clarity, prosodic saliency and syllabicity, and unifunctionality and semantic transparency.
Still a list of more or less important factors without explaining why so
- Matras (2009): a theoretical approach seeking to make generalizations about various manifestations of language contact, rather than a theory as a finite set of rules and principles, thus, language contact and contact-induced changes are due to the complex repertoire of linguistic structures at the disposal of bilingual (or multilingual) speakers.

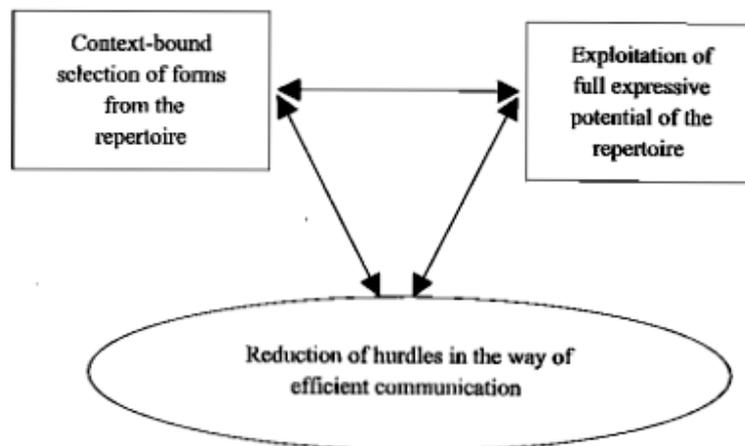


Figure 1.1 *The interplay of factors in communication in language contact settings.*

The above analyses are “externalist” in that they more often resort to social or sociolinguistic factors than linguistic or cognitive factors to explain language contact and contact-induced

changes. In spite of the more and more exhaustive list of mechanisms involved in language contact, the simplest question, i.e. why language contact and contact-induced changes are ever possible, is not even seriously addressed.

2.2. *An internalist proposal*

The internalist point of view on language:

- ... treats language from a completely internalized and individualist perspective ... [and] call[s] language in this sense “I-languages”, that is, a concept of language that is intension, internal and individual. (Chomsky 1997: 24)
- ... seeks to understand the internal state of an organism (Chomsky 2000a: 134)
- ... comes nowhere near exhausting the study of how humans function in the social and physical worlds, ... [but] presuppose[s], if only tacitly, ideas about the inner states that enter into thought and action... (Chomsky 2003: 259)

In case of (extensive) language contact as in a Sprachbund (i.e. Balkans (Friedman 2000, Tomić 2006), Indian subcontinent (Emeneau 1956), Ethiopian Language Area (Ferguson 1970, 1976), etc), I suggest that language contact and later contact-induced changes mainly involve feature transferring, especially uF transferring.² In other words, what is in contact in “language contact” are not languages, but features. Given that one element of parameter-setting is assembly of F into LI, a particular language is partially defined by features selected from all the features made available by UG and the way they are combined. One of the results of language contact is structural similarity in languages in contact. In reality, surface structural similarity reflects and is due to feature diffusion and feature sharing. Introduction of interpretable features (e.g. TAM on T-constituent and ϕ -features on nouns) into a language should have no structural effects, but introduction of uF (e.g. person and number on T-constituent, and case on noun expressions) will trigger structural changes, because uF are not valued and should be deleted immediately after the application of any operation (i.e. agreement, valuation, movement) uF are involved in.

The above internalist analysis can give a direct and simple answer to the question: why are language contact and contact-induced changes ever possible? That languages in contact are geographically near enough is only an externalist explanation. My internalist reply would be: this is because of universality of features. Remember that UG makes available a whole stock of features, but a particular language chooses only some of them and a particular language is partially defined by features selected from all the features made available by UG (and the way they are combined). Thus, *a priori* there should be no contact or contact-induced structural change between human languages and “animal languages”, but probably between vocal languages and sign languages³, for they differ only in S-M features but fundamentally identical in C-I features.

² Note that Aikhenvald (2006) used “feature” in a general non-technical meaning without giving it a central position in her description and analysis.

³ And also between sign languages.

2.3. Case studies

2.3.1. Lexical borrowing before non-lexical (i.e. grammatical) borrowing

Extensive contact involves not only massive lexical borrowing but also grammatical borrowing (Thomason & Kaufman 1988: 75-76, 91-95, Thomason 2001: 70, 74, Winford 2003, §1.5), a long-established observation is that the unmarked pattern is lexical borrowing before structural borrowing (Frachtenberg 1918: 177, Moravcsik 1978: 110, Comrie 1989: 202-203, Winford 2003: 54). Externalist explanations are numerous (Thomason & Kaufman 1988, Thomason 2001, Aikhenvald 2006), but deeper insight might stem from the internalist perspective.

Minimalist program claims that language variation is restricted to lexical items in terms of the interpretability of features. Lexical borrowing should concern not only phonetic features, but also semantic features, and still more, μF at the interface. Loss of features is possible through contact, but extensive lexical borrowing may favor the conservation of features. Thus one of the consequences of extensive lexical borrowing is the introduction of new features, especially μF into the target language. These new features, if uninterpretable, should be eliminated during derivation because of legibility conditions. This necessitates operations previously inexistent in the target language. Since features to eliminate are part of lexical items as such in the original language and as borrowed items in the replica language, they are common to both languages. Thus, it is not surprising that both languages use same or similar operations to eliminate such μF . These operations exist already in the original language, but in the replica language, they are new and often surface as structural borrowing, i.e. structural replica from the original language. In fact, structural borrowing is only the set of operations used to eliminate μF of borrowed lexical items. Moreover, direct contact-induced changes may trigger later changes in the replica language even if language contact does not play an active role in the language any more. This may be seen as deeper integration of features of borrowed lexical items.

The reason why lexical borrowing before structural borrowing is the unmarked pattern may be that mere C-I feature borrowing is not allowed or disfavored, similar to the impossibility of mere feature movement (Chomsky 2000b: 119, 2004: 108⁴). Thus, lexical borrowing can be considered as the cross-linguistic counterpart of the intralinguistic operation copy (i.e. Internal Merge). Of course, lexical borrowing does not necessarily trigger grammatical changes automatically.

2.3.2. Structural borrowing without extensive lexical borrowing

There are cases of structural borrowing without extensive lexical borrowing, but in fact languages in contact have reorganized their lexicons so that a word-by-word correspondence has been established (cf. Aikhenvald (2006)'s "word-for-word and morpheme-per-morpheme intertranslatability"), like between Tariana and Hup (Aikhenvald 2006: 28). From a minimalist viewpoint, these languages share semantic and functional features, but not phonological features. This situation shows why there should be at least two interfaces, i.e. sensorimotor and conceptual-intentional, and how these two interfaces should be independent at least to some extent, maybe because of the arbitrariness of sign in Saussure's term. In unmarked case of borrowing, i.e. lexical before structural, I argued that this is parallel to no feature movement and that lexical borrowing is the cross-language counterpart of the intralinguistic copy. Cases of direct structural borrowing show that mere feature borrowing (without lexical borrowing) is possible. In fact, according to Chomsky (2004: 111), K is a copy of L if K and L are identical except that K lacks

⁴ Contrary to Chomsky (1995: 266, 1998: 124).

the phonological features of L. This definition for intralinguistic copy can be generalized to cross-linguistic cases of simple feature borrowing (i.e. structural borrowing) with no lexical borrowing. In other words, lexical borrowing can be overt (C-I feature AND S-M features) or covert (only C-I features OR S-M features), even if the unmarked case is the overt borrowing. Note that Weinreich (1953:32) used the term “direct borrowing of structural features” for replacement of *-u* (1st person indicative) and *-i* in Meglenite Rumanian by Bulgarian *-um* and *-is* respectively. In my idea this is not real structural borrowing, but simple ‘phonetic replacement’, in other words, covert (i.e. only S-M features) lexical borrowing. At least this proves that covert lexical borrowing is possible at both levels.

2.3.3. Marked structural properties as contact-induced changes

Extensive language contact can introduce particular regional traits, sometimes limited only to the very Sprachbund in question.

For example, in Baiso (Cushitic), Dime (Omotic) and Haro (Omotic) in the Ethiopian Language Area, relativizers are variable, but instead of indicating the position relativized on, they agree with the head noun in number, gender or noun class. Following Creissels (2006: vol. 2, §33.3.4) and Creissels *et al.* (2008: 142), I adopt the label ‘linker’ (‘joncteur’ in French in Creissels (2006: vol. 2, §33.3.4)) for this type of relativizers.⁵ Here are examples of prenominal relatives with linkers from Dime (Seyoum 2008: 154, 155, 156):

- (1) *tááy* *ʔád-déé-b-is-im* *gošt-ís-im* *nú* *yéf-déé-n*
 now come-IMPERF-LINK.SG.M-ART-ACC man-ART-ACC 3SG.M.SUBJ see-IMPERF-3
 ‘He sees the man who is coming now.’
- (2) *dər-ím* *wúdúr-in* *šin-i-nd* *ʔámz-is* *láxt’-i-n*
 goat-ACC girl-DAT buy-PERF-LINK.SG.F woman-ART die-PERF-3
 ‘The woman who bought a goat for a girl died.’
- (3) *dər-is-ím* *wúdúr-is-in* *šin-i-d* *ʔámz-af-is* *láxt’-i-n*
 goat-ART-ACC girl-ART-DAT buy-PERF-LINK.PL woman-PL-ART die-PERF-3
 ‘The women who bought the goat for the girl died.’

The linkers in question are *-(u)b*, *-(i)nd* and *-(i)d*, which are clause-final. As glossed in the above examples, *-(u)b* is marked for [+Masculine, +Singular] as in (1), *-(i)nd* for [+Feminine, +Singular] as in (2) and *-(i)d* for [+Plural] as in (3).

Here are Baiso examples with linkers, *ka* [+Masculine, +Singular], *ta* [+Feminine, +Singular] and *o* [+Plural] (Hayward 1979: 116):

- (4) *íso ka* *ayeeseran* *híʔi*
 3PL LINK.SG.M speak.PRES.3SG language
 ‘the language which they speak’
- (5) *ker ta* *abate* *féro*
 dog LINK.SG.F bit.PAST.3SG finger
 ‘the finger which the dog bit’

⁵ Linkers are often confused with relative pronouns, but they differ drastically as regard to the condition under which they vary: case for relative pronouns and number, gender or noun class for linkers. More importantly, in relative clauses with relative pronouns, there cannot be resumptive pronouns (i.e. pronominal elements which correspond to the head noun in the relative clause), but linkers can be used together with resumptive pronouns.

- (6) *o iminamen keferroo*
LINK.PL buy.PASS.PAST.3PL sandals
'the sandals which were bought'

Note that Baiso linkers are preverbal, contrary to Dime linkers, which are clause-final. Different from the tripartite system in Dime and in Baiso, Haro has only two linkers, *-sa* for masculine head nouns and *-na* for feminine ones (Woldemariam 2004, §3.3.2.6). According to Creissels (1991: 459-460) and Creissels *et al.* (2008: 142), linkers are common relativizers in African relative clauses. However, Wu (to appear)'s typological study on prenominal relative clause shows that linkers are not found in prenominal relative clauses outside the Ethiopian Language Area. Thus it is quite possible that Baiso, Dime and Haro linkers are due to language contact (either as direct borrowing or contact-induced change). Externalist analysis seems unable to give a satisfactory explanation on such phenomena, but according to my internalist proposal, such marked structural properties due to language contact are only normal examples of feature transferring. Further operations, though marked if considered only within the languages in question, are implemented in order to make the whole derivation converge. What is really exceptional in the case of marked structural properties due to language contact is that the new features introduced to the replica language should not have been able to coexist with "aboriginal" features of the language. Remember that a language selects features from all the features made available by UG and furthermore, combine them in a certain manner. This means that neither all selections nor all combinations are possible. It is possible that languages "prefer" to make the optimal selection and combination in normal cases (i.e. with no "external" pressure), but this way of doing has to give way to marked patterns under the pressure of stronger forces, for example, feature transferring under language contact. Thus, marked contact-induced structures are due to the co-existence of features that should not have been selected or combined without language contact.

3. Further research

As has been illustrated briefly, minimalist (i.e. internalist) explanation is more coherent and more natural than externalist explanation for very clear reasons. It is also more explanatorily adequate than previous analyses based on rules or parameters, because on the one hand, rule systems are often considered highly integrated and especially stable; and on the other hand, explanations in terms of parameters can difficultly explain why lexical borrowing should precede structural borrowing and why a word-by-word correspondence (not necessarily lexical borrowing) is enough for structural reorganization.

For further research, it is desirable to quantify the above explanations based on feature transferring in order to give a more exact answer to the question: to what extent feature borrowing is enough (maybe in terms of percentage between total lexical items and borrowed lexical items) to trigger structural reorganization. It must be admitted that this task is far from an easy one, for it seems quite difficult to verify my analysis with natural examples, but it seems still possible with computer simulation. Large quantitative data may give more support to the internalist analysis on language contact.

Abbreviations:

1/2/3: person
IMPERF: imperfect(ive)

LINK: linker
SG: singular
M: masculine
ART: article
ACC: accusative
SUBJ: subject
DAT: dative
PERF: perfective
F: feminine
PL: plural
PRES: present
PAST: past
PASS: passive

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